AIT
Asian Institute of Technology
AIT SUSTAINABILITY
REPORT
2024

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AIT wishes to thank its faculty, staff, students and the many people who rendered their assistance in preparing the AIT Sustainability Report 2024.

The report was designed by Ms. Pitiruedee Angkhananuchat, *Graphic Designer (AIT Solutions, AIT Entrepreneurship Center)*

The AIT Sustainability Report is disseminated in digital format only following our #GreenInitiative and commitment to environmental considerations. #PaperlessAIT

ABOUT THIS REPORT

The Sustainable Development Goals (SDGs), or Global Goals, comprise 17 interconnected objectives designed as a blueprint for a more sustainable and equitable future. These goals address critical aspects of human and planetary well-being, aiming to ensure a stable, prosperous life for all while safeguarding the Earth's health.

Achieving the 2030 Agenda and the SDGs remains a complex endeavor, offering both challenges and opportunities. Global crises, including the lingering effects of the COVID-19 pandemic, have tested communities worldwide, reinforcing the urgency of advancing the SDGs to address systemic vulnerabilities and build resilient societies.

As a premier academic institution in Asia committed to sustainability, the Asian Institute of Technology (AIT) has partnered with regional and global stakeholders for over six decades to drive sustainable development. Through its five thematic pillars—Climate Change, Smart Communities, Food-Energy-Water, Infrastructure, and Technology, Policy, and Society—AIT pursues innovative learning and research strategies. These efforts focus on alleviating poverty, reducing risks, conserving resources, and generating green job opportunities, fostering sustainable livelihoods across Asia.

This report encapsulates AIT's contributions in 2024, spanning teaching, research, outreach, public engagement, and campus operations, all aligned with the SDGs. While it showcases select initiatives, AIT's work extends broadly across the institute, tackling pressing issues like climate change, food and water insecurity, air and plastic pollution, biodiversity loss, and more. AIT's dedication to sustainable progress shines through its remarkable performance in the *Times Higher Education (THE) Impact Rankings 2024*, where it climbed to the Top 100 globally (ranked 96th out of 2,152 institutions), a significant leap from its previous standing in the Top 300.

AIT continues to lead by example, advancing its Botanical Garden Campus Towards Net Zero initiative. Building on prior campus plans, this ambitious project aims to transform AIT into a fully integrated botanical garden and achieve net-zero emissions by 2030. Aligned with Thailand's Bio-Circular-Green (BCG) Economy framework and regional sustainability goals, it harmonizes diverse ecosystems and biodiversity within an urbanized setting, promoting coexistence between nature and humanity.

I extend my heartfelt appreciation to the editorial team for their collaboration with AIT's Schools and Centers in spotlighting these impactful efforts.

PROFESSOR PAI-CHI LI
President
Asian Institute of Technology (AIT)

THIS REPORT IS CATEGORIZED UNDER THE FOLLOWING:

- **RESEARCH**
- **TEACHING, TRAINING, WORKSHOP**
- **POLICY ADVOCACY**
- **OUTREACH**
- **PROJECT**
- **ACTIVITIES**
- **PUBLIC ENGAGEMENT**
- **FIELD SURVEY**
- **OPERATIONS**

AIT'S EFFORTS ON SUSTAINABILITY RESULTED IN SEVERAL TOP RANKINGS

The Asian Institute of Technology (AIT) ranks in the global top 200 in the Times Higher Education (THE) Impact Rankings 2024 for its work to address humanity's sustainability challenges.

The rankings released on 12 June 2024 assess universities' performance against the United Nations' 17 Sustainable Development Goals (SDGs) based on indicators of research, stewardship, outreach, and teaching.

AIT took three top 50 positions globally, ranking 12th in the world for SDG 2 (Zero Hunger), 31st for SDG 16 (Peace, Justice, and Strong Institutions), and 50th for SDG 1 (No Poverty). AIT also ranked as the number 1 institution in Thailand for SDG 10 (Reduced Inequalities).

London-based THE evaluated a record 1963 participating institutions, up an additional 350 universities from the previous year. AIT rose in the rankings from 201-300 last year, and its rating went up to 85.3 (out of 100), which is the highest rating achieved for the Institute in the last five years.

Additionally, AIT ranks within the global top 200 in SDG 6 (Clean Water and Sanitation), SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life Below Water), and SDG 15 (Life on Land).

Times Higher Education
Impact Rankings 2024

ASIAN INSTITUTE OF TECHNOLOGY

OVERALL RANK
101-200

SDG 2 Zero Hunger
12 Globally

SDG 16 Peace, Justice and Strong Instititions
31 Globally

SDG 1 No Poverty
50 Globally

SDG 10 Reduced Inequalities
1 in Thailand
201-300 Globally

AIT BOTANICAL GARDEN CAMPUS TOWARDS NET ZERO BY 2030

The Asian Institute of Technology (AIT) remains steadfast in its commitment to sustainable development, guided by its institutional vision to foster technological advancement and its mission to serve Asia through higher education, research, and outreach. At the core of AIT's sustainability framework is the pursuit of environmental stewardship, resource efficiency, and climate resilience, aligned with global sustainability goals—particularly Sustainable Development Goal 13: Climate Action—and in response to the urgent calls of the IPCC Sixth Assessment Report and the outcomes of COP 28.

In 2024, AIT demonstrated significant progress across multiple domains in its ongoing transformation into a "Botanical Garden Net Zero Campus" by 2030. This flagship initiative embodies the Bio-Circular-Green (BCG) Economy framework, integrating nature-based solutions (NbS), green infrastructure, and renewable energy. The campus transformation includes forest restoration, biorefinery integration, resource circularity, and renewable energy systems aimed at reducing carbon emissions while promoting biodiversity.

To address energy-related emissions, AIT commissioned a 1.5 MW rooftop solar energy project, installed across 20 campus buildings. Operational since August 2024, the system has already delivered measurable impacts, reducing electricity consumption by 11.68% on average from August to December 2024 compared to the previous year. Notably, December recorded the highest monthly decrease at 24.41%, equating to a reduction of 973 tCO_2e annually. To build on this momentum, AIT is preparing for the deployment of an additional 1.2 MW floating solar system, with future expansions totaling 4 MW in solar capacity and many other energy efficiency projects, such as revamping the chiller plant.

AIT's carbon audit for 2023 reported 9,629 tCO_2e, including Scope 1 (620 tCO_2e), Scope 2 (5,404 tCO_2e), and Scope 3 (3,605 tCO_2e) emissions. To mitigate these, AIT is implementing a structured Decarbonization Roadmap combining energy transition strategies, infrastructure retrofits—including HVAC and chiller upgrades—and nature-based solutions projected to offset 1,900 tCO_2e by 2030. The roadmap projects AIT reaching net zero emissions by 2030.

In the domain of water sustainability, AIT has upgraded its infrastructure in response to directives to minimize leakages due to old infrastructure. AIT installed a modern ring-loop distribution system with 15 control valves and replaced aging underground pipelines. The campus also features a 700 m^3 emergency reservoir and a closed-loop canal system that stores rainwater and supports landscaping needs. These upgrades, combined with efficient operations, led to a reduction in annual water consumption from 575,934 m^3 in 2021 to 465,853 m^3 in 2024, marking a 19% reduction. As a testimony to AIT's commitment, in October 2024, the institute was awarded the prestigious International Green Gown Award in the '2030 Climate Action' category for its transformative project, "Net Zero Campus Initiative: A Leap Towards Sustainable Climate Action." Supported by the UN Environment Programme and Allianz Global Investors, the award celebrates exemplary sustainability efforts in higher education worldwide.

On the global stage, AIT is actively involved in and supporting the United Nations Climate Change Conference COP29 in Baku, Azerbaijan, which took place from November 11-22, 2024. AIT researchers and experts are participating in various sessions, presenting research, and engaging in discussions and conferences related to climate change and environmental issues, including the ASEAN Conference on Combatting Plastic Pollution. Faculty from AIT have also contributed to the IPCC Working Group III report, furthering AIT's global leadership in climate science and policy.

Looking ahead, AIT remains focused on achieving its Net Zero 2030 target. With upcoming projects including building retrofits, smart campus systems, expanded solar energy, and biodiversity enhancement, AIT is poised to become a global model for sustainable academic institutions. Through data-driven action, innovation, and collaborative leadership, AIT affirms its enduring commitment to sustainable development and climate resilience.

written by Office of Sustainable Campus (OSC)

https://ofam.ait.ac.th/ait-net-zero-plans/

https://www.youtube.com/watch?v=1tdh3e-t7Tg&t=47s

AIT ADVANCING THE SDGS THROUGH RESEARCH EXCELLENCE

The Asian Institute of Technology (AIT) continues to demonstrate its commitment to the United Nations Sustainable Development Goals (SDGs) through impactful research and academic excellence. In 2024, AIT produced 605 Scopus-indexed publications aligned with the SDGs, contributing to a cumulative total of 8,772 documents. This output underscores AIT's strategic focus on addressing global challenges through research.

RESEARCH CONTRIBUTIONS BY SDG

Over the years, the highest proportion of research documents, 13%, focused on "Clean Water and Sanitation" (SDG 6), indicating AIT's commitment to addressing global water resource challenges. Following closely were "Sustainable Cities and Communities" (SDG 11) at 12%, and "Industry, Innovation and Infrastructure" (SDG 9) at 9%, highlighting the institute's strength in sustainable urbanization and infrastructure development. "Climate Action" (SDG 13), "Responsible Consumption" (SDG 12), and "Affordable and Clean Energy" (SDG 7) were also prominent areas of research, accounting for 8%, 7%, and 7%, respectively.

In 2024, AIT's research efforts were notably concentrated in the following SDGs:

SDG 11
Sustainable Cities and Communities

67 Publications (11%)

SDG 13
Climate Action

66 Publications (11%)

SDG 6
Clean Water and Sanitation

60 Publications (10%)

SDG 8
Decent Work and Economic Growth

60 Publications (10%)

SDG 7
Affordable and Clean Energy

48 Publications (8%)

These figures highlight AIT's emphasis on environmental sustainability, urban development, and economic growth.

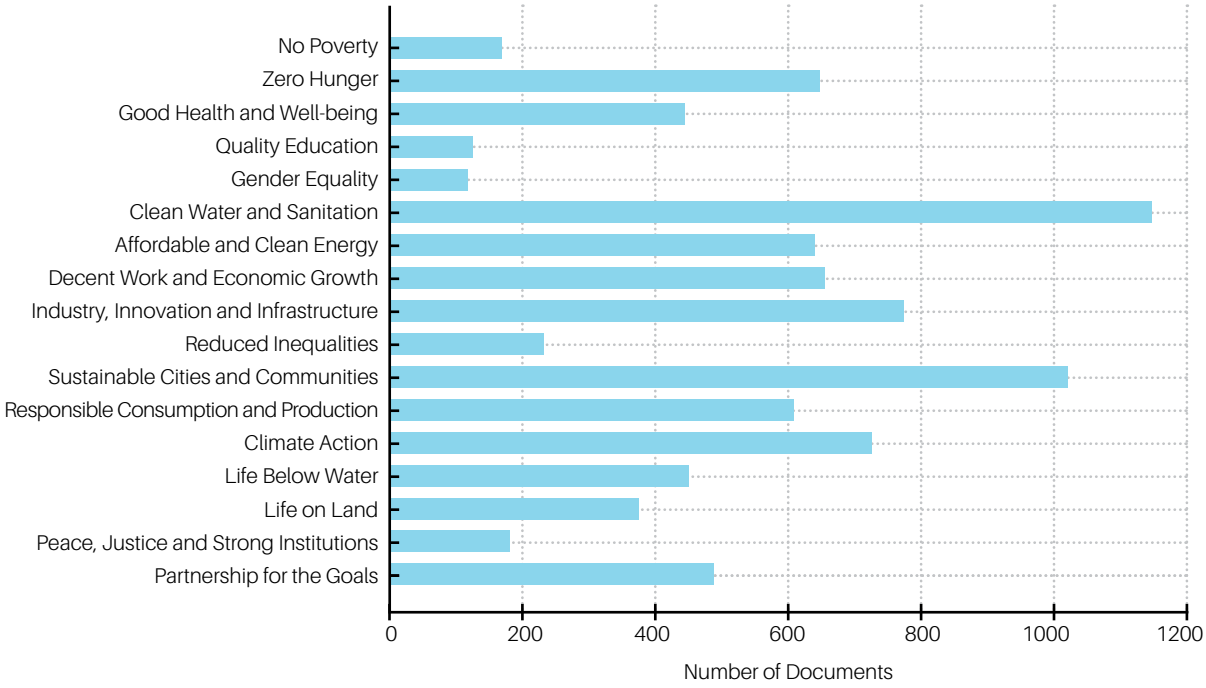
RECOGNITION OF FACULTY EXCELLENCE

AIT's dedication to research excellence is further evidenced by the recognition of nineteen faculty among the top 2% of the world's most influential scientists, as per Stanford University's 2024 rankings. This distinction was based on standardized metrics, including the h-index, co-authorship adjusted hm-index, and citation counts. Notably, eight professors received dual recognition for both career-long and single-year impact in fields such as environmental sciences, energy, artificial intelligence, and food science.

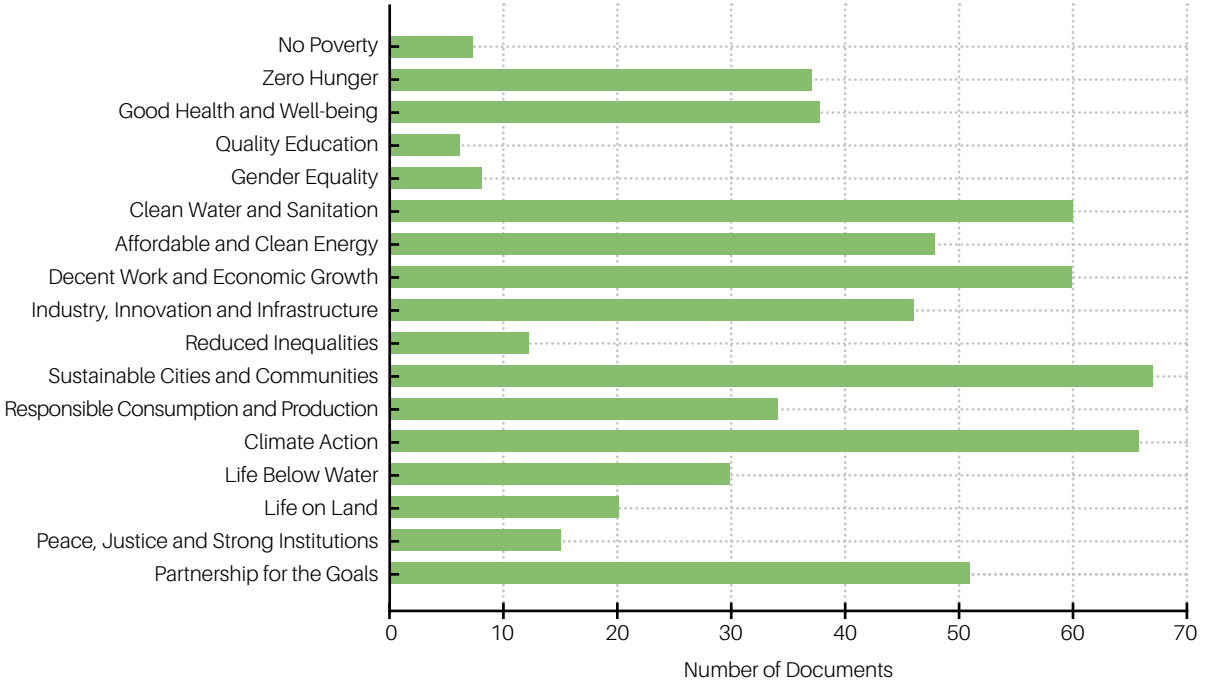
AIT's strategic alignment of research initiatives with the SDGs, coupled with the global recognition of its faculty, underscores its pivotal role in advancing sustainable development. Through continued focus on key areas such as climate action, clean energy, and sustainable urban development, AIT remains committed to contributing solutions to global challenges.

- https://ait.ac.th/2024/09/ait-professors-ranked-among-the-global-top-2-of-most-influential-scientists/
- https://www.scopus.com/pages/organization/60010105#tab=sdgs

AIT RESEARCH DOCUMENTS BY SDG (TOTAL DOCUMENTS)



AIT RESEARCH DOCUMENTS BY SDG (2024 DOCUMENTS)



News:

EMPOWERING RURAL FUTURES: REGIONAL FORUM ON SUSTAINING RURAL REVITALISATION THROUGH INNOVATION AND COLLABORATION

Description:

AIT hosted the "Empowering Rural Futures" forum, highlighting innovation and collaboration for sustainable rural development. Experts discussed digital technologies, entrepreneurship, and resilient economies, emphasizing partnerships and investment in innovative solutions.

https://ait.ac.th/2024/01/empowering-rural-futures-regional-forum-on-sustaining-rural-revitalisation-through-innovation-and-collaboration/

UNDP LEADERS SPEARHEAD SEMINAR AT AIT: CHARTING NEW PATHS FOR HUMAN DEVELOPMENT IN ASIA-PACIFIC

Description:

Renaud Meyer, the UNDP Resident Representative in Thailand, delivered an institute-wide seminar titled "Making Our Future: New Directions for Human Development in Asia and the Pacific Implications for Thailand," along with Anuk Serechetapongse, a Development Economist at UNDP Thailand. This seminar presented key findings from the Asia-Pacific Human Development Report, prompting a rich dialogue among AIT's faculty and students.

https://ait.ac.th/2024/03/undp-leaders-spearhead-seminar-at-ait-charting-new-paths-for-human-development-in-asia-pacific/

YUNUS CENTRE AT AIT HOSTS 11TH SBAC WITH NOBEL LAUREATE MUHAMMAD YUNUS: ADVANCING SOCIAL BUSINESS RESEARCH AND COLLABORATION

Description:

At the opening of the 11th Social Business Academia Conference (SBAC), Muhammad Yunus, Nobel Peace Laureate 2006 and Chairman of the Yunus Centre, Bangladesh, delivered a compelling speech regarding the current state of university education and its impact on creativity and human dignity. His thought-provoking address left a significant impression on the attendees, urging them to consider this critical issue. The conference, co-hosted by the Yunus Center at the Asian Institute of Technology (YCA) and Muhammad Yunus, along with the Yunus Centre in Dhaka, was held on April 1–2, 2024, with the theme "Social Business Research—Objectives, Methodologies, and Priorities."

https://ait.ac.th/2024/04/yunus-centre-at-ait-hosts-11th-sbac-with-nobel-laureate-prof-muhammad-yunus-advancing-social-business-research-and-collaboration/

RURAL REVITALIZATION THROUGH INCLUSIVE AND SUSTAINABLE TOURISM DEVELOPMENT

Description:

On October 23, 2024, AIT showcased research by Ph.D. scholar Surendra Tiwari on rural revitalization through inclusive and sustainable tourism in Nepal's multi-ethnic communities along the Annapurna Sanctuary Trail. The study highlights how tourism enhances rural livelihoods, creates jobs, and improves infrastructure while preserving culture and nature. It also addresses challenges like environmental degradation and rising living costs, advocating for sustainable practices. The findings support multiple Sustainable Development Goals, emphasizing tourism's role in fostering sustainable development and community empowerment.

https://ait.ac.th/2024/10/rural-revitalization-through-inclusive-and-sustainable-tourism-development/

Projects:

SAFEGUARDING THE REGIONAL FOOD SECURITY UNDER CLIMATE CHANGE IMPACTS VIA MAINSTREAMING NATURE-BASED SOLUTIONS-CENTERED ADAPTATION STRATEGIES (NAFOS)

AIT Research Theme: Climate Change

AIT Unit: SET-Water Engineering and Management

Project Duration: 01 Oct 2022 to 30 Jun 2025

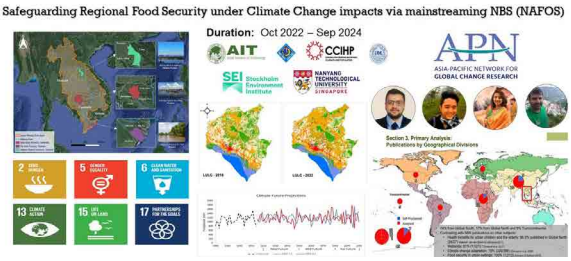
Project Sponsor/ Client: Asian Pacific Network for Global Change Research

Project Partners:

1. Victoria University of Wellington, New Zealand
2. Nanyang Technological University, Singapore
3. Indian Institute of Technology, Bombay
4. Institute of Technology of Cambodia
5. Viet Nam National University
6. An Giang University, Vietnam
7. Stockholm Environment Institute, Sweden

Description:

The Lower Mekong River Basin (LMRB) contributes significantly to ensuring that Asia can stay food secure, yet millions of its inhabitants struggle to meet their dietary needs. Climate change (CC) renders the LMRB even more food insecure via disrupted hydro-ecological regimes, intensified salinity intrusion, and deteriorated biodiversity, albeit many structural and non-structural countermeasures have been implemented. This project seeks new opportunities from nature-based solutions (NBS) that actively harness ecosystem services (ES) to address CC challenges effectively and adaptively. The proposed project targets the mainstreamed adaptation strategies for CC that are NBS-infused to safeguard LMRB food security via the realization of 4 objectives: (i) to evaluate the CC impacts on ES that render the basin food insecure; (ii) to curate NBS best practices in agriculture management; (iii) to examine the NBS potentials in enhancing LMRB's CC resilience and food security; and (iv) to disseminate



research findings and contribute to building stakeholders' capacities to adopt and upscale NBS practices. Despite being among the fastest-growing sustainability-related topics, NBS remains underrepresented in agriculture and food security discourses, hence the verified novelty of the proposed project. The LMRB is transboundary; the project thus can create new multinational partnerships while strengthening the existing ones between involved universities, NGOs, and governments.

Expected Social Impact: The project is expected to generate a new, action-oriented body of knowledge on socially and environmentally sustainable nature-based solutions (NBS), which will be widely disseminated among collaborating organizations, boundary partners, and end beneficiaries. It aims to strengthen the capacities of relevant stakeholders to enhance resilience to climate change and improve food security. Additionally, the project will identify and verify key opportunities and challenges associated with mainstreaming NBS approaches into climate change adaptation strategies within the Lower Mekong River Basin (LMRB). Through these efforts, the initiative will foster enhanced collaboration and coordination among participating countries and partner organizations, supporting a more integrated and resilient regional response to climate change.

EFFECTIVENESS OF SOCIAL WELFARE PROGRAMMES AND POLICIES FOR URBAN POOR IN BANGKOK METROPOLITAN AREA

AIT Research Theme: Smart Communities; Technology, Policy and Society

AIT Unit: SERD-Urban Innovation and Sustainability

Project Duration: 01 Jul 2023 to 30 Jun 2025

Project Sponsor/Client: FES

Expected Social Impact: To recommend policies for government usage to shape more equitable and inclusive access to social protection programs that benefit disaggregated population groups with more inclusivity of women and children in the urban context.

Description:

Social Welfare Development has over 50 welfare schemes running nationwide, but lesser availability for women and children in monetary terms. Some of these national initiatives are beneficial to 40% of the population who are inclusive within the development schemes, but a major percentage of the population in the working-age groups are dropped off and this appears to be a burden for the working population since welfare schemes are financed by taxpayers' money. Furthermore, the question of whether government spending is promoting equality

in society remains a significant concern. Therefore, the project aims to assess the impact of social assistance programs and recommend policies for the urban poor in the Bangkok Metropolitan area. The goal of this project is to recommend policies for government usage to shape more equitable and inclusive access to social protection programs that benefit diverse population groups, with a focus on including women and children in the urban context

COMMUNITY-BASED TOURISM COVID-19 RECOVERY PROJECT: FRESHWATER PRAWN AQUACULTURE IN CAMBODIA

AIT Research Theme: Food-Energy-Water

AIT Unit: SERD-Aqua-Centre

Project Duration: 01 Aug 2024 to 30 Jun 2026

Project Sponsors/Clients: Asian Development Bank (ADB) through Civil Society Alliance Forum (CSAF), The Office of the Council of Ministers, Cambodia

Expected Social Impact:

1. About 100 people will be aware of the benefit of the prawn farming
2. At least 22 farmers trained in prawn farming in Angkor Borey, Cambodia
3. At least 22 farmers will earn a reasonable income from prawn farming

Description:

Civil Society Alliance Forum (CSAF) under the Office of the Council of Ministers has contracted us to provide technical assistance to develop freshwater prawn culture in Angkor

Borey and its surrounding area, Takeo Province, as a part of the Community-Based Tourism COVID-19 Recovery Project. Activities will include organizing 2-3 rounds of stakeholder meetings and a series of training programs for the staff trainers, farmers, and value chain actors during the period of about two years.

STRENGTHENING CLIMATE RESILIENCE OF AGRICULTURAL LIVELIHOODS IN SAVANNAKHET PROVINCE, LAO PDR THROUGH PARTICIPATORY ECOSYSTEM-BASED ADAPTATION

AIT Research Theme: Food-Energy-Water

AIT Unit: SET-Disaster Preparedness, Mitigation and Management

Project Partner: NUOL KU, Thailand Project

Duration: 21 Jul 2024 to 31 Dec 2025

Project Sponsor/Client: SEI

Expected Social Impact:

Enhanced climate resilience: Developing scenarios of climate-hazard impacts and assessing ecosystem-based adaptation practices informs and empowers Savannakhet Province's agricultural communities to better understand and address their unique climate challenges. These actions and interventions foster heightened resilience, specifically livelihood resilience, and contribute to reducing inequalities in adaptation. Community empowerment: Through focus group discussions, key informant interviews, and engagement with marginalized groups, the project fosters cross-sectional community involvement and empowerment through a bottom-up approach where their voices will be amplified to the national and regional level policymakers. The initiative boosts awareness, participation, and local ownership through co-development of resilience-building strategies. Influence policy changes: Identifying policy gaps obstructing ecosystem-based adaptation implementation enables the project to influence positive policy changes.

Description:

The project aims to enhance the climate resilience of vulnerable and marginalized groups in Savannakhet Province of Lao PDR by helping minimize the impacts of climate change on agricultural livelihoods through Ecosystem-based Adaptation (EbA). The proposed project will assess the water infrastructure regimes under current climate conditions and their impacts on agricultural production and livelihoods and suggest suitable EbA practices to enhance livelihood resilience through positive WEC nexus policy changes at the national and regional levels.

KGU WORLD STUDY PROGRAM

AIT Research Theme: Food-Energy-Water

AIT Unit: Yunus Center

Project Partner: Kanto Gakuin University, acting through the College of Intercultural Studies, a university-level establishment represented by Kozue Kashiwazaki, Department of Comparative Culture, duly authorized for the purposes hereof, hereinafter referred to as KGU.

Duration: 10 Sep 2024 to 31 Dec 2024

Project Sponsor/Client: Kanto Gakuin University

Expected Social Impact:

Cultural Exchange and Mutual Understanding, Capacity Building for Local Communities, Strengthening of Local Initiatives, Promotion of Sustainable Practices, Long-Term Partnerships and Networks, and Economic Impact

Description:

Learning the dynamics of developmental issues, especially local-income community development programs and develop action plans for the change

PROFESSIONAL DEVELOPMENT PROGRAM ON MAINSTREAMING CLIMATE CHANGE AND GENDER IN THE PLANNING AND BUDGETING PROCESS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Yunus Center

Project Partner: NUOL KU, Thailand Project

Duration: 09 Sep 2024 to 31 Jun 2025

Project Sponsor/Client: Ministry of Finance, Tanzania

Expected Social Impact:

To ensure a country's long-term stability, promote economic development, and improve the well-being of its citizens. By incorporating climate change and gender considerations, the government of Tanzania can ensure its financial resources promote a more sustainable and equitable society.

Description:

National budgets are key instruments for shaping a country's future, ensuring responsible governance, and driving sustainable development. By integrating climate change and gender considerations into the planning

and budgeting process, the government of Tanzania can allocate resources more effectively to promote both environmental sustainability and social equity. This professional development program aims to equip participants with the knowledge and tools to incorporate these critical issues into national budget planning, ensuring that essential sectors like infrastructure, education, and healthcare receive the necessary funding to support long-term growth and societal well-being.

WOMEN-LED RESPONSES TO THE INTERSECTIONAL IMPACT OF THE CLIMATE CRISIS, GENERATED INEQUALITIES, POVERTY AND CONFLICT IN MYANMAR AND NEPAL

AIT Research Theme: Climate Change

AIT Unit: SERD-Gender and Development Studies

Project Partner: University of Portsmouth Higher Education Corporation and Gyanbodh

Duration: 28 Jun 2024 to 27 Dec 2025

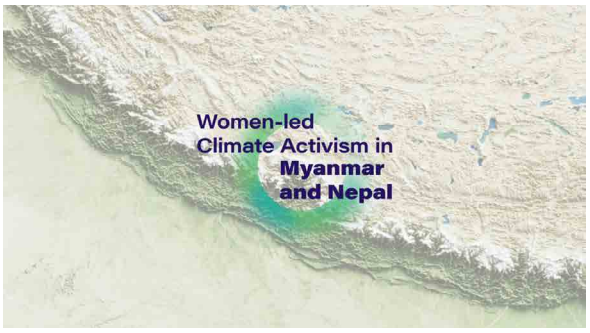
Project Sponsor/Client: The British Academy

Expected Social Impact:

Empowered women-led organizations in Myanmar and Nepal to effectively address climate crises and gender-based violence and enhanced their capacity to advocate for gender-responsive climate action and social justice in marginalized communities.

Description:

The project's aim is to investigate how women-led organizations in Myanmar and Nepal have gained visibility as climate crisis activists while exploring their responses to the intersections of gendered inequalities, conflict, and poverty. Building on previous UKRI-funded research, which revealed a spike in intimate partner violence (IPV) following cyclical flooding, the project will return to the



same regions for a longitudinal analysis. It seeks to update and expand the understanding of how local organizations address climate-related challenges and gender-based violence, comparing changes over time and assessing their preparedness to respond to these crises.

Expected Social Impact: Empowered women-led organizations in Myanmar and Nepal to effectively address climate crises and gender-based violence and enhanced their capacity to advocate for gender-responsive climate action and social justice in marginalized communities.

A PORTABLE PROTOTYPE OF MEASUREMENT BY SOIL PH, ELECTRICAL CONDUCTIVITY, AND NITROGEN, PHOSPHORUS, POTASSIUM NUTRIENTS

AIT Research Theme: Technology, Policy and Society

AIT Unit: SET-Remote Sensing and Geographic Information Systems

Project Duration: 01 July 2023 to 30 June 2024

Project Sponsor/Client: Land Development Regional 2

Expected Social Impact: The expected social impact of this project is significant. By providing farmers and agronomists with a portable and cost-effective tool, it will empower them to make informed decisions regarding soil management practices. Access to accurate and immediate soil data can help optimize fertilizer application, minimize environmental impact, and improve crop yields. Moreover, this technology can benefit small-scale farmers and those in remote areas who may not have access to traditional soil testing laboratories.

Description:

The project aims to develop a portable prototype device for measuring essential soil parameters such as pH, electrical conductivity (EC), and nutrient levels of nitrogen (N), phosphorus (P), and potassium (K). This innovative device will provide farmers, agronomists, and researchers with an efficient and user-friendly tool to assess soil quality on-site, enabling them to make informed decisions regarding soil management and fertilization strategies.

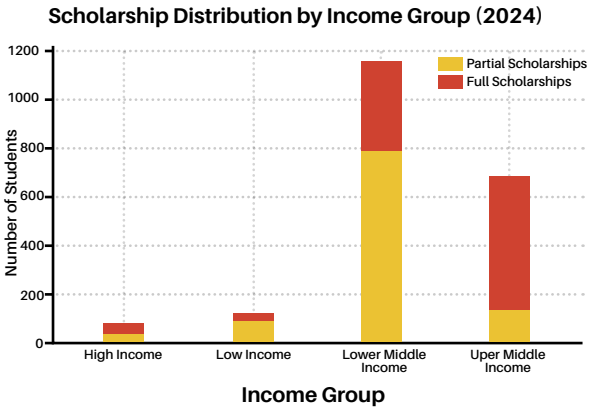
Operations:

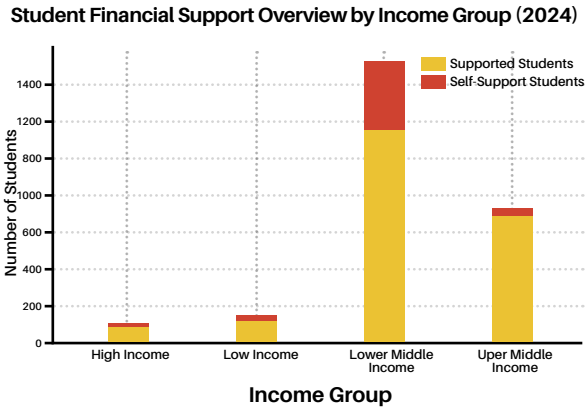
AIT'S ROLE IN ALLEVIATING POVERTY THROUGH FINANCIALLY INCLUSIVE EDUCATION

The Asian Institute of Technology (AIT) has consistently prioritized inclusivity in higher education, especially for students from low-income and lower-middle-income countries. In 2024, this commitment is strongly evidenced by AIT's extensive scholarship program.

1. Scholarship Distribution by Income Group Countries showcases the breakdown of partial and full scholarships across different income groups. AIT has strategically directed the highest number of scholarships (both partial and full) to students from lower-middle-income countries, followed by those from low-income nations. This reflects AIT's deliberate effort to uplift individuals from economically constrained backgrounds by removing financial barriers to advanced education.
2. The Student Financial Support Overview chart highlights the comparison between financially supported and self-supported students. Out of the total 2,498 students in 2024:
   - 82.3% (2,056 students) received some form of financial aid, either through full or partial scholarships.
   - Specifically, 77% of students from low-income and lower-middle-income countries were beneficiaries of these scholarships.
   - Only a small fraction, 17.7% (442 students), were self-supported, indicating AIT's success in ensuring education affordability for the majority.

AIT's scholarship structure not only aligns with SDG 1: No Poverty but also actively contributes to SDG 4: Quality Education by enabling students from disadvantaged backgrounds to access world-class postgraduate education. AIT's approach reinforces education as a transformative force—empowering individuals, strengthening communities, and supporting the global effort to eradicate poverty.





News:

AIT JOINS GLOBAL EFFORT IN THE MICROSOS PROJECT TO ENABLE CLIMATE-RESILIENT AGRICULTURE THROUGH THE POWER OF MICROORGANISMS

Description:

The Asian Institute of Technology (AIT), represented by the faculty member Simon Guerrero Cruz, participated in the EU HORIZON Marie Curie Staff Exchange consortium "MicroSOS Plants Crying for Help. This initiative is dedicated to advancing sustainable and climate-resilient agriculture and spans from January 2024 to December 2027. The project has received a grant of 1.6 million euros from the HORIZON Marie Curie Staff Exchange Program (MSCA-SE) of the European Commission. It encompasses a consortium of ten international entities, including academic and industry institutions from Spain, France, Greece, Italy, and the Netherlands.

https://ait.ac.th/2024/04/ait-joins-global-effort-in-the-microsos-project-to-enable-climate-resilient-agriculture-through-the-power-of-microorganisms/

INTRODUCING PENSEMBLE 4: REVOLUTIONIZING MAIZE YIELD PREDICTION

Description:

The Asian Institute of Technology (AIT) introduced PEnsemble 4, an advanced model developed by Ph.D. student Nisit Pukrongta under the supervision of Attaphongse Taparugssanagorn. This model integrates machine learning algorithms with data from unmanned aerial vehicles (UAVs) and Internet of Things (IoT) devices to predict maize yields with 91% accuracy. By analyzing factors such as soil quality, weather conditions, and vegetation indices like CIre and NDRE, PEnsemble 4 enables earlier yield predictions, advancing estimates from the traditional R6 stage to the R2 stage.

https://ait.ac.th/2024/05/introducing-pensemble-4-revolutionizing-maize-yield-prediction/

EMPOWERING AGRICULTURAL COOPERATIVES: INNOVATIONS FOR FOOD SECURITY IN THAILAND AND BEYOND

Description:

An International Workshop on Agricultural Cooperatives and Food Security was held by AIT on July 8-9, 2024, to discuss enhancing the role of agricultural cooperatives in ensuring food security. The event featured experts sharing insights on agricultural innovations and strategies to build resilient farming communities. Participants also visited the Dairy Farming Promotion Organization of Thailand to observe successful practices in food security.

https://ait.ac.th/2024/07/empowering-agricultural-cooperatives-innovations-for-food-security-in-thailand-and-beyond/

AIT FACULTY LEADS CLIMATE-SMART AGRICULTURE INITIATIVE IN THAILAND AND VIETNAM

Description:

: Sushil Kumar Himanshu organized a series of impactful training sessions for over 300 farmers and agricultural extension officers in Thailand and Vietnam, introducing Agromet Forecasting App, ClimaFarm to enhance climate-smart agriculture.

https://ait.ac.th/2024/07/ait-faculty-leads-climate-smart-agriculture-initiative-in-thailand-and-vietnam/

NAFOS PROJECT CONCLUDES WITH SUCCESSFUL WORKSHOP AT AIT

Description:

The NAFOS project concluded with a successful workshop at AIT from July 18-19, 2024, focusing on nature-based solutions to enhance food security in the Lower Mekong Basin. Over 40 participants engaged in discussions, training sessions, and presentations on integrating climate adaptation strategies into food security efforts. The event emphasized the importance of collaboration among various regional institutions and showcased the findings and methodologies developed during the project.

https://ait.ac.th/2024/08/nafos-project-concludes-with-successful-workshop-at-ait/

EFFECT OF PLANT GROWTH REGULATORS ON GROWTH PARAMETERS AND FRUIT YIELD OF CHERRY TOMATO IN A HYDROPONIC SYSTEM

Description:

Mallappa J. Madolli, a PhD candidate at AIT, is carrying out research on the impact of plant growth regulators (PGRs) on growth and yield of cherry tomato under a hydroponic system. Supervised by Sushil Kumar Himanshu, the study explores how different doses of gibberellic acid (GA3) and naphthalene acetic acid (NAA) can enhance growth parameters and fruit yield. The research addresses challenges in hydroponic cultivation, such as low fruit set rates, by optimizing nutrient delivery and using advanced agricultural technologies. This study aims to provide insights for improving cherry tomato production, contributing to sustainable agricultural practices.

https://ait.ac.th/2024/09/effect-of-plant-growth-regulators-on-growth-parameters-and-fruit-yield-of-cherry-tomato-in-a-hydroponic-system/

ROCKEFELLER FOUNDATION DELEGATION VISITS AIT TO EXPLORE REGENERATIVE AGRICULTURE AND FOOD-ENERGY TRANSITION RESEARCH

Description:

On September 30, 2024, a delegation from the Rockefeller Foundation visited the Asian Institute of Technology (AIT) to discuss regenerative agriculture and food-energy transitions. Led by COO Natalye Paquin, the delegation explored AIT's innovative research in sustainable agriculture and renewable energy. AIT President Pai-Chi Li emphasized the importance of collaboration for sustainable development. The visit included discussions on ongoing projects, such as a two-year initiative focused on nature-positive solutions for rice production in ASEAN countries. The event reinforced the partnership between AIT and the Rockefeller Foundation in addressing global challenges related to food security and climate change.

https://ait.ac.th/2024/05/introducing-pensemble-4-revolutionizing-maize-yield-prediction/

WORKSHOP EQUIPS FARMING COMMUNITIES WITH REGENERATIVE AGRICULTURE TOOLS FOR SUSTAINABLE RICE PRODUCTION

Description:

The Asian Institute of Technology (AIT) hosted a workshop titled "Empowering Farming Communities on the Adoption of Regenerative Agriculture as Nature-Positive Solutions for Rice Production" on 4 December 2024. Led by Sushil Kumar Himanshu of Agricultural Systems and Engineering under the School of Environment, Resources and Development (SERD) at AIT, the event aimed to equip farming communities with practical knowledge and skills through demonstrations and field trials of regenerative agricultural practices.

https://ait.ac.th/2024/09/rockefeller-foundation-delegation-visits-ait-to-explore-regenerative-agriculture-and-food-energy-transition-research/

FROM FARM TO FORK: BLOCKCHAIN'S REVOLUTION IN FOOD SAFETY ASSURANCE

Description:

In an era where food safety and technology converge, the "GreenTech Seminar" held on January 31, 2024, stands out as a beacon of innovation and collaboration. Jointly organized by the Food Innovation, Nutrition, and Health (FINH) Academic Program under the Department of Food, Agriculture, and Bioresources (FAB), School of Environment, Resources, and Development (SERD) of the Asian Institute of Technology (AIT), AIT Entrepreneurship Center, and Food Passport Thailand, this seminar brought together leading minds in technology, academia, and agriculture to explore the future of food safety management.

https://ait.ac.th/2024/01/from-farm-to-fork-blockchains-revolution-in-food-safety-assurance/

Projects:

CALCULATING EVAPOTRANSPIRATION USING GIS AND REMOTE SENSING TECHNIQUES FOR CALCULATING CROP WATER PRODUCTIVITY IN SINDH PROVINCE, PAKISTAN

AIT Research Theme: Climate Change

AIT Unit: Artificial Intelligence Technology Center

Project Duration: 15 Dec 2023 to 30 Apr 2025

Project Sponsor/ Client: The Asian Disaster Preparedness Center (ADPC)

Project Partner: 360 engineering and management solutions

Expected Social Impact: The project is expected to generate significant social impact by improving crop water productivity and efficiency, thereby enhancing agricultural yields, farmer livelihoods, and local food security. By identifying climate-resilient water use zones and promoting sustainable water management practices, it strengthens community resilience to climate change and reduces vulnerability to water-related risks. Furthermore, the project contributes to achieving key Sustainable Development Goals, including zero hunger, clean water and sanitation, climate action, and sustainable communities. Its integrated approach fosters informed decision-making, supports climate adaptation, and aligns with global sustainability objectives, ultimately benefiting both local stakeholders and the broader development agenda.

Description:

This project aims to address the critical water challenges in Sindh Province, particularly in the agricultural sector, by employing advanced remote sensing, GIS, and nature-based solutions (NbS). The comprehensive approach involves estimating evapotranspiration (ET), analyzing spatial and temporal variations in ET across different crops, assessing crop water productivity (CWP) and efficiency, identifying climate-resilient water use zones, and providing actionable recommendations for sustainable water management practices. By integrating these components, the project intends to enhance the understanding of water dynamics, promote efficient water use and contribute to climate resilience. The outcomes include spatially explicit maps, efficient water use zones, and a user-friendly IT-based dashboard, facilitating informed decision-making for stakeholders. The project aligns with key Sustainable Development Goals (SDGs) and seeks to create an enabling environment for climate adaptation and resilience in policies, planning, and investments. Through knowledge dissemination and collaborative learning, the initiative strives to inform future research endeavors and foster continuous improvement in water-efficient agriculture within Sindh Province.

PYTHON SCRIPTS FOR MODULE 1, 2 AND 3 OF GLOBAL AGRO-ECOLOGICAL ZONING VERSION 4 AND 5 WITH RELATED DOCUMENTATION (PHASE I)

AIT Research Theme: Climate change, Smart communities, Food-Energy-Water

AIT Unit: Geoinformatics Center, Natural Resources Management

Project Duration: 15 May 2022 to 31 Mar 2024

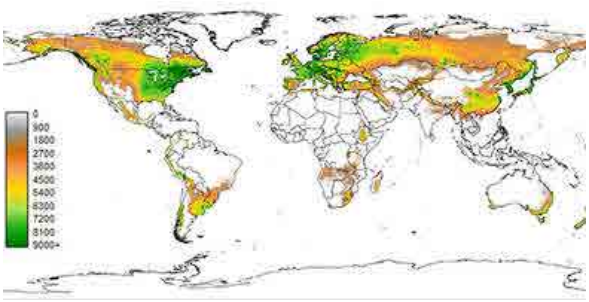
Project Sponsor/ Client: Food and Agriculture Organization of the United Nations (FAO)

Project Partner: International Institute for Applied Systems Analysis, Austria

Expected Social Impact: Food security, climate adaptation for agriculture, country planning and the broader development agenda.

Description:

The FAO HQ offers to engage us as a technical group in implementing Python scripts for modules 1, 2, and 3 of Global Agro-Ecological Zoning versions 4 and 5 with related documentation (Phase I) in support of FAO Strategic



Objective 2: Make agriculture, forestry, and fisheries more productive and sustainable. This is a continuation of the PyAEZ package (which was developed in earlier LOA with FAO) through collaboration with the International Institute for Applied Systems Analysis (IIASA), Austria. AIT GIC implements this project with the technical guidance of Rajendra Shrestha of AIT NRM, who has expertise in agro-ecological zoning.

CAPACITY BUILDING ON FOOD INNOVATIONS AND SUSTAINABILITY

AIT Research Theme: Food-Energy-Water

AIT Unit: Food Innovation, Nutrition and Health

Project Duration: 13 Dec 2024 to 31 Dec 2025

Project Sponsor/ Client: World Bank through ICAR-NAHEP, India

Project Partner: University of Agricultural Sciences Dharwad, India Indian Council of Agricultural Research, India

Expected Social Impact: Train young minds to understand the technology, emerging challenges, and enabling policies towards the production of safer and sustainable food produce for a healthier society. Finally, the students will have skillful knowledge of innovative technology and eco-friendly approaches to safe and sustainable food production.

Description:

This capacity-building project augments the quality and relevance of higher agricultural education through

enhanced learning outcomes through exposure to innovative technology, an application-oriented mindset, and entrepreneurship development for safer and sustainable food production. Students obtain knowledge and skills from classroom lectures, laboratory sessions, hands-on practices, and field exposures to learn innovative and advanced technology.

ONE WEEK PROFESSIONAL DEVELOPMENT PROGRAM ON PHILIPPINE AGRI-FOOD AND PROCESSING HUB LEARNING EXCHANGE

AIT Research Theme: Food-Energy-Water

AIT Unit: Yunus Center

Project Duration: 9 Dec 2024 to 30 Jun 2025

Project Sponsor/ Client: Food and Agriculture Organization of the United Nations (FAO)

Project Partner: International Institute for Applied Systems Analysis, Austria

Project Sponsor/Client: Taloy Farmers Multipurpose Cooperative

Expected Social Impact: This training aims to equip participants with the knowledge and skills to capitalize on emerging trends and opportunities in the Agrifood hub in the Philippines through sustainable and efficient development practices. Here are some key expected learning outcomes:

- Improved knowledge on vegetable consolidation, processing, and marketing, and the requirements for mechanization and other technologies
- Acquired technical information on the design, capitalization, setting up, operation, and management of an agri-food hub.
- Gained ideas for strategies on the establishment of an agri-food hub, including its capitalization.

Description:

Thailand, like the Philippines, is predominantly an agricultural country where the agricultural sector

comprises two-thirds small farms. Farmer cooperatives in Thailand have a rich history dating back to the early 20th century and play a crucial role in supporting agricultural production and empowering rural communities. These organizations emerged as a response to the challenges faced by small-scale farmers, including indebtedness, low incomes, and limited access to markets and resources. These cooperatives offer various services and benefits to their members, including access to credit, inputs, technology, and markets. They also promote sustainable farming practices and contribute to rural development deemed relevant to the Philippines. This project with flexible instructional design combines online, in-class, and experiential learning, equips mid-career professionals, working executives, and aspiring entrepreneurs for careers in the corporate, development, public, or enterprise sectors.

GEOSPATIAL TRAINING WORKSHOP & STUDY VISIT FOR AGRICULTURE AND FARMING

AIT Research Theme: Food-Energy-Water

AIT Unit: Remote Sensing and Geographic Information Systems, SET

Project Duration: 02 Mar 2023 to 31 Mar 2025

Project Sponsor/ Client: Food and Agriculture Organization of the United Nations (FAO)

Project Partners: International Institute for Applied Systems Analysis, Austria

Project Sponsors/Clients: NAHEP-CAAST-VNMKV Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (M.S.), India

Expected Social Impact: enhancing crop productivity by using Remote Sensing & GIS and its applications

Description:

Research methodology development for master's students and interaction with faculty members. The program will cover geospatial technologies for agriculture

yield enhancement and also be linked to food technology concepts of precision farming and agriculture, involving UAV and high-resolution satellite data. Student training workshops for capacity building and enhancing research productivity for research consultations.

CAPACITY BUILDING ON FOOD INNOVATION AND SUSTAINABILITY IV

AIT Research Theme: Food-Energy-Water

AIT Unit: Food Innovation, Nutrition and Health

Project Duration: 01 Jan 2024 to 30 Jun 2026

Project Sponsor/ Client: Food and Agriculture Organization of the United Nations (FAO)

Project Partners: World Bank through NAHEP-ICAR, India

Expected Social Impact: Train the young mind to understand the technology, emerging challenges, and enabling policies towards the production of safer and sustainable food produce for a healthier society. The students will obtain the skillful knowledge of innovative technologies and eco-friendly approaches towards safe and sustainable food production.

Description:

This capacity-building project will augment the quality and relevance of higher agricultural education through enhanced learning outcomes through exposure to innovative, technology-application-oriented minds

and entrepreneurship development for safer and more sustainable food production. The students will obtain the knowledge and skills from classroom lectures, laboratory hands-on practice, and field exposures to learn about innovative and advanced technology along with entrepreneurial skills for safer and sustainable food production.

BENEFITS AND CHALLENGES OF DIGITALIZATION IN AGRICULTURE AND FOOD SYSTEM FOR ENHANCED RESILIENCE AND IMPROVED SUSTAINABILITY: PRELIMINARY ASSESSMENT

AIT Research Theme: Technology, Policy and Society

AIT Unit: SET-Water Engineering and Management

Project Duration: 01 Sep 2024 to 31 Jul 2025

Project Sponsors/ Clients: Economic Research Institute for ASEAN and East Asia and ASEAN Secretariat

Project Partner: ERIA staff ASEAN countries country consultants

Expected Social Impact: Improved agricultural productivity, thereby increasing the economic status of farmers.

Description:

A study conducted by ERIA last year showed that the diffusion of digital agriculture in the ASEAN region is limited, and there is a noticeable gap among countries. There are various possible causes for this situation, depending on the development degree of the country, geographical location, type of stakeholders, and so forth. For example, the causes could include insufficient digital infrastructure in rural areas, low digital literacy of farmers and related stakeholders, untrusted data and cybersecurity, disparity between city and rural in terms of digital connectivity, lack of government initiatives, and so on. Further, the degree of digital penetration may be very different by sub-sector of agriculture (e.g., paddy, horticulture, livestock, aquaculture, etc.) and stage of the food value chain (e.g., production, aggregation, processing, distribution, retail, and consumption).

REDUCING THE EFFECTS OF MYCOTOXINS IN SHRIMP (REMS)

AIT Research Theme: Food-Energy-Water

AIT Unit: SERD-Aqua-Centre

Project Duration: 15 Mar 2024 to 15 Mar 2025

Project Sponsor/Client: BIÅŒNTE SL

Expected Social Impact: Millions of shrimp farmers around the world would benefit

Description:

A collaborative research project sponsored by BIÅŒNTE SL, Spain (www.bionte.com). BIÅŒNTE is a spin-off of AndrÃ©s Pintaluba SA (APSA), a company founded in 1978 in Spain with sales in 70+ countries and 6 production sites. BIÅŒNTE was born with the aim of providing specialized solutions to mitigate the effects of mycotoxins in animal production through specialization and technical service. The company has a new product, mycotoxin binder, named as BIÅŒNTE and they would like to assess its effectiveness in shrimp

Shrimp is a seafood item that is globally traded and valued at several billion dollars. Its culture is well established in Asia, which depends mainly on feed and management practices. Shrimp feed is often contaminated with mycotoxins, which hampers growth and survival. Therefore,

several feed supplements have been developed to bind it or reduce its impacts. Recently, a Spanish company, BIÅŒNTE, has developed a product named "BIÅŒNTE QUIMITÅŒXÅ®" to bind the mycotoxins of the feed. They plan to test its efficacy in shrimp feed and carry out a scientific experiment with prominent members of the scientific, technical, and commercial community, among whom they have identified AIT as the best partner. We plan to conduct an experiment at our facilities and with the help of MSc/PhD students. We may also have a chance to publish a paper if the results are useful.

IMMERSIVE TRAINING ON INNOVATION, DESIGN THINKING AND TECHNOLOGY TRANSFER IN THE POSTHARVEST AND FOOD PROCESSING

AIT Research Theme: Technology, Policy and Society

AIT Unit: Food Innovation, Nutrition and Health

Project Duration: 01 Jan 2024 to 13 Dec 2026

Project Sponsor/ Client: UNIDO

Project Partners: CAPFISH Project, Cambodia Food Technology, Research and Innovation Platform (FTRIP), Cambodia

Project Sponsors/Clients: NAHEP-CAAST-VNMKV Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani (M.S.), India

Expected Social Impact: The Professionals of HEIs will receive in-depth knowledge and hands-on practice regarding innovations and design thinking procedures as well as understanding the principles and mechanisms of technology transfer and intellectual property along with copyrights. The enterprises will benefit from gaining similar knowledge, positively impacting the commercialization of the products.

Description:

CAPFISH Capture - Post Harvest Fisheries Development Project is part of the Cambodia Programme for Sustainable and Inclusive Growth in the Fisheries Sector (ACA/2019/408-424) and is co-funded by the European Union. The overall objective is to contribute to the achievement of the Royal Government of Cambodia's long-term vision of social and economic development, food security, and poverty reduction. It is in this framework that the CAPFISH Capture Post-Harvest Fisheries Development project is designed with the specific objective to contribute to the development of post-harvest fisheries through the upgrading of the regulatory and institutional system, as well as the adoption of better practices and innovation by the private sector. This project will aim at developing an inclusive value chain for post-harvest fisheries, focusing on strengthening the institutional capacity of competent authority for establishing official control systems and subsequently supporting the development of post-harvest fisheries through capacity building in terms of skills development, food safety system implementation, matching investment support, and building business support mechanisms. Under output 3 of the CAPFISH project, the Food Technology, Research, and Innovation Platform (FTRIP) has been established in partnership with Cambodian Higher Education Institutions (HEIs), the food production sector, and government organizations (including the Fisheries Administration of the Ministry of Agriculture, Forestry, and Fisheries (MAFF) and the Department of Innovation of the Ministry of Industry,

Science, Technology, and Innovation (MISTI). The main objectives of the platform are to harness and further bolster research and training capacities of higher education institutions (HEIs) in Cambodia and to promote innovation in the post-harvest fishery and food production sector. To enhance capacities of Higher Education Institutes (HEIs), UNIDO, in collaboration with FTRIP and the Fishery Administration, has been working with all relevant stakeholders to develop intellectual property (IP) policies for the universities. In order to support FTRIP, especially the member universities, in developing their own IP policy, establishing a technology transfer unit, and the IP policy operationalization, UNIDO is planning to support FTRIP to join trainings on Immersion Training on Innovation, Design Thinking and Technology Transfer in the Postharvest and Food Processing organized by the Asian Institute of Technology (AIT), Pathum Thani, Thailand . Through participation in the training, the participants will have the opportunity to understand the innovation in postharvest technology, food product development, and technology to be adopted for commercialization purposes. This training includes interactive lectures, practices for relevant case studies, and visiting some of the relevant industries. The main objective of this training is to enhance the capacities of Higher Education Institute (HEIs), government sectors, and enterprises in Cambodia related to postharvest and food technology, especially on fish-based products. The immersive training was organized to enhance the knowledge and capacity of Technology Transfer and Intellectual Property (IP) for the universities. Through the participation in this training program, the participants will have the opportunity to understand the innovation in post-harvest technology, new and innovative food product development, and technology to be adopted for commercialization purposes.

DESIGN AND DEVELOP THE PROTOTYPE PROGRAM TO RECOMMEND FERTILIZER USE BASED ON SOIL ANALYSIS VALUES (ON THE DEVICE PROGRAM) LANDDEV2024

AIT Research Theme: Technology, Policy and Society

AIT Unit: Remote Sensing and Geographic Information Systems, SET

Project Duration: 01 Aug 2024 to 31 Mar 2025

Project Sponsor/Client: Land Development Regional 2

Project Partner: Design and Developed the Prototype Program to Recommend Fertilizer Use Based on Soil Analysis Values (On the device program) LandDev2024

Expected Social Impact:

- Enhanced Agricultural Productivity
- Environmental Sustainability
- Economic Benefits for Farmers
- Promotion of Sustainable Farming Practices

Description:

Designed and developed a prototype program for recommending fertilizer use based on soil analysis values (on-device program) for a prototype portable soil nutrient measuring device program. The program has the following basic features: On-device program system. The prototype program involves installing a portable prototype device to measure the nutrients and acid-base levels in soil. That is, when a signal transmission device consists

of ESP32 microcontroller that supports standard wireless communication and sensors to measure the amount of nitrogen, phosphorus, potassium acid base and electrical conductivity Measure the amount of nitrogen, phosphorus, and potassium base and electrical conductivity from the sensor. The system then processes the data, calculating fertilizer and displaying recommendations based on sensor values specific to the plant type. The prototype application displays the data on the device screen. The prototype application includes these modules: Read data, N, P, K, EC, and PH parameters. Calculate fertilizer and recommendations.

CLIMATE SMART AND SUSTAINABLE AGRICULTURE USING CUTTING-EDGE TECHNOLOGY AND IOT, 04-09 MARCH 2024

AIT Research Theme: Climate change

AIT Unit: AIT Extension

Project Duration: 04 Mar 2024 to 30 Sep 2024

Project Sponsor/ Client: Self/Participants' Organization

Expected Social Impact: Improved decision-making on agriculture, sustainability, and climate change.

Description:

Professional capacity development of agriculturists, knowledge sharing, and exposure visits in Thailand.

EMPOWERING FARMING COMMUNITIES ON THE ADOPTION OF REGENERATIVE AGRICULTURE AS NATURE-POSITIVE SOLUTIONS FOR RICE

AIT Research Theme: Climate change and Food-Energy-Water

AIT Unit: Agricultural Systems & Engineering

Project Duration: 15 Nov 2024 to 15 Nov 2025

Project Partners: AIT students and community; Thai Rice Farmers; National Science and Technology Development Agency (NSTDA); Rice Department of Government of Thailand; Kasetsart University; ReGreen Earth Co., Ltd.; Ministry of Agriculture and Cooperatives (MOAC) Thailand

Project Sponsor/Client: Asian Institute of Technology

Expected Social Impact: The workshop brings together farmers, agricultural experts, agribusinesses, and stakeholders to serve as platforms for learning, collaboration, and the exchange of experiences and insights.

Description:

Rice plays a vital role in the economies of ASEAN countries, contributing to GDP, employment, exports, and food security. However, conventional rice farming methods often come with detrimental impacts on ecosystems, including soil degradation, loss of biodiversity, and increased greenhouse gas emissions. In light of these challenges, regenerative agriculture offers a promising alternative

that not only sustains but also regenerates the natural resources upon which farming depends. The workshop seeks to empower farming communities by fostering knowledge sharing and demonstrations of nature-positive and regenerative solutions through ongoing field trials, showcasing their process and applicability. By bringing together farmers, agricultural experts, agribusinesses, and stakeholders, the workshops will serve as platforms for learning, collaboration, and the exchange of experiences and insights. Finally, the workshop will explore scaling-up opportunities by highlighting the benefits of the proposed solutions to soil health, climate and water resources, soil biodiversity, ecosystem resilience, farmer profitability, and community empowerment.

TRAINING, WORKSHOP AND PROMOTION OF TILAPIA IN INDIA

AIT Research Theme: Food-Energy-Water

AIT Unit: SERD-Aqua-Centre

Project Duration: 01 Nov 2022 to 31 Oct 2026

Project Partners: MM-Aqua Genetics Technology & Research Pvt Ltd., India Others - to be determined later

Project Sponsors/Clients: MM-Aqua Genetics Technology & Research Pvt Ltd., India

Expected Social Impact:

1. Over 400 farmers and professionals trained in tilapia farming over the project period
2. Millions of people will receive information about the benefits of tilapia farming and consumption
3. Increased tilapia farming/farmers in India
4. Increased consumption of tilapia in India

Description:

Farming of tilapia for food and nutrition security has been the main focus of aquaculture since the 1980s. AIT developed hatchery, nursing, and grow-out technologies through research. Technologies are being transferred to several countries around the world through training, seminars, and formal and direct collaborations. As a result, AIT has become well-known for its pioneering work in tilapia technologies, particularly among developing countries. It has played a key role in the food and nutrition security of the people, especially those residing in rural communities. However, India had been banning tilapia over the last 3 to 4 decades, fearing that it would replace its well-established carps. The Government of India (GoI) has changed its policy recently and opened up new opportunities, especially for the private sector, to start its business with tilapia. MM-Aqua Genetics Technology & Research Pvt. Ltd., of the MM Group of Companies (India), realized its potential and adopted tilapia farming as their main business. They have already started two hatcheries and need more support to promote tilapia farming by organizing a series of training workshops and seminars in India. The project team hopes to make positive impacts to accelerate the aquaculture industry in India through transferring the tilapia farming technologies.

News:

STRENGTHENING TIES FOR GLOBAL HEALTH : AIT AND FHI 360 ELEVATE PARTNERSHIP THROUGH STRATEGIC ENGAGEMENT AND COLLABORATIONS

Description:

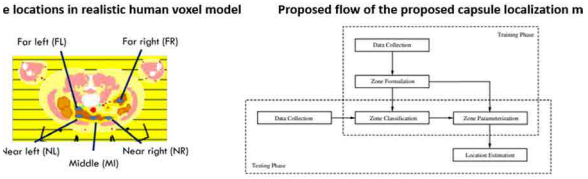
In a significant step towards strengthening their collaborative efforts in global health and development, the Asian Institute of Technology (AIT) welcomed Tessie San Martin, CEO of Family Health International (FHI 360), and her senior executive team on January 18, 2024.

https://ait.ac.th/2024/01/strengthening-ties-for-global-health-ait-and-fhi-360-elevate-partnership-through-strategic-engagements-and-collaborations/

REVOLUTIONIZING HEALTHCARE : AIT'S BREAKTHROUGH IN WIRELESS CAPSULE ENDOSCOPE LOCALIZATION

Description:

The Asian Institute of Technology (AIT) proudly announces a groundbreaking achievement in medical technology. Attaphongse Taparugssanagorn, faculty in the Department of Information and Communications Technologies, and Juthatip Wisanmongkol, a former doctoral student in Telecommunications at AIT and now a researcher at the Location and Automatic Identification System Research Team, National Electronics and Computer Technology Center (NECTEC), Thailand, played a pivotal role in achieving this milestone. The research, a joint venture with the University of Oulu, Finland, is funded by the European Union's Horizon 2020 program under the Marie Skłodowska-Curie grant and the Academy of Finland 6G Flagship.



https://ait.ac.th/2024/02/revolutionizing-healthcare-aits-breakthrough-in-wireless-capsule-endoscope-localization/

BUILDING PUBLIC HEALTH POLICY EXPERTISE: WEEK-LONG TRAINING PROGRAM FOR HEALTH OFFICERS FROM INDIA

Description:

The Department of Development and Sustainability of the School of Environment, Resources, and Development, in collaboration with the Meghalaya Administrative Training Institute, Meghalaya, India, organized a 7-day training-cum-study visit program titled "Strategies for Effective Public Health Policy Making: Unveiling Thailand's Insights for Influencing Practice and Shaping Policies," held from March 9 to 15, 2024. 30 participants from India actively engaged in this enlightening training initiative.

https://ait.ac.th/2024/03/building-public-health-policy-expertise-week-long-training-program-for-health-officers-from-india/

AIT AND SAMITIVEJ GROUP SIGN MOU FOR AI-DRIVEN HEALTHCARE INNOVATIONS

Description:

AIT signed an MoU with Samitivej Group to develop AI models for healthcare applications, enhancing patient care and safety.

https://ait.ac.th/2024/07/ait-and-samitivej-group-sign-mou-for-ai-driven-healthcare-innovations/

THIRD JOINT STUDENT SEMINAR ON "ONE HEALTH, ONE WORLD" ENHANCES INTERNATIONAL COLLABORATION AND RESEARCH

Description:

On August 15, 2024, AIT hosted the Third Joint Student Seminar on "One Health, One World," focusing on enhancing international collaboration and research in health-related fields. The seminar brought together students and experts to discuss integrated approaches to health challenges, promoting a multidisciplinary perspective on global issues. Participants shared insights and fostered networking opportunities to strengthen future cooperation in health research.

https://ait.ac.th/2024/08/third-joint-student-seminar-on-one-health-one-world-enhances-international-collaboration-and-research/

AIT SDG SUMMER SCHOOL SHOWCASES INNOVATIVE SOLUTIONS FOR HEALTH AND WELLNESS

Description:

The AIT Entrepreneurship Center hosted the AIT SDG Summer School on August 29-30, 2024, featuring the third edition of the SDG Open Hackathon in collaboration with the University of Geneva. Thirteen teams presented innovative health and wellness solutions during a pitch competition. The top prize went to "Mindful Milk," a plant-based probiotic milk aimed at supporting gut and mental health. Second place was awarded to "Virtual Puen," an interactive digital companion for mental wellness, while "Pro Fine," a centralized patient data system, secured third place. The event highlighted the importance of innovation in addressing global health challenges.

https://ait.ac.th/2024/08/ait-sdg-summer-school-showcases-innovative-solutions-for-health-and-wellness/

INSPIRING THE NEXT GENERATION : AIT HOSTS DISTINGUISHED ENTREPRENEURS TALK WITH HEALTH FOOD LEADER MS BHIRAMON CHUPRAPAWAN

Description:

On 5 September 2024, the AIT Entrepreneurship Center hosted a Distinguished Entrepreneurs Talk featuring AIT alumnus Bhiramon Chuprapawan, a leader in the health food industry. Her presentation, titled "From Lab to Market: Leveraging Food Science to Build a Sustainable Health Food Business" attracted participants from AIT and Republic Polytechnic, Singapore. Bhiramon shared her journey from Nestlé's R&D to founding 4Care Group, emphasizing sustainable practices and customer feedback in her business strategy. Following the talk, a site visit to 4Care on 20 September 2024 allowed participants to engage directly with the operations of the health food company. Bhiramon welcomed the group and discussed the company's commitment to health, innovation, and sustainability. The visit included a Q&A session where she addressed various topics, including financial performance and sustainability practices. Participants concluded the visit with a tour of 4Care's facilities, gaining

valuable insights into the entrepreneurial landscape of the health food sector.

https://ait.ac.th/2024/09/inspiring-the-next-generation-ait-hosts-distinguished-entrepreneurs-talk-with-health-food-leader-ms-bhiramon-chuprapawan/

THAILAND'S VISIONARY APPROACH GUIDES MEGHALAYA'S JOURNEY TOWARD A RESILIENT HEALTH SYSTEM

Description:

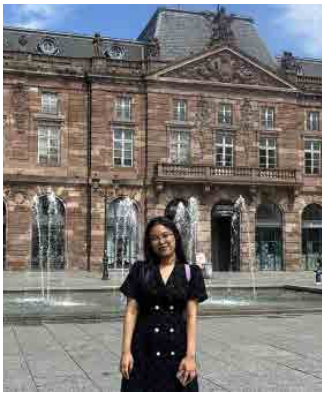
From 7 to 14 September 2024, the Asian Institute of Technology (AIT) hosted a transformative study tour and training program aimed at developing a resilient health model for Meghalaya, India. Led by AIT experts, including Malay Pramanik and Mokbul Morshed Ahmad, the program engaged 35 delegates, including the Health Minister of Meghalaya and senior officials. Participants explored strategies for building resilient public health systems through lectures and site visits to healthcare centers and the Thai Health Promotion Foundation. This collaboration aims to foster strong partnerships and innovative health policies in Meghalaya.

https://ait.ac.th/2024/09/thailands-visionary-approach-guides-meghalayas-journey-toward-a-resilient-health-system/

FROM AIT TO HEIDELBERG: A SUMMER SCHOOL EXPERIENCE IN GLOBAL HEALTH

Description:

May Myat Noe, a master's student at AIT, participated in the 2024 Summer School on "Enhancing Academic Qualifications in Teaching and Research in Global Health" at the Heidelberg Institute of Global Health in Germany. The program included an online phase followed by an on-site phase, where she gained skills in participatory teaching techniques and learned about ethical health research and grant proposal writing. The experience fostered intercultural collaboration with participants from diverse regions and included excursions to significant institutions, such as the German Cancer Research Center. May also enjoyed exploring Germany and building lasting relationships with fellow participants and lecturers. She expressed gratitude to the DAAD and AIT for this transformative opportunity in her academic journey.



https://ait.ac.th/2024/09/from-ait-to-heidelberg-a-summer-school-experience-in-global-health/

AIT PRESIDENT PAI-CHI LI AWARDED THE WILLIAM AND FRANCIS FRY HONORARY FELLOWSHIP (THE FRY AWARD) FOR CONTRIBUTIONS TO THERAPEUTIC ULTRASOUND

Description:

AIT President Pai-Chi Li has been honored with the prestigious William and Francis Fry Honorary Fellowship (The Fry Award) for his contributions to therapeutic ultrasound by the International Society for Therapeutic Ultrasound (ISTU).

https://ait.ac.th/2024/11/ait-president-prof-pai-chi-li-awarded-the-william-and-francis-fry-honorary-fellowship-the-fry-award-for-contributions-to-therapeutic-ultrasound/

INNOVATING AQUACULTURE: NANOBUBBLES AS A SOLUTION TO ANTIBIOTIC RESISTANCE

Description:

A new project led by Ha Thanh Dong, titled "Applications of Nanobubbles to Reduce Antibiotic Use in Aquaculture," is exploring how nanobubble technology can improve fish health and reduce antibiotic use in tilapia farms. Backed by a CA$872,000 grant from Canada's International Development Research Center (IDRC) under the InnoVet-AMR initiative, the 32-month project aims to enhance immersion vaccine efficacy by using gas bubbles smaller than 200 nanometers to improve water quality and fish immunity. The initiative supports sustainable aquaculture and aligns with several Sustainable Development Goals (SDGs), including Zero Hunger (SDG-2) and Life Below Water (SDG-14). The project collaborates with partners such as CENTEX Shrimp (Mahidol University/BIOTEC-NSTDA), Kasetsart University, and Chulalongkorn University and involves industry partners like Nam Sai Farms Co. Ltd., while also including training workshops and knowledge transfer sessions for small-scale farmers. It offers two

Ph.D scholarships, one postdoctoral position, and two research assistant roles. Dong, recently named among the top 2% of global scientists in fisheries and awarded AIT Young Researcher 2024, noted that the project could lead to healthier aquatic ecosystems, a safer food supply chain, and more sustainable aquaculture practices across Asia and the Pacific.

https://ait.ac.th/2024/06/innovating-aquaculture-nanobubbles-as-a-solution-to-antibiotic-resistance/

Projects:

THE TWENTY-SIXTH SESSION OF THE INTERGOVERNMENTAL MEETING (IG26) ON THE ACID DEPOSITION MONITORING NETWORK IN EAST ASIA (EANET), MALAYSIA

Project Duration: 27-28 Nov 2024

Expected Social Impact: AIT RRC.AP participated in the EANET IG26 meeting, presenting project plans to delegates from 13 East Asian countries and UNEP. This engagement contributes to regional collaboration on monitoring and addressing acid deposition, a critical environmental issue, ultimately aiming to improve environmental quality, public health, and sustainable development across the region.

Description:

The 26th Intergovernmental Meeting (IG26) of the Acid Deposition Monitoring Network in East Asia (EANET) convened in Kuala Lumpur, Malaysia, on November 27-28, 2024. This hybrid meeting allowed for both in-person and online participation.

The AIT RRC.AP actively participated in IG26 and had the opportunity to present proposed project activities and the 2025 project plan within the framework of the EANET work program.

Delegates from all EANET member countries, including Cambodia, China, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, the Philippines, the Republic of Korea, Russia, Thailand, and Vietnam, were present. Representatives from the United Nations Environment Programme (UNEP), the EANET Secretariat, and the EANET Network Center (NC) in Japan, along with observers, also attended.

https://www.rrcap.ait.ac.th/news/Pages/vol25no4-05.aspx

UNLOCKING AND FUTURE-PROOFING AIR QUALITY MANAGEMENT IN ASIA - A MULTI-STAKEHOLDER CONSULTATION WORKSHOP FOR IMPROVED MULTILATERAL AND INTERNATIONAL COOPERATION ON AIR POLLUTION

Project Duration: 27-28 May 2024

Expected Social Impact: : This workshop seeks to improve public health and environmental protection in the Asia-Pacific region by reducing air pollution through data sharing, best practice exchange, and strengthened regional collaboration, ultimately leading to more effective air quality management.

Description:

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https://www.rrcap.ait.ac.th/news/Pages/vol25no2-01.aspx

2024 SUMMER SCHOOL ON "ENHANCING ACADEMIC QUALIFICATIONS IN TEACHING AND RESEARCH IN GLOBAL HEALTH

AIT Research Theme: Climate change and Food-Energy-Water

AIT Unit: Natural Resources Management

Project Duration: 12 Jul 2024 to 29 Aug 2025

Project Partner: Heidelberg Institute of Global Health (HIGH) at Heidelberg University

Project Sponsor/Client: DAAD

Expected Social Impact: Improved public health; enhanced human capital; strengthened partnership

Description:

The program began with an online phase from 12 to 26 July 2024, which focused on the Participatory Teaching Techniques module. During this phase, participants gained valuable skills in creating an inclusive and engaging learning environment. This foundation in participatory approaches to teaching can benefit their future academic career. The on-site phase in Heidelberg from 1 to 29 August 2024 was the highlight of the program. The "Quality and Ethics in Human Health Research" session provided insights into conducting ethical health research. One of the most valuable sessions was on "Grant Proposal Writing." Mastering the structure of successful proposals and identifying potential funding sources can benefit their academic and professional outputs. Throughout the program, they participated in group discussions, collaborative projects, and presentations, which made the learning process effective and enjoyable. Working with intelligent, active, and friendly participants from diverse regions—Africa, the Middle East, Latin America, South Asia, and Southeast Asia, fostered a vibrant intercultural learning environment. Group work allowed them to apply what they learned to real-world scenarios, while their presentations helped develop ideas and collaborate in innovative ways. Beyond the lecture, the program included excursions to renowned institutions such as Deutsche Welle (DW), the Center for Development Research (ZEF), the German Cancer Research Center (DKFZ), the German Academic Exchange Service (DAAD), the Federal Ministry for Economic Cooperation and Development (BMZ) in

Germany, and the European Parliament in Strasbourg, France. These visits offered a broader perspective on how policy, communication, and research intersect to shape global public health. Witnessing firsthand how these institutions tackle health issues was an invaluable experience.

https://www.facebook.com/nrmait/posts/pfbid02qp3VYcpyCYLKohScmjzJqpuT5kgdE3pXPCZgiiCoVxdEjk7XE4sLXjaNRSc6nonFl

https://ait.ac.th/2024/09/from-ait-to-heidelberg-a-summer-school-experience-in-global-health/?fbclid=IwY2xjawJXZtxleHRuA2FlbQIxMQABHXBXnJG9mF7PMiYtwXRbk3hFNQ3cdX0A3ldr5XEnEdj70mkWIYkozysqvg_aem_tGjdihkId0oNT9MjETjoFQ

REVITALIZE: VITILIGO TREATMENT DISPOSABLE KIT

AIT Research Theme: Technology, Policy and Society

AIT Unit: Entrepreneurship Center (Dieter Wilhelm Trau)

Project Duration: 15 Nov 2024 to 31 Jul 2025

Project Partner: Dermatologist: Dr Henry Loh, Singapore

Expected Social Impact:

1. Improved Quality of Life for Vitiligo Patients: The kit can restore pigmentation, boosting patients' self-esteem and mental well-being.
2. Increased Access to Treatment: The portable design helps clinics offer vitiligo treatment in remote and low-resource areas.
3. Reduction in Social Stigma: Successful treatment can help mitigate the stigma and discrimination often faced by individuals with vitiligo.
4. Promotion of Innovation in Dermatological Care

Description:

To design and develop a modular, easy-to-use, and sterile cell separation kit tailored for vitiligo treatment, enabling efficient melanocyte isolation and safe application for autologous cell transplantation.

STRATEGIES FOR EFFECTIVE PUBLIC HEALTH POLICY MAKING: UNVEILING THAILAND'S INSIGHTS FOR INFLUENCING PRACTICE AND SHAPING POLICIES.

AIT Research Theme: Smart Communities; Infrastructure; Technology, Policy and Society

AIT Unit: Urban Innovation and Sustainability

Project Duration: 02 Sep 2024 to 31 Dec 2025

Project Partner: MATI

Expected Social Impact:

Provide participants with firsthand experience of public health situations, including an understanding of policies and public health service implementations. Provide participants with firsthand experience in public health situations, including an understanding of the policies and implementations of public health service.

Description:

The objective of this 7-day training and study visit program is to offer valuable exposure to state healthcare officers, researchers, and practitioners from India in the field of public health. It aims to foster cross- and practical policy-making skills to effectively influence policy and practice. Additionally, it seeks to facilitate collaboration between the Meghalaya Administrative Training Institute (MATI) and the Asian Institute of Technology (AIT), Thailand, in areas of shared interest.

MOBILE - AIR QUALITY

AIT Research Theme: Smart Communities

AIT Unit: Internet Education and Research Laboratory

Project Duration: 01 Feb 2024 to 30 Jun 2025

Project Partner: Chiang Mai Rajabhat University

Project Sponsor/Client: University of Washington

Expected Social Impact:

This project will empower Bhutanese officials and their counterparts to better address challenges related to project management implementation of development projects in the health sector.

Description:

The primary role of the Asian Institute of Technology (AIT) will be to manage, operate, and execute our joint investigation of the effects of air pollution on motorcycle taxi drivers in Thailand.

AIR QUALITY IMPROVEMENT PROGRAM IN THAILAND (AQIP-THAILAND)

AIT Research Theme: Climate Change

AIT Unit: Environmental Engineering and Management

Project Duration: 20 Feb 2023 to 31 Aug 2025

Project Sponsor/Client: The Agence Française de Développement (AFD)

Expected Social Impact:

The expected social impact of this project is to create healthier living environments, promote environmental conservation, stimulate economic growth, foster social equity, and increase public awareness about air quality issues. By working toward these goals, the project aims to contribute to the well-being and sustainable development of Thailand and its cities.

Description:

Under the leadership of Egis, a consortium of four institutions, including AirParif, Citepa, and AIT, conducts the project with a focus on Thailand. The overall objective of this project is to support Thailand and the cities in the country in their efforts to develop and implement policies and projects to improve air quality.

INNOVATIVE SOLUTIONS FOR PLASTIC FREE EUROPEAN RIVERS

AIT Research Theme: Climate Change

AIT Unit: Geoinformatics Center

Project Duration: 30 May 2023 to 31 Aug 2027

Project Sponsor/Client: European Climate, Infrastructure and Environment Executive Agency

Expected Social Impact: Clean a few European rivers of plastic and provide clean water to the population living along these rivers.

Description:

INSPIRE's main objective is to contribute to the drastic reduction of litter and macro- and microplastics in European rivers in a holistic approach by bringing together 20 technologies and actions for DETECTION of the pollution present in the river and at the riverbank, COLLECTION of litter and macroplastics at the riverbank and litter, macro and microplastics in the river, and PREVENTION of litter, macro and microplastics from entering the river by collecting it from its waste stream before it can enter the river and by developing biodegradable alternatives for currently non-degradable polluting products to avoid their further use and arrival in the river as litter.

DEVELOPING PHAGE THERAPIES FOR ANIMAL HEALTH IN THAILAND WITH A SPECIAL FOCUS ON SHRIMP AND CHICKEN HEALTH

AIT Research Theme: Food-Energy-Water

AIT Unit: Aquaculture and Aquatic Resources Management

Project Duration: 01 Oct 2022 to 30 Sep 2024

Project Sponsor/Client: Phagos Company, France

Expected Social Impact: The outcomes of this project are expected to contribute significantly to sustainable animal farming in the Asia Pacific region and beyond.

Description:

This project is intended to isolate phages for the development of phage therapies for the prevention of bacterial diseases in shrimp and chicken. This research falls under animal health management and is significant in the prevention and management of diseases in shrimp and chicken farming.

EVALUATION OF THE EFFICACY OF NOVEL FEED ADDITIVES IN INCREASING RESISTANCE TO WHITE SPOT SYNDROME VIRUS (WSSV) IN PACIFIC WHITE SHRIMP LITOPENAEUS VA

AIT Research Theme: Food-Energy-Water

AIT Unit: Aquaculture and Aquatic Resources Management

Project Duration: 20 Jun 2022 to 30 Jun 2024

Project Partner: Grobest Corporation Limited, Thailand

Project Sponsor/Client: Grobest Corporation Limited, Thailand

Expected Social Impact:

1. Identification of functional ingredients effective against WSSV in shrimp.
2. Development of functional feeds specifically against WSSV in shrimp.

Description:

This project is intended to evaluate the efficacy of nine functional ingredients in the feed of Pacific white shrimp, Litopenaeus vannamei, based on a challenge trial with WSSV in a recirculating aquaculture system.

SIGN LANGUAGE PRODUCTION USING DEEP LEARNING

AIT Research Theme: Smart Communities

AIT Unit: Computer Science (Polprasert)

Project Duration: 03 Nov 2023 to 28 Feb 2025

Project Partner: AIT Research Initiation Grant/Client

Project Sponsor/Client: AIT Research Initiation Grant/ Client

Expected Social Impact:

This project promotes inclusivity and accessibility by enabling real-time communication for the hearing impaired through advanced sign language production technology. By integrating the system into online video channels, it fosters equal access to information, enhances social participation, and supports the rights of people with hearing disabilities in digital spaces.

Description:

This project aims to develop a real-time sign language production (SLP) system for hearing-impaired people. We propose using a deep learning-based system to develop the SLP that enhances accuracy with acceptable computational complexity. The proposed system will be deployed on some online VIDEO channels to test its performance in different contexts.

News:

EMBARKING ON EXCELLENCE : AIT WELCOMES SPRING 2024 COHORT

Description:

The Asian Institute of Technology (AIT) kicked off its new 2024 academic term with a hybrid orientation event on January 5 to warmly welcome students.

https://ait.ac.th/2024/01/embarking-on-excellence-ait-welcomes-spring-2024-cohort/

CHARTING ENVIRONMENTAL ENGINEERING EXCELLENCE: NATDANAI JONGSAMAK'S JOURNEY IN THE EXCHANGE PROGRAM AT CHUNG YUAN CHRISTEN UNIVERSITY (CYCU) IN TAIWAN

Description:

My extraordinary experiences while participating in an exchange program enrolled in an Environmental Engineering Major at Chung Yuan Christen University (CYCU) in Taiwan.

https://ait.ac.th/2024/01/charting-environmental-engineering-excellence-natdanai-jongsamaks-journey-in-the-exchange-program-at-chung-yuan-christen-university-cycu-in-taiwan/

AIT NURTURES GLOBAL CONNECTIONS AND ACADEMIC EXCELLENCE: DAVID MCLEAN'S INSPIRING ENGAGEMENTS LEAVE LASTING IMPRESSION

Description:

On January 15, a student interaction session featuring David I. McLean was conducted. The session proved to be a unique opportunity for students to connect with McLean. This initial interaction set the stage for a dynamic exchange, allowing students to share their experiences at AIT and express their viewpoints on various aspects of their academic journey.

https://ait.ac.th/2024/01/ait-nurtures-global-connections-and-academic-excellence-prof-david-mcleans-inspiring-engagements-leave-lasting-impression/

AIT RECEIVES SUPPORT FROM TAWEECHAI TERMKUNANON (HSD'79)

Description:

Taweechai Termkunanon, an AIT alumnus who completed his Master's in Human Settlements and Development in 1979, and served as the former president of the AIT Alumni Association from 2022 to 2023, signed a donation agreement with AIT President Kazuo Yamamoto. The donation aims to support the Alumni Scholarships, Student Exchange Programs, and School Laboratory Fund. The generous contribution amounts to 500,000 Thai baht.

https://ait.ac.th/2024/01/ait-receives-support-from-mr-taweechai-termkunanon-hsd79/

AIT CHINESE ALUMNI IN THAILAND CONTINUE TO PROVIDE SUPPORT TO AIT

Description:

AIT Chinese Alumni residing in Thailand, led by Liu Chongming (SEC '93), had the honor of presenting a mock cheque to AIT President Kazuo Yamamoto. This fifth installment of THB 200,000 is part of their commitment to fulfilling the signed agreement with AIT for their One Million Baht Student Exchange Scholarship Program Fund. The group's generous contribution will further support AIT's efforts in providing valuable exchange scholarship opportunities for deserving students.

https://ait.ac.th/2024/01/ait-chinese-alumni-in-thailand-continues-to-provide-support-to-ait/

LEADING THE DIGITAL FRONTIER: AIT'S NEW MSC PROGRAM PREPARES MARKETERS FOR TOMORROW'S CHALLENGES

Description:

Led by expert faculty members specializing in digital trends, emerging technologies, and data analytics, the program ensures students stay updated on the evolving digital marketing landscape. Faculty supervisors dedicated to the research track guide students in course selection and provide academic support. Moreover, the program establishes collaborations with industry associations, digital marketing conferences, and networks to enhance industry connectivity, providing students with networking opportunities, industry insights, and engagement with esteemed guest speakers at the forefront of the digital marketing field.

https://ait.ac.th/2024/01/leading-the-digital-frontier-aits-new-msc-program-prepares-marketers-for-tomorrows-challenges/

EMPOWERING TOMORROW'S INNOVATORS : AI BOOTCAMP 2024 - A TRANSFORMATIVE PARTNERSHIP BETWEEN AIT AND CSII

Description:

The AI Bootcamp 2024, a collaborative initiative between the Asian Institute of Technology (AIT) and Chulalongkorn School of Integrated Innovation (CSII), held from January 29th to February 1st, was a workshop filled with innovation, collaboration, and transformative learning experiences. This immersive journey brought together 60 first-year Bachelor's degree students from CSII, as they delved into the vast realm of artificial intelligence (AI) to explore its potential in creating smarter and more sustainable societies.

https://ait.ac.th/2024/02/empowering-tomorrows-innovators-ai-bootcamp-2024-a-transformative-partnership-between-ait-and-csii/

AIT AND NSI EMBARK ON ACADEMIC ADVANCEMENT AND TECHNOLOGICAL INNOVATION JOURNEY.

Description:

In a significant step towards fostering academic excellence and collaborative research, the Asian Institute of Technology (AIT) and New Space Intelligence Inc. (NSI), Japan, inked a Memorandum of Understanding (MoU) on 2 February 2024. The ceremony, held at AIT's campus, marks the beginning of a promising alliance to advance scientific research and educational cooperation between the two institutions.

https://ait.ac.th/2024/02/ait-and-nsi-embark-on-academic-advancement-and-technological-innovation-journey/

AIT PARTNERS WITH AECCSB AND ESSB, MALAYSIA FOR SUSTAINABLE DEVELOPMENT INITIATIVES

Description:

In a significant step toward sustainable development and environmental innovation, the Asian Institute of Technology (AIT) has entered into Memorandums of Understanding (MoUs) with prominent Malaysian companies AE Carbon Capital Sdn Bhd (AECCSB) and Envirostar Sdn Bhd (ESSB). These agreements, signed on 6 February, signify a new era of collaboration centered on green technology and sustainable environmental practices.

https://ait.ac.th/2024/02/ait-partners-with-aeccsb-and-essb-malaysia-for-sustainable-development-initiatives/

EXPANDING HORIZONS : PSGIM AIT'S 'BUSINESS BEYOND BORDERS' PROGRAM

Description:

The Asian Institute of Technology (AIT) School of Management (SOM), in collaboration with PSG Institute of Management (PSGIM), India, recently launched the "Business Beyond Borders" International Immersion Program. This significant initiative aims to enrich the global business perspectives of MBA students by providing them with practical international exposure and a deeper understanding of diverse cultures.

https://ait.ac.th/2024/02/expanding-horizons-psgim-aits-business-beyond-borders-program/

AIT & USJ FOSTER INTERNATIONAL TIES IN PURSUIT OF ACADEMIC COLLABORATION

Description:

Representatives from the University of Saint Joseph (USJ) in Macau, China, made a significant visit to the AIT School of Engineering and Technology (SET), signaling a promising step toward international collaboration.

https://ait.ac.th/2024/02/ait-usj-foster-international-ties-in-pursuit-of-academic-collaboration/

VISHWAKARMA UNIVERSITY VICE CHANCELLOR SIDDHARTH JABADE EXPLORES COLLABORATIVE OPPORTUNITIES AT AIT, REFLECTS ON DECADE-LONG PARTNERSHIP

Description:

Siddharth Jabade, Vice Chancellor of Vishwakarma University (VU), India, visited AIT President Kazuo Yamamoto on 14 February for a courtesy meeting to discuss potential collaborations. During his visit, Jabade also delivered a seminar on "Navigating the Quadruple Helix for Innovation and Impact" to the AIT community. The partnership between AIT and VU dates back to 2008.

https://ait.ac.th/2024/02/vishwakarma-university-vice-chancellor-prof-siddharth-jabade-explores-collaborative-opportunities-at-ait-reflects-on-decade-long-partnership/

RWTH AACHEN UNIVERSITY DELEGATION EXPLORES COLLABORATIVE INITIATIVES WITH AIT AND SOCIAL IMPACT AND INNOVATION

Description:

A delegation led by the Rector of RWTH Aachen University, Germany, Ulrich Rüdiger, recently visited the Asian Institute of Technology (AIT) to engage in collaborative discussions aimed at advancing social impact and innovation initiatives.

https://ait.ac.th/2024/02/rwth-aachen-university-delegation-explores-collaborative-initiatives-with-ait-for-social-impact-and-innovation/

AIT AND UPLB INITIATE STRATEGIC PARTNERSHIP TO EXPAND ACADEMIC AND RESEARCH OPPORTUNITIES

Description:

The Asian Institute of Technology (AIT) and the University of the Philippines Los Baños (UPLB) signed a Memorandum of Understanding (MoU) to facilitate cooperation and establish a strategic partnership on 19 February 2024. The MoU aims to foster collaboration between the two institutions through various avenues such as academic initiatives, research endeavors, professional development training programs, consultancy services, workshops/seminars, joint projects, and other related activities.

https://ait.ac.th/2024/02/ait-and-uplb-initiate-strategic-partnership-to-expand-academic-and-research-opportunities/

EXPLORING JAPAN'S TECHNOLOGICAL AND CULTURAL FRONTIERS : STRUCTURAL ENGINEERING PROGRAM STUDENTS VISIT JAPAN UNDER THE SAKURA SCIENCE PROGRAM

Description:

Nine students from the Structural Engineering Program (STE) of the School of Engineering and Technology (SET) at the Asian Institute of Technology (AIT), accompanied by Krishna Chaitanya, undertook an enlightening expedition to the University of Tokyo, Japan. They were selected under the prestigious Sakura Science program for a week-long tour from February 12th to February 18th, 2024, which is supported by the Japan Science and Technology Agency.

https://ait.ac.th/2024/02/exploring-japans-technological-and-cultural-frontiers-structure-engineering-department-students-visit-japan-under-the-sakura-science-program/

AIT AND USTP : STRENGTHENING ACADEMIC COLLABORATION AND PARTNERSHIP

Description:

The delegation from the Asian Institute of Technology (AIT) visited the University of Science and Technology of Southern Philippines (USTP) in Cagayan de Oro City on 21 February.

https://ait.ac.th/2024/02/ait-and-ustp-strengthening-academic-collaboration-and-partnership/

AIT DELEGATION MEETS USC FOR COLLABORATION AND INFORMATION SESSION

Description:

Asian Institute of Technology (AIT) delegates, led by Sangam Shrestha, Dean of the School of Engineering and Technology (SET), and P. Abdul Salam, Dean of the School of Environment, Resources, and Development (SERD), visited the University of San Carlos (USC) in the Philippines on February 23, 2024. The visit aimed to explore collaboration opportunities between the two universities and promote AIT to prospective students at USC.

https://ait.ac.th/2024/02/ait-delegation-meets-usc-for-collaboration-and-information-session/

AIT'S SCHOOL OF ENGINEERING AND TECHNOLOGY HOSTS SUCCESSFUL OPEN HOUSE

Description:

AIT's School of Engineering and Technology (SET) held a vibrant open house on 12 February 2024. The event attracted 108 prospective students from various academic backgrounds, offering them an invaluable opportunity to immerse themselves in the campus environment. Attendees gained insights into SET's diverse master's and Ph.D. programs, with detailed information on courses, scholarships, and student support.

https://ait.ac.th/2024/02/aits-school-of-engineering-and-technology-hosts-successful-open-house/

PRESIDENT YAMAMOTO CALLS ON CHINA SCHOLARSHIP COUNCIL IN BEIJING, CONFIRMS RENEWAL OF BILATERAL SCHOLARSHIP AGREEMENT

Description:

Kicking off a 11-day official mission to the People's Republic of China, AIT President Kazuo Yamamoto called on Lulu Tian, Deputy Secretary-General China Scholarship Council in Beijing to discuss enhanced cooperation and renewal of AIT's scholarship agreement with the CSC.

https://ait.ac.th/2024/03/president-yamamoto-calls-on-china-scholarship-council-in-beijing-confirms-renewal-of-bilateral-scholarship-agreement/

JOYASHREE ROY AND NGUYEN THI KIM OANH APPOINTED AS DISTINGUISHED PROFESSORS

Description:

Joyashree Roy and Nguyen Thi Kim Oanh have been appointed as Distinguished Professors of the Asian Institute of Technology. This appointment signifies their continued commitment to advancing the work of the institute through their expertise and contributions to research.

https://ait.ac.th/2024/03/professors-joyashree-roy-and-nguyen-thi-kim-oanh-appointed-as-distinguished-professors/

AIT AND CHULALONGKORN SCHOOL OF INTEGRATED INNOVATION (CSII) COLLABORATE FOR GLOBAL INTEGRATED EDUCATION

Description:

The Asian Institute of Technology (AIT) and Chulalongkorn School of Integrated Innovation (CSII) marked a historic collaboration on April 4, 2024, with the signing of a Memorandum of Understanding (MoU) and Memorandum of Agreement (MoA) for an International Unified Bachelor-Master's Degree Program. The momentous ceremony, hosted at CSII, symbolizes a significant leap forward in fostering academic excellence and innovation.

https://ait.ac.th/2024/04/ait-and-chulalongkorn-school-of-integrated-innovation-csii-collaborate-for-global-integrated-education/

AIT AND CHULALONGKORN SCHOOL OF INTEGRATED INNOVATION (CSII) COLLABORATE FOR GLOBAL INTEGRATED EDUCATION

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https://ait.ac.th/2024/04/ait-and-chulalongkorn-school-of-integrated-innovation-csii-collaborate-for-global-integrated-education/

PARAMET SRIBUAIAM RECEIVED THE PRESTIGIOUS STUDENT EXCHANGE SCHOLARSHIP

Description:

Paramat Sribuaiam from Thailand, enrolled in Construction Engineering and Infrastructure Management, School of Engineering and Technology, is going for the exchange program to University of Tokyo, Japan, from October 2024 to March 2025. He is the ninth recipient of the Rafiul Ahad and Mrs. Frances Kasala Ahad Student Exchange scholarships. This scholarship will subsidize part of his total airfare, food, and accommodation expenses during the exchange program.

https://ait.ac.th/2024/04/mr-paramat-sribuaiam-received-the-prestigious-student-exchange-scholarship/

80TH SESSION OF UNESCAP : AIT COLLABORATES WITH MONGOLIA TO CO-SPONSOR OPENING SIDE EVENT WITH ITU

Description:

: The Asian Institute of Technology collaborated with the Embassy of Mongolia in Thailand to co-sponsor a high-level side-event with the International Telecommunication Union on "Digital Innovations for Sustainable Development in LLDCs", on the opening day of 80th Session of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) on 22-26 April 2024 in Bangkok.

https://ait.ac.th/2024/04/80th-session-of-unescap-ait-collaborates-with-mongolia-to-co-sponsor-opening-side-event-with-itu/

AIT AND CHULALONGKORN SCHOOL OF INTEGRATED INNOVATION (CSII) COLLABORATE FOR GLOBAL INTEGRATED EDUCATION

Description:

Nawapat Choosuwan, a master's student in Urban Innovation and Sustainability at the Department of Development and Sustainability (DDS), School of Environment, Resources and Development (SERD), at the Asian Institute of Technology (AIT) shares her experience of an exchange program at Jönköping University (JU)

https://ait.ac.th/2024/05/my-exceptional-exchange-journey-at-jonkoping-university/

AIT ICT FACULTY VISITS PPIU TO EXPLORE COLLABORATIVE OPPORTUNITIES

Description:

Faculty members from the department of Information and Communications Technologies (ICT) at the Asian Institute of Technology (AIT) recently visited the Phnom Penh International University (PPIU) to strengthen academic partnerships and explore collaborative opportunities. Chaklam Silpasuwanchai and Chantri Polprasert from ICT discussed with PPIU officials to explore potential joint initiatives and academic exchanges.

https://ait.ac.th/2024/05/strengthening-academic-partnerships-ait-csim-faculty-visits-ppiu-to-explore-collaborative-opportunities/

AIT IS NEWEST ITU ACADEMIA MEMBER

Description:

On May 17, Atsuko Okuda, Regional Director of the ITU's Regional Office for Asia and the Pacific, delivered exciting news to the AIT community: AIT had become the newest Academia Member of the International Telecommunication Union, following its acceptance in April 2024. "AIT is now officially a member of the ITU family. Congratulations, AIT," Atsuko Okuda announced to applause while delivering the commencement address at AIT's 141st Graduation Ceremony.

https://ait.ac.th/2024/05/ait-is-newest-itu-academia-member/

AIT ENHANCED ITS ACADEMIC COOPERATION WITH TECHNISCHE HOCHSCHULE MITTELHESSEN (THM) UNIVERSITY OF APPLIED SCIENCES, GERMANY

Description:

Harald Platen, Head of the Master's Program in Environmental, Hygiene, and Safety Engineering (EHS) at Technische Hochschule Mittelhessen (THM) University of Applied Sciences, visited AIT on Monday, 20 May 2024, to discuss potential collaborative activities and hand over the signed Memorandum of Understanding (MoU) between the two institutions. The MoU signified the mutual commitment of AIT and THM to promote academic excellence, exchange of students and staff, short-term academic programs, new forms of studying, collaborative research projects, doctoral thesis supervision, and joint conferences.

https://ait.ac.th/2024/05/ait-enhanced-its-academic-cooperation-with-technische-hochschule-mittelhessen-thm-university-of-applied-sciences-germany/

INTERNATIONAL EDUCATION IN EXCHANGE PROGRAM : A JOURNEY FROM THAILAND TO TSUKUBA, JAPAN

Description:

In May 2024, AIT graduate Sichai Pongpayuha shared his enriching experience as an exchange student at the University of Tsukuba, Japan. During his stay, he engaged in environmental science courses, participated in cultural activities, and advanced his research on sustainable urban development. Sichai expressed gratitude for the support from AIT and various scholarships that facilitated this transformative journey.

https://ait.ac.th/2024/05/international-education-in-exchange-program-a-journey-from-thailand-to-tsukuba-japan/

AIT SET STAFF DEVELOPMENT WORKSHOP FOSTERS COMMUNICATION, ENGAGEMENT, AND GROWTH.

Description:

The School of Engineering and Technology (SET) at AIT hosted a Staff Development Workshop titled "Communication, Engagement, and Growth" from May 20 to May 22, 2024. Held in the SET Meeting Room, the workshop aimed to enhance participants' skills in effective communication, workplace engagement, and personal and professional growth. The workshop saw active participation from various units within SET, bringing together a diverse group of individuals eager to enhance their skills and contribute to their units' success.

https://ait.ac.th/2024/05/ait-set-staff-development-workshop-fosters-communication-engagement-and-growth/

AIT'S NEWEST GRADUATES JOIN 26,000-PLUS ALUMNI PROFESSIONALS WORLDWIDE

Description:

At the 141st AIT Graduation Ceremony on 17 May 2024, the AIT community gathered to celebrate the graduation of 249 postgraduate students who joined the global alumni diaspora of over 26,000 in over 100 countries.

https://ait.ac.th/2024/05/aits-newest-graduates-join-26000-plus-alumni-professionals-worldwide/

AIT'S NEWEST GRADUATES JOIN 26,000-PLUS ALUMNI PROFESSIONALS WORLDWIDE

Description:

During its 141st Graduation Ceremony, the Asian Institute of Technology (AIT) awarded an Honorary Doctor of Philosophy degree to H.E. Subin Pinkayan. Subin, a member of AIT's inaugural 1961 graduating class, has served as Thailand's Foreign Minister and chaired AIT's Board of Trustees from 2013 to 2020. His multifaceted career spans academia, government, and business, with significant contributions to AIT, including funding research, library renovations, and student exchange scholarships. In his acceptance speech, Subin emphasized his commitment to advocating for AIT's values of excellence, diversity, and sustainability.

https://ait.ac.th/2024/05/former-chairman-h-e-dr-subin-pinkayan-awarded-honorary-doctorate-at-the-141st-ait-graduation-ceremony/

AIT SET STAFF DEVELOPMENT WORKSHOP FOSTERS COMMUNICATION, ENGAGEMENT, AND GROWTH.

Description:

The AIT Graduation Ceremony took place in separate sessions for the School of Engineering and Technology in the morning and the School of Environment, Resources and Development and the School of Management in the afternoon. A large contingent of diplomats and dignitaries graced the day-long event along with faculty, family, and friends of the graduates.

https://ait.ac.th/2024/05/141st-ait-graduation-gba-midri-china-founder-and-itu-regional-director-urge-newest-grads-to-benefit-from-digital-transformation/

POTE NARITTAKURN LEE SUPPORTS AIT LIBRARY WITH GENEROUS IN-KIND DONATION

Description:

Pote Narittakurn Lee, Chairman of iGroup (Asia-Pacific) Limited and a distinguished alumnus of the AIT, has made a significant in-kind donation valued at USD 19,950 (THB 758,100) to the AIT library. This contribution grants perpetual access to 1,345 Business Expert Press eBooks, available via the IG Publishing eBook platform, covering publications from 2010 to 2024. These resources are ideal for postgraduate business courses and will greatly enhance the academic environment at AIT.

https://ait.ac.th/2024/05/mr-pote-narittakurn-lee-supports-ait-library-with-generous-in-kind-donation/

AIT GRADUATES WIN PRESTIGIOUS ADB-JSP THESIS OF THE YEAR AWARD 2024

Description:

Three AIT graduates received the ADB-JSP Thesis of the Year Award for their outstanding research in infrastructure and rural development. Anthony O. Maputi, Tilasmi Aryal, and Md. Julhaz Hossain were recognized for their impactful contributions, highlighting AIT's academic excellence.

https://ait.ac.th/2024/06/ait-graduates-win-prestigious-adb-jsp-thesis-of-the-year-award-2024/

ADB PRESIDENT MASATSUGU ASAKAWA AWARDED AIT HONORARY DOCTORATE FOR PIONEERING CONTRIBUTIONS IN ASIA AND THE PACIFIC

Description:

IT awarded an honorary doctorate to ADB President Masatsugu Asakawa for his contributions to the region's development. The recognition reflects ADB's significant impact on economic and social progress in Asia and the Pacific.

https://ait.ac.th/2024/06/adb-president-masatsugu-asakawa-awarded-ait-honorary-doctorate-for-pioneering-contributions-in-asia-and-the-pacific/

AIT ASCENDS IN THE IMPACT RANKINGS 2024

Description:

On June 12, 2024, AIT ranked in the global top 200 in the Times Higher Education Impact Rankings, achieving notable positions for SDGs such as 12th for Zero Hunger and 31st for Peace, Justice, and Strong Institutions. The institute's overall score improved to 85.3, reflecting its commitment to sustainability and impactful research.

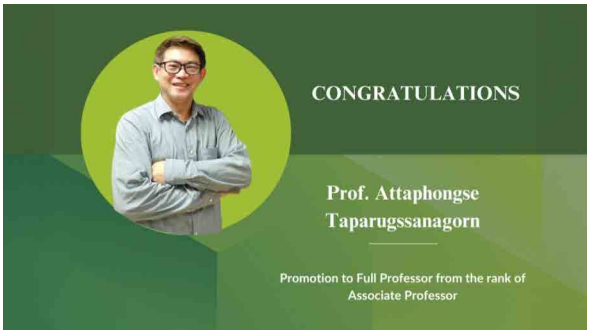
https://ait.ac.th/2024/06/ait-ascends-in-the-impact-rankings-2024/

ATTAPHONGSE TAPARUGSSANAGORN PROMOTED TO THE RANK OF PROFESSOR

Description:

Attaphongse Taparugssanagorn was promoted to Professor at AIT on July 1, 2024. He has been recognized for his contributions to the field of wireless communications and has been with AIT since 2015, reflecting his academic achievements and dedication.

https://ait.ac.th/2024/07/dr-attaphongse-taparugssanagorn-promoted-to-the-rank-of-professor/



AIT AND BHUTAN DEVELOPMENT BANK LIMITED SIGN MOU AND MOA FOR CAPACITY BUILDING PROGRAMS

Description:

AIT signed a Memorandum of Understanding (MoU) and a Memorandum of Agreement (MoA) with Bhutan Development Bank Limited (BDB) on July 15, 2024, to enhance capacity building for BDB employees. The collaboration includes academic programs, training sessions, and joint research initiatives aimed at professional development and mutual growth.

https://ait.ac.th/2024/07/ait-and-bhutan-development-bank-limited-sign-mou-and-moa-for-capacity-building-programs/

STRENGTHENING ACADEMIC TIES : UNIVERSITY OF MINHO AND AIT COLLABORATE THROUGH ERASMUS+ MOBILITY VISIT

Description:

AIT hosted Cristina Maria Carvalho da Mata Ribeiro from the University of Minho for a week-long visit to explore collaboration in laboratory management and research.

https://ait.ac.th/2024/07/strengthening-academic-ties-university-of-minho-and-ait-collaborate-through-erasmus-mobility-visit/

AIT STUDENTS DEEP DIVE INTO INNOVATION HUB IN SHENZHEN, CHINA AT TSINGHUA SIGS GLOBAL SUMMER SCHOOL 2024

Description:

Six AIT students participated in the Tsinghua SIGS Global Summer School in Shenzhen, China, focused on environmental and ecological issues. The program included lectures, hands-on activities, and field trips to innovative companies. One student received the "Most Engaged Participant" award, highlighting the enriching experience gained through collaboration and learning.

https://ait.ac.th/2024/07/ait-students-deep-dive-into-innovation-hub-in-shenzhen-china-at-tsinghua-sigs-global-summer-school-2024/

AI BOOTCAMP 2024 : PIONEERING INNOVATION AND COLLABORATION FOR FUTURE LEADERS

Description:

The AI Bootcamp 2024, co-hosted by AIT and Chulalongkorn School of Integrated Innovation, engaged 116 students in hands-on learning about artificial intelligence. The program included workshops, hackathons, and site visits to AIT labs. Participants developed innovative solutions for sustainability challenges, culminating in a presentation and award ceremony.

https://ait.ac.th/2024/08/ai-bootcamp-2024-pioneering-innovation-and-collaboration-for-future-leaders/

AI BOOTCAMP 2024 : PIONEERING INNOVATION AND COLLABORATION FOR FUTURE LEADERS

Description:

AIT Extension and CIFAL Bangkok organized a three-day training program focused on enhancing global citizenship and sustainable development awareness through UN engagement. Held from July 30 to August 1, 2024, the event brought together 41 participants from China, including students from various educational levels. The program featured master classes, workshops, and discussions on pressing issues like food security and environmental protection, aiming to equip participants with leadership skills for global governance.

https://ait.ac.th/2024/08/ait-extension-and-cifal-bangkok-host-international-study-visit-on-enhancing-global-citizenship-and-sustainable-development-awareness-through-un-engagement/

AIT SET WELCOMES NEW STUDENTS, THE LARGEST INTAKE SINCE 2011

Description:

The School of Engineering and Technology (SET) at AIT welcomed 262 new students from 22 countries for the August 2024 intake, marking the largest cohort since 2011. An orientation session introduced the students to the programs, facilities, and opportunities available at SET, emphasizing the importance of networking and collaboration.

https://ait.ac.th/2024/08/ait-set-welcomes-largest-intake-since-2011/

STUDENTS BROADEN GLOBAL ENGAGEMENT AT OCHANOMIZU UNIVERSITY SUMMER PROGRAM 2024

Description:

Eleven AIT students participated in the Ochanomizu University Summer Program for Global Leaders, joining 231 participants from 19 partner universities. The program focused on diverse academic courses and included cultural exchange activities, enhancing students' leadership skills and international connections.

https://ait.ac.th/2024/08/ait-students-broaden-global-engagement-at-ochanomizu-university-summer-program-2024/

BUPT-AIT INTERNATIONAL CAMP FOR YOUNG LEADERS 2024: PIONEERING DIGITAL TRANSFORMATION AND GLOBAL COLLABORATION

Description:

The BUPT-AIT International Camp for Young Leaders 2024 took place from July 23 to August 5, 2024, aimed to empower students in digital transformation and global collaboration. Hosted by AIT and Beijing University of Posts and Telecommunications, the camp involved 116 participants engaging in lectures, site visits, and hands-on activities. The program emphasized multidisciplinary learning and aimed to equip future leaders with skills to address global challenges through innovative solutions.

https://ait.ac.th/2024/08/bupt-ait-international-camp-for-young-leaders-2024-pioneering-digital-transformation-and-global-collaboration/

AIT SET WELCOMES NEW STUDENTS, THE LARGEST INTAKE SINCE 2011

Description:

AIT welcomed 587 new students from 29 countries for the August 2024 semester, making it the largest intake in over a decade. The diverse group includes students in various master's and Ph.D. programs, reflecting AIT's commitment to diversity and academic excellence.

https://ait.ac.th/2024/08/ait-welcomes-record-breaking-student-intake-for-august-2024-largest-cohort-in-over-a-decade/

SOM STUDENTS REFLECT ON THEIR LEADERSHIP JOURNEY AT THE 2024 GLOBAL FESTIVAL IN SEOUL

Description:

Four Master's students from AIT's School of Management participated in the 2024 Industrial LINCage Festival for Global Leaders in Seoul, South Korea. The event focused on leadership development, sustainable development, and networking among young leaders. Participants engaged in workshops, industry immersions, and discussions with notable figures, including former Philippine Vice President Maria Leonor Robredo. The experience helped them develop skills in project management and cross-cultural collaboration, emphasizing the importance of youth in driving sustainable change.

https://ait.ac.th/2024/08/ait-som-students-reflect-on-their-leadership-journey-at-the-2024-global-festival-in-seoul/

AIT AND EAST WEST UNIVERSITY, BANGLADESH SIGN PARTNERSHIP AGREEMENT

Description:

On August 19, 2024, AIT and East West University (EWU) in Bangladesh signed a Memorandum of Understanding (MoU) to enhance collaboration in academics, research, and training. The partnership will initially focus on AIT's School of Management and EWU's Faculty of Business and Economics, with plans to expand to AIT's School of Engineering and Technology. AIT President Kazuo Yamamoto emphasized the significance of this collaboration in developing professionals and enhancing educational opportunities.

https://ait.ac.th/2024/08/ait-and-east-west-university-bangladesh-sign-partnership-agreement/

COMPUTERS & STRUCTURES INC. (CSI), USA CONTINUES SUPPORT TO AIT

Description:

On August 21, 2024, AIT President Kazuo Yamamoto and Naveed Anwar, CEO of CSi Bangkok Co., Ltd., signed a donation agreement for the creation of CSI America scholarships valued at USD 25,000 annually for four years, totaling USD 100,000. These scholarships are aimed at Pakistani master's candidates and other nationalities enrolling in structural engineering. CSI America has contributed over 200 million Thai baht to AIT, emphasizing a strong partnership in advancing education and innovation.

https://ait.ac.th/2024/08/computers-structures-inc-csi-usa-continues-support-to-ait/

AI BOOTCAMP 2024 : PIONEERING INNOVATION AND COLLABORATION FOR FUTURE LEADERS

Description:

On August 21, 2024, five master's students from AIT received Student Exchange Scholarships, covering 50% of their airfare, food, and accommodation costs for programs at prestigious international universities. AIT President Kazuo Yamamoto highlighted the importance of these scholarships in enhancing students' global perspectives. The recipients are set to study at institutions such as Tsinghua University, National Taiwan University, and Tokyo Institute of Technology.

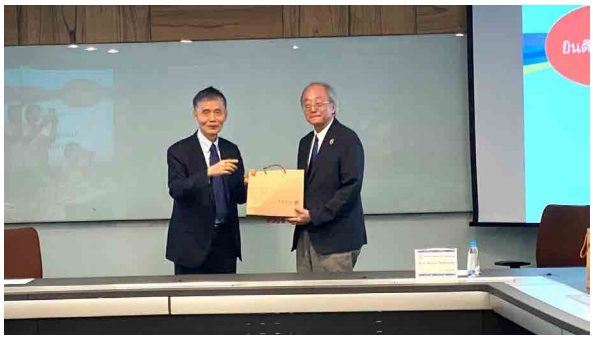
https://ait.ac.th/2024/08/five-master-students-receives-the-student-exchange-scholarships

ASIAN INSTITUTE OF TECHNOLOGY AND CHUNG YUAN CHRISTIAN UNIVERSITY RENEW MEMORANDUM OF AGREEMENT (MOA) ON STUDENT EXCHANGE PROGRAMS

Description:

On August 21, 2024, the Asian Institute of Technology (AIT) and Chung Yuan Christian University renewed their Memorandum of Agreement (MoA) to facilitate student exchange programs. This collaboration aims to enhance academic and cultural exchanges, providing students with valuable international learning experiences and strengthening ties between the two institutions.

https://ait.ac.th/2024/08/asian-institute-of-technology-and-chung-yuan-christian-university-renew-memorandum-of-agreement-moa-on-student-exchange-programs/



AIT LIBRARY RECEIVES DONATION FROM AN ALUMNUS

Description:

On August 30, 2024, AIT announced a donation of USD 2,490 to the AIT Library from alumnus Hong Lim Choi. The contribution will enhance the library's resources, benefiting students, faculty, and researchers. AIT expressed gratitude for the support, highlighting its importance in fostering a conducive learning environment.

https://ait.ac.th/2024/08/ait-library-receives-donation-from-an-alumnus/

AIT WELCOMES PAI-CHI LI AS THE NEW PRESIDENT

Description:

On 1 September 2024, Pai-Chi Li was appointed as the new President of the Asian Institute of Technology (AIT), officially beginning his role on 2 September 2024. A distinguished leader in electrical and biomedical engineering, Li has received multiple fellowships and awards for his contributions to the field. He previously served as Editor-in-Chief of the Journal of Medical and Biological Engineering and has held editorial roles in esteemed journals. Li earned his degrees from National Taiwan University and the University of Michigan. He has a strong background in biomedical ultrasound and medical devices. During the Presidential Handover Ceremony on 22 August 2024, he expressed his gratitude and commitment to leading AIT through upcoming challenges, continuing the legacy of his predecessor Kazuo Yamamoto.

https://ait.ac.th/2024/09/ait-welcomes-prof-pai-chi-li-as-the-new-president/

AIT WELCOMES PAI-CHI LI AS THE NEW PRESIDENT

Description:

On 13 September 2024, the Asian Institute of Technology (AIT) signed a Memorandum of Understanding (MoU) with the Victoria Institute of Banking, Finance, and High Technology (BFT) in Vietnam. The partnership aims to enhance collaboration in education and research, focusing on digital technology, Environmental, Social, and Governance (ESG) issues, and Artificial Intelligence (AI). The MoU includes plans for postgraduate programs, specialized staff training, and faculty exchanges, marking a significant step towards advancing human resource development and innovation in the banking and digital technology sectors.

https://ait.ac.th/2024/09/ait-and-victoria-institute-of-banking-finance-and-high-technology-vietnam-sign-mou-to-advance-research-and-human-resource-development/

ARUN KANCHAN SUPPORTS THE RENOVATION OF THE AIT INTERNATIONAL SCHOOL CANTEEN

Description:

On 17 September 2024, Arun Kanchan, a PhD candidate at AIT and representative of the AIT International School Parent-Teacher Association, signed a donation agreement to support the renovation of the AIT International School canteen. The planned upgrades aim to create a multi-functional space for students, enhancing their overall experience. AIT President Pai-Chi Li and other officials expressed gratitude for Kanchan's generous contribution, made in memory of his mother, who was a teacher. The renovated canteen is set to become a vibrant area for student activities by October.

https://ait.ac.th/2024/09/mr-arun-kanchan-supports-the-renovation-of-the-ait-international-school-canteen/

SHABBIR H. GHEEWALA SUPPORTS THE RENOVATION OF A SINGLE UNIT STUDENT DORMITORY

Description:

On 17 September 2024, Shabbir H. Gheewala, an AIT alumnus, signed a donation agreement with AIT President Pai-Chi Li to support the renovation of a student dormitory unit in Dorm F44. This contribution aims to enhance living conditions for students at AIT. During the signing ceremony, Gheewala reflected on his experiences as a student and expressed pride in giving back to his alma mater. AIT officials emphasized the importance of alumni support in improving student life. The newly refurbished dormitory will bear Gheewala's name as a tribute to his generosity.

https://ait.ac.th/2024/09/prof-shabbir-h-gheewala-supports-the-renovation-of-a-single-unit-student-dormitory/

MY UNFORGETTABLE SUMMER PROGRAM AT OCHANOMIZU UNIVERSITY, JAPAN

Description:

Beatrice Nicolle Oppus, a student in the Water Engineering Management Program at AIT, shared her exciting experiences from the summer program at Ochanomizu University, Japan. Selected for the program, she participated in various activities from July 1 to August 2, which included virtual learning and cultural exchanges.

Highlights of her journey included exploring Japanese cuisine, participating in a campus tour, and engaging in hands-on activities like making traditional sweets. She visited iconic sites such as Shibuya Crossing and Tokyo Disneyland, fulfilling a childhood dream. The program emphasized leadership and multicultural collaboration, enriching her academic and personal growth. Beatrice expressed gratitude to AIT and the Alumni Association for their support, noting the friendships and insights gained during this unforgettable experience.

https://ait.ac.th/2024/09/my-unforgettable-summer-program-at-ochanomizu-university-japan/

PRASERT PATRAMAI SUPPORTS AIR+T WITH A FULL MASTER'S SCHOLARSHIP IN WATER ENGINEERING AND MANAGEMENT

Description:

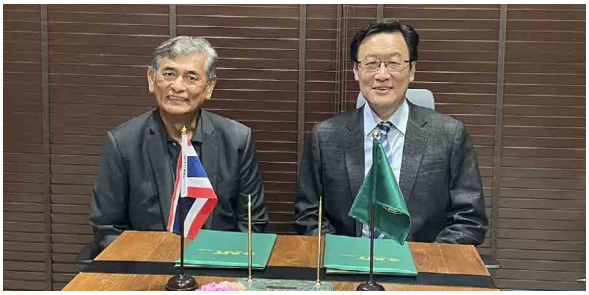
On October 3, 2024, Prasert Patramai signed a donation agreement with AIT President Pai-Chi Li to establish a full master's scholarship in Water Engineering and Management. This scholarship will cover tuition and registration fees for a student of any nationality. Patramai, an esteemed AIT alumnus and former chairman of TEAM Group, emphasized his commitment to giving back to AIT, where he completed both his master's and doctoral degrees. AIT officials expressed gratitude for his generous support, which enhances opportunities for future students and demonstrates the impact of alumni contributions.

https://ait.ac.th/2024/10/dr-prasert-patramai-supports-ait-with-a-full-masters-scholarship-in-water-engineering-and-management/

CHAWALIT TANOMTIN CEO OF RIGHT TUNNELLING PCL SUPPORTS THE RENOVATION OF A SINGLE-UNT STUDENT DORMITORY

Description:

On October 8, 2024, Chawalit Tanomtin, CEO of Right Tunnelling PCL and an AIT alumnus, donated THB 200,000 to support the renovation of a student dormitory at AIT. This contribution aims to enhance the living environment for students, enabling them to focus on their studies. With over 35 years in geotechnical construction, Chawalit emphasized the importance of giving back to AIT, reflecting on his commitment to supporting student well-being. AIT President Pai-Chi Li and other officials expressed gratitude for his ongoing contributions, which also include scholarships and equipment for the Geotechnical and Earth Resources Engineering program.



https://ait.ac.th/2024/10/mr-chawalit-tanomtin-ceo-of-right-tunnelling-pcl-supports-the-renovation-of-a-single-unit-student-dormitory/

AITS INTERNATIONAL EDUCATION INNOVATION CAMP: EMPOWERING GLOBAL PERSPECTIVES IN BUSINESS AND MANAGEMENT FOR RIT STUDENTS

Description:

From October 8 to 21, 2024, AIT hosted its International Education Innovation Camp for Business & Management, attended by 46 students from the Roorkee Institute of Technology (RIT) in India. The camp aimed to provide students with a global perspective on emerging trends in business and management. Participants engaged in seminars and hands-on sessions covering topics like ChatGPT for business growth, digital marketing, and strategic management. The program included cultural and industry exposure through field trips to local attractions and partner institutions. The camp concluded with a certificate award ceremony during a gala dinner, emphasizing AIT's commitment to fostering international collaboration.

https://ait.ac.th/2024/10/aits-international-education-innovation-camp-empowering-global-perspectives-in-business-and-management-for-rit-students/

AIT EXPLORES RESEARCH AND STUDY OPPORTUNITIES IN FRANCE : A COLLABORATIVE EVENT WITH THE FRENCH EMBASSY

Description:

On October 24, 2024, AIT hosted a presentation titled "Exploring Research and Study Opportunities in France" in collaboration with the French Embassy. The event featured delegates including Ludovic Andres and Roxane Poitou, who discussed various programs and grants available for research and higher education in France, such as the Franco-Thai Scholarship and the Young Talent Fellowship.

The initiative aims to enhance academic collaboration, support student mobility, and promote exchanges among students, researchers, and young entrepreneurs. This event marked a significant step in strengthening partnerships and expanding access to high-quality educational opportunities in France for AIT's community.

https://ait.ac.th/2024/10/ait-explores-research-and-study-opportunities-in-france-a-collaborative-event-with-the-french-embassy/

CHANTRI POLPRASERT EXPLORES AI-DRIVEN INTERNATIONALIZATION AND INCLUSIVE EDUCATION AT VILNIUS TECH'S INTERNATIONAL STAFF WEEK 2024

Description:

Chantri Polprasert from AIT participated in the International Staff Week 2024 at Vilnius Gediminas Technical University, focusing on "AI – Advanced Internationalisation." The event, sponsored by Erasmus+, aimed to promote collaboration among participants from various countries. Polprasert engaged in workshops exploring the use of AI in internationalization, sharing best practices and discussing ethical considerations.

He highlighted AI's potential in enhancing university operations and improving educational inclusivity, especially for diverse student backgrounds. Discussions included real-time translation, data-driven admissions, and personalized support. The event emphasized the transformative role of AI in education and fostered opportunities for future collaborations.

https://ait.ac.th/2024/10/dr-chantri-polprasert-explores-ai-driven-internationalization-and-inclusive-education-at-vilnius-techs-international-staff-week-2024/

SURYADATTA GROUP INSTITUTES STUDENTS GAIN GLOBAL BUSINESS INSIGHTS ON AIT SCHOOL OF MANAGEMENT STUDY TREK

Description:

From October 19 to 25, 2024, the AIT School of Management hosted a study trek for 24 PGDM students from the Suryadatta Group of Institutes. The program focused on enhancing their understanding of Southeast Asia's business landscape through expert-led sessions, industry visits, and cultural experiences. Students engaged with topics such as regional capital markets and e-commerce trends and visited companies like Siam Cement Group and BOSCH. The trek aimed to bridge academic knowledge with real-world applications, concluding with a certificate ceremony celebrating the students' commitment to global business insights.

https://ait.ac.th/2024/10/suryadatta-group-of-institutes-students-gain-global-business-insights-on-ait-school-of-management-study-trek/

DOCTORAL COLLOQUIUM 2024: FOSTERING RESEARCH EXCELLENCE AND COLLABORATION

Description:

The Second Doctoral Colloquium 2024 was held at AIT on October 26-27, bringing together DBA and Ph.D. candidates, faculty, and industry professionals. This event focused on fostering collaboration and enhancing research quality, featuring discussions on themes like sustainable finance and digital transformation. A keynote address by Kiththi Perera inspired attendees, while networking opportunities included a dinner along the Chao Phraya River and a visit to the Bangkok Art and Culture Centre. Awards for outstanding contributions were presented to Apichai Pholkosol, Nguyen Van Tam, and Le Phuong Lan, highlighting the event's success in promoting academic excellence.

https://ait.ac.th/2024/10/doctoral-colloquium-2024-fostering-research-excellence-and-collaboration/

SET OPEN HOUSE SHOWCASES ACADEMIC AND RESEARCH OPPORTUNITIES AT AIT

Description:

The School of Engineering and Technology (SET) at the Asian Institute of Technology (AIT) hosted its annual Open House on November 2, 2024, offering prospective students an engaging preview of its academic programs and vibrant campus life.

https://ait.ac.th/2024/11/set-open-house-showcases-academic-and-research-opportunities-at-ait/

STUDENTS CONNECT WITH INDUSTRY LEADERS AND EXPLORE CAREER OPPORTUNITIES AT AIT CAREER FORUM

Description:

On November 6, 2024, the AIT Career Center hosted its inaugural AIT Career Forum, an event that combined the Career Fair with a dynamic Career Forum featuring distinguished speakers and industry representatives. This event provided students with valuable networking opportunities while enabling companies to engage with AIT's diverse talent pool.

https://ait.ac.th/2024/11/students-connect-with-industry-leaders-and-explore-career-opportunities-at-ait-career-forum/

STUDENT FIELD TRIP TO CHANTHABURI FOSTERS HANDS-ON LEARNING IN GEOSPATIAL TECHNOLOGIES AND STRENGTHENS UNIVERSITY COLLABORATION

Description:

A recent three-day field trip to Chanthaburi, Thailand, provided students from the Remote Sensing Geographic Systems Program at the AIT School of engineering and Technology and Burapha University with a unique opportunity to bridge classroom learning with practical experience in geospatial technology. Held from October 4 to 6 in partnership with Burapha University's Chanthaburi Campus, this collaborative event allowed students to learn more into remote sensing, data collection techniques, and applications for sustainable urban development, while also initializing prospective academic collaborations between the two institutions.

https://ait.ac.th/2024/11/student-field-trip-to-chanthaburi-fosters-hands-on-learning-in-geospatial-technologies-and-strengthens-university-collaboration/

AIT AND SLIET PARTNER TO ENHANCE ACADEMIC COLLABORATION AND SUSTAINABLE DEVELOPMENT INITIATIVES

Description:

The Asian Institute of Technology (AIT) and the Sant Longowal Institute of Engineering and Technology (SLIET), Punjab, India, have signed a Memorandum of Understanding (MoU) on 25 November 2024 to strengthen inter-institutional collaboration in academics, research, training, and faculty and staff development.

https://ait.ac.th/2024/11/ait-and-sliet-partner-to-enhance-academic-collaboration-and-sustainable-development-initiatives/

CELEBRATING 60 YEARS OF ENVIRONMENTAL ENGINEERING AND MANAGEMENT (EEM) PROGRAM AT AIT

Description:

The Environmental Engineering and Management (EEM) program at the Asian Institute of Technology (AIT) celebrated its 60th anniversary on November 29, 2024. EEM is recognized for its contributions to global environmental solutions and has consistently developed outstanding professionals who make significant impacts worldwide.

https://ait.ac.th/2024/11/celebrating-60-years-of-environmental-engineering-and-management-eem-program-at-ait/

AIT'S 142ND GRADUATION CEREMONY: CELEBRATING GLOBAL EXCELLENCE AND TRANSFORMATIVE JOURNEYS

Description:

The Asian Institute of Technology (AIT) celebrated its 142nd Graduation Ceremony on 13 December 2024, a milestone event reflecting academic excellence and international diversity. A total of 206 students from 18 countries graduated, including 48 doctoral and 158 master's degree recipients. Graduates from the School of Engineering and Technology (SET), the School of Environment, Resources and Development (SERD), and the School of Management (SOM) were honored for their achievements. These new graduates will join a global network of over 27,000 alumni.

https://ait.ac.th/2024/12/aits-142nd-graduation-ceremony-celebrating-global-excellence-and-transformative-journeys/

AIT PARTNERS WITH CANADA'S IVEY BUSINESS SCHOOL TO LAUNCH LEADER PROGRAM IN THAILAND

Description:

The Asian Institute of Technology has formalized a partnership with the Ivey Business School of Western University, Canada, to introduce the prestigious Ivey LEADER (Leadership, Engagement, Achievement, Development) Program to Thailand. This collaboration, cemented through a Memorandum of Understanding, will see AIT's Entrepreneurship Center host the program in May 2025.

https://ait.ac.th/2024/12/ait-partners-with-canadas-ivey-business-school-to-launch-leader-program-in-thailand/

SERD WELCOMES A NEW FACULTY MEMBER MUHAMMAD YASEEN

Description:

Muhammad Yaseen has joined AIT as an assistant professor in the Agri-Business Management program. With extensive academic experience and a strong research background, he aims to contribute significantly to the Department of Food, Agriculture, and Natural Resources, focusing on agricultural policy and sustainable development.

https://ait.ac.th/2024/08/serd-welcomes-new-faculty-member-dr-muhammad-yaseen-an-assistant-professor-in-department-of-food-agriculture-and-natural-resources/

AIT ALUMNUS SUPPORT THE WATER ENGINEERING AND MANAGEMENT LABORATORY

Description:

Huang, Shui-Moo, an AIT alumnus who completed his Master's degree in Water Resource Engineering in 1975, visited AIT accompanied by his children. He had a courtesy meeting with AIT President Kazuo Yamamoto and kindly donated in support of the Water Engineering and Management Laboratory for the students to conduct good research output.

https://ait.ac.th/2024/02/ait-alumnus-support-the-water-engineering-and-management-laboratory/

Projects:

DEVELOPMENT POLICIES AND PRACTICES PROGRAM AT AIT IN 2024

AIT Research Theme: Climate Change

AIT Unit: School of Management

Project Duration: 01 Jun 2024 to 31 Jul 2025

Project Partners: The Geneva Graduate Institute

Project Sponsor/Client: The Swiss Development Cooperation (SDC)

Expected Social Impact: Raise awareness and minimize environmental impacts leading to climate change, especially in developing countries in Southeast Asia.

Description:

Provide facilities and logistical support for the DPP students in Bangkok from 29 July to 28 August 2024. The following were the activities involved: assisting in arranging guest lecturers and field visits, assigning a coordinator as the main contact person to work with the Geneva Graduate Institute, supporting marketing activities for this program in 2024-2025, and arranging logistics for creating the 20th documentary video for DPP in 2024 at AIT's main campus in Thailand.

STUDENT MOBILITY EXCHANGE PROGRAM WITH INTERNATIONAL MANAGEMENT INSTITUTE KOLKATA (IMIK), INDIA

AIT Research Theme: Technology, Policy and Society

AIT Unit: SDP Special Degree and Online Programs

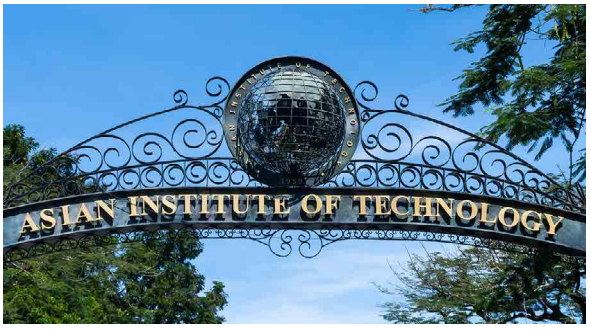
Project Duration: 01 Nov 2024 to 31 Dec 2025

Project Sponsor/Client: International Management Institute Kolkata (IMIK), India

Expected Social Impact: Students understanding on the latest trends and issues related to technologies, engineering, management and social issues on business and management

Description:

A student mobility exchange program wherein students will come to AIT for a project-based or module-based course exchange program.



GLOBAL MOBILITY EXCHANGE PROGRAM WITH UNITED UNIVERSITY

AIT Research Theme: Technology, Policy and Society

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 01 Sep 2024 to 31 Dec 2025

Project Sponsor/Client: United University (UU), India

Expected Social Impact: Students understanding of issues related to technologies, engineering, management, and social issues. Each batch group will consist of a minimum of 5 students and a maximum of 30 students. An SA faculty member will supervise and guide students from inter/multi-disciplinary backgrounds. AIT will evaluate the assignments, exams, and presentations given to students in module-based courses.

Description:

A student mobility exchange program wherein students will come to AIT for a project-based or module-based course exchange program.

INTERNATIONAL EDUCATION INNOVATION CAMP - NMIT

AIT Research Theme: Technology, Policy and Society

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 25 Jul 2024 to 31 Dec 2025

Project Sponsor/Client: Nitte Meenakshi Institute of Technology (NMIT), India

Expected Social Impact: Exposure to a wide range of topics and fields of study from various cutting-edge technologies, skills development - hands-on

Description: A short-term International Student Innovation Camp and Mobility Program, organized by the Office of Special Degree Programs for the students from Nitte Meenakshi Institute of Technology (NMIT), India, and other partner universities and/or prospective partner universities. The aim of the program is to inspire and ignite the young students through state-of-the-art seminars and hands-on sessions in cutting-edge technologies so that they would be innovative in finding the solutions to engineering, management, and social issues.

AGRICULTURAL AND RURAL TRANSFORMATION FOR NUTRITION, ENTREPRENEURSHIP, AND RESILIENCE IN BANGLADESH

AIT Research Theme: Technology, Policy and Society

AIT Unit: Agricultural Systems & Engineering

Project Duration: 30 May 2024 to 30 May 2032

Project Sponsor/Client: Bangladesh Agricultural Research Council (BARC), Bangladesh

Expected Social Impact: PhD student (fully funded) for ASE/ABM

Description: The main objective of this project is to admit government officials from various agricultural research organizations in Bangladesh as PhD students (fully funded) at the ASE/ABM Academic Program and arrange/provide exposure visits/training to the government officials from Bangladesh.

STUDENT MOBILITY EXCHANGE PROGRAM

AIT Research Theme: Smart communities

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 01 May 2024 to 31 Dec 2027

Project Sponsor/Client: Ajeenkya DY Patil University (ADYPU), India

Expected Social Impact: Students understanding of issues related to technologies, engineering, management, and social issues. Each batch group will consist of a minimum of 5 students and a maximum of 30 students. Students may come from inter/multi-disciplinary backgrounds and will be assigned to a faculty member for supervision and guidance. Students will be attending module-based courses and will be given assignments and exams or presentations to be evaluated by AIT.

Description: A student mobility exchange program wherein students will come to AIT for a project-based or module-based exchange program.

EFFECTIVE MANAGEMENT SKILLS AND LEADERSHIP

AIT Research Theme: Technology, Policy and Society

AIT Unit: Yunus Center

Project Duration: 20 Jun 2023 to 31 Jul 2024

Project Sponsor/Client: OP Jindal Global University

Expected Social Impact: Improving effective management of human capital is critical to the success of organizations.

Description: This professional development program aims to enhance the knowledge and skills of the educators, education administrators, academics, and non-academic officers in the areas of capacity development and leadership management.

INNOVATIVE SMART TECHNOLOGIES FOR SUSTAINABLE FARM MANAGEMENT

AIT Research Theme: Agricultural Systems & Engineering

AIT Unit: Yunus Center

Project Duration: 11 Mar 2023 to 10 Mar 2027

Project Sponsor/Client: Indian Council of Agricultural Research (ICAR), India

Expected Social Impact: Practical experience on different Smart Farming and Postharvest Technologies for sustainable agricultural development to Undergraduate students

Description: The main objectives are (i) to provide experience in field design and experimental setup, (ii) to provide practical experience in on-farm manual and sensor-based data collection, (iii) to familiarize students with agricultural systems and engineering facilities in Thailand, and (iv) to provide basic information and hands-on training on applications of GIS.

INTERNATIONAL EDUCATION INNOVATION CAMP - UGI

AIT Research Theme: Technology, Policy and Society

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 01 Sep 2024 to 10 Mar 2027

Project Sponsor/Client: United Group of Institution (UGI), India

Expected Social Impact: Learning experiences through exposure to a wide range of topics and fields of study from various cutting-edge technologies, skills development - hands-on

Description: A short-term International Education Innovation Camp and Student Mobility Program, organized by the Office of Special Degree Programs for the students who are from the United Group of Institutions India and various partner universities and/or prospective partner universities. The aim of the program is to inspire and ignite the young students through state-of-the-art seminars and hands-on sessions in cutting-edge technologies so that they will be innovative in finding the solutions to engineering, management, and social issues.

TRAINING PROJECT ON: STRATEGIC CUSTOMIZED PROGRAM LIAISON: AIT-BUPT (BATCH 1)

AIT Research Theme: Technology, Policy and Society

AIT Unit: Office of International and Public Affairs

Project Duration: 23 Jul 2024 to 31 Dec 2024

Project Sponsor/Client: Beijing University of Posts and Telecommunications (BUPT), China

Expected Social Impact: The BUPT-AIT International Camp for Young Leaders 2024 represents a pivotal moment for the young participants to develop understanding, knowledge, and skills to embrace the digital era, and by bringing together diverse perspectives, we aim to chart a course toward a more equal, prosperous, and resilient society for the young generation.

Description: The camp is hosted by the Asian Institute of Technology from 23 July to 5 August, 2024, and designed for undergraduate and graduate students from Beijing University of Posts and Telecommunications (BUPT), China. The BUPT-AIT International Camp for Young Leaders 2024 represents a pivotal moment for the young participants to develop understanding, knowledge, and skills to embrace the digital era, and by bringing together diverse perspectives, we aim to chart a course toward a more equal, prosperous, and resilient society for the young generation.

STUDENT DEVELOPMENT PROGRAM FOR UNITED GROUP OF INSTITUTIONS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Remote Sensing and Geographic Information Systems

Project Duration: 01 Sep 2022 to 31 Dec 2024

Project Sponsor/Client: United Group of Institutions (UGI), India

Expected Social Impact: Exposure to a wide range of topics and fields of study from various cutting edge technologies, skills development - hands-on

Description: A two-week Innovation Education Camp and Study Tour, organized by the Office of Special Degree Programs for the students who are from AIT's partner universities and prospective partner universities. The aim of the camp is to inspire and ignite the young students through state-of-the-art seminars and hands-on sessions in cutting-edge technologies so that they will be innovative in finding the solutions to engineering, management, and social issues.

STUDENT DEVELOPMENT PROGRAM FOR KL UNIVERSITY

AIT Research Theme: Technology, Policy and Society

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 01 Dec 2022 to 31 Dec 2024

Project Sponsor/Client: SDP Special Degree and Online Programs

Project Partner: KL University, India and other universities

Expected Social Impact: Exposure to a wide range of topics and fields of study from various cutting edge technologies, skills development - hands-on

Description: A two-week Education Innovation Camp and Study Tour, organized by the Office of Special Degree Programs for the students who are from AIT's partner universities and prospective partner universities. The aim of the camp is to inspire and ignite the young students through state-of-the-art seminars and hands-on sessions in cutting-edge technologies so that they will be innovative in finding the solutions to engineering, management, and social issues.

INNOVATION CAMP AND MOBILITY

AIT Research Theme: Remote Sensing and Geographic Information Systems

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 01 Jul 2023 to 31 Mar 2025

Project Sponsor/Client: Remote Sensing and Geographic Information Systems

Project Partners: Pandit Deendayal Energy University, formerly Pandit Deendayal Petroleum University, India MIT-World Peace University, India Panpacific University, Philippines KL University, India Presidency University, India GLA University, India

Expected Social Impact: Exposure to a wide range of topics and fields of study from various cutting edge technologies, skills development - hands-on

Description: A short-term International Student Innovation Camp and Mobility Program, organized by the Office of Special Degree Programs for the students who are from various partner universities and prospective partner universities. The aim of the program is to inspire and ignite the young students through state-of-the-art seminars and hands-on sessions in cutting-edge technologies so that they will be innovative in finding the solutions to engineering, management, and social issues.

AIT RRC.AP HOSTS THE 18TH SUMMER SCHOOL ON ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS, 29 APRIL TO 13 MAY 2024, AITCC, PATHUM THANI, THAILAND

AIT Research Theme: Remote Sensing and Geographic Information Systems

AIT Unit: SDP Special Degree and Online Programs

Project Duration: 29 Apr to 13 May 2024

Expected Social Impact: This summer school empowers economists from seven countries with environmental economics skills, boosting their research capacity and ability to inform policy. The training leads to better management of regional environmental challenges and fosters crucial research through grant proposal development, ultimately driving sustainable development and improved livelihoods.

Description: The AIT RRC.AP hosted the 18th Summer School on Environmental and Natural Resource

Economics from 29 April to 13 May 2024 at the Asian Institute of Technology Conference Center, Pathum Thani, Thailand. The Summer School, organized by the South Asian Network for Development and Environmental

Economics (SANDEE) at the International Centre for Integrated Mountain Development (ICIMOD), was attended by a total of 26 practicing economists from 7 countries in South Asia and the Hindu Kush Himalaya (HKH) region. The summer school provided the economists with the basic skills necessary to teach and conduct research on environmental and natural resource economics as well as to develop research proposals that can later be submitted to SANDEE for its research grant competition.

Mani Nepal, Program Coordinator of SANDEE and Lead Economist for ICIMOD; Joyashree Roy, Distinguished Professor at AIT and a SANDEE alumna; and Guilberto Borongan, Director of AIT-RRC.AP, were among those who attended the inauguration ceremony on 29 April 2024.

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-08.aspx

HEC-MONTREAL CAMPUS ABROAD PROGRAM IN THAILAND FOR SUMMER 2024

AIT Research Theme: Technology, Policy and Society

AIT Unit: Yunus Center

Project Duration: 05 May 2024 to 31 Dec 2024

Project Sponsor/Client: HEC Montreal

Project Partner: La Corporation de l'Ã‰cole des Hautes Ã‰tudes Commercials de MontrÃ©al, a university-level establishment, affiliated with UniversitÃ© de MontrÃ©al, founded on the Act respecting the Corporation deL'Ã‰cole des Hautes Ã‰tudes Commerciales (L.Q. 1987, c. 136), residing at 3000, Chemin de la CÃ´te-Sainte-Catherine, MontrÃ©al (QuÃ©bac), H3T 2A7, Canada, represented by the Director - Campus Without Borders, Pierre-emmanuel Cardinal, duly authorized for the purposes hereof.

Expected Social Impact: Emerging concepts and themes in Social Business and Entrepreneurship

Description: To confirm the cooperation for a Campus Abroad program in Thailand between HEC Montreal and Yunus AIT, it has been agreed and decided as follows: Article 1: Purpose The purpose of this Agreement is to define the terms and conditions of the partnership between HEC Montreal and the Yunus AIT, under which the latter ensures the logistics organization in Thailand of the Campus Abroad program for students from HEC Montreal, in accordance with the objectives and content outlined in Article 2.

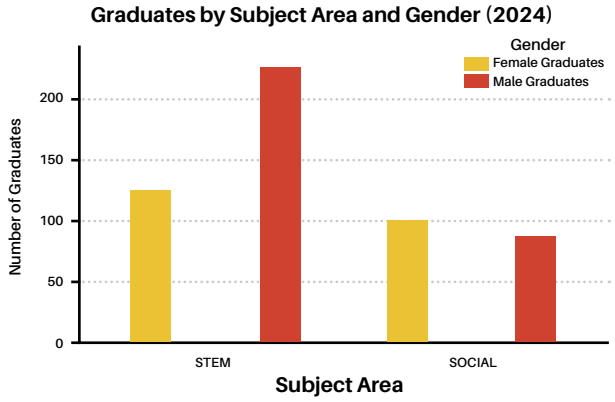
Operations:

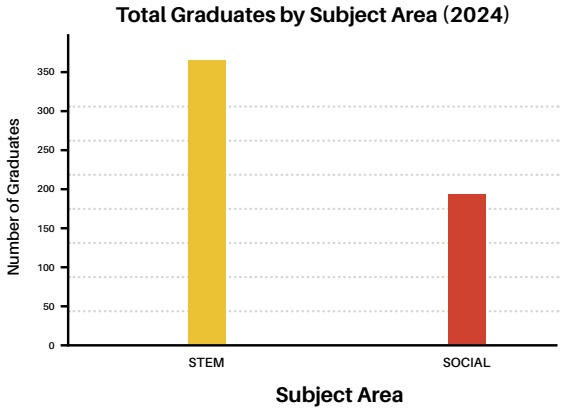
CONTRIBUTION TO SDG 4: QUALITY EDUCATION – AIT GRADUATION ANALYSIS 2024

In alignment with Sustainable Development Goal 4 (SDG 4): To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, the Asian Institute of Technology (AIT) continues to serve as a regional hub for advanced education and capacity building in science, engineering, technology, and sustainable development. In 2024, AIT awarded degrees to 560 graduates, of which 365 (65%) were in STEM disciplines and 195 (35%) in social sciences and humanities. These figures reflect AIT's academic emphasis on both technological innovation and social transformation—key components of sustainable development.

- **Target 4.3** *(Equal access to affordable technical, vocational, and tertiary education)*: AIT provides graduate education to students from over 40 countries, with strong representation from low- and middle-income countries. Through scholarship programs and regional outreach, AIT ensures accessible and inclusive education opportunities.
- **Target 4.4** *(Skills for employment and entrepreneurship)*: Programs in data science, AI, sustainable energy, environmental engineering, and business analytics directly build capacities relevant to high-demand fields and sustainable economic growth.
- **Target 4.5** *(Eliminate gender disparities)*: Of the 560 graduates, 235 were female (42%). In STEM alone, 131 graduates were women, accounting for 36% of the STEM cohort—a notable achievement in traditionally male-dominated fields.
- **Target 4.7** *(Education for sustainable development)*: AIT's curriculum embeds sustainability across disciplines. Programs such as Climate Change and Sustainable Development, Gender and Development Studies, and Urban Innovation reflect this integration, preparing graduates to contribute meaningfully to global sustainability agendas.

AIT's graduation outcomes in 2024 demonstrate a strong alignment with SDG 4, particularly in access, relevance, equity, and sustainability-focused education. Through its inclusive and interdisciplinary Through its programs, AIT nurtures global citizens equipped with the knowledge and skills to drive sustainable change in their communities and professions.





News:

CANADA'S IDRC AND AIT'S GDS PARTNER ON ASIAN WOMEN'S MULTIFACETED CHALLENGES

Description:

For over two decades, AIT has worked hand-in-hand with Canada's International Development Research Centre (IDRC), a Canadian federal Crown corporation that champions and funds research and innovation within and alongside developing regions to drive global change. It supports research on development by actors in the Global South to directly support southern research.

https://ait.ac.th/2024/02/canadas-idrc-and-aits-gds-partner-on-asian-womens-multifaceted-challenges/

EXPERTS DISCUSS GENDER, GEOPOLITICS, AND DISPLACEMENT IN OBSERVANCE OF WOMEN'S MONTH AT AIT'S INTERNATIONAL CONFERENCE

Description:

In a significant event marking International Women's Month 2024, the Center on Gender and Forced Displacement (CGFD) at the Asian Institute of Technology organized a two-day International Conference on "Gender, Geopolitics, and Forced Migration" on March 4th and 5th. Aimed at inspiring inclusion and promoting gender equality, the conference underscored the importance of a gender-sensitive approach in geopolitics, influencing international relations, foreign policy-making, and national politics.

https://ait.ac.th/2024/03/experts-discuss-gender-geopolitics-and-displacement-in-observance-of-womens-month-at-aits-international-conference/

WEPOWER SAR100 PROGRAM CELEBRATES WOMEN ENGINEERS IN SOUTH ASIA

Description:

The WePOWER Regional Knowledge Hub at the Yunus Center, Asian Institute of Technology (AIT), celebrated a significant milestone on March 8, 2024, with the conclusion of the SAR100 Program Capstone Week and Award Ceremony. Esteemed author and philanthropist Sudha Murty illuminated the event, not only by her presence but also by bestowing the graduation certificates, serving as a beacon of inspiration for many. The 5-day event, from March 4 to 8, concluded with the celebration of the accomplishments of women engineers from seven South Asian countries: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka, marking a pivotal step toward empowering women in the power and energy sectors.

https://ait.ac.th/2024/03/wepower-sar100-program-celebrates-women-engineers-in-south-asia/

AIT JOINS THE MINISTRY OF DIGITAL ECONOMY AND SOCIETY, NBTC AND ITU TO MARK "GIRLS IN ICT DAY THAILAND 2024"

Description:

The Asian Institute of Technology on April 25 participated in the Opening and Launching Ceremony of the "Girls in ICT Day Thailand 2024," co-organized by National Broadcasting and Telecommunication Commission (NBTC), the Ministry of Digital Economy and Society of Thailand, and the International Telecommunication Union (ITU).

https://ait.ac.th/2024/04/ait-joins-the-ministry-of-digital-economy-and-society-nbtc-and-itu-to-mark-girls-in-ict-day-thailand-2024/

CELEBRATING INTERNATIONAL GIRLS IN ICT DAY WITH AIT STUDENT'S REVOLUTIONARY RESEARCH

Description:

AIT celebrated International Girls in ICT Day by showcasing Ph.D. student Htet Yamin Ko Ko's research on a Remote Heart Patient Monitoring System. Using IoT, it enables real-time health tracking and doctor-patient communication, improving care for chronic diseases.

https://ait.ac.th/2024/04/celebrating-international-girls-in-ict-day-with-ait-students-revolutionary-research/

EMPOWERING WOMEN IN PAKISTAN: KHYBER PAKHTUNKHWA'S YOUNG WOMEN TO RECEIVE SCHOLARSHIPS FOR MASTER'S DEGREE PROGRAM AT AIT

Description:

Thirty young women from Khyber Pakhtunkhwa Province in Pakistan received scholarships to pursue master's programs at the Asian Institute of Technology (AIT). This initiative, established through a Memorandum of Agreement (MoA) signed on 3 May 2024 between AIT and the Khyber Pakhtunkhwa Cities Improvement Project (KPCIP), marks a significant step forward in advancing educational and professional opportunities for women in the region. It aims to contribute to human resource development and enhance urban infrastructure and service delivery in Khyber Pakhtunkhwa.

https://ait.ac.th/2024/05/empowering-women-in-pakistan-khyber-pakhtunkhwas-young-women-to-receive-scholarships-for-masters-degree-program-at-ait/

GENDER AND DEVELOPMENT STUDENTS ENGAGE IN INTERNATIONAL WORKSHOP AT OCHANOMIZU UNIVERSITY

Description:

Two students from AIT's Gender and Development Studies Program participated in an international workshop at Ochanomizu University in Tokyo, Japan, from July 25 to August 1, 2024. The workshop focused on women in micro, small, and medium enterprises (MSMEs) and included lectures, site visits, and training sessions to enhance their research skills. Participants explored gender issues in agriculture and engaged in discussions on women's empowerment while also enjoying cultural exchanges and networking opportunities.

https://ait.ac.th/2024/08/gender-and-development-students-engage-in-international-workshop-at-ochanomizu-university/

EMPOWERING WOMEN THROUGH EDUCATION: AIT WELCOMES 30 WOMEN SCHOLARS FROM KHYBER PAKHTUNKHWA IN HISTORIC ACADEMIC SESSION

Description:

AIT welcomed 30 women scholars from Khyber Pakhtunkhwa, Pakistan, who received fully funded scholarships as part of the Khyber Pakhtunkhwa Cities Improvement Project. This initiative aims to empower women through education, focusing on fields critical to development and gender equality.

https://ait.ac.th/2024/08/empowering-women-through-education-ait-welcomes-30-women-scholars-from-khyber-pakhtunkhwa-in-historic-academic-session/

EMPOWERING WOMEN THROUGH EDUCATION: AIT WELCOMES 30 WOMEN SCHOLARS FROM KHYBER PAKHTUNKHWA IN HISTORIC ACADEMIC SESSION

Description:

In August 2024, AIT welcomed nine DAAD scholars from Cambodia, Myanmar, the Philippines, and Vietnam to its Gender and Development Studies (GDS) Program. These scholars, committed to advancing gender equality, enrich discussions with their diverse backgrounds. Applications for the DAAD Scholarship for the August 2025 intake are now open, with a deadline of November 15, 2024. This scholarship offers students from various Southeast Asian countries a chance to join the GDS Program at AIT.

https://ait.ac.th/2024/08/new-daad-scholars-bring-global-perspectives-to-aits-gender-and-development-program-applications-open-for-august-2025-intake//

COMMEMORATING 16 DAYS OF ACTIVISM AGAINST GENDER-BASED VIOLENCE: A CALL TO ACTION

Description:

From November 25 to December 10, 2024, the Asian Institute of Technology (AIT) participated in the global "16 Days of Activism Against Gender-Based Violence" campaign, emphasizing its dedication to combating violence against women and girls. AIT's Gender and Development Studies program integrates gender-based violence (GBV) into its curriculum, offering courses that explore its structural roots and manifestations. The institute's GenderLab serves as a collaborative platform for research and advocacy, focusing on issues like violence in conflict zones and among displaced populations.

https://ait.ac.th/2024/12/commemorating-16-days-of-activism-against-gender-based-violence-a-call-to-action/

YCA LAUNCHES SAR100-2.0: EMPOWERING WOMEN ENGINEERS TO LEAD SOUTH ASIA'S ENERGY FUTURE

Description:

The Yunus Center at the Asian Institute of Technology (YCA) has officially launched SAR100-2.0, a professional development program aimed at empowering 100 mid-career women engineers from South Asia to take on leadership roles in the rapidly evolving energy sector. Building on the success of the initial SAR100 program, SAR100-2.0 addresses significant challenges in energy transition while promoting gender-inclusive leadership in the region.

https://ait.ac.th/2024/12/yca-launches-sar100-2-0-empowering-women-engineers-to-lead-south-asias-energy-future/

SUDHA MURTY SPARKS INSPIRATION AT AIT WITH HER TRAILBLAZING JOURNEY

Description:

The Asian Institute of Technology (AIT) was privileged to welcome Sudha Murty from India, a renowned philanthropist, author, and advocate for women's rights, as part of its Women's Month celebrations. Her stirring address on the eve of International Women's Day emphasized the power of compassion, leadership, and perseverance in driving social change and celebrated the spirit of womanhood. Murty was specially invited to present the certificates to the 101 women engineers from South Asian countries under the SAR100 Program convened at the AIT campus.

https://ait.ac.th/2024/03/dr-sudha-murty-sparks-inspiration-at-ait-with-her-trailblazing-journey/

Projects:

WOMEN'S LEADERSHIP DEVELOPMENT AND INSTITUTIONAL DEVELOPMENT OF WOMEN-LED ORGANIZATIONS IN BANGLADESH

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Project Duration: 15 Sep 2023 to 30 Sep 2025

Project Sponsor(s)/Client(s): Women's Empowerment Organization

Expected Social Impact: Through skill development, leadership training, and capacity building, women will gain the tools and knowledge needed to take on leadership roles and contribute effectively to their communities.

Description: The aim of the project is to strengthen the capacities of WLOs and women leaders in Cox's Bazar to promote women's leadership and advocate for changing social norms related to gender in collaboration with women-led organizations (WLOs) supported by WEO in Cox's Bazar, Bangladesh.

GENDER IMPACT OF LABOR AND ECONOMIC POLICIES

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Project Duration: 01June 2023 to 31 Dec 2024

Project Sponsor(s)/Client(s): Deutsche Gesellschaft fur Internationale Friedrich Ebert Stiftung, Bangkok

Expected Social Impact: There is little reflection on the S-curve and BCG policies of the Thai government from a gender perspective. FES will use this output for their policy advocacy.

Description: The study analyzes the possible impact on women's and men's employment from the current economic policies, especially focusing on the S-curve industry promotion and BCG (bio, circular and green economy) model, and provide policy recommendations for a gender-responsive labor and economic policies in Thailand

MAKING NBCS IN AQUACULTURE MONITORING MORE GENDER RESPONSIVE IN SOUTHEAST ASIA: WHAT GETS MEASURED GETS DONE

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Project Duration: 01 Sep 2023 to 30 Sep 2027

Project Partner: GAFS

Project Sponsor/Client: IDRC-AQUADAPT

Expected Social Impact: The project is to develop a gender monitoring schema to ensure integration of gender equity and social inclusion in nature-based climate solutions in aquaculture system and projects

Description: Improved aquacultural climate resilience, nutritional security, and livelihood security through improving the NbCS aquaculture projects to be more gender responsive by using a gender monitoring schema for NbCS aquaculture.

SUPPORTING FEMINIST SCHOLARS FROM MYANMAR AND STRENGTHENING CONNECTIONS WITHIN AND ACROSS DIVERSE FEMINIST MOVEMENTS IN THAILAND AND THE BROADER REGION

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Project Duration: 01 Jan 2024 to 30 Dec 2025

Project Partner: NIS

Project Sponsor/Client: Nordic International Support Foundation

Expected Social Impact: Advancement of gender gender equality in Myanmar

Description: The project aims to support feminist scholars from Myanmar and facilitate connection and exchange with feminist practitioners, groups, and networks to support collective learning, create feminist knowledge and research, and strengthen diverse feminist movements within and across Myanmar, Thailand, and the broader region.

FEMINIST AL RESEARCH F<A+I>R: INCUBATING FEMINIST AL: FROM PAPER TO PROTOTYPE TO PILOT (FAIR)

AIT Research Theme: Smart communities

AIT Unit: SERD-Gender and Development Studies

Project Duration: 01 May 2024 to 30 June 2025

Project Partner: NIS

Project Sponsor/Client: Instituto Tecnológico de Costa Rica

Expected Social Impact:

1. Among vulnerable groups,
2. Victims of trafficking, and
3. Helping vulnerable population

Description: A research project aimed to produce and publish a full-length research paper which should provide a clear answer as to how one should implement a program of activities that promote the use of AI in a positive way. The paper should propose a new model for thinking and taking action.

f<A+i>r
Feminist AI Research Network

9TH GLOBAL CONFERENCE ON GENDER IN AQUACULTURE AND FISHERIES (GAF9)

AIT Research Theme: Climate change

AIT Unit: SERD-Gender and Development Studies

Project Duration: 01 Nov 2024 to 30 Apr 2027

Project Partner: The Gender in Aquaculture and Fisheries Section of the Asian Fisheries Society (GAFS/AFS)

Project Sponsor/Client: Conference participants & donors

Expected Social Impact: Gender equality (SDG 5); Reduced inequalities (SDG 10); Climate action (SDG 13); Life below water (SDG 14)

Description: The 9th Global Conference on Gender in Aquaculture and Fisheries (GAF9) of the Gender in Aquaculture & Fisheries Section of the Asian Fisheries Society on the theme of transforming aquaculture and fisheries for gender justice will be held from 1-3 October 2025 at the Asian Institute of Technology, Pathum Thani, Thailand.

TOWARD GENDER AND DEMOCRATIC JUSTICE: SUPPORT FOR CAPACITY DEVELOPMENT OF CIVIL SOCIETY AND ACADEMIA IN MYANMAR

AIT Research Theme: Smart Communities

AIT Unit: SERD-Gender and Development Studies

Project Duration: 01 Sep 2022 to 30 Sep 2025

Project Partner: NIS

Project Sponsor/Client: Nordic International Support Foundation

Expected Social Impact: Build gender and democratic justice knowledge, analysis, and research capacity of Burmese scholars and activists through short-term and long-term (graduate-level) training.

Develop a network of concerned gender and democratic justice scholars, researchers, and activists in and outside Myanmar through establishing communication platforms and networking opportunities.

Description: The project aims to build a community of gender scholars to support civil society for just, fair, and secure development in Myanmar.

THAI RICE: STRENGTHENING CLIMATE-SMART RICE FARMING

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Project Duration: 29 Aug 2022 to 28 Feb 2025

Project Partner: NIS

Project Sponsor/Client: Deutsche Gesellschaft Internationale Zusammenarbeit (GIZ) GmbH, Bangkok

Expected Social Impact: Introduction of the proposed policy or activity implemented to specific items in terms of gender equality.

Description: Devise the gender assessment and gender action plan

SCI-AI KNOWLEDGE CURATION AND DISSEMINATION UNDER THE SCI-AI PROJECT AT GWSC

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Project Duration: Apr 2024 to Apr 2025

Project Partner: NIS

Project Sponsor/Client: Deutsche Gesellschaft Internationale Zusammenarbeit (GIZ) GmbH, Bangkok

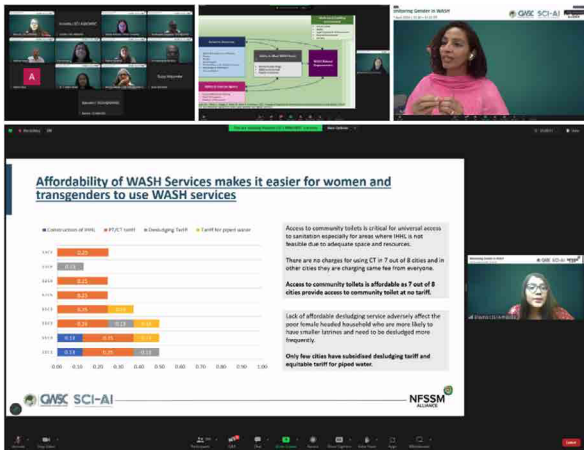
Expected Social Impact: Introduction of the proposed policy or activity implemented to specific items in terms of gender equality.

Description: Under the GWSC support, the SCI-AI project undertakes significant knowledge curation and dissemination activities focused on Citywide Inclusive Sanitation (CWIS) experiences in Odisha, India. Key activities include engaging with focused learning platforms like the Global Sanitation Graduate School (GSGS) to share lessons learned. SCI-AI has developed comprehensive knowledge products and detailed learning modules based on Odisha's initiatives, covering Fecal Sludge Management (FSM), the JAGA Mission for slum upgradation, and other programs like BASUDHA (water supply) and GARIMA (sanitation worker safety). Presenters in the wider regions and partner GSGS Hubs, including at GSGS workshops in Africa, have shared findings and experiences.

SCI-AI, under GWSC's Project Initiatives, developed a first-of-its-kind CWIS M&E framework that integrates global indicators into India's own sanitation scorecards, giving cities a single dashboard for truly inclusive service and system tracking. It has already trained a national cadre of experts and proven scalable through a pilot in Odisha, ready for rollout nationwide. By turning data into policy and investment action, the tool fast-tracks progress toward SDG 6 and climate-resilient urban sanitation for millions. This was shown in a CWIS Acceleration on the Regional platform for development of Hill Towns - Parvat Manthan

Additionally, SCI-AI organized specific webinars in April and May 2024. A learning lab on "Monitoring Gender In WASH" (April 30) featured sessions on monitoring gender, policy reviews, and piloting tools. A webinar on "Turning the Tide: Role of Statutory Bodies in Abating River Pollution" (May 2) examined the NGT's role and international experiences. Another webinar, "From Risk to Resilience: Climate Change and Disaster Adaptation Strategies for WASH" (May 8), explored mitigation, adaptation, and policy hurdles for WASH during disasters. These events, often in collaboration with partners like the NFSSM alliance, brought together diverse stakeholders.

- https://www.gwsc.ait.ac.th/insights-from-recent-sci-ai-webinars/
- https://www.youtube.com/watch?v=GweK4PVVT5k
- https://www.youtube.com/watch?v=hQANgZf-S0s
- https://www.youtube.com/watch?v=pWJzssmtLaw



Operations:

EMPOWERING WOMEN THROUGH EDUCATION: AIT'S PROGRESS ON SDG 5

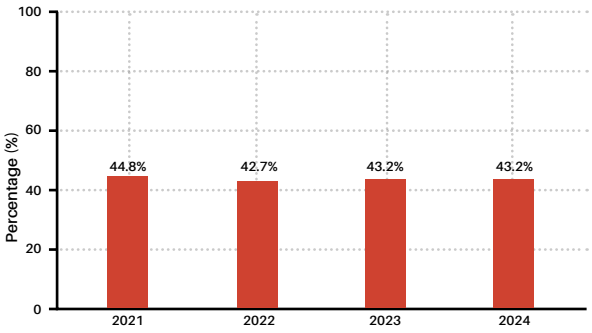
In alignment with Sustainable Development Goal 5: Gender Equality, the Asian Institute of Technology (AIT) has shown sustained progress in promoting equal educational opportunities for women, particularly those from economically disadvantaged countries.

In 2024, women constituted 42.1% of the total student body at AIT. Remarkably, more than 65% of these women came from low- and lower-middle-income countries, showcasing AIT's role in uplifting underrepresented groups in global higher education. This includes 647 female students from lower-middle-income nations and 46 from low-income countries, with targeted scholarships and inclusive programs fostering access to quality education.

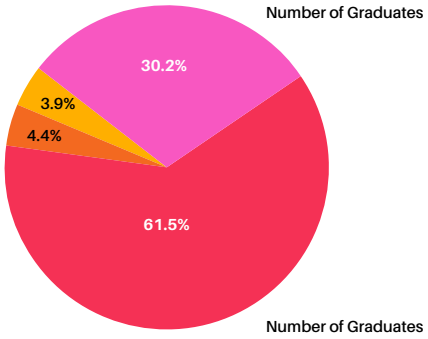
Graduation data also reflects this commitment. From 2021 to 2024, the percentage of female graduates consistently exceeded 42%, peaking at 44.8% in 2021 and holding steady at 43.2% in 2024. These figures are particularly noteworthy in STEM fields, where gender disparities are often stark.

Through inclusive policies, gender-responsive programs, and regional outreach, AIT actively contributes to bridging the gender gap in higher education and supports women in becoming leaders in sustainability, innovation, and development.

Female Graduate Percentage (2021 - 2024)



Female Graduate Percentage (2021 - 2024)



News:

EMPOWERING WOMEN IN PAKISTAN: KHYBER PAKHTUNKHWA'S YOUNG WOMEN TO RECEIVE SCHOLARSHIPS FOR MASTER'S DEGREE PROGRAM AT AIT

Description:

Asian Institute of Technology (AIT) proudly hosted the World Water Day 2024 celebration under the theme "Water for Peace." The event, jointly organized by the Water Engineering and Management (WEM) Program of the School of Engineering and Technology (SET) and the Global Water and Sanitation Center (GWSC), aimed to foster dialogue, inspire action, and promote sustainable water management practices.

https://ait.ac.th/2024/03/world-water-day-2024-celebration-at-ait-embracing-water-for-peace/

EMPOWERING WOMEN IN PAKISTAN: KHYBER PAKHTUNKHWA'S YOUNG WOMEN TO RECEIVE SCHOLARSHIPS FOR MASTER'S DEGREE PROGRAM AT AIT

Description:

To address critical challenges in groundwater management, the Asian Institute of Technology's School of Engineering and Technology (SET) collaborated with the Stockholm Environment Institute (SEI Asia Center), Sustainable Mekong Research Network (SUMERNET), and the Center of Research for Environment, Energy, and Water (CREEW) to host a special session at the 2024 Groundwater Symposium in Kathmandu, Nepal, on March 18.

https://ait.ac.th/2024/03/uniting-for-water-forging-pathways-for-sustainable-groundwater-management-in-southeast-asia/

MEKONG RIVER COMMISSION SECRETARIAT VISITS HYDROELECTRIC INFRASTRUCTURE PROJECTS AT AIT HYDRAULICS LABORATORY

Description:

The Mekong River Commission (MRC) Secretariat, led by the Chief Executive Officer, Anoulak Kittikhoun, visited the Hydraulics Laboratory of the AIT School of Engineering and Technology (SET). This visit, led by Dean Sangam Shrestha and Mohana Sundaram Shanmugam, Program Chair of Water and Engineering Management (WEM) aimed to present to Kittikhoun the crucial physical model projects pertinent to hydroelectric infrastructure within the Mekong River basin.

https://ait.ac.th/2024/03/mekong-river-commission-secretariat-visits-hydroelectric-infrastructure-projects-at-ait-hydraulics-laboratory/

EMPOWERING WOMEN IN PAKISTAN: KHYBER PAKHTUNKHWA'S YOUNG WOMEN TO RECEIVE SCHOLARSHIPS FOR MASTER'S DEGREE PROGRAM AT AIT

Description:

As we mark World Water Day 2024 with the theme "Leveraging Water for Peace," it's a moment to recognize water's crucial role in fostering harmony among communities. The Asian Institute of Technology (AIT) stands firmly behind this cause, spearheading various initiatives aimed at enhancing water security and sanitation. Through its focused centers and initiatives, AIT has been dedicated to ensuring access to clean water and sanitation, understanding their importance in promoting stability and well-being.

https://ait.ac.th/2024/03/ait-spearheading-initiatives-for-clean-water-and-sanitation-solutions/

TRANSFER SEMINAR-CUM-WORKSHOP ON "CLIMATE- AND WATER-INDUCED DISASTERS: FROM RISK TO RESILIENCE"

Description:

The Centre for Water and Climate Adaptation (CWCA) at the Asian Institute of Technology (AIT), in association with the Global Water and Climate Adaptation Centre (ABCD-Centre), the Center for Water Resources Studies (CWRS) at the Tribhuvan University (TU) Nepal, the Department of Water Resources and Irrigation (DWRI) Nepal, and the International Water Management Institute (IWMI), successfully organized a 3-day transfer seminar-cum-workshop on 'Climate and water-induced disasters: From risk to resilience' on 30 April – 02 May 2024 in Kathmandu, Nepal.

https://ait.ac.th/2024/03/ait-spearheading-initiatives-for-clean-water-and-sanitation-solutions/

POLICY ADVOCACY AND PROJECT CLOSURE WORKSHOP ON GROUNDWATER SUSTAINABILITY IN THAILAND'S SPECIAL ECONOMIC ZONE

Description:

AIT hosted a workshop on groundwater sustainability in Thailand's Special Economic Zone, focusing on policy recommendations and project outcomes. The event facilitated discussions among stakeholders to enhance groundwater management practices.

https://ait.ac.th/2024/06/policy-advocacy-and-project-closure-workshop-on-groundwater-sustainability-in-thailands-special-economic-zone/

AIT WELCOMES SONI M. PRADHANANG FOR AN INSIGHTFUL SEMINAR AND COLLABORATIVE DISCUSSIONS

Description:

Soni M. Pradhanang from the University of Rhode Island delivered a seminar at AIT on watershed contributions to coastal environments. She emphasized the interdisciplinary approach needed to address water quality issues and announced three PhD openings related to nature-based solutions. The seminar fostered discussions on potential collaborations between AIT and her university.

https://ait.ac.th/2024/07/ait-welcomes-prof-soni-m-pradhanang-for-an-insightful-seminar-and-collaborative-discussions/

AIT AND HOHAI UNIVERSITY COLLABORATE ON '2024 INTERNATIONAL LEADERSHIP TRAINING PROGRAM FOR LANCANG-MEKONG RIVER YOUNG PROFESSIONALS IN WATER SCIENCES'

Description:

AIT and Hohai University co-hosted the "2024 International Leadership Training Program for Lancang-Mekong River Young Professionals in Water Sciences" from June 30 to July 3, 2024. The program focused on sustaining water resources and ecosystems, bringing together young professionals to address critical challenges in the Lancang-Mekong River region through collaboration and knowledge exchange.

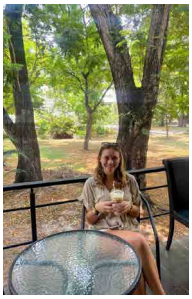
https://ait.ac.th/2024/07/ait-and-hohai-university-collaborate-on-2024-international-leadership-training-program-for-lancang-mekong-river-young-professionals-in-water-sciences/

MY EXCHANGE PROGRAM EXPERIENCE: A JOURNEY AT AIT

Description:

Emilie Badert, an exchange student from Université Côte d'Azur, shared her transformative experience at the Asian Institute of Technology (AIT) in Thailand from January to August 2024. Immersed in the Water Engineering and Management program, she engaged in hands-on projects, learning about sustainable water resource management and hydrological modeling. Emilie cherished the multicultural environment, made lasting friendships, and explored Thai culture through various adventures, including cooking classes, the Songkran festival, and visits to natural and historical sites. The experience significantly enhanced her academic and personal growth.

https://ait.ac.th/2024/08/my-exchange-program-experience-a-journey-at-ait/



STRENGTHENING GROUNDWATER SUSTAINABILITY: AIT'S PARTICIPATION IN THAILAND GROUNDWATER SYMPOSIUM 2024

Description:

From August 19-23, 2024, AIT participated in the Second Thailand Groundwater Symposium, focusing on "Strengthening Groundwater Sustainability under Climate Change." The event featured keynote presentations and discussions from global experts, including AIT's Mukand Singh Babel. AIT representatives shared insights on groundwater management and sustainability projects, enhancing collaboration on critical water resource issues. The symposium concluded with an excursion to observe successful groundwater management practices in Phetchaburi and Prachuap Khiri Khan provinces.

https://ait.ac.th/2024/08/strengthening-groundwater-sustainability-aits-participation-at-the-2nd-thailand-groundwater-symposium-2024/

AIT WELCOMES SONI M. PRADHANANG FOR AN INSIGHTFUL SEMINAR AND COLLABORATIVE DISCUSSIONS

Description:

From 10 to 12 September 2024, the AIT Global Water & Sanitation Center (GWSC) conducted a three-day capacity development program in partnership with the Islamic Development Bank (IsDB). It brought together 20 representatives from 10 IsDB member countries to enhance expertise in the sanitation sector, focusing on Citywide Inclusive Sanitation (CWIS), Faecal Sludge Management (FSM), and advanced sanitation technologies.

AIT President Pai-Chi Li emphasized the institute's commitment to sustainable sanitation solutions aligned with SDG 6. Roshan Raj Shrestha from the Bill & Melinda Gates Foundation and Papa Abdoulaye SY from IsDB highlighted the importance of equitable sanitation services, particularly for marginalized communities.

Key learning objectives included understanding urban sanitation issues and integrating CWIS/FSM into project development. Participants engaged in hands-on activities, discussions, and a site visit to Bangkok's sanitation agency, gaining practical insights into effective sanitation practices.

The program aimed to empower attendees to drive progress in the sanitation sector, addressing the needs of underserved populations.

https://ait.ac.th/2024/09/ait-global-water-and-sanitation-center-and-islamic-development-bank-hosts-capacity-development-program-on-citywide-inclusive-sanitation/

AIT BRRC SPEARHEADS CHINA-THAI SEMINAR ON CUTTING-EDGE URBAN BLACK ODOROUS RIVER SOLUTIONS

Description:

On October 25, 2024, AIT's Belt and Road Research Center hosted the inaugural China-Thai Seminar on "United Strategies for Black-Odorous Urban Rivers." The seminar focused on addressing urban water pollution and featured discussions on strategies from both China and Thailand. Key presentations included approaches to pollution control, sediment dredging, and community engagement in water management. The event emphasized collaboration between experts and policymakers to enhance environmental solutions and marked the beginning of a seminar series aimed at strengthening bilateral cooperation on environmental protection.

https://ait.ac.th/2024/10/ait-brrc-spearheads-china-thai-seminar-on-cutting-edge-urban-black-odorous-river-solutions/

VALIDATION AND CAPACITY-BUILDING WORKSHOP ON GROUNDWATER MANAGEMENT FRAMEWORK FOR CAMBODIA

Description:

A two-day validation and capacity-building workshop on the "Development of Groundwater Management Framework for Cambodia" was concluded in Siem Reap, Cambodia, from November 19 to 20. The workshop is part of AIT's "Strengthening Groundwater Governance and Management in Cambodia" project under the SUMERNET 4 All Program, funded by the Swedish International Development Cooperation Agency (SIDA). The event was jointly organized by the Asian Institute of Technology (AIT), the Stockholm Environment Institute (SEI)–Asia Center, the SUMERNET 4 All Programme, and the Department of Water Supply and Sanitation (DWSS) of the Ministry of Water Resources and Meteorology (MOWRAM), Cambodia.

https://ait.ac.th/2024/11/validation-and-capacity-building-workshop-on-groundwater-management-framework-for-cambodia/

CROSSING BORDERS, EXPANDING MINDS: A RESEARCH EXCHANGE FROM AIT TO ICTP – TRIESTE, ITALY

Description:

In June 2024, Mallappa J. Madolli, a doctoral student at AIT, participated in the "6th Workshop on Water Resources in Developing Countries" at the ICTP in Trieste, Italy. Funded by the ICTP and co-sponsored by UNESCO and the IAEA, the workshop focused on hydroclimate modeling and included hands-on sessions and presentations. Madolli presented his research on water resources, enhancing his knowledge and networking with international experts. The experience also allowed him to explore the cultural heritage of Trieste and Venice, contributing to his academic and personal growth.

https://ait.ac.th/2024/06/crossing-borders-expanding-minds-a-research-exchange-from-ait-to-ictp-trieste-italy/

Projects:

TRANSFORMATIVE SANITATION TECHNOLOGY DEMONSTRATION IN INDONESIA.

Project Duration: 2023 to 2029

Description: GWSC-AIT is collaborating with the Bill & Melinda Gates Foundation, Pijar Foundation, and Tahir Foundation on a three-year project spanning Yogyakarta and Surakarta (Solo), Indonesia. This initiative aims to demonstrate the potential of innovative sanitation solutions, including Reinvented Toilet (RT) Technology and potentially distinct "Smart Sanitation" technology approaches in each city. In Surakarta, the implementation of Indonesia's first reference project for RT Technology—aquaponics technology—follows a phased approach. The initial phase identified 5 key sites for installation out of 11 surveyed, chosen for visibility, impact, and sustainability. These diverse initial sites include a school, low-income housing, a water utility office building, a public toilet, and an urban park, showcasing the technology's versatility. The Global Water & Sanitation Center at Asian Institute of Technology (AIT-GWSC) oversees the implementation across the project. Furthermore, in Yogyakarta, the

project plans include the installation of RT Technology-Aquaponics systems in 5 strategic locations based on 15 prospects, poten,;tially focusing on improving school sanitation.

Aquonic systems - BMGF, Pijar Foundation and Tahir Foundation collaboration on a three-year project in Yogyakarta and Solo, Indonesia

THAI RICE: STRENGTHENING CLIMATE-SMART RICE FARMING

Project Duration: Dec 2022 to Dec 2025

Description:

In Bangladesh, the Local Government Division (LGD) under the Ministry of Local Government, Rural Development, and Cooperatives has set off a flagship data unifying program, "Strengthening of Public Data Systems for Sanitation in Bangladesh (SPDSSB)." The program is being executed by the Department of Public Health Engineering (DPHE) and managed by the Global Water & Sanitation Center at the Asian Institute of Technology (AIT-GWSC) in collaboration with national and international data partners. This initiative aims to integrate public data systems at both sub-national and national levels, creating a unified ecosystem to catalyze Sustainable Development Goals (SDG) 6.2 outcomes. This public data system integration will facilitate a seamless flow of data and information, essential for effective sanitation service delivery.

In Nepal, the Integrated Municipal Information System (IMIS) is being implemented in Birendranagar Municipality and upgraded in Mahalaxmi Municipality. The specific data collected through IMIS will also be integrated into the national NWASH Management Information System. This effort is being carried out in collaboration with the municipality offices, the Department of Water Supply and Sewerage Management (DWSSM), and UN-Habitat, with the aim of strengthening the public data system and promoting data-driven monitoring and planning. These initiatives would enhance functions related to investment shaping, planning, sustainable management, and monitoring & evaluation of safe sanitation systems in Bangladesh and Nepal, with potential for replicability in other countries in the region.

Launch of Open-Source Integrated Municipal Information System (IMIS) (8 February 2025): IMIS is now publicly available to empower local governments with data-driven decision-making, advancing Citywide Inclusive Sanitation (CWIS) and urban service management. This milestone marks the beginning of a collaborative journey toward more efficient, inclusive, and sustainable cities.

Explore IMIS:

https://imis.gwsc.ait.ac.th

TRIPURA URBAN AND TOURISM DEVELOPMENT PROJECT IN INDIA

Description: The Asian Development Bank (ADB) is providing a loan to India for the Tripura Urban and Tourism Development Project. This project aims to improve essential services and infrastructure in selected towns within Tripura state. One area of focus is improving urban water supply and sanitation systems. The GWSC is conducting feasibility studies in Dharmanagar, Udaipur, and Bishramganj. These studies will assess the potential for developing a city-wide inclusive sanitation (CWIS) package for each town. Notably, the sanitation improvements in Bishramganj will consider the concept of urban-rural convergence. The feasibility studies include reviewing existing sanitation situations, planned infrastructure, and services in the mentioned towns. Conducting a spatial analysis aligned with CWIS principles to assess feasible sanitation solutions. Explore the potential of incorporating innovative sanitation technologies. The study also aims to provide recommendations and solutions to enhance the current sanitation situation.

- https://www.adb.org/projects/53276-001/main
- https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1989664

Housing types in Tripura

Using desludging vehicles to irrigate the plants

Public toilet complex with poor maintenance

In Tripura, groundwater contains a higher level of iron. Therefore, most of the surface water sources in Tripura have iron contamination.

FAECAL SLUDGE MANAGEMENT (FSM) AND GREYWATER MANAGEMENT (GWM) PROJECT IN SEVEN BANGLADESHI TOWNS

Project Duration: 8 months, 2023-2024

Description:

In the FSM and GWM Project, GWSC has conducted NSS planning, encompassing a comprehensive analysis of demographics, waste generation, service coverage, infrastructure design, treatment options, costing, financing, and implementation. The Government of Bangladesh (GoB) is working on a project to improve sanitation in seven towns: Bhola, Faridpur, Jhalokathi, Kushtia, Magura, Narail, and Pirojpur. This "Seven Towns Project" is supported by technical advisors (TA) with the goal of implementing non-sewer sanitation (NSS) practices following the city-wide inclusive sanitation (CWIS) approach.

The project emphasizes critical review and analysis of available data and reports on NSS planning. This data will be used to assess demographics and quantify and characterize the generated fecal sludge and greywater in the targeted towns.

Furthermore, the project scope will assess the current service coverage and level for both fecal sludge and greywater management. Using the CWIS approach, the project will design infrastructure and investment plans specifically for NSS interventions. The scope also includes analyzing treatment options for fecal sludge and potential resource recovery options. An outline scheme design, cost estimates, and option comparisons for identified NSS interventions will be developed. This process includes outlining costs for capacity building, public awareness campaigns, and institutional/governance strengthening.

The project will develop preliminary engineering designs for fecal sludge and greywater management. Financial and economic analyses will be conducted to assess the affordability and establish tariffs for the proposed NSS interventions, with a focus on project sustainability. Finally, the project will estimate the project's capital expenditure (CAPEX) and operational expenditure (OPEX) for NSS, along with the development of an implementation plan.

Field Visit 7 towns in Bangladesh

CITYWIDE INCLUSIVE SANITATION INSTITUTIONAL DEVELOPMENT SYSTEMS PROJECT IN SIEM REAP

Project Duration: 2 years, 2022-2024

Description:

GWSC, as supported by the Bill and Melinda Gates Foundation, is to provide complimentary technical assistance support to the Royal Government of Cambodia with the World Bank's for the Citywide Inclusive Sanitation Institutional Development Systems Project in Siem Reap. This project aims to develop performance-based contracts for sludge emptying contractors and provide capacity building and the creation of an integrated database system aligned with the Water Supply Authority (WSA), leading to more streamlined and effective sanitation service monitoring for Siem Reap City. TA support components aim to establish a sustainable and integrated sanitation service in Siem Reap city by developing the capacity of Siem Reap Water Treatment Plant Utility (SR-SWTPU) and private desludging operators, leveraging billing collection efficiency, and improving information management through GIS mapping. Performance-based contracting, capacity building, and training of SR-SWTPU and private sector FSM service providers. Develop sanitation components within the SR-WSA customer database to integrate a combined billing system and sanitation management information system (MIS).

Presentations by GWSC's partners, GRET and Innovative Solutions, introducing the project's framework and objectives.

RAPID BASELINE STUDY WOMEN IN SANITATION ENTERPRISES (WISE) PROJECT IN BANGLADESH

Project Duration: 3 months (Apr 2024 – Jul 2024)

Description:

The Women in Sanitation Enterprises (WISE) project is a four-year initiative funded by the Women Entrepreneurs Finance Initiative (We-Fi) of the Islamic Development Bank (IsDB). It seeks to empower 500 women-led sanitation enterprises in Bangladesh by strengthening access to finance, enhancing business capabilities, and fostering a more supportive policy environment. In response to a request from IsDB, the Global Water & Sanitation Center (GWSC), together with its technical partner Water & Sanitation for the Urban Poor (WSUP), provided technical assistance to the Department of Public Health Engineering (DPHE), Bangladesh, to undertake a rapid baseline study. This study was conducted across three diverse urban areas in Bangladesh, Dohar Paurashava, Cumilla City Corporation, and Lakshmipur Paurashava, to understand the current state of women-led sanitation businesses, as well as the challenges and opportunities they face. The findings revealed several systemic barriers, including limited access to affordable finance, weak market linkages, and persistent social norms that hinder women's entrepreneurship. In addressing these challenges, the WISE project focuses on building capacity through tailored training, facilitating digital financial services, promoting climate-resilient business practices, and advocating for inclusive policy reforms.

A women-led scrap business shop in Cumilla

STRENGTHENING PARTNERSHIPS FOR SUSTAINABLE URBAN WATER AND SANITATION COLLABORATIVE EVENT

Project Duration: Feb 2024

Description:

The Asian Development Bank (ADB), the Gates Foundation, the Global Water & Sanitation Center at the Asian Institute of Technology (GWSC-AIT), and Dasra hosted a collaborative event at ADB Headquarters in Manila and online on 11-12th February 2024. The event aimed to strengthen partnerships and collaboration among Gates Foundation partners, experts, and ADB colleagues to advance sustainable and inclusive water and sanitation projects. Key aspects of the event included discussions on technical assistance, digital systems (IMIS and DPI), capacity building, civil society engagement, best practices, knowledge management, and ADB's investment strategies. A follow-up meeting between ADB and GWSC focused on developing a country-specific training program for enhancing sanitation systems across Asia, involving ADB Country Focal Points from multiple countries and the GWSC team.

ECOSYSTEM-BASED ADAPTATIONS FOR SUSTAINABLE GROUNDWATER RESOURCES MANAGEMENT IN THE TRANSBOUNDARY CAMBODIA-VIETNAM MEKONG DELTA AQUIFER, LOWER MEKONG

AIT Research Theme: Climate Change

AIT Unit: SET-Water Engineering and Management

Project Duration: 01 June 2022 to 30 May 2025

Project Partner: CTU Can Tho University CCIHP - Center for Creative Initiatives in Health and Population ITC Institute of Technology of Cambodia

Project Sponsor/Client: Stockholm Environmental Institute (SEI)

Expected Social Impact: Project GEBA design and activities follow a highly multidisciplinary approach while simultaneously seeking the answers to (i) technical research questions: What is Spatio-temporal heterogeneity of groundwater storage of TCVA, one of the most important TBA in the region; (ii) social search question: rural studies on how to mitigate the water insecurity issues and improve the resilience of the local communities; and (iii) institutional research question: how to effectively mainstream EbA into relevant decision-making processes, plans, and policies to achieve the co-benefits in both social and environmental aspects, contributing to poverty reduction and gender and social equality in the Lower Mekong Region, focusing on Cambodia and Viet Nam. In addition, the three WPs are designed to facilitate truly multidisciplinary exchange and integration of different expertise domains, including (i) remote sensing, groundwater modeling, rural studies, and (iii) capacity building.

Description:

In essence, project GEBA targets the transformative changes in planning and decision-making processes in the management of TCVA, one of the most important Transboundary Aquifers (TBAs) in Asia. We do so by leveraging and mainstreaming EbA into plans, policies, and management practices in groundwater management

at local, sub-national, and transnational levels. The project team, henceforth, adopts a two-dimensional scaling approach, simultaneously targeting horizontal and vertical scaling. The horizontal scaling will be realized via objectives 1 and 2, in which we seek to (i) showcase the dual benefits of EbA in rendering the vulnerability of the TCVA-dependent communities in Cambodia and Viet Nam with respect to groundwater depletion and (ii) develop and analyze mechanisms for integrating EbA with groundwater management, focusing on the capacities of the marginalized group, including women, poor households, youth, and ethnic minorities. On the other hand, the vertical scaling will be materialized via objective 3, where we contribute policy recommendations to integrate EbA into regulations and policies across different sectors in Cambodia and Viet Nam that are issue-specific, science-based, gender-inclusive, and human rights-based. Three work packages (WP) are developed from the overall project approach, including WP1, integrated assessment of EbA and groundwater resources; WP2, development and analysis of mechanisms for integrating EbA and groundwater management with target stakeholders; and WP3, capacity building and advocacy based on impactful engagement and communication.

WATER SECURITY AND CLIMATE CHANGE CONFERENCE (WSCC2022): ADAPTATION FOR SUSTAINABLE AND RESILIENT DEVELOPMENT

AIT Research Theme: Climate Change

AIT Unit: Centre for Water and Climate Adaptation

Project Duration: 01 Oct 2023 to 31 Dec 2025

Project Sponsor/Client: DAAD through Technical University Braunschweig (TUB)

Expected Social Impact: The proceedings of the conference seek to strengthen and harmonize these synergies as a means to inform holistic and integrated solutions to combat the impacts of climate change. In doing so, it envisages covering the gamut of discourse spanning science, policy, and practice to improve the quality of life with a water- and climate-secure world.

Description:

The overarching objective of the conference is to proliferate the exchange of knowledge and practical know-how on the intrinsic relationship between water security and climate change, with a view to advancing fundamental and action research in this domain that will help humankind address one of the greatest challenges of our times. The key focus area of WSCC2022 is adaptation for sustainable and resilient development. The conference will be organized in a hybrid format, with a selected group of participants (chosen through an open call) invited to Bangkok, while the remaining join online. The conference will feature four categories of sessions: keynote sessions, partner sessions, technical sessions, and special sessions.

UTILIZATION OF SEWAGE SLUDGE FOR PRODUCING NOVEL SLUDGE BASED ADSORPTIVE MEDIA FOR TREATED WASTEWATER

AIT Research Theme: Global Water and Sanitation Center

AIT Unit: Global Water and Sanitation Center

Duration: 01 Sep 2022 to 31 Dec 2024

Project Partner:

1. Faculty of Engineering, Thammasat University, Thailand, led by Chongrak Polprasert.
2. Faculty of Engineering, Kasetsart University, Thailand, led by Pongsak Noopan.
3. Faculty of Science, Chulalongkorn University, Thailand, led by Sumeth Wongkiew.

Project Sponsor/Client: Utility Business Alliance Public Company Limited

Expected Social Impact: As this research is to find out appropriate technologies and techniques for utilization of the generated sewage sludge and reuse of the treated wastewater, the findings of this research would provide the BMA with technical and technological information to sustainably manage the generated sludge as well as treated wastewater in the Bangkok and nearby areas. The reuse of the treated wastewater for activities, such as cleaning, gardening, and flushing toilets in private companies, would also help reduce the negative impacts of freshwater scarcity during the seawater intrusion periods in the BMA areas.

Description:

The Nong Kham Wastewater Treatment Plants (WWTP) of the Bangkok Metropolitan Administration (BMA) have been operated by the Utility Business Alliance Public Company Limited, Thailand (UBA), to receive and treat municipal wastewater from Bangkok and nearby areas. The WWTP can effectively treat the wastewater, meeting the discharge standards but not complying with some reuse standards. Meanwhile, high amounts of sewage sludge have been generated by the WWTPs during the treatment processes. Since the BMA has planned to manage the treated wastewater as well as the generated sewage sludge properly and sustainably, the research team has prepared the research proposal towards reusing the generated sewage sludge to produce sludge-based adsorptive media for treatment and reclamation of the treated wastewater. This research was proposed to develop sludge-based adsorptive media suitable for removing organics and nutrients (e.g., nitrogen and phosphorus) as well as pathogenic organisms from the treated wastewater from the WWTP as possible as the treated wastewater quality can comply with the reuse standards. As a result, the UBA, as a WWTP operator, has approved a budget for the AIT to conduct the research study based on the proposal approved by the BMA committees in August 2022.

DIGITAL BELT AND ROAD INTERNATIONAL CENTER OF EXCELLENCE-BANGKOK, NATIONAL RESEARCH COUNCIL OF THAILAND

AIT Research Theme: Food-Energy-Water

AIT Unit: Global Water and Sanitation Center Project
Duration: 01 Nov 2022 to 31 Dec 2024

Project Partners: Digital Belt and Road International Center of Excellence-Bangkok, National Research Council of Thailand, International Research Center of Big Data for Sustainable Development Goals

Project Sponsor/Client: Digital Belt and Road International Center of Excellence-Bangkok, National Research Council of Thailand

Expected Social Impact: The proposed multiple activities on capacity building, R&D, and professional network building through utilizing Big Earth Data to support SDG research, monitoring, and reporting are expected to enhance the progress and quality of sustainable development in Thailand. These activities will eventually benefit the equity of the society and the sustainability of the environment by providing comprehensive development information, creating new environmentally friendly technology and enhancing the science-to-policy transformation.

Description:

The overall objective of this project is to consolidate the outputs and impact of DBAR ICoE-Bangkok and to explore the future direction for research and development towards sustainable development in Thailand. Main activities to be implemented include,

1. The aim is to strengthen national capacity in utilizing the CASEarth Data Platform to enhance SDG research, monitoring, and reporting.
2. The purpose of this study is to demonstrate the potential value and extension of technology innovation based on the critical development issues evaluated and identified by DBAR. A Case study on SDG 6
3. The goal is to deliver a series of national research-policy roundtables to identify the highest priority areas of research for selected SDGs that will have an immediate impact on national policy.

COMPENDIUM OF LESSONS LEARNED

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 18 Nov 2022 to 31 Dec 2024

Project Partner: DUKE University; Center for WaSH-AID

Project Sponsor/Client: DUKE University

Expected Social Impact: This publication is expects to be the reliable and available manuscript which can be published on Gate Open Research Platform

Description:

The Asian Institute of Technology team works with Duke University and other project collaborators in the preparation of a 15-30 page compendium of lessons learned from the field testing of transformative onsite sanitation technologies funded by the Bill & Melinda Gates Foundation. The compendium will be published on the Gates Open Research Platform and submitted at the end of this project. AIT will contribute concepts and narrative related to the experience of Koottatep's lab, including the setting up of the Naturally Acceptable and Technological Sustainable (NATS) laboratory. The AIT team will contribute as co-authors to the compendium, defining its content and contributing material (narrative, figures, and pictures) to be used in the document.

APPROPRIATE MANAGEMENT SYSTEM AND POLICY BRIEF FOR FECAL SLUDGE MANAGEMENT IN THAILAND

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 04 Apr 2023 to 30 Apr 2025

Project Sponsor/Client: National Research Council of Thailand (NRCT)

Expected Social Impact: Appropriate fecal sludge management in Thailand

Description:

There are technical or knowledge limitations in fecal sludge management and unclear roles, duties, and enforcement from both the central and local governments, which led to increased improper fecal sludge management in Thailand. Thus, this project focuses on a national fecal sludge management plan and a driving force development. The current situation and the problem of assessing suitability—technical, economic, social, and environmental possibilities in fecal sludge management will be identified. The goal is to create a national plan for fecal sludge management and establish guidelines for the Department of Health.

13TH SOUTHEAST ASIA SUBREGIONAL COMMITTEE MEETING, PROPOSAL DEVELOPMENT TRAINING WORKSHOP

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 01 Jan 2024 to 31 Dec 2024

Project Sponsor/Client: Asia-Pacific Network for Global Change Research (APN)

Expected Social Impact: Raise awareness about APN among early-career professionals;

Increase their capacity to submit proposals to APN and compete in its call for proposals processes;

Create opportunities for networking, finding research collaborators and building professional relationships;

Enhance the participation of early-career professionals in regional research activities; and

Empower APN members and project leaders to share their knowledge of the APN proposal submission process.

Description:

The aim of the project is to organize the 13th Southeast Asia Subregional Committee Meeting, the Proposal Development Training Workshop, the Early-Career Professional Networking Session, and the Water Security Assessment Tool Training Workshop on May 22–26, 2023. We are expecting about 60 participants from several countries in Southeast Asia and South Asia.

INTEGRATED APPROACHES TO URBAN RIVER CORRIDOR MANAGEMENT EXPERIENCES FROM SOUTHEAST ASIA, 10-17 OCTOBER 2023

AIT Research Theme: Food-Energy-Water

AIT Unit: AIT Extension

Duration: 10 Oct 2023 to 30 Mar 2024

Project Sponsor/Client: Asian Development Bank

Project Partner: Vietnam National University of Agriculture

Expected Social Impact: Participants will establish networks and partnerships with stakeholders from Southeast Asian countries, fostering ongoing collaboration, knowledge sharing, and support in river basin management initiatives.

Description:

River Basin Planning Corridor Management | IWRM | Water and Wastewater Management Environmental Management

Expected Social Impact: Participants will establish networks and partnerships with stakeholders from Southeast Asian countries, fostering ongoing collaboration, knowledge sharing, and support in river basin management initiatives.

PUMPING TECHNOLOGY FOR WATER SUPPLY DATED 15 TO 22 NOVEMBER, 2023 & 25 SEPTEMBER- 02 OCTOBER 2024

AIT Research Theme: Food-Energy-Water, Infrastructure

AIT Unit: AIT Extension

Duration: 15 Nov 2023 to 20 May 2024 & 25 Sep 2024 to 31 Mar 2025

Project Sponsor/Client: EBARA Hatekayama Memorial Fund (EHMF)

Expected Social Impact: Able to apply modern turbo pump technologies and to provide appropriate planning and design based on accurate engineering practices for optimum utilization of resources.

Description: A training and capacity building program

HIRING A CONSULTANT TO REVIEW THE MASTER PLAN OF BANGKOK'S SEWERAGE SYSTEM

AIT Research Theme: Climate Change

AIT Unit: Global Water and Sanitation Center

Duration: 26 Sep 2023 to 31 Aug 2025

Expected Social Impact: Appropriate sewerage system management in Bangkok

Description:

Bangkok has been experiencing problems with water pollution for a long time. Even though the areas for wastewater treatment services have been clearly defined, it has been found that wastewater cannot be collected into a comprehensive treatment system. The project aims to address the environmental policies set forth by the Governor of Bangkok. Thus, this project focuses on studying and reviewing the master plan of the sewerage system to be consistent with the changing urban conditions at present and in the future, guidelines for improving the sewage collection system to be able to utilize the plant for controlling water quality for maximum efficiency and considering using onsite wastewater treatment systems and cluster wastewater treatment systems in areas that do not yet have a central wastewater treatment system and dense communities.

TRANSFORMATIVE TECHNOLOGY COMMERCIALIZATION HUB

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 05 Nov 2023 to 01 Nov 2026

Project Sponsor/Client: Bill & Melinda Gates Foundation

Project Partner: AWR Lloyd Thailand, UPM Germany

Expected Social Impact: The first outcome helps raise awareness and understanding of the benefits and challenges of Transformative Sanitation Technologies (TSTs) among the key stakeholders, such as policymakers, regulators, service providers, consumers, and civil society groups. This enables them to make informed decisions and take strategic actions to support the adoption and scaling of TSTs in their respective contexts.

The second outcome helps identify and address the market barriers and opportunities for TSTs in the focus countries, such as Indonesia. This procedure could involve conducting market assessments, developing market strategies, designing business models, creating value propositions, and establishing partnerships.

The third outcome helps demonstrate the feasibility and viability of Reinvented Toilet (RT) technologies in Indonesia, which is one of the TSTs that aim to provide safe and sustainable sanitation solutions for urban and peri-urban areas.

Description:

To facilitate the promotion and adoption of reinvented sanitation technologies in Asia, GWSC established a Transformative Technology Commercialization Hub. It will manage the implementation of awareness raising, market development, and demonstration of reinvented sanitation technologies project packages. The hub will play a pivotal role in driving the project, and its foreseen functions and responsibilities, such as strategic support, project oversight, communication, and advocacy, will evolve in line with the project's implementation.

Engaging with government officials, national and regional standard bodies, development financial institutions (DFI), and UN agencies, the projects allow the Hub to strategically guide government officials and development financial institutions in raising awareness and identifying the most suitable reinvented sanitation technologies for their specific needs. It offers insights on their integration into existing infrastructure. It connects the missing links between product manufacturing and standardization, regulatory adjustment (such as procurement), and sustainable operation and maintenance. In support of broader market assessment and action planning, the Hub oversees the execution of the ongoing projects, ensuring timely deliverables and quality results through continuous monitoring and evaluation of implementation.

FUTURE-WATER

AIT Research Theme: Global Water and Sanitation Center

AIT Unit: Global Water and Sanitation Center

Duration: 01 Mar 2024 to 31 Aug 2024

Project Sponsor/Client: Future H2O-B Inc

Expected Social Impact: Appropriate sewerage system management in Bangkok

Description:

Bangkok has been experiencing problems with water pollution for a long time. Even though the areas for wastewater treatment services have been clearly defined, it has been found that wastewater cannot be collected into a comprehensive treatment system. The project aims to address the environmental policies set forth by the Governor of Bangkok. Thus, this project focuses on studying and reviewing the master plan of the sewerage system to be consistent with the changing urban conditions at present and in the future, guidelines for improving the sewage collection system to be able to utilize the plant for controlling water quality for maximum efficiency and considering using onsite wastewater treatment systems and cluster wastewater treatment systems in areas that do not yet have a central wastewater treatment system and dense communities.

TECHNO-ECONOMIC FEASIBILITY OF SEWAGE BASED ADSORPTIVE MEDIA AND WATER REUSE TECHNOLOGIES FOR POLISHING TREATED WASTEWATER IN BMA

AIT Research Theme: Food-Energy-Water

AIT Unit: Global Water and Sanitation Center

Duration: 01 Mar 202 to 31 Jul 2025

Project Sponsors/Clients: Joint Venture Gem Environmental Management Company Limited, Thailand (GEM) and Global Utilities Services Company Limited, Thailand (GUSCO)

Project Partner:

1. Faculty of Engineering, Thammasat University, Thailand
2. Faculty of Engineering, Kasetsart University, Thailand
3. Faculty of Science, Chulalongkorn University, Thailand

Expected Social Impact: As this research is to find out appropriate technologies and techniques for utilization of the generated sewage sludge and reuse of the treated wastewater, the findings of this research would provide the BMA with technical and technological information to sustainably manage the generated sludge as well as treated wastewater in the Bangkok and nearby areas. The reuse of the treated wastewater for the activities, e.g., cleaning and gardening, as well as private company activities such as flushing toilets, would also help reduce the negative impacts of freshwater scarcity during the seawater intrusion periods in the BMA areas.

Description:

The Chatuchak Wastewater Treatment Plant (WWTP) of the Bangkok Metropolitan Administration (BMA) has been operated by the Joint Venture GEM and GUSCO to receive and treat municipal wastewater from Bangkok and nearby areas. The WWTP can effectively treat the wastewater, meeting the discharge standards but not complying with some reuse standards. Meanwhile, high amounts of sewage sludge have been generated by the WWTPs during the treatment processes. Previously, the research team conducted research on reusing the generated sewage sludge to develop a novel adsorptive media for treatment and reclamation of the treated wastewater. In the lab-scale experiment, the developed adsorptive media were effectively removing pathogens and nutrients in the wastewater, resulting in the quality of the treated wastewater meeting reuse standards. Hence, in order to further study the treatment performance and techno-economic feasibility of the application of adsorptive media in pilot-scale treatment units, the research team has prepared the research proposal entitled Techno-economic feasibility of sewage-based adsorptive media and water reuse technologies for polishing treated wastewater in Bangkok Metropolitan Administration. This research aims to study the technical and economic feasibility of the developed sewage sludge-based adsorptive media in pilot-scale vertical garden systems for treatment of nutrients (e.g., nitrogen and phosphorus) and pathogenic organisms in the wastewater from the WWTP. As a result, the joint venture GEM and GUSCO, as a WWTP operator, have approved a budget for the AIT to conduct the research according to the proposal that has been approved by the BMA committees since January 2024.

WATER, SANITATION AND HYGIENE (WASH) SECTOR IN SRI LANKA, 30 JUNE TO 09 JULY 2024

AIT Research Theme: AIT Extension

AIT Unit: AIT Extension

Duration: 30 Jun 2024 to 31 Dec 2024

Project Sponsor/Client: Palli Karma-Sahayak Foundation (PKSF)

Expected Social Impact: Able to apply modern turbo pump technologies and to provide appropriate planning and design based on accurate engineering practices for optimum utilization of resources.

Description:

Develop skills in behavior change communication for WASH, designing and implementing strategies for improved hygiene practices.

Learn about WASH market development and access strategies, understand market roles, and explore innovative approaches.

Address social and environmental safeguards, including gender issues, in WASH implementation, ensuring equity and sustainability.

Explore climate change adaptation strategies for WASH resilience, understanding impacts and learning adaptation measures.

DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT AND CONSERVATION MEASURES OPTIMIZATION STRATEGY FOR THE VALUED FRESHWATER BODIES OF ASEAN COUNTRIES

AIT Research Theme: Food-Energy-Water

AIT Unit: Global Water and Sanitation Center

Duration: 31 Dec 2024 to 31 Dec 2026

Project Sponsor/Client: ASEAN-Russian Federation Dialogue Partnership Financial Fund (ARFDPFF)

Project Partner:

Lomonosov Moscow State University

Expected Social Impact:

1. Representatives of the ministries and authorities of ASEAN countries and Russia whose functions are Ministries of Natural Resources and Environment, Ministries of Agriculture, and Water Agencies and Departments will receive a typical solution for water management and monitoring, which they can implement for similar water bodies in their respective countries.
2. Scientists and specialists who will conduct investigations on the water reservoir will obtain actual and valued data about natural processes in the lakes of Southeast Asia.
3. Representatives of the ASEAN Secretariat to coordinate the work of the international community will get the international scientific group specialized in discovering the problems of lakes and reservoirs. In the future, the scientific group could serve as consultants on water pollution issues.
4. Local authorities who are interested in solving problems of freshwater demand

Description:

This project will work toward providing

1. Organization of a professional community consisting of representatives from businesses, government bodies, and science that are interested in raising the quality of water in valued freshwater bodies.
2. Conduct joint research by an international group of scientists and students to reveal best practices of water management and actual legislative regulations concerning water management, considering regional and national features.
3. Model investigation (on the examples of two lakes in Thailand) to reveal the main natural and man-made processes that cause water quality degradation in the water bodies, constructing databases and geographical information systems to aid in decision-making.
4. Development strategy of water management and implementation of best practices on the local level to harmonize intra-system relations between natural objects and population for a scientifically based approach to optimize conservation measures and farming applied to the freshwater bodies for all ASEAN member countries.

STRENGTHENING GROUNDWATER GOVERNANCE AND MANAGEMENT IN CAMBODIA

AIT Research Theme: Climate change

AIT Unit: Water Engineering and Management

Duration: 01 Jun 2024 to30 Jun 2025

Project Sponsor/Client: Stockholm Environment Institute (SEI)

Project Partner: Institute of Technology of Cambodia

Description:

This AGREEMENT regulates the services provided by SUBGRANTEE for the implementation of the SUMERNET 4 All Rapid Response Project Strengthening Groundwater Governance and Management in Cambodia. Groundwater and its governance hold significant importance in Cambodia, serving as a crucial water source that sustains diverse sectors, including agriculture, industry, and domestic consumption. The effective management and governance of groundwater resources are indispensable to ensure sustainable access, prevent overexploitation, and address potential conflicts that may arise. Cambodia must establish robust frameworks for groundwater governance, encompassing aspects such as extraction management, license issuance, and robust monitoring of groundwater levels. By fostering active stakeholder participation, fortifying regulatory mechanisms, and enhancing capacities for monitoring and enforcement, Cambodia can effectively safeguard its groundwater resources, promote sustainable development, and mitigate conflicts arising from competing water demands. Sensible management of groundwater resources is vital not only for ensuring water security but also for preserving ecosystems and fostering

socioeconomic progress within the Mekong region. Accordingly, the proposed project aims to strengthen groundwater governance and management in Cambodia through the development of a preliminary management framework and the enhancement of institutional capacity to successfully initiate and implement these plans.

DESIGN AND CONSTRUCTION OF CLIMATE RESILIENT WATER SUPPLY SCHEMES, 9-14 SEPTEMBER 2024

AIT Research Theme: Climate change, Infrastructure

AIT Unit: AIT Extension

Duration: 09 Sep 2024 to 30 Mar 2025

Project Sponsor/Client: Water Infrastructure Division under MoIT

Project Partner: Institute of Technology of Cambodia

Description:

Activities for the professional training course on "Design and construction of climate-resilient water supply schemes will include:

The course combines classroom theory lectures, case studies, and interaction with resource people. All sessions will focus on participative discussions geared towards enhancing participants' technical and practical knowledge of technical and developmental issues.

SUSTAINING THE SHARED GROUNDWATER RESOURCES OF THE TRANSBOUNDARY CAMBODIA-VIETNAM MEKONG RIVER DELTA AQUIFER UNDER CLIMATE CHANGE IMPACTS THROUGH STR

AIT Research Theme: Food-Energy-Water

AIT Unit: Centre for Water and Climate Adaptation

Duration: 01 Jul 2024 to 31 Dec 2026

Project Sponsor/Client: Department of Foreign Affairs and Trade (DFAT) of Australia through SEI, Asia office Bangkok

Project Partner: Institute of Technology of Cambodia (ITC); Vietnam Womens Academy (VWA); Institute for Water Resources Engineering and Environment Technology (iWAT), Vietnam; and Ho Chi Minh City University of Technology (HCMUT), VNU-HCM

Expected Social Impact: Enhancement of water security and resilience for local communities in Cambodia and Vietnam, while also benefiting national and regional agencies involved in water and environmental management across the Mekong region.

Description:

The SAGA project will contribute to sustaining the shared groundwater resources of the transboundary Cambodia-Vietnam Mekong River Delta aquifer under climate change impacts through GEDSI tools and NbS with a transdisciplinary, gender-inclusive, and operational strategy to manage the shared groundwater resources sustainably and equitably between the two involved countries. This project is novel and will produce new knowledge, including (i) a contemporary assessment of natural and man-made impacts on the Cambodia-Vietnam Transboundary Aquifer (CV-TBA) and its dependent communities; (ii) curated lessons in developing and operationalizing Gender Equality, Disability, and Social Inclusion (GEDSI) tools for CV-TBA; and (iii) verified applicability of Nature-based Solutions to enhance management of the TBA.

HANDS-ON CAPACITY DEVELOPMENT PROGRAMME ON CITYWIDE INCLUSIVE SANITATION (CWIS) AND FAECAL SLUDGE MANAGEMENT (FSM)

AIT Research Theme: Food-Energy-Water

AIT Unit: Global Water and Sanitation Center

Duration: 01 Aug 2024 to 31 May 2025

Project Sponsor/Client: Islamic Development Bank (IsDB)

Expected Social Impact: Participants are equipped with knowledge of CWIS, FSM, inclusive sanitation services, infrastructure selection, and climate-resilient project components.

Description:

The Global Water and Sanitation Council (GWSC), in collaboration with the Islamic Development Bank (IsDB), is organizing a three-day capacity development program for executive agencies in the sanitation sector. This program will host 20 representatives from ten IsDB member countries in the Asian region and is scheduled to take place from September 10-12, 2024. The primary aim is to enhance participants' understanding of Citywide Inclusive Sanitation (CWIS) and urban sanitation practices.

UNITED STRATEGIES FOR BLACK-ODOROUS URBAN RIVERS: INSIGHTS AND INNOVATIONS FROM CHINA AND THAILAND PERSPECTIVES

AIT Research Theme: Food-Energy-Water

AIT Unit: Belt and Road

Duration: 01 Oct 2024 to 30 Jun 2025

Project Sponsor/Client: Islamic Development Bank (IsDB)

Project Partner: Tongji University China Harbor Engineering Co., Ltd. (CHEC) (subsidiary of China Communications Construction Corporation (CCCC))

Expected Social Impact: By leveraging the combined expertise and experience of both China and Thailand, this seminar aspires not only to share the insights and innovations in mitigating the black odorous urban river problem but also to strengthen bilateral ties and promote the regional adoption of sustainable water pollution control practices.

Description:

The joint initiative, named the China-Thai Cooperation on Environmental Technology Seminar Series, aims to create a platform for knowledge exchange and collaboration between experts, policymakers, and stakeholders from both countries. Through a series of seminars, this program will showcase successful environmental technologies, foster collaborative strategies for addressing various environmental problems of public concern, and enhance the technical capabilities of environmental professionals in Thailand and China. Additionally, the initiative aims to raise public awareness about environmental issues and propel the region toward long-term environmental sustainability and well-being by promoting the adoption of sustainable practices for controlling water pollution.

ENHANCING THE SCIENCE-POLICY INTERFACE TO MANAGE MICROPLASTIC INFLUX FROM MAJOR CITIES INTO THE OCEANS IN SOUTHEAST ASIA

AIT Research Theme: Food-Energy-Water

AIT Unit: Environmental Engineering and Management

Duration: 01 Oct 2024 to 30 Sep 2026

Project Sponsor/Client: APN

Project Partner: Universitas Pertamina, Indonesia Ho Chi Minh City University of Industry and Trade, Vietnam

Expected Social Impact: The outputs of this project are expected to provide evidence-based policy recommendations for relevant stakeholders, including local governments and environmental management agencies, to formulate effective strategies for preventing marine plastic pollution. By filling the current knowledge gaps and informing policy decisions, this project aims to contribute to the sustainable management of microplastic pollution in urban aquatic systems in SEA and beyond.

Description:

This project aims to address the growing environmental threat of plastic debris and microplastics (MPs), particularly in Southeast Asia (SEA), a global hotspot for plastic waste discharge into the ocean. Despite SEA's significant role in plastic pollution, a major knowledge gap exists in understanding the complex interactions between land-based sources, aquatic pathways, and environmental sinks of MPs in urban coastal areas. The project aims to develop a comprehensive system model to quantify the influx of microplastics in urban aquatic systems across selected SEA cities. It seeks to answer key questions regarding the sources, pathways, and receptors of MPs and how this knowledge can inform better management and policy making. Key activities include reviewing existing research, formulating a source-pathway-receptor (SPR) framework, collecting field data, and engaging with stakeholders to ensure policy relevance. The project's outcomes are expected to inform evidence-based strategies for preventing marine plastic pollution and supporting sustainable management efforts across SEA.

DIWAM PROJECT: FROM DROUGHT IMPACT TO WATER ADAPTATIONS IN THE UPPER MUN RIVER BASIN

AIT Research Theme: Climate change, • Food-Energy-Water, • Infrastructure, • Technology, Policy and Society

AIT Unit: Centre for Water and Climate Adaptation

Duration: 01 Aug 2024 to 31 Dec 2025

Project Sponsor/Client: Agence Française de Développement (AFD)

Project Partners: CIRAD (Centre de Coopération Internationale en Recherche Agronomique pour le Dévelopement) , and SEI (Stockholm Environment Institute)

Expected Social Impact: The DIWAM project aims to enhance resilience to drought impacts on agriculture in northeastern Thailand by improving water management practices and identifying adaptive strategies. Through a transdisciplinary approach, this project will generate new knowledge on the causes and effects of droughts, their impacts on local communities, and the effectiveness of different adaptation strategies, with a focus on water resource management and food sovereignty. Key objectives are 1) comparing model-based drought assessments with actual field impacts and exploring consistencies and discrepancies. 2) Map involved/affected stakeholders and social structures (existing or desired) and 3) Identify constraints and opportunities for upscaling existing adaptations and for implementing innovative ones (water-related)

Description:

The DIWAM project aims to enhance resilience to drought impacts on agriculture in northeastern Thailand by improving water management practices and identifying adaptive strategies. Through a transdisciplinary approach, this project will generate new knowledge on the causes and effects of droughts, their impacts on local communities, and the effectiveness of different adaptation strategies, with a focus on water resource management and food sovereignty. Key objectives are 1) comparing model-based drought assessments with actual field impacts and exploring consistencies and discrepancies. 2) Map involved/affected stakeholders and social structures (existing or desired) and 3) Identify constraints and opportunities for upscaling existing adaptations and for implementing innovative ones (water-related)

TREATMENT PERFORMANCE TEST OF WASTEWATER TREATMENT TANKS AGAINST THE HIGH-EFFICIENCY PREFABRICATED SEPTIC TANK LABEL CRITERIA FOR THE FIBERTECH CO.

AIT Research Theme: Food-Energy-Water

AIT Unit: GWSC

Duration: 01 Aug 2024 to 31 Dec 2025

Project Sponsor/Client: Fibertech Co., Ltd.,Thailand Operation

Project Partners: CIRAD (Centre de Coopération Internationale en Recherche Agronomique pour le Dévelopement) , and SEI (Stockholm Environment Institute)

Expected Social Impact:

1. Enhanced Public Health and Hygiene
2. Environmental Conservation
3. Increased Awareness and Adoption of Standards
4. Support for Sustainable Development Goals (SDGs)
5. Economic Benefits
6. Capacity Building and Knowledge Transfer
7. Promotion of Innovation in Local Industries

Collaboration with Fibertech Co., Ltd. may stimulate innovation in the wastewater treatment industry, leading to the development of more effective and affordable technologies tailored to local needs.

This research has the potential to serve as a model for other regions aiming to improve wastewater management and sanitation, thereby contributing to healthier and more sustainable communities.

Description:

The objective of this project is to provide testing services, focusing on conducting a treatment performance test of prefabricated wastewater treatment tanks manufactured by Fibertech Co., Ltd. The test is conducted in accordance with the High-Efficiency Prefabricated Septic Tank Label Criteria as established by the Pollution Control Department (PCD) of Thailand. It will be carried out at the performance testing laboratory (AIT Testing Laboratory) under the Global Water and Sanitation Center (GWSC). Key tasks include the installation of the treatment tanks at the AIT testing site, systematic wastewater sampling, and comprehensive analysis to ensure adherence to established standards. The results will be compiled into a detailed report for the client, Fibertech Co., Ltd., to support their application for the High-Efficiency Prefabricated Septic Tank Label certification.

Operations:

ADVANCING WATER CONSERVATION AT AIT: STRATEGIC INFRASTRUCTURE UPGRADES YIELD SIGNIFICANT REDUCTIONS IN CAMPUS WATER CONSUMPTION

https://ofam.ait.ac.th/water-conscious-usage-and-care/

The Asian Institute of Technology (AIT) has demonstrated a steadfast commitment to *Sustainable Development Goal 6*: Clean Water and Sanitation, through significant reductions in campus water consumption and strategic infrastructure enhancements.

Water Consumption Trends:

Year	Average Water Consumption/month (m^3)
2021	48,237
2022	43,320
2023	42,587
2024	39,353

From 2021 to 2024, AIT achieved an 18.4% reduction in water usage, equating to a decrease of 8,884 m^3. This consistent downward trend underscores the effectiveness of AIT's water conservation initiatives.

Infrastructure Improvements:

In response to directives from the Ministry of Natural Resources and Environment to discontinue groundwater usage due to subsidence risks, AIT transitioned to a municipal water supply sourced from the Provincial Waterworks Authority. This shift necessitated the installation of an advanced water distribution system featuring 15 strategically placed valves. These valves enable efficient control of water flow across distinct zones, facilitating targeted maintenance and minimizing disruptions. Additionally, the aging pipeline infrastructure, originally laid in the 1970s at depths of approximately one meter, posed challenges in leak detection and repair. To address this, AIT embarked on a comprehensive upgrade, replacing deteriorated pipelines with new, durable materials and adopting a ring loop configuration to enhance system reliability and pressure consistency. A 700 m^3 water storage tank was also constructed to ensure emergency water availability during supply interruptions.

Through these concerted actions, AIT exemplifies leadership in water conservation, aligning campus operations with global sustainability objectives.

Sustainable Use of Water on Campus

AIT has had its wastewater treatment plant since July 2012, which is used to treat the collected sewage water from the campus, which amounted to 151,170 m^3 in 2024, and all treated water was released back to AIT's canal system and reused for watering the garden on the campus. The campus of AIT boasts an intricate closed-loop canal network, enabling the effective storage of rainwater, especially for use during the dry seasons. Our lush landscapes and greenery thrive on this self-sustained water supply. Moreover, AIT features its very own reservoir, spanning 23.31 acres with depths ranging from 1 meter to 2.5 meters. Additionally, the campus houses an outer canal area spanning 77,341.04 square meters, with depths varying from 0.5 to 2 meters across different sections.

News:

AIT SIGNS TRILATERAL MOU WITH EGAT AND CSU TO BOOST SOLAR TECHNOLOGY AT SIRINDHORN DAM

Description:

AIT signed a trilateral Memorandum of Understanding with the Electricity Generating Authority of Thailand (EGAT) and Colorado State University on July 15, 2024. The agreement aims to enhance solar technology by installing the Edge Seal Module (ESM) on a floating platform at Sirindhorn Dam. This collaboration focuses on testing ESM efficiency, promoting renewable energy solutions, and advancing sustainable development initiatives.

https://ait.ac.th/2024/07/ait-signs-trilateral-mou-with-egat-and-csu-to-boost-solar-technology-at-sirindhorn-dam/

AIT SIGNS TRILATERAL MOU WITH EGAT AND CSU TO BOOST SOLAR TECHNOLOGY AT SIRINDHORN DAM

Description:

On 19 September 2024, P. Abdul Salam, Dean of the School of Environment, Resources, and Development at AIT, was appointed to the Board of Directors of the International Institute for Energy Conservation (IIEC). The IIEC, established in 1984, focuses on promoting energy efficiency and renewable energy adoption, particularly in developing countries. Salam brings over 30 years of experience in sustainable energy research, consultancy, and capacity building. His expertise includes bioenergy, waste-to-energy systems, and climate change mitigation. This appointment reflects his commitment to advancing sustainable energy solutions and strengthens AIT's role in global energy initiatives.

https://ait.ac.th/2024/07/ait-signs-trilateral-mou-with-egat-and-csu-to-boost-solar-technology-at-sirindhorn-dam/

EMPOWERING THE FUTURE: A JOURNEY THROUGH SOUTHERN THAILAND'S SUSTAINABLE ENERGY LANDSCAPE

Description:

From September 30 to October 4, 2024, students from AIT's Sustainable Energy Transition program participated in a field trip across southern Thailand. They explored various renewable energy facilities, including solar, hydro, natural gas, and biomass plants. Highlights included a visit to a solar power plant in Thap Sakae, Ratchaprapha Dam, and a biomass power plant in Chumphon. The trip emphasized the importance of sustainable energy practices and innovation in addressing global energy challenges. Students reflected on the significance of transitioning to cleaner energy sources and the value of integrating nature with technology for a sustainable future.

https://ait.ac.th/2024/10/empowering-the-future-a-journey-through-southern-thailands-sustainable-energy-landscape/

EMPOWERING THE FUTURE: A JOURNEY THROUGH SOUTHERN THAILAND'S SUSTAINABLE ENERGY LANDSCAPE

Description:

AIT hosted the International Conference on Sustainable Energy (ICUE) 2024 from October 21 to 23 in Pattaya, Thailand, with a focus on "Energy Transition and Net Zero Climate Future." The event drew around 180 delegates from nearly 30 countries, featuring keynotes from Priyantha Wijayatunga and Joy Jacqueline Pereira. Discussions emphasized collaboration in addressing climate change, energy policies, and education for sustainability. ICUE 2024 highlighted the importance of international cooperation in promoting sustainable energy practices and achieving climate goals

https://ait.ac.th/2024/10/ait-hosts-icue-2024-driving-global-dialogue-on-energy-transition-and-net-zero-future/

EMPOWERING THE FUTURE: A JOURNEY THROUGH SOUTHERN THAILAND'S SUSTAINABLE ENERGY LANDSCAPE

Description:

In the groundbreaking research conducted by Avrojyoti Barua at the School of Environment, Resources, and Development (SERD) at the Asian Institute of Technology (AIT), his study, 'Towards a Zero Carbon Future for Thailand's Power Sector,' under the supervision of Weerakorn Ongsakul, the Department of Energy and Climate Change, and Joyasree Roy, Director & Founder of SMARTS⁎ Center, AIT, presents a comprehensive and data-driven roadmap to decarbonizing the power sector, using the advanced SWITCH⁎ model for energy system optimization. [⁎South and South-east Asia Multidisciplinary Applied Research Network on Transforming Societies of Global South; ⁎Solar and wind energy integrated with transmission and conventional sources]

https://ait.ac.th/2024/12/towards-a-zero-carbon-future-how-thailand-can-lead-the-energy-transition-by-2050/

Projects:

EDSMAT3-C-16-DAM SAFETY AND DISASTER PREVENTION

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 07 Nov 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partner: ECEWI and Menaal International

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan

Description:

Dams are crucial infrastructure that impacts national socio-economic development goals. They are also crucial in terms of the risks they pose to the surrounding communities, the energy infrastructure, and overall public safety should an emergency or unforeseen event happen. This course develops the competencies of engineers and staff of hydropower projects and facilities of Pakistan's Water and Power Development Authority to analyze and mitigate potential disasters and implement measures to ensure safety. In particular, the course helps participants:

a. Understand the elements of an effective dam safety program
b. Learn and apply best practices and guidelines of dam safety
c. Identify and assess risks in hydropower operations
d. Learn and apply strategies in emergency response planning

EDSMAT3-C-14: CONSTRUCTION MANAGEMENT AND QUALITY CONTROL FOR HYDEL PROJECTS

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 07 Nov 2022 to 30 Jun 2025

Project Sponsor/Client: The World Bank

Project Partners: Entura Clean Energy & Water Institute (ECEWI) Menaal Travel Iraj Consultants

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan

Description:

Module C14 of the EDSMAT3 Program is designed to enhance the knowledge and skills of participants in managing the construction of hydel projects and maintaining quality control.

EDSMAT3-C-13 HYDROPOWER PROJECT MANAGEMENT

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 17 Aug 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partner: ECEWI and Menaal Travel

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan

Description:

Hydropower Project Management

The Hydropower Project Management course is designed for engineers of Pakistan's Water and Power Development Authority to develop competencies in managing and implementing activities of hydropower projects. It is aimed at strengthening individual skill sets vital to a smooth implementation of the entire project and the successful achievement of its desired outcomes. The course helps participants:

a. Enhance their understanding of the project cycle and organizational structure

b. Understand roles and responsibilities of engineers and other project staff

c. Understand the importance of testing and essential operational procedures

d. Analyze project costs and budgets

e. Learn to develop a project implementation plan

EDSMAT3-D-18-HEALTH AND SAFETY STANDARDS FOR HYDROPOWER PROJECTS

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 31 Oct 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partners: GEEC Ltd (Masud Karim), Menaal International (Saqib Izhar), HSE-Vision (Bilal Mustafa Syed), Iraj Consultants (Irshad Ahmed)

Expected Social Impact: Improved efficiencies in energy services, management and technologies enhance energy security for citizens of Pakistan

Description:

Hydropower Project Management

The Hydropower Project Management course is designed for engineers of Pakistan's Water and Power Development Authority to develop competencies in managing and

implementing activities of hydropower projects. It is aimed at strengthening individual skill sets vital to a smooth implementation of the entire project and the successful achievement of its desired outcomes. The course helps participants:

a. Understand the need for health and safety standards within the project organization
b. Explain the operational and non-operation factors affecting health and safety
c. Analyze health and safety scenarios, operations and inspection procedures, and emergency and crisis situations.
d. Demonstrate the behavioral and leadership qualities of a successful health and safety professional

EDSMAT3-D-17 MATERIALS AND PROCUREMENT MANAGEMENT

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 21 Nov 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, WAPDA

Project Partner: ECEWI and Menaal International Travel

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for the citizens of Pakistan through a capacity-building program for the professionals.

Description:

Materials and Procurement for Hydropower Projects

EDSMAT3-E21-IMPLEMENTING SELECTIVE ERP APPLICATIONS

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 21 Nov 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, WAPDA

Project Partner: ECEWI and Menaal International Travel

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan

Description:

The Implementing Selective ERP Applications course prepares engineers from Pakistan's Water and Power Development Authority to implement specific ERP applications. A Capacity building program for professionals

EDSMAT3-E-20-PERFORMANCE-BASED EVALUATION SYSTEMS

AIT Research Theme: Infrastructure

AIT Unit: Infrastructure

Duration: 05 Dec 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partner: Tarcisio Alvarez-Rivero, Menaal Internal Travel and Rob McBride

Expected Social Impact: Improved efficiencies in energy services, management and technologies enhance energy security for citizens of Pakistan

Description:

This course intends to build the capacity to access and evaluate the performance of the system for the hydropower projects. 15 training courses delivered at WAPDA Academies in Pakistan by AIT and partners

EDSM AT3-F-23 INVESTMENT ANALYSIS OF RENEWABLE ENERGY PROJECTS

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 21 Nov 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partner: ECEWI and Menaal International Travel

Expected Social Impact: Improved efficiencies in energy services, management and technologies enhance energy security for citizens of Pakistan

Description:

Building the capacity of professional engineers in Pakistan for investment Analysis of Renewable Energy Projects. 15 training courses delivered at WAPDA Academies in Pakistan by AIT and partners

EDSMAT3-E-22-INSTITUTIONAL DEVELOPMENT GAP ANALYSIS AND PDNA

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 05 Dec 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partners: Tarcisio Alvarez-Rivero, Menaal International Travel and Rb McBride

Expected Social Impact: Improved efficiencies in energy services, management and technologies enhance energy security for citizens of Pakistan. 15 training courses delivered at WAPDA Academies in Pakistan by AIT and partners

Description:

Build capacity of institutional Development Gap Analysis and PDNA for key personnel in the energy sector in Pakistan

EDSMAT3-F-24-FINANCIAL AND ECONOMIC PLANNING FOR ENERGY PROJECTS

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 30 Jun 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partners Menaal International Travel, Jerson Remo and Team

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan. 10 training courses delivered at WAPDA Academies in Pakistan by AIT and partners

Description:

This course is designed for engineers of Pakistan's Water and Power Development Authority to develop competencies in financial and economic planning activities of hydropower projects. It is aimed at strengthening individual skill sets vital to the smooth implementation of the entire project and the successful achievement of its desired outcomes.

EDSMAT3-F-25-HYDROPOWER FINANCING AND RISK MANAGEMENT

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 05 Dec 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partners: ECEWI, Menaal International Travel and Tanatat

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan. 10 training courses delivered at WAPDA Academies in Pakistan by AIT and partners

Description:

This course is designed for engineers of Pakistan's Water and Power Development Authority to develop competencies in hydropower financing and risk management activities of hydropower projects. It is aimed at strengthening individual skill sets vital to the smooth implementation of the entire project and the successful achievement of its desired outcomes.

TECHNICAL TRAINING FOR 100 WOMEN ENERGY PROFESSIONALS IN SOUTH ASIA REGION (SAR100)

AIT Research Theme: Food-Energy-Water

AIT Unit: Sustainable Energy Transition, SERD

Duration: 05 Jul 2023 to 31 Dec 2025

Project Sponsor/Client: The World Bank

Project Partners: The Yunus Center at AIT and participants from Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

Expected Social Impact:

1. 100 women from 7 designated countries would be trained in power and energy areas.
2. These professionals would work on clean energy transition in the region, which would improve energy supply and mitigate climate change, etc.

Description:

Rational: Design, develop, deliver, assess, and validate ten (10) modules of technical training for 100 women energy professionals in South Asia (SAR-100) for the World Bank-led, Australian Government-funded South Asia Regional Infrastructure Connectivity (SARIC) Large Systems Training Program (LSTP) under subcontract to Palladium International, via the Regional Knowledge Hub (RKH) established by the Yunus Center AIT's Energy Development: Services, Management & Technology (EDSMAT) program at AIT.

The scope of work shall comprise the design, development, delivery, assessment, and validation of the SAR100 program. This scope of work shall include the preparation and standardization of materials, delivery of the requisite teaching materials, facilitation of all online classes and on-site practicums, coordination of the capstone field visit, and submission of individual performance assessments of all module participants according to the client's reporting framework. The level of effort shall be equivalent to a cumulative 225 hours of contact time over the duration of the program, as conveyed in the Terms of Reference.

TECHNICAL TRAINING FOR 100 WOMEN ENERGY PROFESSIONALS IN SOUTHEAST ASIA (SAR100)

AIT Research Theme: Food-Energy-Water

AIT Unit: Sustainable Energy Transition, SERD

Duration: 10 Jul 2023 to 31 Dec 2025

Project Sponsor/Client: Department of Foreign Affairs & Trade (DFAT)

Project Partners: DFAT & Palladium International Pty Ltd.

Expected Social Impact:

The outcomes of the project will benefit as follows.

a. mid-career women engineering/technical professionals and

b. grassroots women technicians in rural areas.

Description:

\WePOWER SAR100 is a series of training for women professionals in the energy sector from the Southeast Asia region (SAR). It is a collaborative regional effort that will upgrade skill sets and build gender diversity in a key development sector. SAR100 is offered as part of the South Asia Regional Infrastructure Connectivity (SARIC) program, funded by the Australian Department of Foreign Affairs and Trade (DFAT) through Palladium International. The World Bank is spearheading SAR100 together with national counterparts from seven (7) participating countries represented in the Regional Working Group (RWG). SAR100 is a professional training series for mid-career women engineering professionals from the South Asian Region (SAR) designed to equip them for leadership, ensuring gender diversity in the energy sector.

TECHNOLOGY NEEDS ASSESSMENT IV- WORKSHOP

AIT Research Theme: Food-Energy-Water

AIT Unit: Sustainable Energy Transition, SERD

Duration: 01 May 2023 to 30 Jun 2024

Project Sponsor/Client: UNOPS

Project Partners: DFAT & Palladium International Pty Ltd.

Expected Social Impact:

Technologies for climate change mitigation and adaptation are assessed, technology actions are assessed, and a technology action plan is implemented.

Description:

This is a project to assist countries, i.e., Maldives, Timor Leste, and Papua New Guinea, to assess their technology needs for climate change mitigation and adaptation. Conducting a workshop to train the country's participants on the development of a technology action plan.

BHARGAB MOHAN DAS_MULTIDIMENSIONAL SUSTAINABILITY ENHANCEMENT

AIT Research Theme: Food-Energy-Water

AIT Unit: Entrepreneurship Center

Duration: 01 Jul 2024 to 31 Jul 2025

Project Sponsor/Client: Bhargab Mohan Das

Project Partners:

1. AIT Alumni, Bhargab Mohan Das,
2. Mimi Das Saikia,
3. Giang Thi Thu Thao,
4. Hemant C. Warad, 5. Sutee Nuntaburus.

Expected Social Impact: Support for initiatives that promote clean energy access, with a focus on underserved communities and regions.

- Support for initiatives that align with the global sustainability agenda of achieving a net-zero future, reducing carbon emissions, and reducing environmental impact.
- This project assessment includes considerations for environmental impact, resource efficiency, cost-

effectiveness, and policy implications, all while emphasizing social and community benefits.

Description:

This multidimensional sustainability enhancement is open under Incubation Service Agreement no. AITEC-23002 in a collaboration with AIT alumnus Bhargab Mohan Das. The primary aim of this endeavor is to contribute to the achievement of Sustainable Development Goals (SDGs) 7 (Affordable and Clean Energy), 11 (Sustainable Cities and Communities), and 12 (Responsible Consumption and Production)

INTERNATIONAL CONFERENCE ON SUSTAINABLE ENERGY 2024 (ICUE 2024) ON ENERGY TRANSITION AND NET ZERO CLIMATE FUTURE

AIT Research Theme: Climate change

AIT Unit: Energy, SERD

Duration: 16 Feb 2024 to 31 Jul 2025

Project Sponsors/Clients: Conference delegates, members of the academe, corporate delegates

Expected Social Impact: Conference attendees will help accelerate joint learning on recent developments and technological innovations in energy use and practices and help facilitate better understanding of the technical and policy aspects of integrated approaches to the interconnected economic, social, and environmental challenges for a just energy transition leading to a net-zero climate future.

Description:

The Sustainable Energy Transition program of the Department of Energy, Environment, and Climate Change regularly organizes an international conference every 2 years in the name of AIT. The program believes that this activity contributes to promoting AIT to different global energy and environment stakeholders Buoyed by the success of ICUE 2022 on energy, environment, and climate change, AIT can continue to contribute to advancing the discussions on sustainable development by hosting ICUE 2024. This iteration of the ICUE conference series will be under the new theme "International Conference on Sustainable Energy 2024 (ICUE 2024) on Energy Transition and Net Zero Climate Future." ICUE 2024 will aim to promote sustainable practices, foster awareness and education, facilitate collaboration, and support policy initiatives in the context of a sustainable energy transition for a green, net-zero climate future. The ICUE 2024 will take place on October 21–23, 2024, in Pattaya City, Thailand.

FIDIC'S CONDITION OF CONTRACTS: RED, SILVER, AND YELLOW BOOKS INCLUDING ACCOUNT AND FINANCIAL MANAGEMENT, 5-12 APRIL 2024

AIT Research Theme: Food-Energy-Water

AIT Unit: AIT Extension

Duration: 31 Dec 2024 to 31 Dec 2024

Project Sponsor/Client: NEA Engineering Co., Ltd., Nepal

Expected Social Impact: This program will enhance the professional capacity of participants—particularly engineers, project managers, and contract administrators—by equipping them with in-depth knowledge of international construction contract standards

Description:

The program will feature a mixture of classroom input sessions and field visits relevant to providing participants with a holistic learning experience. Classroom sessions will cover key principles and provisions of FIDIC's Red, Yellow, and Silver Books, while field visits will offer real-world examples and best practices.

BIOCHAR INTEGRATION FOR OPTIMAL METHANE RECOVERY AND NUTRIENT ASSIMILATION IN ANAEROBIC DIGESTION OF FOOD WASTE

AIT Research Theme: Food-Energy-Water

AIT Unit: Environmental Engineering and Management, SERD

Duration: 01 May 2024 to 30 Jun 2025

Project Sponsors/Clients: Research Initiation Grant

Expected Social Impact: The following major activities are proposed during the project implementation:

i. Biochar Production and Biochar Characterization: Biochar will be produced using agricultural residues and will be characterized for its physicochemical properties.

ii. Determination of effects of biochar in anaerobic digestion of food waste (FW): Biomethane potential (BMP) tests will be used to determine the effects of the biochar addition on AD of FW. Kinetic parameters, like disintegration rates, will be studied using first-order kinetics, and experimental data will be fitted with the modified Gompertz equation to determine the maximum biogas production rates and lag time.

iii. Operation of a semi-continuous anaerobic digestion process: A semi-continuous reactor will be operated to assess the dosing strategies and long-term effects of biochar additions in a mesophilic one-stage anaerobic digestion process. The biogas and digestate will be analyzed for gas composition and concentration of VFA and nutrient analysis.

iv. Dissemination of findings: Results of the study will be disseminated via one conference presentation and one scientific manuscript.

The proposed project is expected to train two graduate students.

Description:

Food waste (FW) accounts for a significant portion of global waste, and proper management and disposal are essential to reduce environmental impacts like greenhouse gas emissions and land disposal. Anaerobic digestion (AD) of FW has emerged as a promising solution to generate renewable energy in the form of methane gas. However, the FW is a readily degradable substrate that can easily destabilize the AD process due to rapid hydrolysis and acidification leading to volatile fatty acid (VFA) accumulation. There has been increasing interest in the application of biochar in anaerobic digestion processes to minimize the effect of several inhibitors. Therefore, the application of biochar can be effective in enhancing the AD process performance. Kinetic modeling is also a recognized method for describing the particular system performance parameters. Studies on how biochar affects the kinetics of AD are limited. Therefore, it becomes important to study the effects of biochar addition on the kinetic parameters during the AD of readily degradable substrates like FW. Moreover, it is equally important to study the impact of biochar addition on the semi-continuous or continuous operation of the AD process for scale-up implications. The outcomes of the study can be used for estimating treatment efficiencies of higher-scale reactors with similar operational conditions. This study aims to assess the effect of different biochar types and doses on biogas production during the mesophilic AD of FW at higher substrate concentrations or loads.

TECHNICAL TRAINING FOR 100 SOUTH ASIAN WOMEN ENGINEERS LEADERSHIP (SAR100-2.0)

AIT Research Theme: Technology, Policy and Society

AIT Unit: Sustainable Energy Transition, SERD

Duration: 11 Nov 2024 to 31 Dec 2026

Project Sponsors/Clients: The World Bank-led, Australian Government-funded SARIC Large Systems Training Program (LSTP) under subcontract to Palladium International

Project Partners: YCA@AIT

Expected Social Impact:

1. Train 100 mid-career women in energy sectors from South Asia
2. Improve women's participation in energy sectors
3. Improve women's socioeconomic standing in South Asia

Description:

Design, develop, deliver, assess, and validate 8 modules for the second cohort of the Technical Training for 100 South Asian Women Engineers Leadership (SAR100-2.0) program for the World Bank-led, Australian Government-funded South Asia Regional Infrastructure Connectivity (SARIC) Large Systems Training Program (LSTP) under subcontract to Palladium International, via the Regional Knowledge Hub (RKH) established by the Yunus Center AIT's Energy Development: Services, Management & Technology (EDSMAT) program at AIT.

EDSMAT3-D-19-GRID STATION OPERATIONS MANAGEMENT

AIT Research Theme: Infrastructure

AIT Unit: Yunus Center

Duration: 21 Nov 2022 to 30 Jun 2025

Project Sponsors/Clients: World Bank, Pakistan Water and Power Development Authority (WAPDA)

Project Partner: ECEWI and Menaal International Travel

Expected Social Impact: Improved efficiencies in energy services, management and technologies enhance energy security for citizens of Pakistan

Description:

Grid Station Operations Management: An electrical grid station is an important unit in the transmission of electricity throughout a country. A grid station is like a middleman who receives electricity from power plants and other grids and then transmits that electricity over long distances.

Operations:

AIT TAKES THE LEAD IN SUSTAINABILITY WITH THE LAUNCH OF THE SOLAR ROOFTOP PROJECT

Launched on **20 August 2024** in partnership with BCPG Public Company Limited, the AIT Solar Rooftop Project is a landmark sustainability initiative with a **total installed capacity of 1.5 MW**, projected to generate **1.95 GWh of electricity per year** and reduce carbon emissions by **973 tons annually**. The project supports AIT's target of achieving **net zero emissions by 2030**, aligning with

The actual impact of the solar rooftop installation is evident in the decreasing trend in monthly electricity consumption since its launch in **August 2024**:

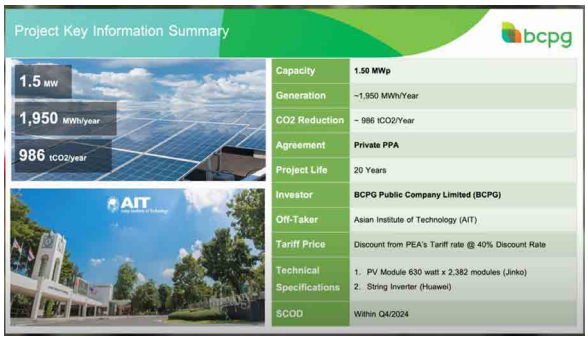
Month	2023 Consumption (kWh)	2024 Consumption (kWh)	% Reduction
August	961,560	883,680	-6.48%
September	933,240	903,840	-2.88%
October	917,760	801,840	-10.51%
November	831,720	741,000	-14.10%
December	726,840	547,080	-24.41%

From **August to December 2024, AIT recorded an average monthly electricity consumption reduction of 11.68%,** compared to the same months in 2023. The most substantial drop occurred in December with a **24.41% decrease,** strongly indicating the positive effect of solar energy integration. The Solar Rooftop Project has already started yielding measurable energy savings within the first five months of operation. With further optimization and the upcoming **1.2 MW floating solar** installation, AIT is well on track to achieve its energy goals.

- Substantially reduce reliance on grid electricity
- Lower operational carbon emissions
- Serve as a model for other academic institutions pursuing sustainable energy transitions

The project showcases the successful integration of **renewable energy technologies in campus operations,** directly contributing to climate action and clean energy goals.

https://www.youtube.com/watch?v=1tdh3e-t7Tg&t=47s



News:

AIT OPENS DOORS TO GLOBAL CAREER PATHS AT ASEAN CAREER FAIR IN SINGAPORE

Description:

On January 27, 2024, thirteen students from the Asian Institute of Technology (AIT) participated in the ASEAN Career Fair with Japan held in Singapore. This exclusive, invitation-only event, organized by the ASEAN Career Fair (ACF) with the Japan Committee in collaboration with Energize, Inc., connects top talent from Southeast Asia with leading Japanese companies. The participating AIT students were introduced to this opportunity during the AIT Career Fair in October 2023 and were supported by travel grants from the organizers. The fair featured twenty prominent companies across various industries, including AGC Asia Pacific Pte. Ltd., Lion Corporation, and Mitsubishi Heavy Industries, Ltd., offering students insights into diverse cultures and business practices from ASEAN countries and Japan, thereby broadening their career horizons. This initiative underscores AIT's commitment to student career development and global employability.

https://ait.ac.th/2024/01/ait-opens-doors-to-global-career-paths-at-asean-career-fair-in-singapore/

AIT CAREER FAIR: UNITING ASPIRATIONS AND INDUSTRIES

Description:

On March 27, 2024, the Asian Institute of Technology (AIT) Career Center hosted the Spring 2024 Career Fair, a dynamic event that brought together students and industry leaders in an atmosphere of hope and ambition. Building on the success of previous fairs, this year's event aimed to promote cooperation and eliminate barriers, offering numerous opportunities for both students and participating organizations. The fair featured 29 renowned companies, including global and local enterprises such as Arçelik Hitachi Home Appliances IBC Co., Ltd., Alstom, Delta Electronics Thailand, and PTT Exploration and Production PCL. These organizations engaged with AIT's talented students, exploring potential hires, internships, and educational sponsorships. The event underscored AIT's commitment to student career development and global employability.

https://ait.ac.th/2024/03/ait-career-fair-uniting-aspirations-and-industries/

AIT AND CSI BANGKOK SIGN MOU TO BOOST ACADEMIC AND ENTREPRENEURIAL COLLABORATION

Description:

The Asian Institute of Technology (AIT) and CSI Bangkok have signed a Memorandum of Understanding (MoU) to foster academic exchanges, entrepreneurship, and research and development. This partnership will also support professional and consultancy programs, reinforcing AIT's role as a hub for innovation. Notably, CSI Bangkok is the first BOI-approved company established within the AIT BOI Science and Technology Park, marking a significant step toward strengthening industry-academic collaboration.

https://ait.ac.th/2024/05/ait-and-csi-bangkok-signs-mou-to-boost-academic-and-entrepreneurial-collaboration/

BHIRAMON CHUPRAPAWAN SUPPORTS ONE INCUBATOR SPACE AT THE AIT ENTREPRENEURSHIP CENTRE (EC)

Description:

On May 17, 2024, Bhiramon Chuprapawan, founder and CEO of 4Care Group and an alumna of the Asian Institute of Technology (AIT), generously donated THB 150,000 to fund an incubator unit at the AIT Entrepreneurship Center (EC). Bhiramon, who completed her International Executive Master of Business Administration in 2003, expressed that her transformative experience at AIT equipped her with invaluable business acumen, contributing significantly to her entrepreneurial journey. Her donation aims to support the EC's mission to nurture innovation and entrepreneurship among students and startups, providing essential resources for new ventures.

https://ait.ac.th/2024/05/ms-bhiramon-chuprapawan-supports-one-incubator-space-at-the-ait-entrepreneurship-center-ec/

Projects:

COOPERATIVES AND GLOBAL SUPPLY CHAIN LOGISTICS

AIT Research Theme: Technology, Policy, and Society

AIT Unit: Natural Resources Management; Aquaculture and Aquatic Resources Management

Duration: April 2024

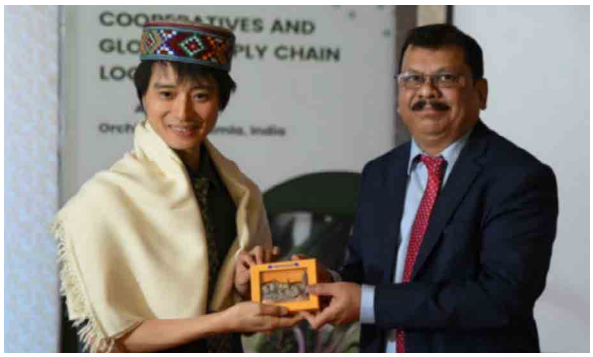
Project Sponsor/Client: NEDAC

Project Partners: ICAR; Gandhigram Rural Institute; CONCOR; NCUI; Himachal Pradesh State Cooperative Milk Producers' Federation Ltd.

Expected Social Impact: Improved efficiencies in energy services, management, and technologies enhance energy security for citizens of Pakistan

Description:

The Cooperatives and Global Supply Chain Logistics workshop was organized at Orchid Hotel, Shimla, India, by NEDAC (the Network for the Development of Agricultural Cooperatives in Asia and the Pacific). The AIT expert discussed "Roles of Agricultural Cooperatives in Enhancing Global Supply" alongside other esteemed speakers from the Cooperative Promotion Department of Thailand and



Can Tho University of Vietnam. The AIT expert elaborated on the vital roles played by agricultural cooperatives in supporting smallholders in marginalized areas and stressed the importance of leveraging technologies such as IoT for farm management to tackle the global issue of an aging population. He highlighted that while industrial processors are often more productive, cooperatives are essential for collective action where it is most needed.

RURAL REVITALIZATION THROUGH INCLUSIVE AND SUSTAINABLE TOURISM DEVELOPMENT

AIT Research Theme: Sustainable Development and Social Impact

AIT Unit: School of Environment, Resources, and Development (SERD)

Duration: Started in 2022 - Ongoing

Project Sponsor/Client: Multiple funding agencies and institutional partners

Project Partners: Pokhara University and various governmental, non-governmental, and international organizations

Expected Social Impact: The project aims to support Nepalese rural communities, particularly in partnership with Pokhara University, by fostering economic resilience, reducing poverty, and promoting social inclusion. By integrating sustainable tourism practices, it helps create livelihood opportunities, preserves traditional knowledge, and strengthens environmental conservation efforts.

Description:

The Asian Institute of Technology (AIT), in collaboration with Pokhara University, is conducting research on rural revitalization through inclusive and sustainable tourism development, with a focus on Nepal. The study examines

how community-based tourism can drive economic growth while preserving cultural heritage and ensuring environmental sustainability. AIT and Pokhara University are working together to identify best practices, policy recommendations, and innovative strategies that empower local communities, create employment opportunities, and enhance rural economies through responsible tourism initiatives.

https://ait.ac.th/2024/10/rural-revitalization-through-inclusive-and-sustainable-tourism-development/

EXECUTIVE DEVELOPMENT PROGRAM ON OUTCOME BASED LEARNING: ADVANCED CONCEPTS AND PRACTICES

AIT Research Theme: Technology, Policy and Society

AIT Unit: School of Management

Duration: 10 Nov 2023 to 31 Mar 2024

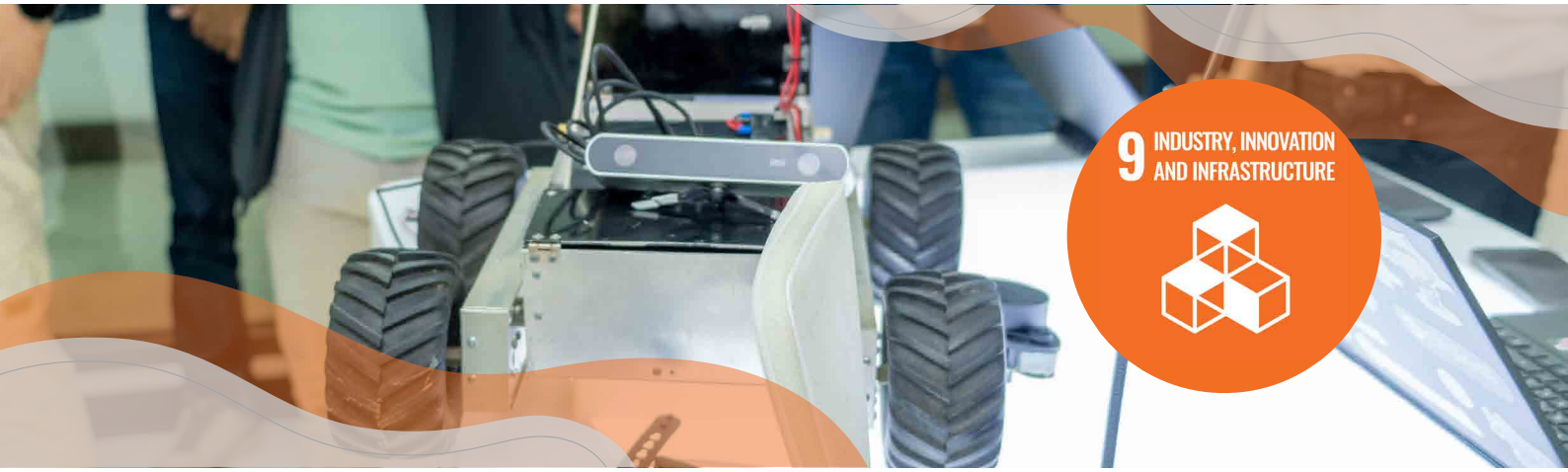
Project Sponsor/Client: ConnectED Learning and Development

Project Partners: Connected Learning and Development a company registered in Thailand with Board of Investment privileges

Expected Social Impact: Improve the capacity of institutions in an emerging market to act as catalysts of change.

Description:

This executive development program has been tailored for senior officers at the National Institute of Business Management (NIBM). Spanning three days, the Executive Development Program is intended to furnish participants with advanced tools and techniques for navigating organizations in the midst of a swiftly evolving environment. The program will encompass a meticulous examination of the business landscape, enabling senior management to devise and implement strategies that generate enduring value.



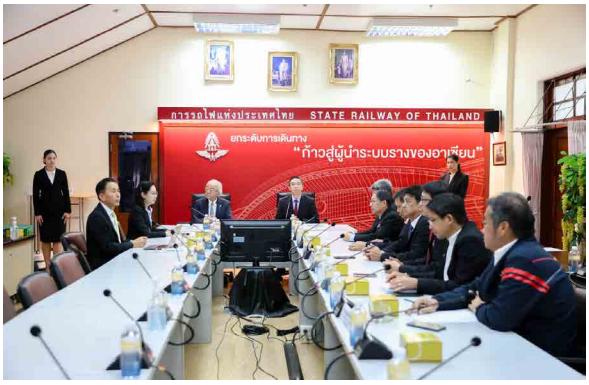
News:

ADVANCING ACADEMIC COLLABORATION: A MILESTONE MOMENT FOR THE STATE RAILWAY OF THAILAND AND THE ASIAN INSTITUTE OF TECHNOLOGY

Description:

A significant step toward academic collaboration was taken on February 23, 2024, as the State Railway of Thailand (SRT) and the Asian Institute of Technology (AIT) formalized a Memorandum of Understanding (MoU). This MoU underscores the commitment of both entities to forge a cooperation agreement focusing on academic realms.

https://ait.ac.th/2024/02/advancing-academic-collaboration-a-milestone-moment-for-the-state-railway-of-thailand-and-the-asian-institute-of-technology/



AIT STUDENTS EXPLORE INNOVATIVE CONSTRUCTION TECHNIQUES AT TERRA RESIDENCE

Description:

Students from the Structural Engineering Program, School of Engineering and Technology, went on an exciting site visit to the Terra Residence, which is currently under construction, in Rangsit. Faculty members Dieter W. Trau, Krishna Chaitanya, and Khin Myat Kyaw went on the trip with them. The trip provided the students with invaluable insights into innovative construction techniques.

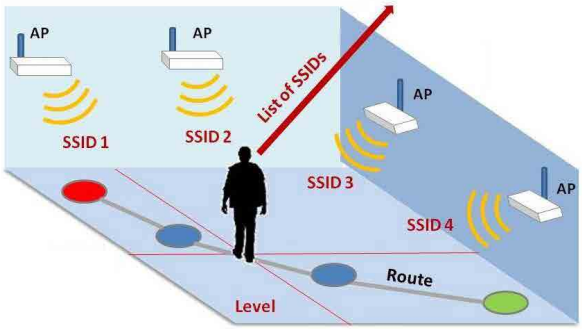
https://ait.ac.th/2024/02/ait-students-explore-innovative-construction-techniques-at-terra-residence/

AIT'S DEEP-LEARNING-BASED WIRELESS INDOOR LOCALIZATION PAPER RANKS IN TOP 10% OF DOWNLOADS & IS THE MOST CITED PAPER

Description:

AIT proudly shares that in a notable achievement, AIT's alumni from Telecommunications Program, School of Engineering and Technology and current researchers in the Location and Automatic Identification System Research Team, National Electronics and Computer Technology Center (NECTEC), Thailand, Juthatip Wisanmongkol and Attaphongse Taparugssanagorn's paper achieved a significant milestone. This paper exploring deep learning-based wireless indoor localization became the top 10% most downloaded and is the most cited paper in IET Wireless Sensor Systems Journal.

https://ait.ac.th/2024/03/aits-deep-learning-based-wireless-indoor-localization-paper-ranks-in-top-10-of-downloads/



AIT AND PTTEP SIGN LANDMARK AGREEMENT FOR ACADEMIC-INDUSTRY COLLABORATION

Description:

The Asian Institute of Technology (AIT) and PTT Exploration and Production Public Company Limited (PTTEP) signed a Memorandum of Understanding (MoU) on 3 April, 2024, that aims to revolutionize collaboration between academia and the industry. The ceremony hosted at AIT is a significant milestone in the partnership between the prestigious educational institute and the leading energy company.

https://ait.ac.th/2024/04/ait-and-pttep-sign-landmark-agreement-for-academic-industry-collaboration/

AIT AND FDI ACCOUNTING AND ADVISORY CO., LTD., ESTABLISH STRATEGIC ALLIANCE FOR INDUSTRY-ACADEMIA COLLABORATION

Description:

The Asian Institute of Technology (AIT) and FDI Accounting and Advisory Co., Ltd. (FDI) have formed a strategic partnership to foster collaboration between academia and industry. This partnership was made official through a Memorandum of Understanding (MoU) signed by AIT President Kazuo Yamamoto and President of FDI Group, Mrs. Patcharaporn Wechwitayakhlung, on April 2, 2024.

https://ait.ac.th/2024/04/ait-and-fdi-accounting-and-advisory-co-ltd-establish-strategic-alliance-for-industry-academia-collaboration/

AIT STUDENTS EXCELS AT THE 2ND BU X BERKELEY SKYDECK FUND HACKATHON 2024

Description:

In a remarkable display of talent and innovation, four students from the School of Engineering and Technology (SET) at the Asian Institute of Technology (AIT) displayed their skills at the 2nd BU X Berkeley SkyDeck Fund Hackathon 2024 at Bangkok University. Their outstanding performance earned them the prestigious Honorable Mention Award on 29 March 2024. The team, "Excel in Stone," comprised of Binay Karna, Rahul Kasaudhan, and Muhammad Hammad from the Structural Engineering Program, and Tungish Uprety from Water Engineering and Management, was selected in the top 10 among 100 teams from 20 different countries.

https://ait.ac.th/2024/04/ait-students-triumph-at-the-2nd-bu-x-berkeley-skydeck-fund-hackathon-2024/

STUDY TOUR AT PRACHINBURI TO NOVEL PRECAST FACTORY FOR RAPID HOUSE CONSTRUCTION

Description:

The AIT Entrepreneurship Center (EC) organized a study tour for students on 10 April 2024, to observe the latest eco-friendly house construction methods. The tour was attended by a total of 10 participants, including students, staff members, and professors. The delegation had the privilege to visit a construction company owned by an esteemed AIT alumnus and EC Mentor, Bhargab Mohan Das.

https://ait.ac.th/2024/04/study-tour-at-prachinburi-to-novel-precast-factory-for-rapid-house-construction/

THE FUTURE LAB, AIT X BUPT LAUNCHED

Description:

On 26 April 2024, AIT and Beijing University of Posts and Telecommunications (BUPT) signed a Memorandum of Understanding for the co-establishment of the Future Lab, AIT X BUPT, and inaugurated the new joint facility at AIT that was witnessed by senior diplomats of the Embassy of China in Thailand.

https://ait.ac.th/2024/04/the-future-lab-ait-x-bupt-launched/

EXPLORING THE BOUNDARY LAYER WIND TUNNEL: A COLLABORATIVE VENTURE OF AIT AND THAMMASAT UNIVERSITY

Description:

On 17 April 2024, students from the Structural Engineering program at the School of Engineering and Technology, Asian Institute of Technology (AIT), accompanied by Pennung Warnitchai, visited the wind tunnel facility. This wind tunnel, located at Thammasat University, is a collaborative endeavor between AIT and Thammasat, serving as their joint commitment to cutting-edge engineering research and innovation.

https://ait.ac.th/2024/05/exploring-the-boundary-layer-wind-tunnel-a-collaborative-venture-of-ait-and-thammasat-university/

AIT AND AI BRAIN LAB SIGN MOU TO FOSTER AI-DRIVEN ACADEMIC AND BUSINESS SYNERGIES

Description:

The Asian Institute of Technology (AIT) and AI Brain Lab Co., Ltd. (AIBL) have formalized their collaboration with the signing of a Memorandum of Understanding (MoU). This strategic partnership aims to boost academic exchanges, entrepreneurial initiatives, research, and development through AIBL's establishment at AIT's Board of Investment (BOI) Science and Technology Park.

https://ait.ac.th/2024/05/ait-and-ai-brain-lab-sign-mou-to-foster-ai-driven-academic-and-business-synergies/

AIT AND TEPBAC SIGN MOU TO ENHANCE RESEARCH AND TECHNICAL COLLABORATION

Description:

A Memorandum of Understanding (MoU) was signed to establish cooperation between the Asian Institute of Technology (AIT) and Tepbac Joint Stock Company (TEPBAC), Ho Chi Minh City, Vietnam. The agreement aims to enhance the caliber of research and technical proficiency of both AIT and TEPBAC through the exchange of personnel, researchers, academic information, and documentation.

https://ait.ac.th/2024/05/ait-and-tepbac-sign-mou-to-enhance-research-and-technical-collaboration/

I-BITZ COMPANY LIMITED DONATES A HIGH-PERFORMANCE COMPUTER TO AIT'S AI AND SIMULATION LAB

Description:

i-bitz donated a high-performance computer to AIT, valued at THB 375,000, to support research in AI and simulation. This partnership aims to enhance AIT's capabilities in cutting-edge technology research.

https://ait.ac.th/2024/06/i-bitz-company-limited-donates-a-high-performance-computer-to-aits-ai-and-simulation-lab/

BREAKING BARRIERS AT AIT: A JOURNEY IN ENGINEERING

Description:

This article features Rakshya Lama Moktan, a master's student in data science and AI at AIT, who aims to revolutionize medical AI to improve brain stroke management. Inspired by personal loss, she focuses on integrating AI with healthcare, highlighting the need for greater female representation in STEM fields and encouraging women to pursue engineering careers.

https://ait.ac.th/2024/06/breaking-barriers-at-ait-a-journey-in-engineering/

AIT PARTICIPATES IN THE CELEBRATION OF THE 45TH ANNIVERSARY OF ASIA-PACIFIC TELECOMMUNITY (APT)

Description:

AIT representatives attended the 45th anniversary of APT, discussing advancements in ICT development within the Asia-Pacific region.

https://ait.ac.th/2024/07/ait-participates-in-the-celebration-of-the-45th-anniversary-of-asia-pacific-telecommunity-apt/

NEPAL INFRASTRUCTURE SUMMIT 2024: AIT EXPERTS LEAD KEY DIALOGUES ON SUSTAINABILITY, GENDER EQUALITY, AND DIGITAL TRANSFORMATION

Description:

At the Nepal Infrastructure Summit 2024, held on 12-13 September in Kathmandu, AIT experts led discussions on sustainability, gender equality, and digital transformation in infrastructure development. Key topics included the need for resilient and inclusive infrastructure, integrating climate policies, and creating opportunities for women in the sector. The summit also highlighted the role of advanced technologies like AI and IoT in enhancing infrastructure projects. Overall, it served as an important platform for addressing challenges and promoting innovative solutions in Nepal's infrastructure landscape.

https://ait.ac.th/2024/09/ait-experts-lead-key-discussions-on-sustainability-gender-inclusivity-and-digital-transformation-at-nepal-infrastructure-summit-2024/

AIT STUDENTS GAIN GLOBAL INSIGHT INTO RESILIENT INFRASTRUCTURE AT THE GPBL PROGRAM IN TOKYO

Description:

From September 17 to 26, 2024, 24 AIT students participated in the Global Project Based Learning (gPBL) Program at Shibaura Institute of Technology in Tokyo, Japan. The program focused on "Resilient Infrastructure and Sustainability in Asia," fostering collaboration among students from various universities. Participants engaged in discussions, attended the Geotechnical Forum 2024, and participated in cultural activities, including a Yukata workshop. Students expressed that the experience broadened their perspectives and helped them build lasting friendships while immersing themselves in Japanese culture.

https://ait.ac.th/2024/09/ait-students-gain-global-insight-into-resilient-infrastructure-at-the-gpbl-program-in-tokyo/

SHAPING THE FUTURE: EXPLORING AI'S TRANSFORMATIVE POWER AND ETHICAL IMPERATIVES

Description:

On September 30, 2024, Chaklam Silpasuwanchai of AIT discussed the transformative power of Artificial Intelligence (AI) and its ethical implications. He highlighted AI's impact across various sectors, including education, environmental management, and mental healthcare. Chaklam emphasized that AI can enhance personalized learning, improve recycling rates, and provide accessible mental health support.

He also addressed ethical concerns, such as privacy and algorithmic bias, advocating for AI systems that augment human capabilities. Chaklam envisions a future where AI is as essential as electricity, requiring interdisciplinary collaboration and ethical development. He urged everyone to engage with AI responsibly to harness its potential for societal benefit. AIT is committed to nurturing future AI leaders through its advanced programs and research initiatives.

https://ait.ac.th/2024/09/shaping-the-future-exploring-ais-transformative-power-and-ethical-imperatives/

AIT AND DRONE ENTRY (THAILAND) SIGN MOU TO BOOST INNOVATION AND COLLABORATION

Description:

On October 18, 2024, AIT signed a Memorandum of Understanding (MoU) with Drone Entry (Thailand) Co., Ltd. to enhance innovation and collaboration. This partnership will establish Drone Entry's office at the AIT BOI Science and Technology Park and focus on academic exchange, research, and entrepreneurship. AIT President Pai-Chi Li highlighted the benefits for students, including internships and collaborative projects. Drone Entry's CEO, Prateek Srivastava, emphasized the goal of making AIT a gateway for ASEAN opportunities. The collaboration includes joint training events and business development initiatives to support startups and foster innovation.

https://ait.ac.th/2024/10/ait-and-drone-entry-thailand-sign-mou-to-boost-innovation-and-collaboration/

AIT CO-ORGANIZES GREEN TECH EXPO 2024: ADVANCING SUSTAINABLE SOLUTIONS AND INDUSTRY COLLABORATION IN GREEN TECHNOLOGY

Description:

AIT co-organized the Green Tech Expo 2024 from October 24 to 26, focusing on sustainable solutions in green technology. Held at the Bangkok International Trade and Exhibition Center, the event brought together global leaders and experts to showcase innovations aimed at enhancing business sustainability.

The expo featured AIT's Belt and Road Research Center and showcased research projects, including the use of repurposed textiles in cement and converting activated sludge into biochar for water purification. This initiative aimed to foster partnerships and advance sustainable development practices, contributing to a carbon-neutral future.

https://ait.ac.th/2024/10/ait-co-organizes-green-tech-expo-2024-advancing-sustainable-solutions-and-industry-collaboration-in-green-technology/

AIT EXPLORES PARTNERSHIP WITH SAHA PATHANA INTER-HOLDING TO SUPPORT THAILAND'S HIGH-TECH MANUFACTURING AND WORKFORCE DEVELOPMENT

Description:

On October 31, 2024, AIT leaders, including Chairman Anat Arbhabhirama and President Pai-Chi Li, met with Vichai Kulsomphob, CEO of Saha Pathana Inter-Holding (SPI), to explore potential partnerships aimed at enhancing Thailand's high-tech manufacturing and workforce development. SPI, a major conglomerate, is establishing Thailand's first modern printed circuit board (PCB) factory in collaboration with Zhen Ding Tech Group. The discussions focused on capacity-building initiatives and knowledge-sharing programs between AIT, SPI, and other Thai universities to address the skills gap and promote innovation. A formal cooperation agreement is in progress to facilitate collaborative research and skill development.

https://ait.ac.th/2024/10/ait-explores-partnership-with-saha-pathana-inter-holding-to-support-thailands-high-tech-manufacturing-and-workforce-development/

SUSTAINABILITY IN ACTION: RESEARCH TRENDS WORKSHOP AND SDGS COMPETITION SPUR INNOVATION AND COLLABORATION AT AIT

Description:

Bringing together students, researchers, industry experts, and sustainability advocates to address pressing environmental challenges, the AIT Office of Sustainable Campus organized the Sustainability Research Trends Workshop and SDG Research Trends Competition on 31 October 2024.

https://ait.ac.th/2024/11/sustainability-in-action-research-trends-workshop-and-sdg-competition-propel-innovation-and-collaboration-at-ait/

UP WE BUILD: AIT AND CSCEC THAILAND STRENGTHEN TIES IN SUSTAINABLE COLLABORATION

Description:

The Asian Institute of Technology (AIT) and China State Construction Engineering Corporation (CSCEC) Thailand joined forces on 19 November 2024 to co-host the "Up We Build – Serving Thailand with Sustainable Collaboration," a forum that featured the release of the 2022-2023 CSCEC Thailand Sustainability Report and the launch of the Chinese firm's Up We Build Program in Thailand.

https://ait.ac.th/2024/11/allplus-thailand-co-ltd-has-established-partnership-with-ait/

ALLPLUS (THAILAND) CO., LTD. HAS ESTABLISHED PARTNERSHIP WITH AIT

Description:

On November 7, 2024, Zhidan Li, Managing Director of ALLPLUS (Thailand) Co., Ltd., and Pai-Chi Li, President of AIT, formalized a partnership by signing two key agreements: A Memorandum of Understanding (MOU) outlining a five-year academic and research collaboration for AIT students, and a Donation Agreement to establish a Student Graduation Prize Award. This award will recognize outstanding graduates from both the "Environmental Engineering and Management" and "Bio-Nano Material Science & Engineering" programs. Beginning in May 2025, two students will be honored annually for the next five years.

https://ait.ac.th/2024/11/allplus-thailand-co-ltd-has-established-partnership-with-ait/

AIT HOSTS INAUGURAL INDUSTRY-ACADEMIA BUSINESS INCUBATION CONCLAVE: DRIVING INNOVATION, COLLABORATION, AND SUSTAINABLE GROWTH

Description:

The Asian Institute of Technology (AIT) hosted the inaugural Industry-Academia International Business Incubation Conclave (IAIBIC 2024) on November 28, 2024. Themed "Inspire ~ Ideate ~ Incubate," the event aimed to bridge the gap between academia, industry, and policy-making, fostering innovation, collaboration, and business incubation. It served as a platform to inspire startups, entrepreneurs, and innovators to establish ventures at AIT's Science and Technology Park with support from leading stakeholders.

https://ait.ac.th/2024/11/ait-hosts-inaugural-industry-academia-business-incubation-conclave-driving-innovation-collaboration-and-sustainable-growth/

ADVANCED LOW COST STRUCTURAL HEALTH MONITORING FOR SAFER CITIES

Description:

Srikulnath Nilnoree, a PhD candidate in the Structural Engineering Program at the School of Engineering and Technology, AIT, has made significant strides in the field of Structural Health Monitoring (SHM) under the guidance of Attaphongse Taparugssanagorn. Srikulnath Nilnoree was also selected as an exchange student (October 2023 to March 2024) at the University of Tokyo.

https://ait.ac.th/2024/12/advanced-low-cost-structural-health-monitoring-for-safer-cities/

ADVANCED LOW COST STRUCTURAL HEALTH MONITORING FOR SAFER CITIES

Description:

The Asian Institute of Technology (AIT) and the Chitralada Technology Institute (CDTI) signed a Memorandum of Agreement on December 11, 2024, to establish joint ownership of intellectual property arising from a collaborative research project. The agreement was signed by Pai-Chi Li, President of AIT, and Khunying Sumonta Promboon, President of CDTI.

https://ait.ac.th/2024/12/ait-and-cdti-partner-for-research-impact-and-technological-advancement/

Projects:

SCG BANGKOK BUSINESS CHALLENGE 2024

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Jun 2024

Project Sponsor/Client: Sasin, K-Bank

Project Partners: Baanwin Farm

Expected Social Impact: Reduced air pollution; Reduced waste; Increased income

Description:

A team of 5 students and 2 faculty members formed "KaseChar" and was selected as a semi-finalist for the SCG Bangkok Business Challenge on 20-22 June 2024.

https://drive.google.com/file/d/1wOjiRr91mIS6d8cE86x2g3xLI27xeArH/view

CAPACITY BUILDING FOR PTI

AIT Research Theme: Smart communities

AIT Unit: AIT Extension (Wongnai)

Duration: 11 Nov 2024 to15 May 2025

Project Sponsors/Clients: RDP III (AMC)/ GITEC-IGIP GmbH

Expected Social Impact: Empowered staff contribute to a more responsive and people-centered institution, fostering long-term societal development and well-being.

Description:

Enhance knowledge and skills of PTI staff on service-mindedness, time management, teamwork, and planning.

ONLINE WEBINAR SERIES FOR SUBJECTS ON AI 101 FUNDAMENTALS; ESG FUNDAMENTALS; AND DEI IN THE WORKPLACE

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Shrestha)

Duration: 11 Jan 2024 to 28 Jun 2025

Project Sponsors/Clients: Chailease Holding Co., Ltd.

Expected Social Impact: This training will enable the participants to design sustainable development plans that improve quality of life and promote equitable growth in urban and rural communities.

Description:

This training provides fundamental knowledge on ESG and sustainable development

CAPACITY BUILDING CENTER FOR HUMAN-CENTRIC SUSTAINABLE SMART INDUSTRY CAPACITY BUILDING CENTER FOR HUMAN-CENTRIC SUSTAINABLE SMART INDUSTRY

AIT Research Theme: Technology, Policy and Society

AIT Unit: Industrial and Manufacturing Engineering (Koomsap)

Duration: 01 Oct 2024 to 30 Sep 2025

Project Partner: Consortium members of ReCap 4.0 project

Project Sponsors/Clients: ReCap 4.0 under the Erasmus+ program

Expected Social Impact: Capacity building to support sustainable smart industry

Description:

The Capacity Building Center for Human-Centric Sustainable Smart Industry aims to research in response to a paradigm shift towards a more sustainable human-centered approach by integrating human-centric principles into innovative technology to support sustainable smart industry and share with communities in both domestic and international the knowledge gained in terms of training and coaching for upskilling and reskilling and be a hub to connect academic and industry people.

STRATEGIC HUMAN RESOURCE MANAGEMENT AND BUSINESS LEADERSHIP

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Jirasathitpornpong)

Duration: 25 Sep 2024 to 31 May 2025

Project Sponsors/Clients: Bhutan Development Bank Royal Insurance corporation of Bhutan Limited Finance, South Pacific Business Development Microfinance Ltd, Tonga Food and Agriculture Organization of United Nations, Nepal

Expected Social Impact: Build more commitment, better relationships, and interactions that result in outstanding team performance.

Description:

This training course is designed to support HR leaders and professionals in their quest for best practices that will be more beneficial to their organizations human resources and for the achievement of business targets. By providing them a better understanding of how to be both strategic and human-centered in their HR strategies and initiatives and giving them opportunities to explore various frameworks, tools, and techniques, they will be able to translate strategic thinking into actionable outcomes that will make all stakeholders happy.

PUBLIC RELATIONS AND COMMUNICATION SKILLS

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Karim)

Duration: 10 Jul 2024 to 30 April 2025

Project Sponsor/Client: National Pension and Provident Fund (NPPF)

Expected Social Impact: Participants will engage in activities such as designing climate-resilient water systems, site evaluation for water sources, and assessing environmental impacts. Tasks will include project planning, risk assessment, cost estimation, resource management, and implementing climate adaptation strategies. This hands-on approach will prepare participants to oversee sustainable construction practices, ensuring long-term functionality and community benefits.

Description:

The training will enhance the design and construction of climate-resilient water supply schemes, resulting in improved water accessibility for communities. This will lead to greater resilience against climate-related challenges, ensuring a stable water supply and promoting public health and well-being.

LEADERSHIP AND ORGANIZATIONAL RENEWAL

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Wangnai)

Duration: 16 Sep 2024 to 15 Mar 2025

Project Sponsor/Client: Nepal Telecom

Expected Social Impact: The social impact of this training lies in its ability to cultivate capable leaders who can design and implement sustainable development plans. By strengthening individual skills, leadership quality, and organizational development, the training promotes more effective institutions that can drive long-term positive change in communities, foster inclusive growth, and contribute to a more resilient and equitable society.

Description:

This training will enable the participants to design sustainable development plans that strengthen skills and leadership quality and improve organizational development.

PUBLIC EXPENDITURE MANAGEMENT: TOWARDS FISCAL SUSTAINABILITY AND MACROECONOMIC STABILITY AND TRANSPARENCY

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Wangnai)

Duration: 09 Aug 2024 to 22 Dec 2024

Project Sponsor/Client: Ministry of Finance

Expected Social Impact: Apply macroeconomic concepts to analyze and solve complex policy issues; integrate economic insights into policy development in their respective sectors; contribute effectively to interdisciplinary discussions and policy debates; and stay informed about recent macroeconomic developments and their implications for policy.

Description:

This project aims to build the capacity of participants to apply advanced macroeconomic concepts in analyzing and addressing complex policy challenges. Through interactive workshops, case studies, and expert-led discussions, participants will learn to integrate economic insights into policy formulation across various sectors.

AIT-RSQ: GENERATIVE AI WORKSHOP SERIES

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Wangnai)

Duration: 06 Jun 2024 to 29 May 2025

Project Sponsor/Client: RSQ

Expected Social Impact: To amplify participants' analytics skills to create instant insights through data visualization that benefit their business.

Description:

AIT-RSQ: Generative AI Workshop Series is a hands-on training program designed to equip participants with practical skills and foundational knowledge in generative AI, enabling them to apply cutting-edge tools and techniques across real-world scenarios.

LEADERSHIP AND MANAGEMENT

AIT Research Theme: Smart communities, Technology, Policy and Society

AIT Unit: AIT Extension (Wangnai)

Duration: 09Jun 2024 to 12 Dec 2024

Project Sponsor/Client: Royal University of Bhutan

Expected Social Impact: The goal is to enhance strategic thinking and management skills to align organizational goals with initiatives. The goal is to enhance the quality management of higher education programs by implementing accreditation and continuous improvement practices. To foster innovation in curriculum development, research, and teaching methodologies; and to modernize resource management in higher education institutions for efficient and sustainable operations.

Description:

This training aims to enhance strategic thinking and management skills and to foster innovation in research and teaching methodologies with collaboration with the Royal University of Bhutan.

ENHANCING HIGHER MANAGEMENT SKILLS IN PENSION FUND MANAGEMENT AND HEALTH INSURANCE (EPF)

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Wangnai)

Duration: 01 Apr 2024 to 31 Dec 2024

Project Sponsor/Client: Employees Provident Fund (EPF) of Nepal

Expected Social Impact: To enhance skills and knowledge in pension fund management and health insurance and to improve decision-making capabilities in fund management and health insurance schemes.

Description:

A 5-day training program. The training program will follow adult learning pedagogy. Thus, it will be conducted through a combination of lectures, group discussions, field trips to relevant institutions, and practical exercises. Industry experts and practitioners will be invited to share their insights and experiences, providing participants with real-world perspectives.

SMART CITY ASEAN LEARNING NETWORK

AIT Research Theme: Smart communities

AIT Unit: Mechatronics (Manukid Parnichkun)

Duration: 01 Jan 2024 to 31 Dec 2030

Project Sponsor/Client: Universiti Malaya

Expected Social Impact: The project promotes a fair and inclusive transition to smart cities by empowering youth and the workforce with essential skills, fostering equal opportunities, innovation, and sustainable urban development.

Description:

The project aims to support the upskilling of current and prospective smart city professionals and provide adequate educational opportunities to young students and the existing workforce, which are evidently deemed important for a fair, efficient, and sustainable transition toward smart cities.

TRAINING MANAGEMENT INSTITUTE IN SMART ERA

AIT Research Theme: Smart communities

AIT Unit: AIT Extension (Jirasathitpornpong)

Duration: 05 Feb 2024 to 31 Jul 2024

Project Sponsor/Client: Bangladesh Institute Management

Expected Social Impact: Transformation strategies in the time of technology disruption, have thorough understanding of organizational strategic approach for long-term employees development, and change strategies and leadership roles to lead organizations in the uncertain business environments

Description:

AIT Extension is proposing a professional development program focusing on the areas of training institute management in the smart era. Faculty members, trainers, instructors, and any other relevant members of the Bangladesh Institute of Management will find an excellent opportunity for professional development, up-skilling, and knowledge proliferation. The training fee is based upon the number of combined course hours of delivery by AIT's globally esteemed faculty and leading practitioners and the number of participants attending the course across five bespoke and unique modules.

NUTRIENT AND IRRIGATION WATER MANAGEMENT THROUGH SMART AGRI-TECH APPROACHES

AIT Research Theme: Agricultural Systems & Engineering (Avishek Datta)

AIT Unit: Agricultural Systems & Engineering (Avishek Datta)

Duration: 03 Apr 2023 to 02 April 2027

Project Sponsor/Client:): Indian Council of Agricultural Research (ICAR), India

Expected Social Impact: The project empowers future agricultural professionals with hands-on experience in sustainable farming practices, fostering innovation and practical skills.

Description:

The overall aim of the project is to carry out an internship for undergraduates from the agricultural science discipline from Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior, Madhya Pradesh, India, to provide them with technical and practical experience for sustainable agricultural development on the topic entitled.

SMART FARMING TECHNOLOGIES FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT

AIT Research Theme: Food-Energy-Water

AIT Unit: Agricultural Systems & Engineering (Avishek Datta)

Duration: 13 Feb 2023 to 12 Feb 2027

Project Sponsor/Client:): Indian Council of Agricultural Research (ICAR), India

Expected Social Impact: The project empowers future agricultural professionals with hands-on experience in sustainable farming practices, fostering innovation and practical skills.

Description:

The overall aim of the project is to provide them with technical and practical experience for sustainable agricultural development on the topic entitled "Smart Farming Technologies for Sustainable Agricultural Development."

AIA LEARNING MANAGEMENT SYSTEM

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension (Wangnai)

Duration: 30 Jun 2024 to 31 Dec 2024

Project Partner: AIA Company Limited

Project Sponsor/Client: AIA Company Limited

Expected Social Impact: By increasing access to high-quality, self-paced education in technology and data analytics, the project empowers a broader audience to participate in the digital economy. It promotes digital literacy, upskilling, and workforce readiness, contributing to inclusive growth and narrowing the digital divide across communities.

Description:

This project aims to design and implement 10 virtual self-paced learning modules focused on Technology and Data Analytics (TDA). Delivered in two phases, Phase 1 will consist of six modules, followed by four additional modules in Phase 2. The modules will be accessible online, offering flexible, interactive, and up-to-date content to enhance learners' knowledge and skills in key TDA areas.

ROCK MECHANICS AND PHYSICS TRAINING COURSE FOR SUBSURFACE TESTING

AIT Research Theme: Infrastructure

AIT Unit: Geotechnical and Earth Resources Engineering

Duration: 01 Jul 2022 to 30 Jun 2025

Project Sponsor/Client: PTT Exploration and Production Public Company Limited

Expected Social Impact: The courses are useful for geotechnical resource extraction and storage, geoengineering (tunneling), and geohazard mitigation (faults, earthquakes).

Description:

GTE will organize a training course from 18 to 30 July 2022 for PTT Exploration and Production Public Company Limited (PTTEP) personnel. The registration fees cover the training, and the surplus is for GTE to use. This training aims to improve participants' knowledge of the basic and advanced theories of rock mechanics and rock stability.

PROMOTING HIMALAYAN DEVELOPMENT BY STRENGTHENING TEACHING AND RESEARCH ON SUSTAINABLE DEVELOPMENT GOALS

AIT Research Theme: Infrastructure

AIT Unit: Office of President

Duration: 01 Jan 2022 to 31 Dec 2025

Project Sponsor/Client: Potsdam Institute for Climate Impact Research (PIK) for DAAD, Germany

Expected Social Impact: ForHimSDG hopes to help strengthen teaching and research on the SDGs in the HKH region based on its planned outcomes.

Description:

ForHimSDG will co-develop and implement introductory and advanced courses related to global sustainability. Further, it will build research capacity in the HKH region based on North-South and South-South research exchanges on topics related to sustainability.

SUSTAINABLE INFRASTRUCTURE PROGRAMME IN ASIA

AIT Research Theme: Technology-Policy-Society

AIT Unit: Centre for Global Challenges

Duration: 25 Jul 2024 to 30 Sep 2025

Project Sponsor/Client: United Nations Development Programme (UNDP)

Project Partner: United Nations Development Programme (UNDP)

Expected Social Impact: Augmented human resource capacity to promote a sustainable infrastructure landscape in Southeast Asia.

Description:

The project is part of the OECD/UNDP Sustainable Infrastructure Programme in Asia (SIPA). It aims to establish a long-lasting regional network of relevant knowledge institutions on sustainable infrastructure in Southeast Asia. The purpose of this network is to connect policymakers, practitioners, and relevant experts within the three focus countries in the region, namely, Indonesia, the Philippines, and Thailand, for the planning of sustainable infrastructure development in the region, in particular, to help direct investments towards energy, transport, and industry infrastructure projects that accord with the Paris Agreement and the Agenda 2030.

SUSTAINABLE INFRASTRUCTURE PROGRAMME IN ASIA

AIT Research Theme: Technology, Policy and Society

AIT Unit: Centre for Global Challenges

Duration: 28 Aug 2023 to 30 Jun 2024

Project Sponsors/Clients: National Higher Education, Science, Research and Innovation Policy Council

Description:

The APEC Center for Technology Foresight (APEC-CTF) is a unit hosted by the Office of National Higher Education, Science, Research and Innovation Policy Council (NXPO) within the Thai Ministry of Higher Education, Science, Research and Innovation (MHESI). As part of its mission, it undertakes futuristic studies, especially in the areas relating to science and technology that may have a high impact on the Asia-Pacific Economic Cooperation (APEC). The APEC-CTF uses foresight tools and processes to identify key trends, possible risks, and uncertainties to help APEC member countries plan and develop strategies to address future challenges.

APEC-CTF has launched the APEC Strategic Foresight project, focusing on identifying key technologies and innovations for achieving net-zero emission targets for APEC economies. To implement this project, APEC-CTF seeks expertise in complex issues related to analyzing climate change policies.

CAPACITY BUILDING ON FOOD INNOVATIONS AND SUSTAINABILITY

AIT Research Theme: Food-Energy-Water

AIT Unit: Food Innovation, Nutrition and Health

Duration: 14 Jan 2023 to 31 Dec 2025

Project Sponsor/Client: World Bank through ICAR-NAHEP

Expected Social Impact: Finally, the students will have skillful knowledge of innovative technology and eco-friendly approaches to safe and sustainable food production.

Description:

The main objective of this program is augmenting the quality and relevance of higher agricultural education through enhanced learning outcomes through exposure to innovative technology, application-oriented minds, and entrepreneurship development for safer and sustainable food production. The students will obtain the knowledge and skills from classroom lectures, laboratory, hands-on practice, and field exposures to learn about innovative and advanced technology along with entrepreneurial skills for safer and sustainable produce.

GREEN INDUSTRY INNOVATION AND DEVELOPMENT PROGRAM IN CHONGQING, CHINA

AIT Research Theme: Food-Energy-Water, Infrastructure

AIT Unit: Belt and Road

Duration: 27 Nov 2024 to 30 Jun 2026

Project Sponsor/Client: Chongqing Renewable Energy Society

Expected Social Impact: Enhance the academy-industry cooperation and industry innovation in the Belt and Road region.

Description:

The program provides the opportunity to explore the advancements and innovations in China's green industries through technical visits to over 20 Chongqing-based Chinese enterprises and engaging in discussions with local government departments, entrepreneurs, and experts.

DEVELOPMENT OF A VEHICLE IDENTITY IMAGE PROCESSING PLATFORM FROM AI CCTV

AIT Research Theme: Technology-Policy-Society

AIT Unit: Artificial Intelligence Technology Center

Duration: 01 Jul 2024 to 31 Mar 2025

Project Sponsor/Client: Pineapple Vision System Co., Ltd.

Project Partner: United Nations Development Programme (UNDP)

Expected Social Impact: Promote safety and protection for people in society.

Description:

Develop a vehicle identity image processing platform from AI CCTV for use in Thailand, reducing imports and dependence on foreign software and promoting the Thai software development industry.

TESTING OF THE RAMA IX BRIDGE (35TH-YEAR) PROJECT

AIT Research Theme: Infrastructure

AIT Unit: Structural Engineering

Duration: 13 Jun 2022 to 31 Dec 2025

Project Sponsor/Client: Resolution Engineering Co., Ltd.

Description:

Resolution Engineering Co., Ltd. invited AIT Structural Engineering Laboratory (STE-Lab) to participate in the Testing of the Rama IX Bridge (35th-year) Project. The scope of work is as follows:

a. Bearing and Roller Shutter Expansion Joint Movement Test with Ambient Temperature, Pylon Tilt and Strain in Sections Monitoring

b. Bridge Load Test (Static and Dynamic)

FORENSIC INVESTIGATION FOR SUBSIDENCE OF THE ROAD, BRIDGE AND THIRD-PARTY BUILDINGS

AIT Research Theme: Infrastructure

AIT Unit: Geotechnical and Earth Resources Engineering

Duration: 01 May 2022 to 31 Dec 2025

Project Sponsor/Client: McLarens (Thailand) Limited

Project Partner: McLarens (Thailand) Limited

Expected Social Impact: To retain wall movement and the remediation plan for the forensic investigation of the severe subsidence of the road and bridge

Description:

GTE Laboratory was working and researching with McLarens (Thailand) Limited to retain wall movement and the remediation plan for the forensic investigation of the severe subsidence of the road, bridge, and possible third-party buildings between Soi Udomsuk 51 and 52 in Bangkok, Thailand.

CHINA-THAILAND HIGH SPEED RAILWAY COLLABORATION PROJECT BETWEEN AIT AND CSCECTH

AIT Research Theme: Infrastructure

AIT Unit: Belt and Road

Duration: 01 Jul 2022 to 30 Jun 2025

Project Sponsor/Client: China State Construction Engineering (Thailand) Co., Ltd. (CSCECTH)

Project Partner: China State Construction Engineering (Thailand) Co., Ltd. (CSCECTH)

Expected Social Impact: Provide technical support to the development of railway infrastructures in Thailand and the Belt & Road Region.

Description:

This collaborative project aims at enhancing the partnership between AIT and CSCECTH through multiple collaboration activities to support the Thailand-China High Speed Railway project and the Belt and Road Initiatives. The collaboration activities include conducting sponsored research projects with mutual interests focusing on the Thailand-China high-speed railway, conducting sponsored training programs, and setting up a collaboration coordinator position at AIT to coordinate and support any collaborations. The implementation of this project is expected to provide technical support to the development of railway infrastructures in Thailand and the Belt & Road Region.

LAEM CHABANG PORT DEVELOPMENT PROJECT PHASE 3 (PART 1)

AIT Research Theme: Infrastructure

AIT Unit: Geotechnical and Earth Resources Engineering

Duration: 01 Apr 2022 to 09 Sep 2026

Project Sponsor/Client: Beta Enterprise Company Limited

Expected Social Impact: This project will enable multimodal transportation leading to seamless inter-country connection, including transshipment and railway cargo shipment to neighboring countries such as CLMV and China.

Description:

GTE Laboratory was working and researching with Beta Enterprise Company Limited for the Onsite Laboratory Service of the Laem Chabang Port Development Project Phase 3 (Part 1).

THAILAND-CHINA HIGH SPEED RAILWAY PROJECT

AIT Research Theme: Infrastructure

AIT Unit: Geotechnical and Earth Resources Engineering

Duration: 31 Aug 2022 to 31 Jul 2025

Project Sponsor/Client: China State Construction Engineering (Thailand) Company Limited

Expected Social Impact: China State Construction Engineering Corporation is now a global investment and construction group featuring professional development and market-oriented operation.

AIT Unit: Geotechnical and Earth Resources Engineering

Description:

GTE is working with the China State Construction Engineering (Thailand) Company Limited (CSCECTH) for research collaboration using the data obtained from the Thailand-China High-Speed Railway Project.

PHYSICAL HYDRAULIC MODEL INVESTIGATION ON THE IMPACTS OF ARTIFICIAL REEF STRUCTURES FROM RETIRED WELLHEADS TO WATER LEVEL AND FLOW VELOCITY

AIT Research Theme: Infrastructure

AIT Unit: Water Engineering and Management

Duration: 01 Jul 2023 to 31 Oct 2024

Project Sponsor/Client: Kasetsart University

Expected Social Impact: The objectives of the project are to enhance the fishing activities by developing and restoring the aquatic habitats, fishery resources, and marine ecosystems, as well as to promote aquatic resource management in accordance with the concept of sustainable and balanced marine ecosystems. A physical hydraulic model study is required to investigate how the artificial reef structures from retired wellheads impact water levels, flow velocities, and water circulation.

Description:

The scope of the services consists of furnishing labor, equipment, and materials, as well as the technical expertise for the Physical Hydraulic Model Site Preparation and Rig2Reef Model Construction (Scope 1). After the model site preparation and Rig2Reef model construction, AIT shall submit a written report to the employer to inspect the hydraulic model site and the completed Rig2Reef models.

PHYSICAL HYDRAULIC MODEL STUDY OF LUANG PRABANG HYDROELECTRIC POWER PROJECT, LAO PDR - DETAILED DESIGN STAGE

AIT Research Theme: Infrastructure

AIT Unit: Water Engineering and Management

Duration: 01 Jan 2024 to 30 Jun 2025

Project Sponsor/Client: Ch.Karnchang (Lao) Co., Ltd

Expected Social Impact: The Luang Prabang Hydroelectric Power Project may lead to displacement of local communities, impact traditional livelihoods such as fishing and farming, and alter river navigation patterns. However, it could also bring improved infrastructure, job opportunities, and electricity access to nearby areas.

Description:

The Luang Prabang Hydroelectric Power Project is a run-off river plant located on the Mekong River approximately 20 kilometers upstream of Luang Prabang, Lao PDR, and about 4 kilometers upstream of the confluence with the Nam Ou River. The project is planned to be developed on the right bank of the Mekong River, where space is available for the installation and construction of the main structures. The navigation lock will be located at the right riverbank, allowing vessels and ships a safe approach and passage. The spillway is located between the navigation lock and the powerhouse.

CLIMATE RESILIENT INFRASTRUCTURE FOR SOCIAL TRANSFORMATION AND ADAPTATION (CRISTA 2.0)

AIT Research Theme: Climate change, Smart communities, Infrastructure

AIT Unit: Disaster Preparedness, Mitigation and Management

Duration: 01 Jan 2024 to 31 Oct 2025

Project Sponsor/Client: Asian Disaster Preparedness Center (ADPC)

Expected Social Impact: Local stakeholders are aware and willing to implement CRISTA 2.0 system for climate-induced hazard and damage monitoring to critical infrastructure systems Outcome, An effective and robust decision support system is developed for monitoring climate-induced vulnerabilities, risks, and damages to critical infrastructure systems. Local governments actively

monitor the impacts of climate-induced hazards on critical infrastructure in real time, enhancing their ability to respond promptly and effectively. The CRISTA system is promoted as a viable solution for CI climate risk monitoring and management in Nepal.

Description:

The proposed project will scale up the efforts of the pilot solution and will build on its foundations to further enhance risk governance and community engagement for CI risk management. The innovation aims to gather fragmented data on the impacts of service disruption and climate hazards on the chosen infrastructure. While the pilot solution was tested at the level, the scale-up project is proposed to be implemented at the district level in Dhading district in central Nepal, aligning with the administrative structure of agencies for critical infrastructure management. The AIT team already received expressions of interest from multiple municipalities in the district who are willing to support implementation of the CRISTA. Learning through the pilot implementation and recommendations of the pilot solution formed the core of the project, which will be helpful for the upscaling of CRISTA at the district level with an increase in geographical and administrative coverage, technological sophistication, and linkages with local and national disaster risk reduction and management frameworks.

News:

GLOBAL MINDS UNITE: AIT STUDENTS EXPLORE THE 'FUTURE OF CAPITALISM' WITH RENOWNED LEADERS

Description:

Eleven students from the Asian Institute of Technology's School of Management (SOM), including current students and alumni, are participating in the innovative course titled 'Future of Capitalism, which commenced on 22 January and will continue until mid-April. The course is jointly led by Shizenkan University and IESE Business School, with participation from learners representing 15 other esteemed business school institutions.

https://ait.ac.th/2024/01/global-minds-unite-ait-students-explore-the-future-of-capitalism-with-renowned-leaders/

BREAKING BARRIERS: REDUCING INEQUALITIES THROUGH SPORT AND INCLUSIVE PRACTICES

Description:

CIFAL Bangkok, Special Olympics Asia-Pacific, and AIT jointly organize the webinar on Breaking Barriers: Reducing Inequalities through Sport and Inclusive Practice. The webinar will present a real-world example to address SDG 10, Reduced Inequalities and Missing Millions, which will enhance social inclusion—not leaving anyone behind.

Speaker: Dipak Natali, Regional President and Managing Director, Special Olympics Asia Pacific

https://ait.ac.th/event/webinar-on-breaking-barriers-reducing-inequalities-through-sport-and-inclusive-practices/

IDRC DELEGATION VISIT TO GENDER AND DEVELOPMENT STUDIES AT AIT

Description:

Paula Banerjee, IDRC Endowed Chair and Director of the AIT CGFD, elaborated on the center's mission to address gender gaps in forced migration and displacement, focusing on generating local data and knowledge for global dissemination. She provided an overview of the center's achievements, ongoing projects, and collaborations with various stakeholders, emphasizing the importance of addressing these complex issues in South and Southeast Asia.

Banerjee further highlighted the urgent need for extensive research in the region, especially given the political situation in Myanmar. She called for stronger collaborations with IDRC to expand research initiatives that address forced migration and displacement challenges.

https://ait.ac.th/2024/08/idrc-delegation-visit-to-gender-and-development-studies-at-ait/

AIT HOSTS "REFUGEE VOICES FROM SOUTHEAST ASIA" WORKSHOP IN COMMEMORATION OF REFUGEE DAY

Description:

AIT hosted a "Refugee Voices from Southeast Asia: Commemorating Refugee Day" workshop on 26 June 2024. This event was a collaborative initiative involving the Centre on Gender and Forced Displacement (CGFD)/ Gender and Development Studies at AIT, Jesuit Refugee Service (JRS), and Asylum Access, Thailand (AAT). The workshop highlighted the rising number of forcibly displaced individuals globally, driven by factors like natural disasters, climate change, environmental degradation, development-induced displacement, resource crises, persecution, and conflicts. It critically examined the international refugee system's ability to manage these displacements, the migration trends, extended conflicts, and the issue of prolonged homelessness.

https://ait.ac.th/2024/06/ait-hosts-refugee-voices-from-southeast-asia-workshop-in-commemoration-of-refugee-day/

News:

ASIAN INSTITUTE OF TECHNOLOGY JOINS CES-ASIA CONSORTIUM TO ADVANCE ENVIRONMENTAL SUSTAINABILITY IN SOUTH AND SOUTHEAST ASIA

Description:

Asian Institute of Technology (AIT) has formally joined an international consortium aimed at advancing the Circulating and Ecological Sphere (CES) concept in South and Southeast Asia. The consortium, known as the CES-Asia Consortium, is led by the Institute for Global Environmental Strategies (IGES) from Japan and START International Inc. from the USA. AIT, alongside its consortium partners, will collaborate to advocate for the CES concept within city regions in South and Southeast Asia.

https://ait.ac.th/2024/01/asian-institute-of-technology-joins-ces-asia-consortium-to-advance-environmental-sustainability-in-south-and-southeast-asia/

GROUNDBREAKING STUDY HIGHLIGHTS RESILIENCE STRATEGIES FOR ASIA'S MEGA-DELTAS

Description:

A study co-authored by Indrajit Pal emphasizes the need for resilience planning in Asia's mega-deltas, which face significant environmental challenges. The research outlines strategies for mitigating risks and promoting sustainable development in these vital regions.

https://ait.ac.th/2024/06/groundbreaking-study-highlights-resilience-strategies-for-asias-mega-deltas/

COLLABORATIVE EFFORTS FOR CLEANER AIR IN BANGKOK AND BEYOND

Description:

In January 2024, the Asian Institute of Technology (AIT) highlighted Thailand's escalating air pollution crisis, particularly in Bangkok, where PM2.5 levels have reached alarming heights. The primary contributors to this pollution include industrial activities, vehicular emissions, and seasonal agricultural burning. In response, the Thai government has implemented measures to curb emissions and enhance air quality management. Technological solutions, such as the "Air4Thai" mobile application, offer real-time air quality data, enabling residents to make informed health decisions. Additionally, educational initiatives are being introduced to raise awareness about air pollution among students, aiming to foster proactive responses from the younger generation.

https://ait.ac.th/2024/01/collaborative-efforts-for-cleaner-air-in-bangkok-and-beyond/

COLLABORATIVE EFFORTS FOR CLEANER AIR IN BANGKOK AND BEYOND

Description:

The Thailand Accident and Research Center (TARC) in the AIT School of Engineering and Technology (SET) hosted the inaugural Thailand Road Traffic Safety Forum with Montri Dechasakulsom, Deputy Permanent Secretary for the Ministry of Transport, presiding over the opening. Executives from the Ministries of Public Health, Transport, and other pertinent government agencies and organizations, as well as media members, attended the event at the Okura Prestige Bangkok Hotel.

https://ait.ac.th/2024/03/aits-tarc-center-hosts-the-first-thailand-road-safety-forum/

AIT SET AND THE OFFICE OF CIVIL DEFENSE (OCD) EXPLORES PARTNERSHIP TO ENHANCE DISASTER MANAGEMENT

Description:

The Asian Institute of Technology's School of Engineering and Technology (SET) and the Office of Civil Defense (OCD) of the Republic of the Philippines convened on Friday, April 5, 2024. The meeting, held at the SET Meeting Room, aimed to explore avenues for collaboration in academic programs and capacity-building initiatives.

https://ait.ac.th/2024/04/ait-set-and-the-office-of-civil-defense-ocd-forge-partnership-to-enhance-disaster-management/

AIR QUALITY NEXUS CENTER LAUNCHED AT AIT TO COMBAT AIR POLLUTION IN ASIA AND BEYOND

Description:

AIT launched the Air Quality Nexus Center on July 10, 2024, to address air pollution challenges in Asia. The center will focus on research and capacity building in air quality management and promote collaboration across regions.

https://ait.ac.th/2024/07/air-quality-nexus-center-launched-at-ait-to-combat-air-pollution-in-asia-and-beyond/

AIR QUALITY NEXUS CENTER LAUNCHED AT AIT TO COMBAT AIR POLLUTION IN ASIA AND BEYOND

Description:

The SCALe Capacity Building Workshop, held at AIT from July 15 to 17, 2024, gathered over 50 participants from multiple countries to develop a Smart City curriculum funded by the European Commission. The workshop focused on creating micro-courses and professional training programs aimed at addressing urban challenges and enhancing employability through innovative education.

https://ait.ac.th/2024/07/building-future-scale-workshop-smart-cities-asia/

AI LEE LOH SUPPORTS THE RENOVATION OF A SINGLE-UNIT STUDENT DORMITORY

Description:

A formal donation agreement was signed between AIT President Pai-Chi Li and Ai Lee Loh, an AIT alumnus who graduated with a master's degree in Structural Engineering and Construction in 1981, who contributed THB 200,000 towards the refurbishment of a single-unit student dormitory in Dorm F48.

https://ait.ac.th/2024/11/ms-ai-lee-loh-supports-the-renovation-of-a-single-unit-student-dormitory/

INNOVATIVE AIT RESEARCH SHEDS LIGHT ON RISING HEATWAVES IN THAILAND

Description:

AIT PhD candidate Thitimar Chongtaku conducted innovative research on rising heatwaves in Thailand, utilizing remote sensing and machine learning to analyze heatwave patterns from 1981 to 2019. Her study, which combines satellite-derived temperature data with ground-based observations, reveals increasing frequency and intensity of heatwaves, particularly in peri-urban and rural areas. This research highlights the impact of microclimates and provides actionable insights for policymakers to develop strategies for climate adaptation and public health intervention. The findings contribute to understanding and managing extreme heat events in Thailand and beyond.

https://ait.ac.th/2024/10/innovative-ait-research-sheds-light-on-rising-heatwaves-in-thailand-using-machine-learning/

ANAN SITTITANASUT SUPPORTS THE RENOVATION OF A SINGLE-UNIT STUDENT DORMITORY

Description:

On December 9, 2024, Anan Sittitanasut, Managing Director of Nippon Kikai Engineering Co., Ltd. (NKE) and a 1999 alumnus of AIT's Mechatronics program, signed a donation agreement with AIT President Pai-Chi Li. The donation will support the refurbishment of a student dormitory unit in Dorm F (Room No. 47), further enhancing AIT's commitment to providing students with an enriching and supportive living environment.

https://ait.ac.th/2024/12/mr-anan-sittitanasut-supports-the-renovation-of-a-single-unit-student-dormitory/

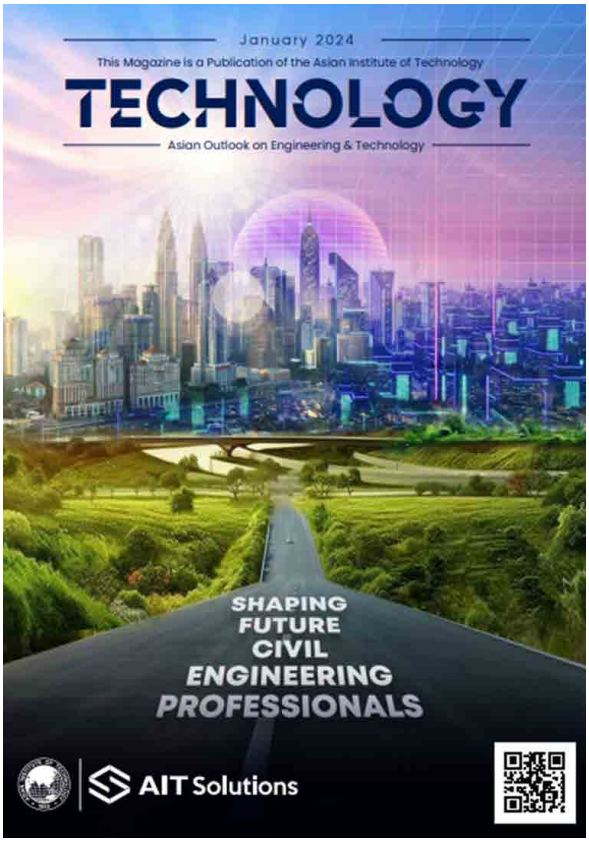
TECHNOLOGY MAGAZINE: SHAPING FUTURE CIVIL ENGINEERING PROFESSIONALS

Duration: January 2024

Description:

As the landscape of civil engineering continues to evolve, embracing its dynamic nature, in this issue we underscored the vital role of education in bridging the gap between academic knowledge and professional practice. The American Society of Civil Engineers (ASCE) envisions a future where civil engineers embody roles as master builders, environmental stewards, innovators, integrators, risk managers, and leaders shaping public policy by 2025. In this issue, our mission was to contribute to this vision by exploring various topics in technologies, skill sets, and knowledge essential for the next generation of civil engineering professionals. Key highlights of this issue include the application of data analytics in geotechnical engineering, offering insights into understanding subsurface soil and connecting theoretical knowledge with practical applications; highlighting the significance of management and communication skills; and emphasizing the imperative to consider sustainability and address climate change in engineering practices. This issue provided a platform to comprehend the evolving educational landscape, offering insights into the challenges and opportunities in preparing future professionals.

https://solutions.ait.ac.th/wp-content/uploads/2024/06/AITS-TM-jan-2024.pdf



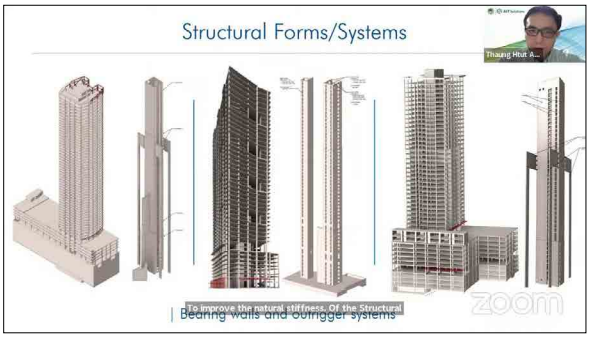
WEBINAR: PERFORMANCE-BASED SEISMIC DESIGN – DESIGNING FOR MORE RESILIENT AND LESS VULNERABLE BUILDINGS

Duration: 23 Jan 2024

Description:

Thaung Htut Aung, Executive Director of AIT Solutions, Asian Institute of Technology, Thailand, was invited as a speaker by the IStructE UAE Regional Group Committee for a webinar on the topic "Performance-Based Seismic Design—Designing for more resilient and less vulnerable buildings" held on 23rd January 2023. Thaung Htut Aung focused on the concept and procedure of performance-based seismic design in building strong and safer tall buildings.

https://solutions.ait.ac.th/wp-content/uploads/2024/06/AITS-TM-jan-2024.pdf



TECHNOLOGY MAGAZINE: ENERGY EFFICIENT INFRASTRUCTURE

Duration: August 2024

Description:

This issue of Technology Magazine explored how innovation and sustainability are key to the future of our built environment. Focusing on the implementation side of energy-efficient infrastructure, this issue included a conversation with Thanat Kriausakul, VP-Sustainability and CDO – Digital and Innovation, Pruksa Holding, where he elaborated on Pruksa's commitment to energy efficiency and renewable technologies. In another article, the authors shared their experience in incorporating sustainable practices for the planning and designing of a new elementary school. As presented in this issue, energy-efficient practices are essential in moving towards a resilient and sustainable future. And to drive energy-efficient infrastructure, innovation in design and application of advanced and emerging technologies are needed.

https://solutions.ait.ac.th/wp-content/uploads/2024/08/TM2024-August-sm.pdf

4TH R.N. RAIKAR MEMORIAL INTERNATIONAL CONFERENCE & GHOSH-MUKHERJEE INTERNATIONAL SYMPOSIUM ON ADVANCES IN SCIENCE & TECHNOLOGY OF CONCRETE

Duration: 23 Jan 2024

Description:

The AIT Solutions team participated in the 4th R.N. Raikar Memorial International Conference & Ghosh-Mukherjee International Symposium on Advances in Science & Technology of Concrete, held in Mumbai, India, from December 12-14, 2024. Led by Thaung Htut Aung, Executive Director, the team delivered presentations on the following topics:

- Application of Resilience-Based Design Approach in the Structural Design of Tall Buildings.
- Evaluation of Equivalent Static Forces for Wind-Resistant Design of Long-Span Roof Structures Using Dynamic Pressure Data.
- Rapid Identification of Seismic Damage in Tall Buildings through Acceleration Response Time Histories Using a Modal Decomposition Approach.

https://www.rnrconf4icaci.com/

BUILDINGS & EMERGING TECHNOLOGIES EVENT, BANGKOK

Duration: October 2024

Description:

On October 9th & 10th,2024, 4 Computers & Structures Inc. (CSi), CSi Bangkok, and AIT Solutions organized the Buildings & Emerging Technologies Event in Bangkok. The event included keynotes and panel discussions on the future of building technologies, innovations, and industry-academic collaboration for technology development. The keynotes covered:

- The Story of Ciel – Designing the Tallest Hotel in the World.
- A Catastrophe Model for Evaluating Seismic Losses and Impacts in Chiang Mai and Chiang Rai, Thailand.
- Vibration Mitigation of Industrial and Commercial Buildings—Concepts and Analysis.
- Pathways to Community Resilience in Future Earthquake-Resistant Design.
- UAV Based Inspection and Documentation of Tall Reinforced Concrete Structures.
- Evolution of Engineering Digitalization in Our Built Environment.
- Integrating Architectural Design in the Future.
- Next Generation Technologies and Tools for Infrastructure Design.

- Digital Transformation Through
- Disruptive Technologies in Building Construction

https://solutions.ait.ac.th/csievent.html#program

SEMINAR: PARAMETRIC CONCRETE I-GIRDER BRIDGE DESIGN USING CSIBRIDGE EXPRESS

Duration: 30 Nov 2024

Description: October 2024

On November 30, 2024, AIT Solutions and CSI Bangkok hosted a specialized seminar on CSiBridge-Express. Engineers and industry experts gathered for an immersive day of technical discussions and knowledge sharing.

The session focused on:

- Concrete I-girder bridge structural analysis and design
- Parametric modeling of bridges
- Practical applications of CSiBridge-EXPRESS features and techniques

This expert-led training was able to build both foundational skills, allowing participants to confidently apply CSiBridge-EXPRESS in real-world scenarios.

https://solutions.ait.ac.th/a-seminar-on-parametric-concrete-i-girder-bridge-design-using-csibridge-express/

BUILDINGS & EMERGING TECHNOLOGIES EVENT, BANGKOK

Duration: 31 Aug 2024

Description:

On August 31, 2024, AIT Solutions and CSI Bangkok hosted a one-day seminar focused on advancing structural engineering practices. Engineers and industry experts gathered for an immersive day of technical discussions and knowledge sharing.

Topics Covered:

- Human-induced floor vibration assessment: Demonstrating the latest capabilities in CSI ETABS software.
- Technical discussion on modeling, analysis, and design techniques: demonstrating the latest capabilities in CSI software for structural design.
- Performance-Based Seismic Design of Tall Buildings: Exploring innovative strategies to ensure the resilience of high-rise buildings in seismic zones.
- Structural Health Monitoring (SHM): Emphasizing the importance of SHM in tracking building integrity and providing rapid response insights for post-earthquake safety.

This one-day seminar offered a unique platform for professionals to stay ahead with state-of-the-art tools and methodologies that define modern structural engineering.

Projects:

BUILDING THE FUTURE: THE SCALE WORKSHOP PAVES THE WAY FOR SMART CITIES IN ASIA

AIT Research Theme: Technology, Policy and Society

AIT Unit: School of Management

Duration: 15 - 17 Jul 2024

Project Sponsor/Client: European Commission (Erasmus Project)

Project Partners: University of Thessaly, Greece; Hellenic Open University, Greece; Sapienza University of Rome, Italy; Universiti Malaya, Malaysia; Universiti Teknologi Malaysia, Malaysia; Universiti Teknologi Mara, Malaysia; Institute of Technology of Cambodia, Cambodia; National University of Battambang, Cambodia; National University of Management, Cambodia; Phnom Penh International University, Cambodia; Chiang Mai University, Thailand; Planet T&S Co. Ltd., Thailand

Expected Social Impact: The project aims to equip graduates and professionals with the skills necessary to tackle environmental sustainability, energy efficiency, and urbanization challenges. By fostering continuous improvement and innovation in the educational ecosystem, it contributes to creating a more sustainable, equitable, and prosperous society.

AIT Unit: School of Engineering and Technology (SET)

Description:

The SCALe project, funded by the European Commission (Erasmus Project), aims to design a comprehensive Smart City curriculum utilizing online technology. It focuses on developing micro-courses and micro-credentials for graduates in various scientific and technological fields, integrating innovative elements into existing curricula to address environmental awareness, energy efficiency, urbanization, and technological advancements. The project also offers professional courses and MOOCs to bridge tertiary studies with vocational education and training (VET), enhancing employability. Practical training schemes, internships, and real-life case studies are incorporated to ensure graduates possess applicable skills and knowledge.

SENTINEL ASIA AND CAPACITY BUILDING

AIT Research Theme: Technology, Policy and Society

AIT Unit: Geoinformatics Center

Duration: 20 May 2022 to 19 May 2027

Project Sponsor/Client: Japan Aerospace Exploration Agency (JAXA) and others

Expected Social Impact: Sustainable communities and poverty reduction.

Description:

Sentinel Asia project has been sponsored by JAXA for the past 15 years, which includes the activation of emergency response and conducting training and workshops. This project is expected to continue for the next five years.

MOTORCYCLE ACCIDENT INVESTIGATION 2022

AIT Research Theme: Technology, Policy and Society

AIT Unit: SET-Transportation Engineering

Duration: 01 Apr 2022 to 31 Aug 2024

Project Sponsor/Client: Thai Health Promotion Foundation

Expected Social Impact: The recommended countermeasures and policies can be developed from the data analysis of this project to reduce the fatalities of motorcycle crashes.

Description:

To conduct the in-depth investigation of motorcycle crashes in year 2022

DEVELOPMENT AND DISSEMINATION OF TECHNICAL GUIDELINES FOR PLASTICS AND RESIN PELLETS LEAKAGE PREVENTION FROM FACTORIES AND INFORMAL RECYCLING SECTOR

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Urban Environmental Management

Duration: 22 May 2022 to 31 Dec 2025

Project Sponsor/Client: Japan Aerospace Exploration Agency (JAXA) and others

Project Partner: Regional Resources Centre for Asia and the Pacific (RRC.AP)

Expected Social Impact: ERIA through RRC.AP

Description:

The project is to contribute to preventing the leakage of plastics and resin into marine environments through the promotion of proper best practices and guidelines at resin-producing factories and informal recycling facilities in ASEAN Member States.

ASSESSMENT PROGRAM IN LAO_13S

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 01 July 2022 to 30 Apr 2024

Project Sponsor/Client: LEA Associates South Asia Pvt. Ltd.

Expected Social Impact: The approach of Star Rating represents a systematic approach to road infrastructure design about where severe crashes are likely to occur. The star ratings by iRAP protocols enable the benchmarking and can be used as a basis for tracking performance after the program to improve road safety. The road assessment will be illustrated in a risk mapping and star ratings. In this project, the star rating model will be used as a simple and objective measure of the level of safety provided by road infrastructure.

As the Ministry of Public Works and Transport (MPWT) of Lao PDR is implementing the NR13 South Improvement and Maintenance Contract with financing from the World Bank, AIIB, and EIB. The star rating will be used as a performance indicator to demonstrate the risk reduction after the project is implemented. Therefore, the star ratings of the road infrastructure before and after the road improvement need to be conducted.

Description:

The project is to conduct the road assessment following iRAP protocol for NR13 South in Lao PDR, starting from KM 71 in the Phrabath District, Bolikhamxay Province, and ending at KM 346 in Thakhek District, Khammouane Province, with a length of 275 km . The Star Rating by iRAP was used as a performance indicator to demonstrate the risk reduction after the project was implemented. The purpose of the iRAP assessment is to identify areas of concern for the safety of the travelling public, and the recommendations based on the iRAP Star rating will be prepared for the mitigation of identified risks.

The project will conduct the field surveys for the baseline assessment, including the survey of operating speed and pedestrian volume, and the data were used as inputs in the coding process to prepare the iRAP star rating report.

DEVELOPMENT OF SUSTAINABLE CONCRETE AND DAMAGE ASSESSMENT OF EXISTING CONSTRUCTION PRACTICES IN THAILAND

AIT Research Theme: Technology, Policy and Society

AIT Unit: SET-Structural Engineering

Duration: 17 Oct 2023 to 16 Oct 2025

Project Sponsor/Client: Bodee Maneengamlert, CEMKRETE Co. Ltd

Expected Social Impact: Sustainable constructions

Description:

In this project, we will be trying to test and develop sustainable and environmentally friendly concrete by using recycled waste aggregates. Further, the performance of existing construction practices in Thailand through experimental tests will be conducted. In addition, finite element modeling of some of the structures will be done to evaluate the performance of these materials in concrete.

ROAD ASSESSMENT PROGRAM IN LAO_13N

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 01 July 2022 to 30 Apr 2024

Project Sponsor/Client: JV Dongsung Engineer Co., Ltd.

Expected Social Impact: The Ministry of Public Works and Transport (MPWT) of Lao PDR is implementing the NR13 Improvement and maintenance contract with financing from World Bank, AIIB and NDF.

The National Road 13 (NR13) is the most important road in Lao PDR, like a backbone network of the country. The section considered is the section from km 12 (Sikeut) to km 58 (Phonhong), where works are implemented under OPBRC contract. After the project, the implemented road will be rated for safety, and compared with the baseline rating before the implementation.

Description:

The main objectives of the project are the preparation of an intermediate post-construction iRAP survey.

The purpose of the iRAP assessment is to identify areas of concern for the safety of the traveling public from selected road infrastructure. The recommendations arising out of the iRAP Star rating will inform the client about road infrastructure to mitigate the hazards identified.

URBAN COOLING SERVICES AND BLUE-GREEN INFRASTRUCTURE PLANNING TOWARD MITIGATING URBAN HEAT ISLAND AND CITY SUSTAINABILITY: A CASE STUDY OF BANGKOK

AIT Research Theme: Climate change; Infrastructure; Technology, Policy and Society

AIT Unit: SERD-Urban Innovation and Sustainability

Duration: 01 Jan 2023 to 29 Jan 2025

Project Sponsor/Client: Asian Institute of Technology Initiation Grant

Expected Social Impact: The project will develop insights into the various advantages of urban blue and green infrastructures based on different cooling demands under changing climate and spatial equity through residents' accessibility to urban green infrastructure cooling services in Bangalore. These research outcomes will be shared with the policymakers and involve policy audiences in consultations for information, sensitization, and future policy considerations. The interview with policymakers also will provide the opportunity to sensitize them to the urban green infrastructure-related planning and concerns. The photo storybook planned as an outcome of the project will also be circulated among policymakers and relevant stakeholders. The insights of the urban green infrastructures will also be communicated to the policymakers and other key stakeholders.

Description:

The phenomenon of urban heat islands is evident in a large number of locations with higher local temperatures, heat stress, extreme heat waves, and thermal discomfort. Therefore, the present research proposes a suitable solution focusing on spatial development characteristics, urban heat island control mechanisms, urban cooling services, and blue-green infrastructure planning for long-term sustainability in the Bangkok metropolitan region.

THAILAND EARTHQUAKE RESEARCH CENTER

AIT Research Theme: Infrastructure

AIT Unit: SET-Structural Engineering

Duration: 19 Apr 2023 to 30 Apr 2025

Project Sponsor/Client: National Research Council of Thailand (NRCT)

Project Partner: TERC has more than 30 members; they are researchers and professors from the Department of Mineral Resources, Thai Meteorological Department, Chulalongkorn University, Kasetsart University, Chiang Mai University, King Mongkut's University of Technology Thonburi, King Mongkut's University of Technology North Bangkok, Rajamangala University of Technology Thanyaburi, Rajamangala University of Technology, Thammasat University, Burapha University, Phayao University, Mahidol University, and Sripatum University. Pennung Warnitchai of AIT is serving as the Director of TERC.

Expected Social Impact:

1. A national-level earthquake conference.
2. Several training workshops to disseminate knowledge, technology, and innovation on earthquake-related issues.
3. One-stop digital platform to share knowledge and data related to earthquakes with researchers and the general public.
4. Cooperation agreements with similar national-level research centers in other countries.
5. Lessons learned from earthquake events, both domestic and international, through earthquake reconnaissance surveys.

Description:

Earthquakes are multi-hazard events that occur infrequently, but when they do, their impact can be severe and devastating. Therefore, it is crucial to be well prepared for such disaster events. In Thailand, a series of research projects aimed at mitigating earthquake risk have been conducted over the past 20 years in five phases with Research Fund (TRF). These projects involved over 30 researchers from 10 universities and government agencies, resulting in more than 30 projects and numerous publications in academic journals. The knowledge gained from these projects has been widely disseminated to the public through mass media and to engineers and stakeholders through academic lectures and seminars. Seismic hazard maps have been updated and major changes to engineering regulations & standards for earthquake-resistant building design have been made by the impact of the research findings. Currently these active research activities are continuing, with 11 earthquake-related research projects being funded by the National Research Council of Thailand (NRCT).

With this background, to move forward, it is reasonable to establish a national center for earthquake research in the country, the Thailand Earthquake Research Center (TERC). This center will promote more collaboration among researchers and various key stakeholders in mitigating earthquake risk. According to the plan, TERC does not belong to any institution; it is a neutral national research center where researchers from various institutions in Thailand can contribute and work together on critical issues related to earthquake risk. Funding of 5,000,000 baht per year will be provided by NRCT to support all activities of TERC. These activities are not research-related because NRCT has already allocated separate funding for ongoing research projects, which amounts to more than 20,000,000 baht per year. TERC's activities include, for example, organizing conferences and training workshops, conducting earthquake reconnaissance surveys, developing one-stop data & knowledge digital platforms for researchers and the general public, developing a system to share research facilities among various institutions, etc.

DEVELOPMENT OF A CATASTROPHE MODEL FOR EVALUATING SEISMIC LOSSES AND IMPACTS (YEAR 2)

AIT Research Theme: Infrastructure

AIT Unit: SET-Structural Engineering

Duration: 30 Apr 2023 to 31 Aug 2025

Project Sponsor/Client: National Research Council of Thailand (NRCT)

Project Partner: A team of researchers from AIT, Mahidol University, and Chiang Mai University will work on this project, with me serving as the head and principal investigator.

Expected Social Impact:

1. Earthquake Catastrophe Model of Chiang Mai City and Chiang Rai City to assess the seismic losses and impacts caused by earthquakes in these areas.
2. Earthquake Impact Assessment Methodology for Thailand to be used in evaluating the potential impact of earthquakes in other areas of the country.

3. Earthquake Preparedness Plan and Risk Mitigation Programs based on the use of the model to minimize the potential impact of earthquakes on these areas. 4) Increased public awareness of earthquake risk by disseminating the results from the model and promoting the implementation of the Earthquake Preparedness Plan and Risk Mitigation Programs.

Description:

Earthquakes can cause severe damage to buildings and structures and result in significant economic and social losses. However, because earthquakes occur less frequently than other disasters, the general public and key stakeholders often lack experience and understanding of proper earthquake emergency response and risk mitigation. To address this issue, this research project aims to develop an earthquake catastrophe model for Chiang Mai City and Chiang Rai City. The model will incorporate geospatial data on seismic hazard, geological conditions, exposures (buildings, structures, population, etc.), and their seismic vulnerability. It will compute various types of earthquake-induced losses and present them in GIS maps, enabling stakeholders and the public to visualize the impacts of possible future earthquakes without the need to wait for a real earthquake to happen.

CAR ACCIDENT INVESTIGATION PROJECT: YEAR 2022

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 31 Dec 2022 to 31 Mar 2024

Project Sponsor/Client: Toyota Daihatsu Engineering & Manufacturing

Expected Social Impact: To find the causes of car crashes by investigating the speed from Event Data Recorder (EDR).

Description:

This project is to investigate the car crashes and retrieve the speed data from EDR to find the causes of car crashes in specific patterns.

INTERNATIONAL SYMPOSIUM ON DISASTER RESILIENCE AND SUSTAINABLE DEVELOPMENT 2023

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 31 Dec 2022 to 31 Mar 2024

Project Sponsor/Client: Toyota Daihatsu Engineering & Manufacturing

Expected Social Impact:

To find the causes of car crashes by investigating the speed from Event Data Recorder (EDR).

Description:

This project is to investigate the car crashes and retrieve the speed data from EDR to find the causes of car crashes in specific patterns.

THAILAND ROAD SAFETY FORUM

AIT Research Theme: Infrastructure

AIT Unit: SET-Civil Engineering

Duration: 01 Feb 2024 to 28 Feb 2025

Project Sponsor/Client: Mitsubishi Motor Thailand

Expected Social Impact: Exchange knowledge on road safety.

Description:

This project is to organize the first Thailand Road Safety Forum.

THE STUDY OF MOTORCYCLE ACCIDENT CAUSATION AND COUNTERMEASURES DESIGN TO REDUCE THE SEVERITY OF MOTORCYCLE ACCIDENT AT NIGHTTIME

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 16 Nov 2023 to 31 Mar 2025

Project Sponsor/Client: Department of Land Transport

Expected Social Impact: To reduce fatalities from MC accidents at night.

Description:

The project is to conduct in-depth motorcycle accident investigations with high severity at nighttime and to identify the factors related to motorcycle accidents at nighttime to develop proper countermeasures to reduce the number and severity of motorcycle accidents at nighttime.

AGRO-METEOROLOGICAL FORECASTS AND ADVISORIES THROUGH MOBILE APPLICATION AND SOCIAL MEDIA FOR CLIMATE-SMART AGRICULTURE IN THAILAND AND VIETNAM-AFAS

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Agricultural Systems & Engineering

Duration: 05 Jan 2024 to 04 Jan 2027

Project Sponsor/Client: Asian Development Bank (through Landell Mills Ltd.)

Expected Social Impact: The research project will develop a multi-stakeholder platform involving smallholder farmers, regional development partners, relevant government agencies, and policymakers to enhance cooperation and coordinated development for sustainable agriculture and climate adaptation in the GMS region. The project will bridge gaps between science and society for climate-adaptive and sustainable food production in the face of increasing climate change impact and pressure on the region's food production systems. To ensure meaningful collaboration and participation among stakeholders, we implement iterative interactions and capacity-building workshops with different target groups.

Description:

The main objective of this project is to deploy the Agro-meteorological Forecast and Advisory System (AFAS) in Thailand and Vietnam to provide smallholder farmers with much-needed agro-meteorological forecasts and agronomic advice, ultimately enabling them to implement climate-smart agricultural practices.

BREATHE-CITIES: BOLSTERING RESILIENCE AND ENVIRONMENTAL AIR-QUALITY THROUGH TRANSFORMATIVE HEALTHY EMISSION TRANSPORT IN CITIES

AIT Research Theme: Climate Change; Technology, Policy and Society

AIT Unit: SERD-Urban Innovation and Sustainability

Duration: 15 Dec 2023 to 31 Aug 2025

Project Sponsors/Clients: Research and Innovation for Development (RIDA), the United Kingdom through University of Huddersfield

Project Partners: University of Huddersfield (the United Kingdom); The University of Sheffield (the United Kingdom); Doh Eain-Renewing Yangon - Private architect Farm (Myanmar); Asian Institute of Technology (Thailand)

Expected Social Impact: The project's objective is to explore resilient and sustainable urban transport strategies that mitigate transport-induced pollution's repercussions. This goal will be achieved by integrating advanced sensor-driven models from Manchester and Bangkok with societal and policy insights from Yangon, addressing unique ASEAN socio-political and environmental challenges. Emphasizing community engagement, this approach focuses on

comprehensive well-being and developmental progression to facilitate context-specific interventions across diverse urban landscapes.

The project aims to develop a comprehensive approach to mitigate transport-induced air pollution in urban areas, with a focus on Manchester, Bangkok, and Yangon. It seeks to leverage advanced technologies, stakeholder engagement, and policy innovation to create sustainable and healthy urban environments.

Description:

The project's aim is to explore resilient and sustainable low-emission strategies for urban transportation and spatiotemporal models, with a strong emphasis on community impacts and localized adaptation options aimed at mitigating air pollution and its adverse health effects. The project is grounded in empirical evidence linking transport emissions to deteriorated air quality and health adversities (Cohen et al., 2005). The focus on health as a priority area is supported by essential preliminary research and established links with health and environmental partners in the involved regions, reiterating the urgency of intervention.

Global urban areas are witnessing an escalation in transport-induced air pollution, aggravated by climate anomalies, Urban Heat Islands (UHIs), and Urban Pollution Islands (UPIs) effects (EPA, 2022), posing significant human health challenges with public health, social, economic, and environmental repercussions. The World Health Organization estimates around 7 million premature deaths annually due to air pollution (WHO, 2022), highlighting the need/urgency for mitigation strategies. The project outlines a thorough examination/analysis of transport patterns and consequent air pollution emissions in Manchester, UK; Bangkok, Thailand; and Yangon, Myanmar, assessing a selection of diverse urban complexities.

ENHANCING AND SCALING UP THE JOINT AIT AND UNEP'S EFFORTS FOR AIR QUALITY MANAGEMENT

AIT Research Theme: Climate Change; Smart communities

AIT Unit: SET-Environmental Engineering and Management

Duration: 07 Aug 2023 to 31 Aug 2024

Project Sponsor/Client: UN Environment Programme

Project Partner: UN Environment Programme

Expected Social Impact:

Better air quality management at the global , regional, and national levels.

Description:

This project aims to enhance and scale up the joint AIT and UNEP's efforts for air quality management at the global , regional, and national levels through the engagement of the private sector, finance, and the donor community.

CAR ACCIDENT INVESTIGATION PROJECT: YEAR 2023-2024

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 01 Mar 2024 to 31 Mar 2025

Project Sponsor/Client: Toyota Daihatsu Engineering & Manufacturing

Expected Social Impact:

To understand car crash pattern and develop countermeasures for vehicle safety

Description:

To investigate the car crashes and retrieve the speed data from EDR to find the causes of car crashes in specific patterns.

MOTORCYCLE ACCIDENT INVESTIGATION STEP 1: 2024

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 01 Mar 2024 to 30 June 2025

Project Sponsor/Client: Asian Honda Motor Co., Ltd., Yamaha Motor Co., Ltd., and Honda Motor Co., Ltd.

Expected Social Impact:

To develop road safety countermeasures to reduce motorcycle crashes and their severity.

Description:

The main objective of the project is to conduct in-depth motorcycle accident investigations. The causes and consequences of MC accidents are identified. Another objective is to maintain a comprehensive and reliable database for MC accidents in Thailand. The data then can be used to develop proper countermeasures to reduce the number and severity of MC accidents in Thailand.

RESEARCH FOR SENIOR FELLOWS

AIT Research Theme: Technology, Policy and Society

AIT Unit: SDP Special Degree and Online Programs

Duration: 01 Mar 2024 to 30 June 2025

Project Sponsor/Client: Candidates from various partner universities

Project Partner: Candidates from various partner universities

Expected Social Impact: This project gives an opportunity to alumni or others to work in the invigorating research environment of AIT and do trans-boundary research on various issues of the region and indigenous technology development.

Description:

This project provides opportunities for faculty and researchers to join AIT under senior research fellows for research and development activities under the faculty members of AIT.

Various activities to extend past research under doctoral thesis can be undertaken or entirely new research domains can be explored. The outcome should be research papers in conferences and peer-reviewed journals. Senior research fellows may work toward conducting workshops and conferences at AIT. They also author books or book chapters as an outcome. This project gives an opportunity to alumni or others to work in the invigorating research environment of AIT and do trans-boundary research on various issues of the region and indigenous technology development. Five postdoc fellows will be joining this project in the next 3 years.

RETREAT-CITIES: RESETTLEMENT, TRANSFORMATION, AND ECO-ADAPTATION TYPOLOGY FOR CITIES (AND COMMUNITIES) AMIDST RISING SEAS IN THE LOWER MEKONG

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Urban Innovation and Sustainability

Duration: 01 Feb 2024 to 30 July 2025

Project Sponsor/Client: DFAT, Australia through SEI

Project Partner:

1. The Bureau of National and Regional Planning, Department of Public Works, Town and Country Planning, Ministry of Interior, Thailand
2. Center of Rural development Saemaul Undong, University of Social Sciences and Humanities, Vietnam National University, Ho Chi Minh city, Vietnam
3. Climate Change Program, Royal University of Phnom Penh, Cambodia
4. AIT centre - Vietnam, Asian Institute of Technology, Thailand
5. Faculty of Social Administration, Thammasat University, Bangkok, Thailand.

Expected Social Impact: The consortium is strategically positioned to deliver impactful and sustainable solutions, addressing the project's core aims and contributing to the well-being and resilience of the most vulnerable communities and infrastructure due to rising sea levels across the region. Within the project, they will actively harness insights from our flagship research study to drive substantive changes in national and regional policy processes related to the Water-Energy-Climate nexus (WEC). Their responsibilities will encompass engaging stakeholders, disseminating project findings, and advocating for policy reforms across local, regional, and national levels.

Description:

ReTrEAT-Cities: Resettlement, Transformation, and Eco-Adaptation Typology for Cities (and Communities) amidst rising seas in the Lower Mekong

ENHANCING AND SCALING UP THE JOINT AIT AND UNEP'S EFFORTS FOR AIR QUALITY MANAGEMENT—PHASE 2

AIT Research Theme: Climate Change; Smart Communities

AIT Unit: SET-Environmental Engineering and Management

Duration: 28 Mar 2024 to 30 Apr 2025

Project Sponsor/Client: UN Environment Programme

Project Partner: Thomas Bannister, previous UN staff, and he will work with AIT to deliver output 1 & 1&2 in this project

Expected Social Impact:

Better air quality management at the global , regional, and national levels.

Description:

This project aims to further scale up the joint AIT and UNEP's efforts for air quality management at the global , regional, and national levels through the engagement of the private sector, finance, and the donor community as part of intersectoral environment and health collaboration, and in particular the APRFHE's thematic working group on air quality and health.

TRAINING ON LIDAR APPLICATION IN AGRICULTURE AND FLOOD RISK MAPPING

AIT Research Theme: Smart communities

AIT Unit: SET-Remote Sensing and Geographic Information Systems

Duration: 13 Jun 2024 to 30 Jun 2025

Project Sponsor/Client: Food and Agriculture Organization of the United Nations (FAO)

Project Partner: Food and Agriculture Organization of the United Nations (FAO)

Expected Social Impact:

Utilizing LiDAR technology for agricultural and environmental purposes, fostering knowledge exchange and capacity building.

Description:

Training on LiDAR Application in Agriculture and Flood Risk Mapping and developing DEM from LiDAR Point Cloud for Bangladesh in utilizing LiDAR technology for agricultural and environmental purposes, fostering knowledge exchange and capacity building.

BLACK SPOTS IMPROVEMENT IN CHACHOENGSAO

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 01Jun 2024 to 30 Jun 2025

Project Sponsor/Client: Toyota Mobility Foundation

Expected Social Impact: To reduce motorcycle crashes in Chachoengsao province.

Description:

The project is to identify 10 blackspots in Chachoengsao province with the highest number of motorcycle-passenger car crashes and fatalities and to improve safety of these 10 blackspots by analyzing the root causes of crashes and implementing road safety countermeasures.

THE 2ND THAILAND ROAD SAFETY FORUM-2024

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 22 Nov 2024 to 31 May 2025

Project Sponsor/Client: Mitsubishi Motor Thailand

Expected Social Impact: Exchange knowledge on road safety.

Description:

This project is to organize the 2nd Thailand Road Safety Forum.

THE STUDY OF THE EFFECTIVENESS OF HAZARD PERCEPTION TRAINING ON YOUNG MOTORCYCLE RIDERS IN THAILAND

AIT Research Theme: Infrastructure

AIT Unit: SET-Transportation Engineering

Duration: 01 Dec 2024 to 31 Dec 2026

Project Sponsor/Client: Thai Health Promotion Foundation

Expected Social Impact: To Study the Effectiveness Of Hazard Perception Training On Young Motorcycle Riders In Thailand

Description:

To Study the Effectiveness Of Hazard Perception Training On Young Motorcycle Riders In Thailand

PREPARATION OF AN INVENTORY INDUS EMBANKMENT AND BREACHING SECTIONS, TO DOCUMENT THEIR CURRENT CONDITIONS AND FOR INFORMED DISASTER RISK & HAZARD

AIT Research Theme: Food-Energy-Water

AIT Unit: AIT Extension

Duration: 22 Jul 2022 to 31 Dec 2024

Project Sponsor/Client: Sindh Resilience Project (Irrigation Component)—The World Bank

Project Partner: 360 Engineering & Management Solutions, LEVANT (Pakistan), Carthago Consultancy International

Expected Social Impact: The severity of flood disasters in the lower reaches of the Indus basin is equally important because flash floods and riverine flooding pose a threat to densely populated areas. In this work, we aim to simulate flooding and the effects of land cover changes on inundation in the lower Indus basin along with the topographic and geophysical assessment of hydraulic structures. The impact on people living in the riverine areas is migration temporarily or permanently to other areas for their livelihood. Embankment assessment improves the livelihood, and the temporary outward migration becomes almost negligible as people start rearing animals and growing high-value crops.

Description:

The Sindh Irrigation Department (SID), Government of Sindh, intends to undertake several activities for institutional strengthening of the department under the 'Sindh Resilience Project' soft component funded by the World Bank. The envisioned study under soft components is for those hydraulic infrastructures that require evaluation for the safety of such structures. The Flood embankments are controlled by Sindh Irrigation Department SID has been built in traditional ways and has been protecting surrounding communities, infrastructures, and low-lying areas around riverine belts. In Sindh, the Indus River has hundreds of kilometers of flood embankments to protect against flooding. Nevertheless, they are not the only sustainable options and receive infrequent floods, which receive low, medium, high, super, and exceptional floods off and on in varied years. The accidental overtopping or breaching of embankments causes huge damage in terms of economic and human suffering. This project aims to allow for informed decision-making on operational flood management and embankment maintenance strategies and further the understanding and control of breaching.

News:

PLASTIC TO BIOMASS: HARNESSING MICROBIAL FORCES FOR CLEANER FUTURE

Description:

On October 7, 2024, AIT PhD scholar Pornya Khampratueng presented her research on using microbial solutions for sustainable plastic degradation, supervised by Anil Kumar Anal. The study focuses on degrading low-density polyethylene (LDPE), a common packaging plastic that resists natural degradation. Two bacterial strains, Bacillus sp. AS3 and Sphingobacterium sp. AS8, were isolated and combined into a consortium that significantly reduced LDPE weight and altered its structure within a month. This research offers a promising approach to managing plastic waste and aligns with Sustainable Development Goals related to responsible consumption and environmental protection.

https://ait.ac.th/2024/10/plastic-to-biomass-harnessing-microbial-forces-for-cleaner-future/

AIT SET'S UP-STA-SIM TEAM SECURES GRANT FROM IPPIN ACCELERATOR+ PROGRAM TO COMBAT MARINE PLASTIC WASTE

Description:

On October 9, 2024, AIT's Up-Sta-Sim team, led by doctoral student Peerawit Janta, secured a grant of AUD 5,000 from the Indo-Pacific Plastics Innovation Network (IPPIN) Accelerator+ Program. This project aims to address marine plastic waste by integrating garment waste into Engineered Cementitious Composites (ECC), a high-performance construction material. The initiative not only offers a sustainable disposal route for textile waste but also enhances the mechanical properties of ECC. The Up-Sta-Sim project promotes community-driven approaches to extend garment life and reduce reliance on virgin materials, ultimately contributing to sustainability efforts aligned with several United Nations Sustainable Development Goals.

https://ait.ac.th/2024/10/ait-sets-up-sta-sim-team-secures-grant-from-ippin-accelerator-program-to-combat-marine-plastic-waste/

TRAINING WORKSHOPS FOR PLASTIC FLOW MEKONG IN CAMBODIA, LAOS, VIETNAM AND THAILAND

Description:

The GIC team organized training workshops on Plastic Leakage Mapping and Monitoring Plastic Litter using AI-CCTV in four Mekong countries: Cambodia (7–10 October 2024), Laos (4–8 November 2024), Vietnam (11–14 November 2024), and Thailand (20 November 2024). These workshops were part of the ongoing PlasticFlow Mekong Project and were conducted with support from local partners in each country. The collaborators included COMPOSTED and the Royal University of Phnom Penh (RUPP) in Cambodia, the National University of Laos (NUOL) in Laos, ClearRivers, GreenHub, and ISPONRE in Vietnam, and the Sustainable Environmental Research Institute of Chulalongkorn University in Thailand.

https://ait.ac.th/2024/11/training-workshops-for-plastic-flow-mekong-in-cambodia-laos-vietnam-and-thailand/

Projects:

MAPPING THE PLASTIC LITTER LEAKING INTO THE WATERWAYS OF MEKONG COUNTRIES AND PROVIDING INNOVATIVE SOLUTIONS FOR EFFICIENT WASTE MANAGEMENT

AIT Research Theme: Climate Change; Smart Communities; Technology, Policy and Society

AIT Unit: Geoinformatics Center

Duration: 01 Mar 2024 to 31 Aug 2026

Project Sponsor/Client: Mekong Institute

Expected Social Impact: The project is expected to generate significant social impact across multiple levels. For local communities, it will directly reduce plastic pollution, enhance waste management practices, and contribute to cleaner living environments. NGOs will benefit from strengthened capacities to engage with communities and lead awareness and capacity-building initiatives. Government agencies will be supported in creating an enabling policy environment and ensuring the long-term sustainability of waste management efforts. Indirectly, the project will help minimize ecological harm to terrestrial and aquatic ecosystems, promoting healthier habitats, particularly around the Mekong waterways. Local economies stand to gain from improved tourism, fisheries, and agriculture, resulting in better livelihoods for communities reliant on these sectors. On a broader scale, the project contributes to regional and global efforts to combat marine plastic pollution, benefits marine ecosystems worldwide, and promotes the adoption of sustainable waste management policies. Public awareness campaigns will further reinforce behavioral change and environmental stewardship.

Description:

The Southeast Asia region has possessed the exacerbating plastic waste in the open environment for the last decade. This project addresses the complex issue of plastic waste and aims to contribute to the system of plastic leakage monitoring with the inclusivity of science, technology, and innovation. Our working scope is to engage all stakeholders (public, private, academic, NGOs, and governments) to support plastic waste management at the national and regional levels. Our project scope is limited to promoting and incubating sustainable solutions through plastic leakage prevention, plastic waste detection and monitoring, and plastic waste collection. The project is expected to support proper waste management and conduct the standard plastic waste monitoring framework at the city level.

THE AIT-UNEP COUNTERMEASURE III WORKSHOP "BANKABLE PROJECT PROPOSALS"

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management; Food Innovation, Nutrition and Health

Duration: 2023-2025

Project Sponsors/Clients: Government of Japan; UNEP

Project Partners: Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE), International Union for Conservation of Nature (IUCN), Ministry of Environment (Sri Lanka), Ministry of Environment (Cambodia), Living Indus, UN Resident Coordinator Office - Pakistan, Mahidol University, Mekong River Commission, Bangkok Metropolitan Administration, Pollution Control Department (Thailand)

Expected Social Impact: : Enhanced capacity for project development, Reduce waste, Improved ocean environment, Enhanced network

Description:

The Southeast Asia region has possessed the exacerbating plastic waste in the open environment for the last decade. This project addresses the complex issue of plastic waste and aims to contribute to the system of plastic leakage monitoring with the inclusivity of science, technology, and innovation. Our working scope is to engage all stakeholders (public, private, academic, NGOs, and governments) to support plastic waste management at the national and regional levels. Our project scope is limited to promoting and incubating sustainable solutions through plastic leakage prevention, plastic waste detection and monitoring, and plastic waste collection. The project is expected to support proper waste management and conduct the standard plastic waste monitoring framework at the city level.

COST OF INACTION AND ACTION FOR PLASTIC POLLUTION

AIT Research Theme: Technology, Policy and Society

AIT Unit: Environmental Engineering and Management

Duration: 08 Dec 2023 to 31 Aug 2024

Project Sponsors/Clients: Government of Japan, UNEP

Project Partner: Mahidol University, Mekong River Commission (MRC), etc.

Expected Social Impact: : Reduce waste, Improved ocean environment, Enhanced network

Description:

The workshop "Cost of Inaction and Action for Plastic Pollution" was organized by UNEP and AIT to support decision-making and implementation among policymakers and stakeholders as part of the Japan-funded project aimed at achieving plastic-free rivers. AIT President Kazuo Yamamoto gave the opening address. Session 1, Valuation of the Impacts of Plastic Pollution, was chaired by the AIT economist Takuji W. Tsusaka. The AIT expert Ekbordin Winijkul led the organizing committee. This workshop was not just a dialogue but a call for action for policymakers, stakeholders, and individuals to unite in the fight against plastic pollution, aiming for a future with plastic-free rivers.

TECHNICAL ASSISTANCE AND STRENGTHENING RESEARCH AND INNOVATION PRACTICES FOR WASTE MANAGEMENT ACROSS THE MALDIVES

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 01 Sep 2022 to 31 May 2024

Project Sponsor/Client: The World Bank

Project Partner: The World Bank The Maldives MEERU Project ProBlue Trust Funded Waste-to-wealth Program Maldives Institute of Technology (MIT)

Expected Social Impact: AIT supports the Maldives Institute of Technology (MIT) in sustaining and expanding waste-to-wealth initiatives under the MEERY Project. This collaboration promotes long-term waste management solutions through research, innovation, and community engagement. It empowers local institutions, aligns with national policies, and helps transform waste into a valuable resource across the Maldives.

Description:

AIT specifically provides the capacity to work and support the ongoing waste-to-wealth project implemented through MIT. AIT will assist the Maldives Institute of Technology (MIT) in sustaining project deliverables being implemented as part of the MEERY Project for the coming years and facilitating MIT to benefit from and promote waste-to-wealth interventions across the Maldives.

TRUCK MOBILITY DATA ANALYSIS FOR REDUCING CARBON EMISSION

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 17 Oct 2022 to 31 Dec 2024

Project Sponsor/Client: Bangchak Corporation Public Company Limited

Project Partner: Apichon Witayangkurn, Sirindhorn International Institute of Technology (SIIT), Pathumthani

Expected Social Impact:

1. Carbon Emissions Reduction
2. Pathway to business

Description:

As IoT, Big Data, and AI continue to advance, their synergy could unlock unprecedented potential. Data collected from trucks can inform routing decisions. Unlike personal vehicles, trucks have many restrictions, such as operating time, U-turn location, and parking zone. Even different types of trucks have different constraints, e.g., gasoline trucks. According to Thai regulations, GPS tracking devices are mandatory for truck data collection, which is transferred to the Department of Land Transportation. This practice aids in reducing truck traveling time, avoiding road accidents, optimizing the use of highway/local roads, and ultimately reducing carbon emissions. In this work, we propose a multiple-phase project. The objective is to design and build an open AI for a trucking platform.

REDUCE, REUSE, RECYCLE TO PROTECT THE MARINE ENVIRONMENT AND CORAL REEFS (3RPROMAR)

AIT Research Theme: Food-Energy-Water

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 01 Nov 2022 to 30 Jun 2025

Project Sponsor/Client: The German Agency for International Cooperation or GIZ

Project Partner: ASEAN Secretariat, Environmental Division - Deutsche Gesellschaft Internationale Zusammenarbeit (GIZ) GmbH - ERIA - NIVA

Expected Social Impact:

1. Enhancement of knowledge platform features and knowledge content for strategic focus on Marine Litter
2. Partnership building for effective legitimate sourcing and endorsing of data on marine plastic litter data and knowledge
3. Capacity building of AMS focal points on waste data management
4. Knowledge dissemination activities on marine debris and circular economy
5. Health and Environment

Description:

To provide a common platform for information and knowledge sharing for enhanced capacity in information decision-making in combating marine litter in the ASEAN.

SUPPORT TO THE GLOBAL STRATEGY FOR SCP, THE GO4SDGS, AND THE SEA CIRCULAR IN ASIA

AIT Research Theme: Climate change, Food-Energy-Water

AIT Unit: Office of President

Duration: 01 Sep 2023 to 31 Jul 2025

Project Sponsor/Client: United Nations Environment Programme

Expected Social Impact:

1. Development of a regional Booklet, an infographic rich document with a regional assessment of key environmental indicators and hotspots
2. Develop and organise regional workshop with a workshop report
3. Develop and organise two regional roundtables on sustainable lifestyles and Green jobs for Youth Pact with reports
4. Develop and organise two thematic hybrid workshops on SCP in textiles and agri-food sectors with reports
5. A full report/assessment of the overview of the green jobs prospective, green skills gaps, and requirements in Thailand through research by an intern.
6. Promoting Sustainable Consumption and Production (SCP) Awareness and Capacity
7. Enhancing Industry Sustainability and Youth Empowerment

Description:

The main objective of this project is to strengthen AIT's support of the 17 SDGs, particularly SG 12, by carrying out an SSFA with UNEP. The project will highlight the utilization of UNEP's Sustainable Consumption Production Hot Spot Analysis tool and other science driven tools to facilitate the development and execution of SCP strategies and initiatives in Asia

UNDERSTANDING THE ROLE OF CONSUMER WISDOM IN SUSTAINABLE CONSUMPTION BEHAVIOUR

AIT Research Theme: Technology, Policy and Society

AIT Unit: School of Management

Duration: 25 Sep 2023 to 24 Sep 2024

Project Sponsor/Client: AIT Research Grant

Expected Social Impact: This project is dedicated to developing sustainable consumption practices and harnessing the transformative potential of Consumer Wisdom (CW) to reduce environmental harm, conserve natural resources, mitigate climate change, enhance societal well-being, and empower consumers to make informed, responsible choices that align with their well-being and the collective welfare of society. By examining the dimensions of responsibility, purpose, flexibility, perspective, reasoning, and sustainability within CW, our research aims to bridge knowledge gaps in the field and promote a culture of mindful consumption, contributing to a more equitable, just, and environmentally sustainable world.

Description:

Recently, the urgency for sustainable or green consumption has intensified to combat environmental degradation and climate change. Green consumption involves the mindful use of goods and services that minimize environmental and social harm while supporting individual and community well-being. Although the term lacks a universally agreed definition, it encompasses concepts such as environmentally friendly and socially responsible consumption. A key emerging factor is consumer wisdom—the ability to make thoughtful, sustainable decisions by applying self-awareness, responsibility, and foresight. This multidimensional concept plays a crucial role in promoting sustainable consumption behaviors amidst market pressures and societal challenges.

PROMOTION OF ACTION AGAINST MARINE PLASTIC LITTER IN ASIA

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: 01 Jun 2023 to 30 Jun 2025

Project Sponsor/Client: United Nations Environment Programme

Project Partners: International organizations: Mekong River Commission; Vietnam: Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE); Sri Lanka: International Union for Conservation of Nature (IUCN), Ministry of Environment; Cambodia: Ministry of Environment; Pakistan: Living Indus, UN Resident Coordinator Office; Thailand: Mahidol University, Bangkok Metropolitan Administration, Pollution Control Department

Expected Social Impact:

Contribute to protecting the marine environment from land-based plastic pollution through strengthened regional coordination and technological adoption.

1. Provide regional support for implementing tools and protocols in project countries, led by AIT GIC.
2. Conduct a regional comparative assessment of the current waste management systems and identify the gaps in aspects relevant to plastic pollution based on the reports prepared by the partners in the project countries.
3. Develop an assessment of the impacts of plastic pollution on the sustainability of the food chain and livelihoods of the riverine communities.
4. Regional capacity development on formulating bankable project proposals,
5. Knowledge and management sharing, and 6) Campaigns and dissemination

Description:

The project aims to promote science-based and evidence-driven action to reduce and prevent plastic pollution in Asian riverine ecosystems with a focus on Thailand, Cambodia, Sri Lanka, Vietnam, and Pakistan.

DEVELOPING AND DELIVERING A CAPACITY BUILDING TRAINING AND STUDY TOUR PROGRAM ON BEHAVIORAL CHANGE IN PLASTICS AND PLASTIC WASTE MANAGEMENT IN ASEAN

AIT Research Theme: Technology, Policy and Society

AIT Unit: Global Water and Sanitation Center

Duration: 01 Dec 2023 to 31 Mar 2025

Project Sponsor/Client: SEA-MaP Project Management Unit

Project Partner: Regional Resource Center for Asia and the Pacific (RRC.AP)

Expected Social Impact: These activities will emphasize the identification and exploration of applicable and transferable technologies and policies that are pertinent to the ASEAN context.

1. Conduct a rapid stocktaking of existing plastic waste management-related training, knowledge exchange programs, and the relevant programs in ASEAN.
2. Design and develop a training program and study tour program for the SEA-MaP Project.
3. Deliver the training and the study tour in the host country.
4. Summarize the training and study tour and post-event satisfaction survey.

Description:

This project is committed to creating and institutionalizing platforms for innovation, investment, knowledge sharing, and partnerships across ASEAN to address plastic pollution. These platforms, aiming to bolster sustainability, will foster collaboration with regional private-sector champions and support existing data and research networks. They are designed to promote circular economy solutions and encourage partnerships. Further, these platforms seek to catalyze private sector investment and support. The platforms will provide technical assistance to plastics innovators, especially focusing on women-owned innovations, social enterprises, and NGOs, to help turn innovative ideas into proofs of concept, pilots, and bankable business solutions.

PROJECT FOR PROMOTING THE MINAMATA CONVENTION ON MERCURY BY MAKING THE MOST OF JAPAN'S KNOWLEDGE AND EXPERIENCES

AIT Research Theme: Technology, Policy and Society

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 04 Oct 2024 to 31 Mar 2025

Project Sponsor/Client: United Nations Environment Programme Nairobi, Kenya

Project Partner: UNEP ROAP, UAE-IDEA Advance Analytical Company Limited, IDEA Japan

Expected Social Impact: The project aims to assist the governments in enhancing their national mercury-related information base, thereby facilitating the implementation of mercury management measures.

Description:

Project for promoting the Minamata Convention on Mercury by making the most of Japan's knowledge and experiences to support its member states for the implementation of the Convention. The project implementation plan incorporates the needs of the participating countries, as determined by the outcomes of the inception workshop. The plan aims to integrate safety into the chemical production processes and trade, ensure the prevention and/or mitigation of impacts on human health, particularly that of users, and protect the environment and biodiversity.

STRENGTHENING DIGITAL AGRICULTURE ECOSYSTEM AND DEVELOPING E-AGRICULTURE SOLUTIONS

AIT Research Theme: Climate change, Food-Energy-Water, and Technology, Policy and Society

AIT Unit: Agricultural Systems & Engineering

Duration: 19 Nov 2024 to 18 Nov 2026

Project Sponsor/Client: Food and Agriculture Organization (FAO) of the United Nations

Expected Social Impact: Provide capacity building and knowledge exchange through and exposure, Food Security

Description:

The main project is to provide support for capacity building and knowledge exchange through an Exposure and Visit mission by a delegation of DPR Korea officials/experts from the agricultural sector

COUNTRY-SCALE QUANTIFICATION OF GHG EMISSIONS FROM DOMESTIC WWTP IN THAILAND

AIT Research Theme: Environmental Engineering and Management

AIT Unit: Agricultural Systems & Engineering

Duration: 01 Oct 2024 to 27 Mar 2025

Project Sponsor/Client: APN

Project Partner: Universitas Pertamina, Indonesia Ho Chi Minh City University of Industry and Trade, Vietnam

Expected Social Impact: The outputs of this project are expected to provide evidence-based policy recommendations for relevant stakeholders, including local governments and environmental management agencies, to formulate effective strategies for preventing marine plastic pollution. By filling the current knowledge gaps and informing policy decisions, this project aims to contribute to the sustainable management of microplastic pollution in urban aquatic systems in SEA and beyond.

Description:

This project aims to address the growing environmental threat of plastic debris and microplastics (MPs), particularly in Southeast Asia (SEA), a global hotspot for plastic waste discharge into the ocean. Despite SEA's significant role in plastic pollution, a major knowledge gap exists in understanding the complex interactions between land-

based sources, aquatic pathways, and environmental sinks of MPs in urban coastal areas. The project aims to develop a comprehensive system model to quantify the influx of microplastics in urban aquatic systems across selected SEA cities. It seeks to answer key questions regarding the sources, pathways, and receptors of MPs and how this knowledge can inform better management and policymaking. Key activities include reviewing existing research, formulating a source-pathway-receptor (SPR) framework, collecting field data, and engaging with stakeholders to ensure policy relevance. The project's outcomes are expected to inform evidence-based strategies for preventing marine plastic pollution and supporting sustainable management efforts across SEA.

ENERGY DEMAND CHANGES INDUCED BY TECHNOLOGICAL AND SOCIAL INNOVATIONS WITH SPECIAL REFERENCE TO SOUTH AND SOUTH-EAST ASIA AND MODELLING POWER SECTOR CAPACITY

Duration: 2024-2027

Description:

The main objective of the three projects is to create a research community capacity with a focus on energy end-use and demand-side perspectives and power sector expansion plans that further dialogue and cross-fertilization of research and policy analysis through data, concepts, and methods. This approach can help bridge knowledge gaps in global assessment reports from the Global South. The goal is also to develop a service-oriented, bottom-up demand model to help in providing inputs to climate policy analysis. South Asian countries are expected to experience rapid economic growth and infrastructure development in the coming three decades. Most of the demand in the region does not have historical path dependency and a hard lock-in effect. This scenario provides enough scope and opportunities for planning to decouple energy demand growth from emission growth. Such energy demand planning can have the benefit of reduced costs for planning the expansion of supply capacity and synergies with near-term developmental goals.

Weblink:

- https://smartscenter.ait.ac.th/edssea,
- https://smartscenter.ait.ac.th/smarts-mcet
- https://smartscenter.ait.ac.th/smarts-mcet

Photographs of project/activity, PDF documents, news links, etc.

- https://smartscenter.ait.ac.th/smarts-events-n-gallery
- https://smartscenter.ait.ac.th/smarts-publications

EXPERTS CONVENE FOR ACTION-ORIENTED DISCUSSIONS ON MARINE PLASTIC DEBRIS MANAGEMENT, BANGKOK

Duration: 5-6 Mar 2024

Expected Social Impact: The social impacts primarily centered around environmental protection, public health, and sustainable development. Reducing marine plastic pollution protects the food chain and the livelihoods of those who depend on the ocean. Marine plastic pollution can contaminate seafood and water sources, posing risks to human health. By addressing this issue, it contributes to improved public health outcomes. Finally, promoting sustainable consumption and production helps create a circular economy and reduce waste.

Description:

Experts and stakeholders gathered for the 5th ERIA's Experts Working Group on Marine Plastic Debris Meeting on March 5-6, 2024, in Bangkok, Thailand. The meeting was hosted by the Regional Knowledge Centre for Marine Plastic Debris (RKC-MPD) of the Economic Research Institute for ASEAN and East Asia (ERIA) in partnership with the Institute for

Global Environment Strategies (IGES). The meeting saw robust discussions aimed at tackling the pressing issue of marine plastic pollution.

Group discussions played a central role in formulating actionable strategies. One notable focus was on enhancing ASEAN+3's approach to the Global Plastics Treaty. Participants delved into various aspects of Extended Producer Responsibility (EPR) frameworks, exploring frameworks, innovations, and regional insights. Guilberto

Borongan's presentation on technical guidelines for plastics and resin pellets leakage prevention garnered particular attention, emphasizing practical solutions for managing plastic waste effectively. Bishal Bhari also served as rapporteur on one of the group discussion sessions, which focused on integrating just transition principles into EPR frameworks and fostering private sector-community collaboration.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-07.aspx

EXPERTS CONVENE FOR ACTION-ORIENTED DISCUSSIONS ON MARINE PLASTIC DEBRIS MANAGEMENT, BANGKOK

Duration: 19-22 Mar 2024

Expected Social Impact: The social impacts primarily centered around environmental protection, public health, and sustainable development. Reducing marine plastic pollution protects the food chain and the livelihoods of those who depend on the ocean. Marine plastic pollution can contaminate seafood and water sources, posing risks to human health. By addressing this issue, it contributes to improved public health outcomes. Finally, promoting sustainable consumption and production helps create a circular economy and reduce waste.

Description:

The 3rd Regional Workshop of the ASEAN-German Project 'Reduce, Reuse, Recycle to Protect the Marine Environment and Coral Reefs' (3RproMar) was held from 19 to 22 March 2024 in Iloilo City, Philippines, with the theme "From Knowledge to Action: Facilitating Concrete Efforts for Enhanced Land-Based Marine Litter Prevention in ASEAN." The workshop was conducted to share the progress of the 3RproMar project implementation at the regional level, with a focus on the 3RproMar Knowledge Partnership for Marine Litter Prevention in ASEAN, and provide a platform for disseminating achievements and good practices derived from the project's implementation at the national and local levels. The workshop aimed at facilitating analysis

of extended producer responsibility (EPR), behavior change, microplastics, just transition, and identifying with ASEAN Working Groups inclusive regional interventions in reducing plastic waste leakage into the sea, aligned with the ASEAN RAP for Combating Marine Debris and the upcoming internationally Legally Binding Instruments (ILBI).

AIT RRC.AP actively engaged in all sessions as discussants and panelists. The center shared insights on knowledge management and behavioral change technical discussions based on experiences from the ongoing Marine Plastic Prevention Knowledge Partnership under the 3RproMar project.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-06.aspx

AIT RRC.AP PARTICIPATES IN THE RECYCLING AND RECOVERY EXPO 2024 AT THE TECHNOBIZ EXPO 2024, BANGKOK

Duration: 27-28 Mar 2024

Expected Social Impact: AIT RRC.AP's participation at the Expo aims to combat marine plastic pollution through effective solutions and sustainable waste management, benefiting ecosystems and communities and promoting a circular economy.

Description:

The AIT RRC.AP participated in the Recycling & Recovery Expo 2024 at the TechnoBiz Expo 2024 that was held from 27-28 March 2024 at BITEC in Bangkok, Thailand. The center shared insights and outcomes from their ongoing marine plastic prevention project in the Green

Tech Conference session of the Expo. Interactions and discussions were held with private sector exhibitors and innovators on strategies and technologies for preventing marine plastic pollution in the region.

The expo focused on the latest technological innovations and practices in waste management, recycling, and recovery. "Thailand Waste Management 2024" is a collocated conference at TechnoBiz Expo 2024.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-02.aspx

AIT RRC.AP PARTICIPATED IN THE ASEAN DIGITAL KNOWLEDGE PLATFORM WORKSHOP ON WASTE MANAGEMENT, 30 MAY 2024, BANGKOK

Duration: 30 May 2024

Expected Social Impact: This workshop aims to improve waste management in ASEAN's tourism sector by developing a digital knowledge platform and training program. This will empower stakeholders with sustainable practices, protect tourism areas, and promote a circular economy, ultimately creating a cleaner, more sustainable tourism industry for the benefit of local communities and the environment.

Description:

On 30 May 2024, Bangkok, Thailand, hosted the ASEAN Municipal Solid Waste Management Enhancement (AMUSE) Workshop session on the Development of the ASEAN Digital Knowledge Platform on Waste Management in the Tourism Sector. Representatives from the ASEAN Secretariat, AWGESC, relevant partner ministries of ASEAN Member States, NGOs, and AMUSE consultants, including DESMA Center from Indonesia, AIT RRC.AP, and Pimclick from Thailand, attended the workshop.

The workshop aimed to present and gather feedback on the ASEAN Knowledge Platform on Waste Management in the Tourism Sector. Additionally, it introduced the AMUSE regional training in waste management and sustainable tourism.

Bishal Bhari from AIT RRC.AP highlighted the training program's key elements and features, focusing on the

environment, tourism, SMEs, and relevant stakeholders. The training program will cover topics related to the circular economy, waste management, and sustainable tourism practices. Huno Solomon Kofi Mensah from AIT RRC.AP also facilitated a group discussion session using the World Café method to gather insights on the training needs, how to reach the maximum number of participants, and how to ensure the training's sustainability. AIT RRC.AP played a pivotal role in these discussions, collecting valuable suggestions and recommendations to enhance the training's reach and impact.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-03.aspx

AMUSE TRAINING PROGRAM ON WASTE MANAGEMENT AND SUSTAINABLE TOURISM, MODULE 1: INTRODUCTION TO CIRCULAR ECONOMY AND SUSTAINABILITY, VIRTUAL TRAINING

Duration: 5 July 2024

Expected Social Impact: The AIT RRC.AP and GIZ AMUSE launched a well-attended training on waste management and sustainable tourism in the ASEAN region, introducing circular economy principles and showcasing regional successes. This empowers stakeholders with practical strategies to reduce environmental impact in the tourism sector, fostering a more sustainable and environmentally conscious region that benefits communities and preserves resources.

Description:

On July 5, 2024, the Asian Institute of Technology, Regional Resource Center for Asia and the Pacific (AIT RRC.AP) and the

Deutsche Gesellschaft für Internationale Zusammenarbeit, ASEAN Municipal Solid Waste Management Enhancement (GIZ AMUSE) team successfully launched the first module of the *AMUSE Training Program on Waste Management and Sustainable Tourism.* The event attracted over 350 participants from across the ASEAN region, highlighting a strong commitment to tackling waste management challenges and promoting sustainable tourism practices.

The core of the training focused on "Introduction to Circular Economy and Sustainability," expertly delivered by Guilberto Borongan, Director, and Solomon K.M. Huno, Senior Program Officer of AIT RRC.AP, respectively. They explained the key principles of the circular economy and showcased successful case studies from ASEAN countries. The presentation also addressed major waste management challenges in the region and proposed strategies to overcome them.

Interactive quizzes and surveys via Mentimeter engaged participants, while the Q&A session facilitated through Webex allowed for dynamic exchanges. A special focus on sustainable tourism practices underscored the need to integrate circular economy principles to mitigate environmental impacts.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-07.aspx

CAPACITY BUILDING PROGRAMME FOR REDUCING RECYCLING-RELATED MARINE PLASTIC POLLUTION IN ASEAN CITIES (THE CARMPAC PROJECT) LAUNCHED IN VIENTIANE, LAO PDR

Duration: 16 Aug 2024

Expected Social Impact: The CaRMPAC Project, launched by AIT RRC.AP and ERIA RKC-MPD, marks a significant step in tackling marine plastic pollution in ASEAN cities. Building on Phase 1's technical guidelines for preventing plastic leakage from recycling facilities, Phase 2 focuses on empowering stakeholders, including government and the informal sector, to implement these guidelines. The initiative promises to improve waste management, protect marine ecosystems, and safeguard the livelihoods of coastal communities, fostering a more sustainable future for the ASEAN region's marine environment.

Description:

On August 16, 2024, the CaRMPAC Project, aimed at reducing marine plastic pollution in ASEAN cities. This project, led by *the Asian Institute of Technology- Regional Resource Centre for Asia and the Pacific (AIT RRC.AP)* and funded by the *Economic Research Institute for ASEAN and East Asia Regional Knowledge Center for Marine Plastic Debris (ERIA RKC-MPD)*, focuses on enhancing the capacities of stakeholders to prevent plastic and pellet leakage into the marine environment.

Phase 1 of the CaRMPAC Project, titled "Development and Dissemination of Technical Guidelines for the Prevention of Plastic and Pellet Pollution from Factories and Informal Recycling Facilities in ASEAN," was successfully

implemented between February 2022 and October 2023. The project took place across six cities: Hanoi, Iloilo, Nonthaburi, Manila, Pattaya, and Vientiane. The primary outcome was the development of comprehensive technical guidelines aimed at preventing plastic pollution, specifically targeting factories and informal recycling facilities in the ASEAN region. These guidelines will serve as a crucial resource for reducing plastic leakage into the environment.

The event culminated in the official launch of the CaRMPAC Project, unveiling its work plan and expected outcomes. The launch marks a significant step in ASEAN's efforts to combat marine plastic pollution and protect the region's marine ecosystems.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no3-01.aspx

TRAINING WORKSHOP ON WASTE MANAGEMENT IN ASEAN CITIES, PATHUMTHANI

Duration: 23-25 Sep 2024

Expected Social Impact: The training workshop focused on improving municipal solid waste management through circular economy principles, evidence-based strategies, community engagement, and sustainable tourism, incorporating presentations and field visits to local initiatives. The goal was to empower participants to create and implement more sustainable waste management policies in their cities.

Description:

The Waste and Resource Management Cluster organized a Training Workshop on Waste Management in ASEAN Cities from 23 to 25 September 2024. The Training Workshop on Waste Management in ASEAN Cities, funded under the GIZ ASEAN Municipal Solid Waste Management Enhancement (GIZ-AMUSE) and 3RproMar projects, was held at the Asian Institute of Technology (AIT) in Thailand. The workshop brought together over 40 participants, including environmental officers, public health experts, and waste management practitioners from across ASEAN cities. The aim was to enhance participants' knowledge, skills, and capacity for effective municipal solid waste management (MSWM), emphasizing evidence-based decision-making and circular economy principles.

The workshop featured a blend of presentations, group discussions, and field visits. On the first day, participants

focused on good practices in MSWM, circular economy approaches, and data-driven strategies for policy development and implementation. Day two covered community engagement, gender inclusion in waste management, and sustainable tourism practices. These sessions provided participants with insights into integrating sustainable waste strategies in both urban and touristic settings, enhancing their capacity to create and implement policies.

The final day included field visits to Si Mum Muang Market and Bangkok Rooftop Farming Social Enterprise, where participants observed practical examples of waste management and circular economy initiatives.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no3-04.aspx

THE AIT RRC.AP PARTICIPATED IN THE INDO-PACIFIC FORUM ON MARINE PLASTIC DEBRIS GOVERNANCE, HUALIEN, TAIWAN

Duration: 13-14 Nov 2024

Expected Social Impact: AIT RRC.AP's participation in the Indo-Pacific Forum on Marine Plastic Debris Governance in Taiwan fostered crucial dialogue and collaboration on this environmental challenge. Borongan's insights on public-private partnerships and ESG in marine plastic governance promoted responsible corporate behavior and sustainable solutions. The forum facilitated regional cooperation and the sharing of best practices, aiming to drive collective action and contribute to a healthier marine environment for coastal communities and ecosystems.

Description:

On November 13–14, 2024, AIT RRC.AP participated in the Indo-Pacific Forum on Marine Plastic Debris Governance in Hualien, Taiwan, organized by Taiwan's Ocean Affairs Council (OAC). The forum advanced the plastic treaty's momentum in the Indo-Pacific, with OAC committed to sustainable ocean management and tackling key marine environmental challenges.

The event fosters dialogue and collaboration among Indo-Pacific countries to tackle marine plastic pollution by exploring strategies, sharing best practices, and promoting regional cooperation to address this pressing global challenge.

Guilberto Borongan, Director of RRC.AP, served as a panel speaker, sharing insights on "Public-Private Partnership in

ESG Governance." His presentation addressed Corporate Responsibility and ESG strategies in marine plastic governance, emphasizing safer, more durable, reusable, and recyclable plastic designs. He highlighted successful public-private partnerships, the role of social enterprises in ocean governance, and future collaboration opportunities.

Weblink:

https://www.rrcap.ait.ac.th/news/Pages/vol25no4-02.aspx

THE AIT RRC.AP PARTICIPATED IN THE INDO-PACIFIC FORUM ON MARINE PLASTIC DEBRIS GOVERNANCE, HUALIEN, TAIWAN

AIT Research Theme: Food-Energy-Water

AIT Unit: Artificial Intelligence Technology Center

Duration: 01 Mar 2024 to 15 Aug 2025

Project Sponsor/Client: Monsoon Tea Company

Expected Social Impact: The project will provide Thai tea farmers in Chiang Mai Province with a user-friendly mobile app available on the Google Play Store to improve their farming practices. This app will empower farmers, enhance environmental conservation efforts, and build consumer trust in tea products. By offering easy access to helpful tools and knowledge, the project aims to uplift farmers, protect biodiversity, and promote sustainable agriculture for a brighter future.

Description:

To develop a mobile application coupled with cutting-edge traceability technology. This innovative solution will provide Thai tea farmers with a comprehensive toolset to enhance productivity, improve quality, ensure sustainability, and foster consumer trust while promoting biodiversity conservation.

Operations:

SUMMARY REPORT: AIT CAMPUS WASTE MANAGEMENT PERFORMANCE (2022–2024)

The Asian Institute of Technology (AIT) has made significant progress in enhancing its waste management operations over the past three years, aligning with its sustainability goals. Data from 2022 to 2024 indicate a **marked reduction in total waste generated** and continued efforts in recycling and composting.

Key Waste Management Trends:

Waste Stream	2022 (MT)	2023 (MT)	2024 (MT)	% Reduction (2022-2024)
Campus Wet Waste	172.71	143.50	95.30	**44.8%** ↓
Campus Dry Waste	168.88	145.90	122.01	**27.7%** ↓
Food Waste Recycled	3.86	6.50	3.99	**3.2%** ↑
General Waste Recycled	0.50	0.41	0.43	**14.8%** ↓ **(vs. 2022)**

Highlights:

- **Significant reduction in wet waste** (from 172.71 MT to 95.30 MT), showcasing improved food waste prevention and segregation practices.
- **Dry waste generation** also dropped by nearly 47 MT, indicating better consumption habits and material use efficiency on campus.
- While **food waste recycling peaked in 2023**, efforts in 2024 remained above 2022 levels, reflecting consistent engagement in composting and resource recovery.
- **General recycling remained modest** but stable, signaling an area for strategic scaling through better segregation, community awareness, and partnerships.

AIT's waste management data clearly demonstrate measurable improvements in waste reduction and diversion over the last three years. These trends affirm the effectiveness of AIT's campus-wide awareness campaigns, operational reforms, and waste segregation efforts. Moving forward, targeted strategies to enhance **recycling rates**, especially for dry and plastic waste, will be crucial for further advancing circular economy practices on campus.

News:

AIT'S "NET ZERO CAMPUS INITIATIVE" FINALIST IN INTERNATIONAL GREEN GOWN AWARDS

Description:

On July 10, 2024, AIT was recognized as a finalist for the International Green Gown Awards for its "Net Zero Campus Initiative," aiming for sustainability and reduced environmental impact while promoting innovative practices in education.

https://ait.ac.th/2024/07/aits-net-zero-campus-initiative-finalist-in-international-green-gown-awards/

AIT'S 'NET ZERO CAMPUS INITIATIVE' WINS INTERNATIONAL GREEN GOWN AWARDS

Description:

On October 10, 2024, AIT's "Net Zero Campus Initiative" received the International Green Gown Award in the '2030 Climate Action' category. This initiative, led by former AIT President Kazuo Yamamoto, aims to transform the campus into a Botanical Garden Net Zero campus by 2030, focusing on significant greenhouse gas emission reductions and promoting the Bio-Circular-Green (BCG) Economy. AIT was recognized among 95 finalists from 61 institutions across 28 countries. The award highlights AIT's commitment to sustainability through renewable energy, biodiversity conservation, and community engagement, reinforcing its role in the global 'Race to Zero' campaign.

https://ait.ac.th/2024/10/aits-net-zero-campus-initiative-wins-international-green-gown-awards/

SYMPOSIUM ON RURAL SUSTAINABILITY IN THE ASIA PACIFIC: BRIDGING SCIENCE AND ACTION

Description:

The symposium on "Rural Sustainability in the Asia Pacific" took place on 24 January, 2024, at the AIT Convention Centre in Thailand. Organized by the Academic Program Development Planning Management and Innovation (DPMI) of the Asian Institute of Technology (AIT), in collaboration with the University of Hong Kong, Tsinghua University, and National Chengchi University, the event is part of the Rural Sustainability Programme—APAC Initiative for Regional Impact (AIRI), initiated by the Centre for Civil Society and Governance at the University of Hong Kong and funded by the Hong Kong Bank Foundation.

https://ait.ac.th/2024/01/symposium-on-rural-sustainability-in-the-asia-pacific-bridging-science-and-action/

ENRICHING INTERNSHIP: WIPAPORN SAWEANGWIT'S JOURNEY WITH UNEP

Description:

Wipaporn Saweangwit, a Master of Science student in the Environment Engineering and Management (EEM) program at the School of Environmental, Resources and Development (SERD) at the Asian Institute of Technology (AIT), shares her enriching internship experience with the UN Environment Programme.

https://ait.ac.th/2024/02/enriching-internship-ms-wipaporn-saweangwits-journey-with-unep/

WORKSHOP EXPLORES EFFICACY OF CITY CLIMATE PLANS IN SOUTHEAST ASIA

Description:

The Development Planning Management and Innovation (DPMI) Program at the School of Environment Resources and Development (SERD) of the Asian Institute of Technology (AIT) recently organized a one-day workshop titled "Are city climate plans adequate for mitigating weather extremes? The workshop focused on investigating Southeast Asian cities.

https://ait.ac.th/2024/02/workshop-explores-efficacy-of-city-climate-plans-in-southeast-asia/

‘NATIONAL DIALOGUE ON CLIMATE CHANGE’ SPURS DISCOURSE ON COLLABORATIVE SOLUTIONS FOR CLIMATE RESILIENCE IN NEPAL

Description:

On March 12, 2024, the Asian Institute of Technology partnered with the National Dialogue on Climate Change organized by the Municipal Association of Nepal (MuAN) in Kathmandu, Nepal. The dialogue aimed to enhance understanding among municipal leaders about climate change, advocate for inter-governmental and inter-sectoral collaboration, and facilitate discussions to translate policies into actionable plans at the municipal level.

https://ait.ac.th/2024/03/national-dialogue-on-climate-change-spurs-discourse-on-collaborative-solutions-for-climate-resilience-in-nepal/

AIT SMARTS CENTER HOSTS 2024 DIALOGUE OF CIVILIZATIONS ON CLIMATE CHANGE AND EMERGING ECONOMIES WITH NORTHEASTERN UNIVERSITY

Description:

SMARTS Center (South and South-East Asia Multidisciplinary Applied Research Network on Transforming Societies of Global South), at the Asian Institute of Technology (AIT), hosted the “2024 Dialogue of Civilizations on Climate Change and Emerging Economies” on 10 May 2024 with Northeastern University, Boston, USA.

https://ait.ac.th/2024/05/ait-smarts-center-hosts-2024-dialogue-of-civilizations-on-climate-change-and-emerging-economies-with-northeastern-university/

AIT AND KEI ESTABLISH PARTNERSHIP TO TACKLE ENVIRONMENTAL CHALLENGES THROUGH JOINT RESEARCH AND CAPACITY BUILDING

Description:

The Asian Institute of Technology (AIT) and the Korea Environment Institute (KEI) in Sejong, Republic of Korea, have signed a Memorandum of Understanding (MoU) to establish research collaboration and cooperation. The agreement aims to promote joint research, capacity development programs, and the dissemination of collaborative work outputs.

https://ait.ac.th/2024/05/ait-and-kei-establish-partnership-to-tackle-environmental-challenges-through-joint-research-and-capacity-building/

AIT COLLABORATES WITH IOM AND UP RI TO ORGANIZE THE RICD SYMPOSIUM AND ASSESS CLIMATE DISPLACEMENT RISKS IN ASIA AND THE PACIFIC

Description:

AIT, in collaboration with IOM and the University of the Philippines Resilience Institute, organized the "Risk Index for Climate Displacement: Co-creation Symposium & Policy Dialogue" on July 11-12, 2024. The symposium aimed to develop methodologies for assessing climate displacement risks in Asia and the Pacific, fostering dialogue among stakeholders and experts to address the challenges posed by climate change and displacement.

https://ait.ac.th/2024/07/ait-collaborates-with-iom-and-up-ri-to-organize-the-ricd-symposium-and-assess-climate-displacement-risks-in-asia-and-the-pacific/

AIT SMARTS CENTER HOSTS 2024 DIALOGUE OF CIVILIZATIONS ON CLIMATE CHANGE AND EMERGING ECONOMIES WITH NORTHEASTERN UNIVERSITY

Description:

On August 28, 2024, AIT hosted the "Connect & Conserve 2024" Sustainability Awareness Fair, promoting environmental awareness and sustainable practices. The event featured various activities, including workshops, exhibitions, and interactive sessions aimed at engaging students and the community in sustainability initiatives. Participants explored innovative solutions for pressing environmental issues and were encouraged to take actionable steps toward a greener future. The fair emphasized collaboration and education as key drivers in the movement for sustainability, fostering a sense of responsibility among attendees to protect the env ironment.

https://ait.ac.th/2024/08/connect-conserve-2024-aits-sustainability-awareness-fair-sparks-action-for-a-greener-future/

AIT PARTICIPATES IN 6TH GREATER MEKONG SUBREGION ENVIRONMENT MINISTERS' MEETING

Description:

The Asian Institute of Technology (AIT) participated in the 6th Greater Mekong Subregion (GMS) Environment Ministers' Meeting (EMM-6) from 10 to 13 September 2024 in Cambodia. AIT's delegation included leaders from the School of Environment, Resources, and Development (SERD) and the School of Engineering and Technology (SET).

During the meeting, P. Abdul Salam emphasized the need for a low-carbon transition and better regional cooperation on environmental sustainability. Sushil Himanshu discussed the role of digital technologies in climate action. AIT showcased its projects on agriculture, water management, and climate-smart solutions. The event highlighted AIT's commitment to advancing sustainable development and regional collaboration in addressing environmental challenges.

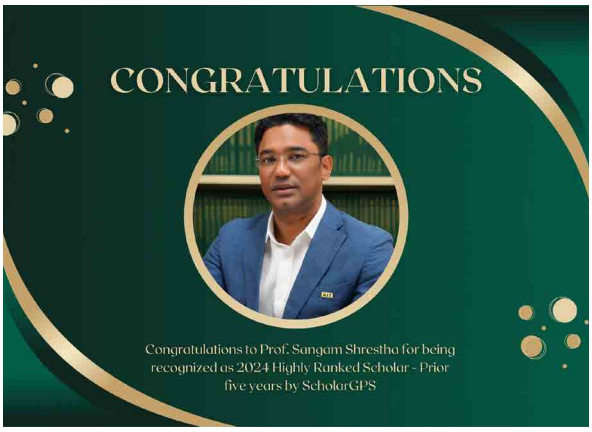
https://ait.ac.th/2024/09/ait-participates-in-6th-greater-mekong-subregion-environment-ministers-meeting/

SANGAM SHRESTHA RANKED AMONG WORLD'S TOP SCHOLARS IN CLIMATE CHANGE AND RIVER STUDIES BY SCHOLARGPS

Description:

On 17 September 2024, Sangam Shrestha, Dean of the School of Engineering and Technology at AIT, was ranked 9th globally in Climate Change and River Studies by ScholarGPS. This recognition places him among the top 0.05% of scholars worldwide, highlighting his significant contributions to water engineering and climate adaptation. With 173 publications and over 5,600 citations, Shrestha has made a substantial impact in these fields. He has been with AIT since 2009 and is also the co-director of the Global Water & Sanitation Center, supported by the Bill & Melinda Gates Foundation. His research continues to inspire and address critical global water and climate challenges.

https://ait.ac.th/2024/09/prof-sangam-shrestha-ranked-among-worlds-top-scholars-in-climate-change-and-river-studies-by-scholargps/



AIT SERD PARTICIPATED IN THE 6TH GREATER MEKONG SUBREGION (GMS) ENVIRONMENT MINISTERS' MEETING (EMM-6) IN PHNOM PENH, CAMBODIA

Description:

From September 10 to 13, 2024, AIT's School of Environment, Resources, and Development (SERD) participated in the 6th Greater Mekong Subregion (GMS) Environment Ministers' Meeting (EMM-6) in Phnom Penh, Cambodia. P. Abdul Salam discussed low-carbon transitions, while Sushil Himanshu emphasized the role of digital technologies in climate action. AIT showcased its projects in agriculture and water management, reinforcing its commitment to regional cooperation and environmental sustainability in the GMS.

https://ait.ac.th/2024/09/ait-serd-participated-in-the-6th-greater-mekong-subregion-gms-environment-ministers-meeting-emm-6-in-phnom-penh-cambodia/

SANGAM SHRESTHA APPOINTED AS STEERING COMMITTEE MEMBER FOR APN'S GLOBAL SUSTAINABILITY INITIATIVE

Description:

On October 8, 2024, Sangam Shrestha, Dean of AIT's School of Engineering and Technology, was appointed to the Steering Committee of the Asia-Pacific Network for Global Change Research (APN). His role involves developing annual plans, overseeing project evaluations, and facilitating funding for sustainability initiatives in the Asia-Pacific region. Shrestha expressed his enthusiasm for contributing to APN's mission to address global change and promote sustainability. Established in 1996, APN focuses on research and capacity development aligned with global agendas like the UN Sustainable Development Goals.

https://ait.ac.th/2024/10/prof-sangam-shrestha-appointed-as-steering-committee-member-for-apns-global-sustainability-initiative/

AIT HOSTS CHINA-THAILAND FORUM, LAUNCHES PLATFORM FOR ENVIRONMENTAL TECHNOLOGY AND SUSTAINABLE COLLABORATION

Description:

On October 24, 2024, AIT hosted the China-Thailand Environmental Cooperation Forum at BITEC, Bangkok, in collaboration with Tongji University and the E20 Environmental Platform. The forum aimed to enhance cooperation in environmental technology between China and Thailand, featuring keynotes from experts on both nations' environmental strategies.

Suwit Khunkitti opened the forum, emphasizing collaboration potential. Keynote speakers discussed Thailand's sustainability efforts and China's market-driven environmental innovations. The event culminated in the launch of the China-Thailand Environmental Technology and Industry Cooperation Platform, designed to address pollution challenges and promote industrial partnerships. This initiative aims to position Thailand as a leader in ASEAN's green economy while fostering long-term environmental progress in the region.

https://ait.ac.th/2024/10/ait-hosts-china-thailand-forum-launches-platform-for-environmental-technology-and-sustainable-collaboration/

AIT DEEPENS COLLABORATION AT DBAR CONFERENCE 2024, FOCUSES ON BIG EARTH DATA FOR SUSTAINABLE DEVELOPMENT GOALS IN ASEAN

Description:

AIT participated in the 8th DBAR Conference in Suzhou, China, on October 23–24, 2024, focusing on "Digital Routes Toward Global Sustainability." The conference aimed to advance sustainable development through Big Earth Data. AIT co-organized a session on using Big Earth Data to achieve Sustainable Development Goals (SDGs) in ASEAN and formalized its collaboration with DBAR through a Memorandum of Understanding. A notable outcome was the establishment of the DBAR Task Force on China-ASEAN Regional Innovation for Big Earth Data, aimed at fostering innovation and addressing regional challenges through data-driven solutions.

https://ait.ac.th/2024/10/ait-deepens-collaboration-at-dbar-conference-2024-focuses-on-big-earth-data-for-sustainable-development-goals-in-asean/

DISCUSS SATELLITE SOIL MOISTURE'S ROLE IN BOOSTING CLIMATE RESILIENCE AND AGRICULTURE IN SOUTHEAST ASIA

Description:

The Asian Institute of Technology (AIT), in collaboration with NASA, the Asian Disaster Preparedness Center (ADPC), the Hydro Informatics Institute (HII), and Kasetsart University, organized a Hybrid Workshop on Satellite-Based Soil Moisture on November 7, 2024, at AIT.

https://ait.ac.th/2024/11/experts-discuss-satellite-soil-moistures-role-in-boosting-climate-resilience-and-agriculture-in-southeast-asia/

DISCUSS SATELLITE SOIL MOISTURE'S ROLE IN BOOSTING CLIMATE RESILIENCE AND AGRICULTURE IN SOUTHEAST ASIA

Description:

Monthip Sriratana Tabucanon, a distinguished alumna of the Asian Institute of Technology (AIT), has been awarded "The Order of the Rising Sun, Gold Rays with Neck Ribbon" by the Government of Japan in recognition of her significant contributions to environmental cooperation between Japan and Thailand.

https://ait.ac.th/2024/11/ait-alumna-dr-monthip-sriratana-tabucanon-honored-with-japans-order-of-the-rising-sun-gold-rays-with-neck-ribbon-for-environmental-cooperation-efforts/

AIT MASTER'S STUDENT LOPA ISLAM CONDUCTS IN-DEPTH ANALYSIS OF CLIMATE FINANCE MECHANISMS IN BANGLADESH

Description:

Lopa Islam, a master's student at the Climate Change and Sustainable Development academic program (CCSD), School of Environment, Resources, and Development (SERD) at the Asian Institute of Technology (AIT), has conducted groundbreaking research titled "Climate Finance Mechanisms in Bangladesh: An Assessment." Her work provides an in-depth examination of climate finance flows, allocation processes, and barriers to effective climate funding in Bangladesh, highlighting critical areas for improvement in achieving sustainable adaptation and mitigation goals.

https://ait.ac.th/2024/11/ait-masters-student-lopa-islam-conducts-in-depth-analysis-of-climate-finance-mechanisms-in-bangladesh/

YEARS AFTER THE TSUNAMI: THAILAND REFLECTS ON LESSONS FOR FUTURE DISASTER RESILIENCE

Description:

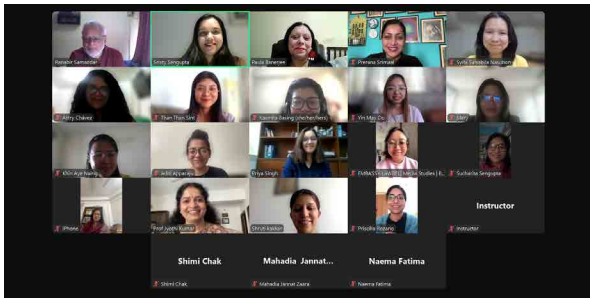
The Asian Institute of Technology (AIT) commemorated the 20th anniversary of the 2004 Indian Ocean tsunami with a forum titled "Remembering the 20th Year of the 2004 Indian Ocean Earthquake and Tsunami in Thailand: Reflections for Advancing Disaster Management through Higher Education-Industry Partnerships." The event featured His Serene Highness Prince Chalermsak Yugala, who delivered a keynote speech on the Royal Thai Army's mission during the disaster.

https://ait.ac.th/2024/12/20-years-after-the-tsunami-thailand-reflects-on-lessons-for-future-disaster-resilience/

WINTER WORKSHOP 2024 EXPLORES CLIMATE-INDUCED DISPLACEMENT AND GENDERED VULNERABILITIES IN THE GLOBAL SOUTH

Description:

The Winter Workshop 2024, 'Impact of Climate-Induced Forced Displacement on Women in the Global South,' held from December 16 to 21, 2024, explored the intersections of climate change, forced migration, and gender vulnerabilities. Organized by the Center on Gender and Forced Displacement (CGFD) at the Asian Institute of Technology (AIT) in collaboration with Christ University and the Calcutta Research Group and supported by IDRC and Knowledge for Democracy Myanmar (K4DM), the workshop fostered inclusive participation, notably engaging students from Myanmar.



https://ait.ac.th/2024/12/winter-workshop-2024-explores-climate-induced-displacement-and-gendered-vulnerabilities-in-the-global-south/

AIT HOSTS INTERNATIONAL WORKSHOP ON CLIMATE-SMART AGRICULTURE IN HIGHLANDS

Description:

On October 29-30, 2024, AIT hosted an international workshop titled "Climate-Smart Agriculture in Highlands: Best Practices and Lessons Learned," attended by over 100 experts and stakeholders. The event, part of an Asian Development Bank initiative, focused on enhancing climate resilience in highland agriculture in Thailand. Discussions covered themes such as gender-conscious vulnerability assessments, climate-smart technologies, agricultural product quality, and community capacity building. The workshop emphasized the need for collaborative approaches to address climate challenges and foster innovation in sustainable agricultural practices. Key speakers included representatives from ADB, the Thai government, and AIT, highlighting the importance of multi-stakeholder engagement in achieving long-term agricultural sustainability.

https://ait.ac.th/2024/10/ait-hosts-international-workshop-on-climate-smart-agriculture-in-highlands/

Projects:

ONLINE SEMINAR ON HOW TO USE WEBTOOL, "ADAPTWELL" TO ANALYSE CLIMATE IMPACT ON WATERBORNE DISEASES, VIRTUAL MEETING

Duration: 11 Jan 2024

Expected Social Impact: The projection model anticipates a substantial positive social impact stemming from combined improvements in key areas. Increased socio-economic growth, translating to greater healthcare funding, is expected to enhance access to preventative care, diagnostic services, and treatment. Simultaneously, reductions in waterborne diseases, achieved through improved sanitation and hygiene, will lessen disease burden. Furthermore, better child nutrition, leading to decreased malnutrition, stunting, and wasting, will positively influence overall health and well-being. These interconnected factors are projected to create a healthier population, resulting in a significantly improved quality of life.

Description:

The AIT RRC.AP supported and presented in a virtual seminar on how to use "Adaptwell", a tool to analyse climate impact on waterborne diseases on 11th January 2024 from 14.00 – 16.00 (UTC +7.00). Ramesh Soysa, the Head of the Climate Change Cluster of the AIT RRC.AP, presented during the seminar titled "Co-working Adaptation Tools".

In his talk, he revealed a brief description of the e-learning video courses that are accessible on the AP-PLAT website. Around 46 participants, including government officials and researchers in climate change adaptation and waterborne diseases, participated in the seminar. This seminar was co-organised by the Ministry of the Environment, Government of Japan (MoEJ), the University of Tokyo and the Pacific Consultants Co., Ltd.

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-14.aspx

THE REGIONAL TRAINING WORKSHOP ON BUILDING CITIES RESILIENCE TO CLIMATE AND DISASTER RISKS, BANGKOK

Duration: 19-22 Feb 2024

Expected Social Impact: The Regional Training Workshop empowered participants with practical climate change adaptation tools and data, fostering their capacity for informed decision-making. This initiative also catalyzed crucial regional collaboration, strengthening collective efforts to tackle shared climate challenges. By integrating principles from SDG11, the Sendai Framework, and the Paris Agreement, the workshop directly addressed the growing vulnerabilities and inequalities intensified by climate change and rapid urbanization.

Description:

The AIT RRC.AP, with the financial support from the Ministry of Environment, Japan (MoEJ) and in collaboration with UNDRR, UN-Habitat, IFRC, UCLG, ICLEI, ADPC and EPIC-NET, successfully conducted "The Regional Training Workshop on Building Cities' Resilience to Climate and Disaster Risks" from 19th to 22nd February 2024. This workshop was part of an annual series conducted in support of the MCR 2030

campaign. There were 33 participants invited from seven countries from 9 cities in ASEAN and South Asia.

The workshop addressed the current and future challenges of integrating climate change adaptation and disaster risk reduction into national and local development planning that requires the development of new approaches, mechanisms,

and sets of skills and competencies. Identifying and strengthening these elements are crucial to fostering increased public demand and political commitment to local actions and budget allocations. Key existing challenges include a lack of appropriate knowledge on the subject, insufficient government commitment, and the absence of mainstreaming in current organizational and government strategies and plans. The objective of this training workshop is to aid city governments in enhancing resilience to climate and disaster risks by incorporating climate change adaptation and disaster risk reduction into broader city development plans and strategies.

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-11.aspx

SUSTAINABLE DEVELOPMENT GOAL 13 ROUND TABLE AT THE 11TH ASIA-PACIFIC FORUM ON SUSTAINABLE DEVELOPMENT (APFSD), BANGKOK

AIT Research Theme: CAPACITY BUILDING

Duration: 22 Feb 2024

Expected Social Impact: The social impact primarily focused on empowering communities and stakeholders to better address climate change and disaster risks. By highlighting the AP-PLAT platform and its free resources, AIT RRC.AP is democratizing access to crucial information and tools for climate adaptation and Disaster Risk Reduction (DRR). Such access is particularly important for vulnerable communities and cities that may lack the resources to develop their own solutions. The tools, FloodS and S8DS, directly aid in adaptation, allowing for better planning and response to climate-related disasters.

Description:

The AIT RRC.AP participated in the Sustainable Development Goal 13 Round Table at the 11th Asia-Pacific Forum on Sustainable Development (APFSD), held at the United Nations Conference Center in Bangkok, on 22nd February 2024. Guilberto Borongan, Director of AIT RRC.AP delivered a brief 4-minute reflection that aligned with the priority for climate action" 6—"Guarantee access to information, climate-related decisions, and justice access"—

His message discussed climate adaptation and Disaster Risk Reduction (DRR) activities that AIT RRC.AP was concluding in the region. He introduced the adaptation tools of FloodS and S8DS and highlighted the plethora of resources, tools, and exemplary practices available on the AP-PLAT platform, accessible to relevant stakeholders, including cities, at no cost. Additionally, Borongan introduced the upcoming e-learning courses currently under development, soon to be accessible on the AP-PLAT platform.

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-10.aspx

QUALITATIVE RESEARCH ON CLIMATE CHANGE

AIT Research Theme: Climate Change

AIT Unit: Natural Resources Management

Duration: Jan 2024

Project Sponsor/Client: Danish Institute for International Studies

Project Partner: Chiang Mai University

Expected Social Impact: Reduced GHG emissions; Improved resilience to climate change

Description:

An NRM master's student was selected as one of the 23 participants in the summer school "Qualitative Research on Climate Change" at the Regional Center for Social Science and Sustainable Development, Chiang Mai University, on 9-16 January 2024. She gained insights into qualitative research and social science debates on climate

change, focusing on responses in Myanmar, Thailand, and Vietnam. She also had field visit activities to the Tha Nuea Community and Bann Huay E-Kang Community, learning about resources and land management, community forest management, and climate change.

2024 BIOCHAR ACADEMY

AIT Research Theme: Climate Change

AIT Unit: Natural Resources Management

Duration: May 2024

Project Sponsor/Client: International Biochar Initiative

Project Partner: Chiang Mai Echo Farm; Echo Community

Expected Social Impact: Reduced GHG emissions; better agricultural yields.

Description:

A master's student was selected for the 2024 Biochar Academy. The academy was held on 6-12 May 2024

at Chiang Mai Echo Farm, organized by the International Biochar Initiative and Echo Community, which are well-known institutions that strive for nature and community.

"I feel so happy to join the program. Lectures at AIT also helped me follow the academy. I better understand biochar,

the carbon market, and business development. I directly interact with local communities through site visits and get along with new friends and network with people from different backgrounds and various countries."

ARE CITY CLIMATE PLANS ADEQUATE FOR MITIGATING WEATHER EXTREMES? AN INVESTIGATION OF SOUTHEAST ASIAN CITIES

AIT Research Theme: Climate Change

AIT Unit: SERD-Development Planning Management and Innovation

Duration: 01 Sep 2022 to 31 Jul 2025

Project Sponsor/Client: Curtin University

Project Partner: Chiang Mai Echo Farm; Echo Community

Expected Social Impact: The effects of climate change on the people and the economy of Bangkok and Thailand will be analyzed.

Description:

The project will collect existing climate action plans and policies and the status of NDCs in Bangkok, including national and local climate change sectoral plans of the city. Activities include field surveys/interviews and a review of the climate action plans developed by the partners.

SOLUTIONS TO COMBAT PLASTIC POLLUTION IN RIVERS AND CANALS

AIT Research Theme: Plastic Pollution/Environmental Solutions

AIT Unit: Natural Resources Management

Duration: 15 Fb 2024

Project Sponsor/Client: Government of Japan

Project Partner: UNEP

Expected Social Impact: Engaging youth and innovators to propose practical solutions to plastic pollution.

Description:

Online competition organized under Countermeasure III.

https://ait.ac.th/2024/02/innovate-for-impact-solutions-to-combat-plastic-pollution-in-rivers-and-canals/

CONTRIBUTION TO 3RD NERPS CONFERENCE

AIT Research Theme: Climate Change

AIT Unit: Natural Resources Management

Duration: Mar 2024

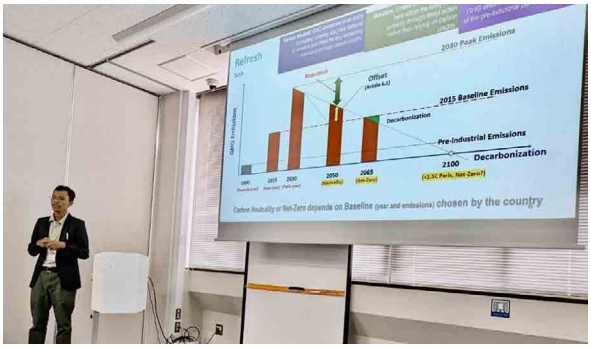
Project Sponsor/Client: International Biochar Initiative

Project Partner: Hiroshima University

Expected Social Impact: Reduced GHG emissions; better understanding of net-zero potential.

Description:

Two master's students were accepted to present their thesis at the 3rd NERPS Conference 2024, held at Hiroshima University, Japan, from 6th to 9th March 2024. The 2024 NERPS commemorated the 30th anniversary of the Earth Summit, the 100th anniversary of the Geneva Conventions, and the 75th anniversary of Hiroshima University. The students presented their theses entitled "Assessing Awareness, Perceptions, and Engagement in Nature-Based Carbon Capture Solutions toward Net-Zero Emissions at AIT" and "Re-assessment of Carbon Balance due to Forest Management and Restoration at AIT Campus - Contribution to Net-Zero Emissions" under the Climate Action session. These presentations highlighted the critical role of community engagement and sustainable forest management in the fight against climate change.



MEKONG THOUGHT LEADERSHIP AND THINK TANKS NETWORK/ FELLOWSHIP PROGRAM

AIT Research Theme: Climate Change; Smart Communities; Food-Energy-Water

AIT Unit: SET-Disaster Preparedness, Mitigation and Management

Duration: 01 Sep 2024 to 29 Nov 2025

Project Sponsor/Client: SEI-DFAT

Project Partner: SEI

Expected Social Impact: The program will be implemented through five components that include the development of a home-grown regional network/alliance of KBPIOs, enhancing climate resilience of water and energy systems through policy research and collaboration among policy-informing organizations (PIOs), inclusive engagement with policy, practice, and the public beyond dialogues for effective change, professional development of agents of change, and effective project management monitoring, evaluation, and learning (MEL) for long-term sustainability.

Description:

The Mekong Thought Leadership and Think Tanks Network, or, in short, the Mekong Think Tanks Program, supported by the Department of Foreign Affairs and Trade (DFAT) of the Government of Australia, has the overall ambition to work together with national and regional knowledge-based policy influence organizations (KBPIOs), including think tanks, to enhance their effectiveness and inclusiveness in policy engagement. The core focus of the activities of the MTT will be within the domains of water security, energy security, and climate change mitigation and adaptation.

ARE CITY CLIMATE PLANS ADEQUATE FOR MITIGATING WEATHER EXTREMES?

AIT Research Theme: Urban Climate Resilience

AIT Unit: DPMI, SERD

Duration: One-day workshop

Project Sponsor/Client: Not specified

Project Partner: UNEP

Expected Social Impact: Informing urban policy to better address climate change risks.

Description:

Workshop analyzing climate adaptation strategies in Southeast Asian cities.

https://ait.ac.th/2024/02/workshop-explores-efficacy-of-city-climate-plans-in-southeast-asia/

EMPOWER FUTURE LEADERS THROUGH SUSTAINABILITY DIALOGUE

AIT Research Theme: Urban Climate Resilience

AIT Unit: SET and SERD

Duration: Event-based

Project Sponsor/Client: Osotspa Public Co. Ltd.

Project Partner: UNEP

Expected Social Impact: Capacity building for sustainability leadership in business.

Description:

Partnership dialogue to engage the private sector in climate education and youth empowerment.

https://ait.ac.th/2024/02/ait-and-osotspa-public-co-ltd-unite-to-empower-future-leaders/

REAL-TIME EDGE COMPUTING NETWORK ON HAZE MONITORING AND FOREST FIRE DETECTION

AIT Research Theme: Climate Change

AIT Unit: Internet Education and Research Laboratory

Duration: 01 Jul 2022 to 31 Aug 2024

Project Sponsor/Client: TEINCC and ThaiREN

Expected Social Impact: The project is expected to impact environmental research significantly, particularly in wildland fire and public health. It also aims to build a Future Internet Architecture testbed by implementing ICN on a live IoT platform.

Description:

This project is an extension of SEA-HAZEMON@TEIN, co-funded by the EU and NRENs under the 5th call of the Asi@ Connect research program. It aims to exploit Information Centric Networking (ICN) on the SEA-HAZEMON platform for monitoring air quality, introduce advanced network architecture with IoT applications and edge/fog computing, and foster research collaborations through meetings and joint workshops. The project supports capacity development for the TEIN community in Information Centric Network for IoT, part of the Future Internet agenda.

SUSTAINABILITY IN ACTION: RESEARCH TRENDS WORKSHOP AND SDG COMPETITION

AIT Research Theme: Climate Change

AIT Unit: Office of Sustainable Campus (OSC)

Duration: Nov 2024

Expected Social Impact: The event aimed to raise awareness and inspire the AIT community to adopt sustainable practices, contributing to climate change mitigation and fostering a culture of environmental responsibility.

Description:

The Asian Institute of Technology (AIT) hosted the "Sustainability in Action: Research Trends Workshop and SDG Competition" to promote sustainability and innovation among students and staff. The SDG Research Competition featured 15 innovative projects addressing 14 Sustainable Development Goals (SDGs), covering topics from sustainable agriculture to digital health solutions. Winners were recognized for their contributions to advancing sustainability initiatives.

https://ait.ac.th/2024/11/sustainability-in-action-research-trends-workshop-and-sdg-competition-propel-innovation-and-collaboration-at-ait/

SUSTAINABLE DEVELOPMENT GOAL 13 ROUND TABLE AT THE 11TH ASIA-PACIFIC FORUM ON SUSTAINABLE DEVELOPMENT (APFSD)

AIT Research Theme: Climate Change (Disaster Risk Reduction)

AIT Unit: AIT Regional Resource Centre for Asia and the Pacific (RRC.AP)

Duration: Feb 2024

Project Partner: United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), AP-PLAT

Expected Social Impact: Enhanced regional capacity in climate adaptation and DRR, increased accessibility to climate information and tools, and strengthened resilience of cities and stakeholders in Asia-Pacific through capacity-building initiatives.

Description:

AIT's Regional Resource Centre for Asia and the Pacific (AIT RRC.AP) participated in the SDG 13 Round Table during the 11th Asia-Pacific Forum on Sustainable Development (APFSD) in Bangkok on 22 February 2024. Guilberto Borongan presented AIT RRC.AP's climate adaptation and disaster risk reduction (DRR) initiatives, introducing tools like

FloodS and the S8DS downscaler. These tools, along with resources available on the AP-PLAT platform, are designed to improve access to climate information, support climate-related decision-making, and facilitate capacity-building. Upcoming e-learning courses on these topics will also be hosted on AP-PLAT.

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-10.aspx

SOIL MOISTURE'S ROLE IN BOOSTING CLIMATE RESILIENCE AND AGRICULTURE IN SOUTHEAST ASIA

AIT Research Theme: Climate Change / Disaster Resilience / Food-Energy-Water Nexus

AIT Unit: School of Engineering and Technology (Water Engineering and Management Program)

Duration: Nov 2024

Project Partner: NASA, Asian Disaster Preparedness Center (ADPC), Hydro Informatics Institute (HII), Kasetsart University, USDA

Expected Social Impact: The project is expected to strengthen regional capacity in using satellite soil moisture data to support climate resilience, sustainable agriculture, and disaster preparedness. It promotes data-driven decision-making aligned with SDG 13 and the Sendai Framework for Disaster Risk Reduction.

Description:

The Asian Institute of Technology (AIT), in collaboration with NASA, ADPC, Hydro Informatics Institute (HII), and Kasetsart University, organized a hybrid workshop titled "Advancing Agriculture, Climate, Environmental, and Disaster Monitoring Through Satellite-Based Soil Moisture Retrieval and Applications in Southeast Asia" on November 7, 2024. The workshop aimed to raise awareness of satellite-based soil moisture data for climate resilience, agriculture, and disaster risk reduction. It focused on improving regional collaboration, calibration/validation of data, and developing pilot studies. Experts from NASA, USDA, and regional organizations discussed challenges and opportunities to enhance soil moisture monitoring for better climate adaptation strategies in Southeast Asia.

https://ait.ac.th/2024/11/experts-discuss-satellite-soil-moistures-role-in-boosting-climate-resilience-and-agriculture-in-southeast-asia/

THAILAND HIGH-RESOLUTION SEASONAL HYDROMETEOROLOGICAL FORECASTING SYSTEM (THFS)

AIT Research Theme: Climate Change / Disaster Resilience / Food-Energy-Water Nexus

AIT Unit: Water Engineering and Management

Duration: 16 Dec 2024

Project Sponsor(s)/Client(s): Agricultural Research Development Agency (ARDA)

Project Partner: Agricultural Research Development Agency (ARDA)

Description:

Water Engineering and Management Program at the Asian Institute of Technology (AIT), supported by the Agricultural Research Development Agency (ARDA), hosted an academic seminar focusing on the development of a High-Resolution (1 km) Seasonal Hydrometeorological Forecasting System (THFS) to enhance smart agriculture in Thailand. Held at the Rama Gardens Hotel in Bangkok, the seminar aimed to foster collaboration among experts, researchers, and officials from various academic institutions, governmental agencies, and research organizations. Key topics included optimizing water resource management, improving agricultural productivity, and enhancing climate resilience through advanced forecasting techniques.

https://alice-lab.com/thfs-workshop

REAL-TIME EDGE COMPUTING NETWORK ON HAZE MONITORING AND FOREST FIRE DETECTION

AIT Research Theme: Climate Change

AIT Unit: Internet Education and Research Laboratory

Duration: 01 Jul 2022 to 31 Aug 2024

Project Sponsor/Client: TEIN*CC and ThaiREN

Expected Social Impact: The expected outcome of this proposed, SEA-HAZEMON@TEIN- II, will have a strong impact on environmental research, especially in the field of wildland fire and public health. Besides, the proposed project also aims to build the Future Internet Architecture testbed by developing the Information Centric Networking on a live IoT platform.

Description:

This project is an extension of SEA-HAZEMON@TEIN which is co-funded by EU and NRENs under the 5th call of Asi@ Connect research program. The project aims to exploit the use of Information Centric Networking (ICN) on the SEA-

HAZEMON air quality monitoring platform. The project also aims to introduce advanced network architecture with IoT applications and edge/fog computing. Research collaborations are to be conducted through meetings and joint workshops discussing the research components and roadmap for further collaborations. This is to provide capacity development for TEIN community for the Information Centric Network for IoT which is one of the key areas in Future Internet agenda.

PROMOTING DISASTER PREPAREDNESS AND RESILIENCE BY CO-DEVELOPING STAKEHOLDER SUPPORT TOOLS FOR MANAGING THE SYSTEMIC RISK OF COMPOUNDING DISASTERS

AIT Research Theme: Climate Change

AIT Unit: Geoinformatics Center

Duration: 01 Oct 2022 to 31 Dec 2026

Project Sponsor/Client: European Research Executive Agency (REA)

Expected Social Impact: The project follows a Responsible Research and Innovation approach as a process where all societal actors (citizens, transport infrastructure managers and operators, public authorities, business and industry, academia, Research and Innovation (R&I), and other relevant stakeholders) work together during the whole R&I process to align R&I outcomes to the values, needs, and expectations of the society, enabling easier access to scientific results, as well as the take-up of gender and ethics in the R&I content and process. The project will create an impact by increasing awareness of the benefits of a gender perspective in research, development, and innovation. From a long-term perspective, the gender mainstreaming approach will contribute to favorable conditions for innovation systems and a more secure and sustainable society.

Description:

The ongoing pandemic and climate crisis have taught us hard lessons about the systemic impact of compounding disasters. Stakeholders in disaster risk management are faced with the challenge to adapt their risk reduction policies and emergency plans but lack the tools to account for the cross-sectoral impacts and dynamic nature of the risks involved. The PARATUS project aims to fill this gap by developing an open-source platform for dynamic risk assessment that allows analyzing and evaluating multi-hazard impact chains, risk reduction measures, and disaster response scenarios in light of systemic vulnerabilities and uncertainties. These services will be co-created within a unique transdisciplinary consortium of research organizations, NGOs, SMEs, first and second responders, and local and regional authorities. To gain a more profound understanding of multi-hazard impact chains, PARATUS will first conduct forensic analysis on historical disaster events, augment historical disaster databases with hazard interactions and sectorial impacts, and exploit remote sensing data with artificial intelligence methods. Building on these insights, PARATUS will then develop new exposure and vulnerability analysis methods that enable systemic risk assessment across sectors (e.g., humanitarian, transportation, communication) and geographic settings (e.g., islands, mountains, megacities). These methods will be used to analyze risk changes across space and time and to develop new scenarios and risk mitigation options together with stakeholders, using innovative serious

games and social simulations. The results will be hosted on two stakeholder hubs related to crisis management and humanitarian relief and provide stakeholders with a range of tools for risk reduction planning in dynamic multi-hazard environments. The service-oriented approach with active stakeholder involvement will maximize uptake and impact of the project and help to increase Europe's resilience to compounding disasters.

WEB AND MOBILE APPLICATION FOR AIR QUALITY INFORMATION

AIT Research Theme: Artificial Intelligence Technology Center

AIT Unit: Artificial Intelligence Technology Center

Duration: 26 May 2022 to 29 Apr 2025

Project Sponsor/Client: Sithiporn Associates Company Limited

Expected Social Impact: : To improve the positive health and well-being of Bangkok and the metropolitan population from the effects of air pollution, such as pneumonia or bronchitis. Air pollution can also cause discomfort, such as irritation to the nose, throat, eyes, or skin. Air pollution can also cause headaches, dizziness, and nausea. Odors from factories, garbage, or sewer systems contribute to air pollution. To raise public awareness of the true pollution problem in cities and encourage people to make energy-saving changes in their lifestyles. Using public transportation instead of driving a car or riding a bike instead of driving a carbon-emitting vehicle are two ways to reduce air pollution. Others include not using aerosol cans, recycling yard trimmings rather than burning them, and not smoking cigarettes.

Description:

As stated in the Bangkok Development Plan 2022, to make Bangkok a pollution-free city and to achieve the objective mentioned goals , the Office of the Environment is in full control of air quality management, establishing air quality monitoring stations in 50 different districts in Bangkok province with various types of monitoring to collect the data and the air pollution database during 2019-2022. The goal is to develop an air quality model that will aid in measuring and strategically planning the improvement of Bangkok's air quality. The Pollution Control Department began a project to develop an air quality management information system with the goal of 1) linking the exchange of air quality data from various Bangkok air quality monitoring stations and 2) sharing the information between internal and external agencies to collect, analyze, process, and compare air quality measurement results for more accurate processing at the air quality data center before publicizing the outcomes. And allow policymakers and air quality managers to rely on cutting-edge science to establish regulations and make management decisions to reduce and control air pollution with cost-effective approaches. The information and status of air quality will be publicized to the population in various zones via mobile and web applications that will allow people to access real-time population information to avoid entering the hazard zone that is highly polluted and may affect their health.

INTERLAB IOT DEVELOPMENT 2022

AIT Research Theme: Smart Communities

AIT Unit: Internet Education and Research Laboratory

Duration: 01 Sep 2022 to 29 Feb 2024

Project Sponsor/Client: Asian Institute of Technology

Expected Social Impact: : The project will receive internal funding from other projects in AIT, which in turn intERLab will deliver the custom-made IoT products and services on demand.

Description:

intERLab would like to open the IoT development project to support the development of IoT devices such as low-cost air quality sensors and other edge computing services. The project will receive internal funding from other projects in AIT, which in turn intERLab will deliver the custom-made IoT products and services on demand. The estimated budget of 1,000,000 THB will be allocated to INTERLab to operate the project from 1 September 2022 to 31 December 2023.

DEVELOPMENT OF E-LEARNING VIDEOS ON CLIMATE ADAPTATION

AIT Research Theme: Climate Change

AIT Unit: RRC.AP e-Hub

Duration: 18 Aug 2022 to30 Nov 2024

Project Sponsor/Client: Institute for Global Environmental Strategies (IGES)

Project Partner: IGES

Expected Social Impact: :

- Local Adaptation and Resilience through Waste Management and Resource Management strengthened
- Climate Change Adaptation and Disaster Risk Reduction mainstreamed in SGDs

Description:

Two video development projects:

1. E-learning video on Strengthening Local Adaptation and Resilience through Waste Management and Resource Management
2. An e-learning video on the integration of climate change adaptation and disaster risk reduction:

SENTINEL ASIA AND CAPACITY BUILDING

AIT Research Theme: Climate Change

AIT Unit: Agriculture Systems and engineering

Duration: 09 Nov 2022 to 08 Nov 2024

Project Sponsor/Client: Sebelas Maret University, Indonesia

Project Partner: IGES

Description:

This conference aims to Accommodate and discuss the regional findings related to the adaptation and Mitigation strategies on Climate Change worldwide

BANGCHAK REFINERY AND OIL TRADING BUSINESS PATHWAY TO NET ZERO

AIT Research Theme: Climate Change

AIT Unit: Environmental Engineering and Management

Duration: 29 Nov 2022 to 31 May 2024

Project Sponsor/Client: Bangchak Corporation Public Company Limited

Expected Social Impact: Initiate the movement toward a net-zero emission community.

Description:

The project objective is to provide suggestions for Bangchak Refinery to achieve carbon neutral and net zero and identify market-scale technology for carbon capture and utilization.

1. Conduct desk study on the policies regarding Carbon Neutral and Net Zero Emission
2. Provide roadmap for Bangkok Refinery to meet Carbon Neutral and net zero emission targets
3. Investigate available Carbon Capture and Utilization technologies for refinery
4. Suggest the best Carbon Capture and Utilization technologies for Bangchak refinery

NATIONAL ADAPTATION PLANNING IN THE ASIA-PACIFIC, AND ACTIVITIES UNDER FLAGSHIP OF ASIA-PACIFIC ADAPT

AIT Research Theme: Climate Change

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 01 Jul 2022 to 31 Dec 2025

Project Sponsor/Client: Ministry of the Environment, Government of Japan (MOEJ)

Expected Social Impact: The project will enhance the knowledge and capacity of stakeholders from the region on climate issues to develop resilient climate plans and actions, thereby continuing to support climate adaptation for the most vulnerable people in the region.

Description:

Contribution to RRC.AP to support National Adaptation Planning in The Asia-Pacific and activities under the flagship of the Asia-Pacific Adaptation Network. i.Capacity building and mentoring of nationally identified Direct Access Entities (DAE), National Designated Authorities (NDA), and project developers to have access to funding from the Green Climate Fund (GCF) for climate adaptation projects. ii. Capacity building of the national and city government officials and planners to strengthen their knowledge and equip them with new tools, methodologies, and guidelines in climate change adaptation and disaster risk reduction, and to support them in building resilient cities through wider city development plans and strategies. iii. Making the S8 downscaler tool relevant and readily available online for the users and bridging knowledge gaps on climate data and information both at the local and regional level in understanding and predicting climate change and mainstreaming them into adaptation plans. iv.Introduction of a new tool called FloodS to forecast floods to help countries implement an integrated climate-resilient flood risk management approach and improve their existing capacity to understand the potential impacts of climate change on flooding and flood risk management and enhance the resilience of vulnerable communities. v.Advocate nature-based solutions for climate adaptation in the region to enhance understanding of how NbS can be applied for climate adaptation, assess their effectiveness, and explore financing mechanisms to benefit planners, climate researchers, project developers, and academic personnel. vi. Capacity building of country National Adaptation Plan (NAP) focal decision-makers responsible for the overall launch and steering of the NAP process and also Non-Governmental Organisations (NGOs) and stakeholder groups involved in the NAP process from the least developed countries to raise their awareness on the NAP process, challenges and opportunities, identifying institutional and financial needs, and providing specific knowledge, tools, models, and methodology on the NAP development and implementation process. vii. Enhance communication and networking through various platforms and events to increase the visibility of AIT-RRC.AP works and contributes towards building knowledge for climate adaptation in the region with the AP-PLAT.

EXPANSION & INTEGRATION OF DATABASE DEVELOPMENT FOR FLOOD SIMULATIONS IN DECISION SUPPORT SYSTEM IN SINDH FLOOD EMERGENCY REHABILITATION PROJECT

AIT Research Theme: Technology, Policy and Society

AIT Unit: Artificial Intelligence Technology Center

Duration: 06 Jan 2023 to 31 Dec 2025

Project Sponsor/Client: The World Bank

Project Partners: Carthago Consultancy International Levant Consultant 360 Engineering & Management Solutions Z-Tech Solutions

Expected Social Impact: Making flood management decisions during the planning stage, flood-fighting stage, and post-flood recovery stage requires comprehensive support in order to properly account for all flood impacts. By using an enhanced system, the Sindh Irrigation Department and other related agencies will make better plans and decisions to mitigate the floods or minimize their impact. In the proposed system, a user or decision-making authority identifies the affected areas and possible solutions to manage the disaster at the community level to minimize the human and economic losses.

Description:

Flood risk mitigation during real-time flood events comprising heavy rainfall under hydrological uncertainty is particularly challenging. Giving this due consideration, the aim is to expand and enhance a decision support system for the real-time operation of embankments and the lower Indus channel downstream. The objective of this project is to enhance preparedness planning, response, and recovery with emphasis on flood monitoring, emergency response, and public involvement.

NATIONAL ADAPTATION PLANNING IN THE ASIA-PACIFIC, AND ACTIVITIES UNDER FLAGSHIP OF ASIA-PACIFIC ADAPT

AIT Research Theme: Climate Change

AIT Unit: Water Engineering and Management

Duration: 01 Feb 2023 to 31 Mar 2025

Project Sponsor/Client: Asian Institute of Technology (AIT)

Expected Social Impact: The AIT high-resolution product includes various environmental variables such as water, energy, climate, soil, and vegetation that are required by a wide range of disciplines. The product is not only useful for scientific advancement, but it is also beneficial for social applications such as agriculture, human/animal habitat relocation (due to limited water access), disease control, assessment and mitigation of climate change impacts, and urban management, to name a few. Ease of use and free access to data for public, business, and government sectors also contribute to the improvement of citizen science in Thailand, which is a crucial part of the country's development.

Description:

Terrestrial or land water storage (TWS) is defined as the sum of surface water, soil moisture, snow water, and groundwater availability and is a crucial indicator for monitoring domestic, industrial, and agricultural water supplies. The capability to obtain TWS information is essential for understanding past events and projecting future changes in the hydrological cycle and water availability, as well as their impact on floods and droughts. The individual components of TWS exert diverse effects on the water resources and climate system. For instance, soil moisture serves as a major water source for agricultural activities, and its interaction with the atmosphere in the terrestrial water cycle significantly impacts the climate system (Seneviratne et al., 2010). Similarly, groundwater variability affects drinking water directly, and its influence on soil moisture and evapotranspiration may modify the long-term change in water availability and climate. Despite the significance of obtaining accurate TWS estimation, little is commonly known about the spatial and temporal variations of TWS and its components. Such variation is apparent on a regional scale due to the absence of large-scale monitoring systems. Ground-based observations, while accurate, only offer point-wise information. Satellite remote-sensing observations can provide extensive spatial coverage, but they are generally sensitive to only one water storage component and frequently suffer from several limitations. For example, observations of soil moisture from satellites are only sensitive to the first few centimeters of the soil profile and places with sparse vegetation (Kerr et al., 2012). Similarly, satellite altimetry data can derive surface water variation, but this approach is currently limited to large water bodies. Because ground or satellite measurements alone are insufficient to monitor comprehensive components of TWS, hydrological or land surface models are often employed. The benefits of models are their ability to distinguish individual TWS components, provide spatially distributed estimates, and simulate historical records. However, the model performance is often influenced by the accuracy of the meteorological forcing data and the quality of the model parameters, leading to high uncertainty of the TWS simulation results. The apparent strength of these three datasets motivates the need to combine the model with satellite remote sensing and ground measurements to obtain a better representation of TWS. Data fusion and data assimilation approaches can be used to optimize the information from various sources to enhance the performance of TWS estimates. While both are very effective, the development of such integrated systems often faces significant challenges due to a lack of high-performance computational resources to perform model simulation or process big data, as well as a limited understanding of how datasets from various sources should be accurately optimized. As a result, efforts to improve hydrologic systems are often undertaken by a few research groups (mainly from outside Asia) with adequate resources. This results in a shortage of high-quality and high-resolution data across Asia, which is caused not by a lack of information but rather by a lack of scientific expertise and appropriate means to develop them. This project will focus on the developed data fusion system and provide scientific products with greater accuracy and spatiotemporal resolution than the public product (currently available at 25 km).

DEVELOPMENT AND INTEGRATION OF KIRTHAR MEDEL AND OPERATIONS AND MAINTENANCE OF DATA CENTER UNDER SINDH FLOOD EMERGENCY REHABILITATION (SREFP)

AIT Research Theme: Technology, Policy and Society

AIT Unit: Artificial Intelligence Technology Center

Duration: 01 Apr 2023 to 30 Nov 2025

Project Sponsor/Client: The World Bank

Project Partners: Levant Pakistan 360 Engineering and Management Solutions Carthago Consultancy International Z-Tech Solutions MERIDIAN PF GENERAL TRADING LLC (Hardware)

Expected Social Impact: Overall, the project's expected social impact on the right bank of the Indus River includes improved disaster management, sustainable resource management, informed development planning, employment opportunities, stakeholder engagement, and technological advancement. These outcomes can contribute to the well-being, resilience, and sustainable development of the local communities in the region.

Description:

Design and implement a sophisticated model that integrates data from various sources to provide comprehensive insights and facilitate informed decision-making processes. Coordinate with selected vendors to procure the required hardware components, such as servers, networking equipment, storage systems, and infrastructure devices. Ensure timely delivery and installation of hardware, adhering to project timelines. Establish seamless integration of diverse data sources, including satellite imagery, weather data, population demographics, and infrastructure information. This integration will enable the Kirthar Model to generate accurate and up-to-date analysis, predictions, and recommendations for improved decision-making. Set up and maintain a robust data center infrastructure to ensure the secure storage, processing, and accessibility of critical data. This includes implementing industry best practices for data security, backup systems, server maintenance, and disaster recovery procedures to minimize downtime and safeguard information. Identify and hire skilled personnel with expertise in data center operations and management. Recruit individuals experienced in network management, database management, hydro-informatics, and technical support. Build a competent team capable of effectively managing the data center's day-to-day operations.

TECHNOLOGY NEEDS ASSESSMENT PROJECT IV - SUPPORT TO THE COUNTRIES

AIT Research Theme: Climate Change

AIT Unit: Sustainable Energy Transition

Duration: 31 Dec 2024 to 30 Jun 2025

Project Sponsor/Client: UNOPS

Expected Social Impact:

- Access to cleaner, environment-friendly technologies
- Improvement of socio-economic and environmental conditions

Description:

Technology needs assessment (TNA) is grounded in national sustainable development plans, builds national capacity, and facilitates analysis and prioritization of climate technologies to support the implementation of the UNFCCC Paris Agreement. In 2009, the first TNA was initiated and concluded in 2013. In this fourth phase of TNA, AIT is supporting three countries in the Asia-Pacific region: the Maldives, Timor-Leste, and Papua New Guinea.

REGENERATIVE AGRICULTURE IN ASEAN: PROMOTING NATURE-POSITIVE SOLUTIONS FOR RICE PRODUCTION (REGA-ASEAN)

AIT Research Theme: Climate Change

AIT Unit: Agriculture Systems and Engineering

Duration: 01 Aug 2023 to 31 Jul 2027

Project Sponsor/Client: The Rockefeller Foundation, USA

Expected Social Impact: This contribution will help in bootstrapping the regenerative agricultural solutions across ASEAN.

Description:

The overall objective of this project is to carry out extensive desk research to find out GHG emissions from the rice production sector and the impacts of climate change on rice production in Thailand, Lao PDR, and Cambodia. This grant will support field and greenhouse experiments in generating empirical evidence on the feasibility of using selected nature-positive solutions for rice production in Thailand, Lao PDR, and Cambodia.

WATER RESOURCES RISK AND COUNTERMEASURE FOR SUSTAINABLE DEVELOPMENT UNDER CHANGING ENVIRONMENT IN THE PAN QINGHAI TIBETAN PLATEAU

AIT Research Theme: Climate Change

AIT Unit: Centre for Water and Climate Adaptation, SET

Duration: 01 Aug 2023 to 31 Dec 2026

Project Sponsor/Client: Alliance of International Science Organizations

Project Partners: Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (CAS), China Institute of Water Problems, Hydropower and Ecology, National Academy of Sciences of Tajikistan Institute of Water Problems, Hydropower and Ecology National Academy of Sciences of Tajikistan Institute of Geology, National Academy of Sciences of the Kyrgyz Republic (NAS KR) Department of Space Science, Institute of Space Technology, Islamabad, Pakistan

Expected Social Impact: The project will help in increasing the awareness and knowledge related to climate change impacts and adaptation in the region. It will be useful in improving water management and supporting sustainable development. It is expected to overall reduce the social and economic costs/damages associated with climate change by building social cohesion and resilience among the various actors in the society. The findings of the research will also support the policy and decision-makers in formulating measures to cope with the adverse impacts of climate change and achieving SDGs in the region.

Description:

As the world strives to achieve sustainable development goals (SDGs), climate change could significantly hinder the progress. Climate change is a global issue that requires local, national, regional, and global actions. Understanding the impacts of climate change on water resources and sustainable development is paramount to devising measures to enhance resiliency. The Pan-Qinghai Tibetan Plateau (PQTP) is one of the hot spots, as the observed impacts of climate change in the region are higher than the global average. PQTP is also called the water tower of Asia, as many large rivers, such as the Yangtze, Yellow, Mekong, Indus, etc., originate from this region and the region has been considered an amplifier of global climate change. A population of over one billion people depends on the rivers originating in PQTP for their livelihoods and is vulnerable to any changes in the water resources in the region resulting from changing climate. This study will improve the future projections of regional climate in PQTP by using state-of-the-art climate models and dynamic downscaling techniques. Hydrological modeling and machine learning techniques will be applied to assess the impacts on the water resources in the region. The combined impacts of climate change and changes in water resources on SDG6 and SDG13 in the region will be assessed using the indicator/indices-based approach. Finally, the study will rigorously explore the adaptation options for building resiliency and adaptive capacity of communities.

ATMOSPHERIC BROWN CLOUD (ABC)

AIT Research Theme: Climate change, Food-Energy-Water, Technology, Policy and Society

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 01 Jul 2023 to 31 Aug 2025

Project Sponsor/Client: Stockholm University

Expected Social Impact:

- Increased understanding on regional impacts of transboundary air pollution, particularly aerosols and trace gases (ABCs)
- Increased understanding on interaction of ABCs with climate change factors.
- Build capacity of young researchers, students, and policymakers of the South Asian region.

Description:

Atmospheric Brown Clouds | Atmospheric Aerosols | Trace Gases | Transboundary Air Pollution | Maldives Climate Observatories (MCOH). - Conduct continuous measurements of air pollution, atmospheric components, and meteorological parameters, including operation and maintenance of scientific instruments.

- Analyze atmospheric data combined with, as appropriate, satellite observations, model simulation outputs and other supplementary data, and prepare scientific reports/publications;
- Provide training to scientists, technicians, and young researchers;

CLIMATE CHANGE ADAPTATION IN CROP PRODUCTION USING SMART FARMING TECHNIQUES

AIT Research Theme: Climate change

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 01 Jul 2023 to 31 Aug 2025

Project Sponsor/Client: Stockholm University

Expected Social Impact: Experience in agricultural field design. Practical experience in data collection Provide basic information and hands-on training

Description:

The overall aim of this project is to carry out an internship for undergraduates from the agricultural science discipline from various agricultural universities across India to provide them with technical and practical experience for sustainable agricultural development.

INTERLAB IOT DEVELOPMENT 2023

AIT Research Theme: Smart communities

AIT Unit: Internet Education and Research Laboratory

Duration: 01 Oct 2023 to 31 Mar 2025

Project Sponsor/Client: Asian Institute of Technology

Expected Social Impact: The project will receive internal funding from other projects in AIT, which in turn intERLab will deliver the made IoT products and services on demand.

Description:

IntERLab would like to open the IoT development project to support the development of IoT devices such as low-cost air quality sensors and other edge computing devices. The project will receive internal fundings from other projects in AIT, which in turn intERLab will deliver. custom made IoT products and services on demand. The estimated budget of 1,000,000 THB will be allocated to INTERLab to operate the project from 1 October 2023 to December 2024.

ESTABLISHING A KNOWLEDGE HUB AND BUILDING CAPACITY ON URBAN ECOSYSTEM-BASED ADAPTATION (EBA) IN LAO PDR

AIT Research Theme: Climate Change

AIT Unit: Natural Resources Management

Duration: 11 Sep 2023 to 20 May 2025

Project Sponsor/Client: Ministry of Natural Resources and Environment, Lao PDR

Project Partner: National University of Laos

Expected Social Impact: Increase awareness on EbA

Description:

To support the National University of Laos to develop their capacity in the areas of curriculum development; joint research on EBA; support to design and validate permeable paving; and production of some communication/knowledge products/materials. Preparation of an EbA curriculum integrating engineering and ecosystem-based solutions targeting the graduate students. Conduct joint research on relevant topics on EbA, including forest restoration in wetlands, hydrological modeling, drought, and soil erosion. Produce joint knowledge products on urban EbA. Design and demonstrate permeable pavement solutions

ESTABLISHING A KNOWLEDGE HUB AND BUILDING CAPACITY ON URBAN ECOSYSTEM-BASED ADAPTATION (EBA) IN LAO PDR

AIT Research Theme: Climate Change

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 24 Oct 2023 to 30 Nov 2024

Project Sponsor/Client: Institute for Global Environmental Strategies

Project Partner: National University of Laos

Expected Social Impact: Enhance resilience to climate catastrophes. Enhance adaptive measures to combat floods and coastal catastrophes. Enhance resilience in vulnerable communities.

Description:

This project aims to develop two comprehensive e-learning modules to enhance climate adaptation planning capacity in the Asia-Pacific region. The first module, "Integrating Gender and Indigenous Factors into Locally-Led Adaptation," will provide approximately two hours of English-language training through three video-based sessions. It will focus on promoting inclusive, locally relevant adaptation strategies by addressing gender and indigenous perspectives. The second module, "Using the FloodS: A Flood Forecasting Tool for Adaptation Planning at the City Level", will offer practical training on utilizing flood forecasting tools for urban adaptation planning. Both modules will be professionally narrated by native speakers and structured for accessibility and impact. Designed primarily for government officials across disaster prevention, agriculture, water resources, and infrastructure sectors, the materials will also support development consultants and private firms engaged in ODA project formulation. Additionally, they aim to build the technical capacity of GCF-accredited entities and National Designated Authorities (NDAs) in climate-resilient decision-making.

INTERLAB IOT DEVELOPMENT 2023

AIT Research Theme: Climate Change

AIT Unit: Environmental Engineering and Management

Duration: 16 Nov 2023 to 30 Apr 2025

Project Sponsor/Client: UN Environment Programme

Project Partner: Thailand Pollution Control Department

Expected Social Impact: Strengthen the ASEAN Hazefree Roadmap 2022-2030 and CLEAR Sky Strategy by developing database of air pollution, Greenhouse Gas and Short-Lived Climate Pollutant (SLCP) emission to assess the contribution of open burning and forest fires in Lower Mekong Sub-region (LMS), including Cambodia, Laos, Myanmar, Thailand and Vietnam

Description:

The Roadmap on ASEAN Cooperation towards Transboundary Haze Pollution Control with Means of

Implementation (ASEAN Hazefree Roadmap) 2022-2030 was adopted in August 2023. However, the final review of the previous roadmap (Haze-Free Roadmap, 2016-2020) identified that under Strategy 8, "Reducing health and environmental risks and protecting the global environment" was scored as "Low-Medium," meaning that the information on the impacts of the haze problem is still lacking. The recommendations include "Introduce a more robust and standardized socio-economic analytical assessment approach for each Roadmap Strategy to include impact, cost-benefit, environmental, health, and social protection platforms" and "A common database on correlation between public health and haze should be established" for the Hazefree Roadmap 2022-2030. Moreover, Thailand has proposed the "CLEAR Sky Strategy" to ASEAN, which includes exchanging information and legislative measures. The main cross-cutting issue is the establishment of a common database of the impacts of haze on public health. The success of this action depends on several issues that need collaboration. Standardized methods and criteria used to undertake assessment and monitoring of the health, economic, social, and environmental impacts of haze, including climate change/global warming, are required.

TRAVERSING INTERCONNECTED LOCAL-TO-GLOBAL ACTION SPHERES TO ADVANCE THE POST-2030 AGENDA

AIT Research Theme: Smart Communities

AIT Unit: Disaster Preparedness, Mitigation and Management

Duration: 01 Jan 2024 to 31 Jul 2024

Project Sponsor/Client: IGES JAPAN

Project Partner: IGES

Expected Social Impact: The project promotes inclusive climate action by enabling cross-learning and synthesizing sustainability practices tailored to Asian city-regions. It fosters co-development of integrated, community-driven pathways for resilient and decentralized societies. By building partnerships across sectors, it strengthens local capacities to localize SDGs and achieve net-zero goals.

Description:

IGES, in partnership with START, AIT, VNIT and Thammasat University are convening a learning and reflection workshop on climate and sustainable development actions in Asian city-regions, and explore how integrated policy approaches and actions (like CES) can help address the localisation challenge. This note describes the plan and process for establishing a regional workshop in Bangkok, January 2024.

INNOVATIVE TOOLS TO SUPPORT THE DESIGN AND MONITORING OF NBS AND GHG EMISSION REDUCTION PROJECTS

AIT Research Theme: Smart communities

AIT Unit: Geoinformatics Center

Duration: 31 Dec 2023 to 31 My 2025

Project Sponsor/Client: Food and Agriculture Organization of the United Nations (FAO)

Expected Social Impact: Actively promoting sustainable agricultural practices, abetting climate change at the local level.

Description:

Under FAO Regional Priority Area 2 on accelerating sustainable natural resources management for biodiversity conservation and climate action, which aims to support members to protect, restore, and promote sustainable use of terrestrial and aquatic ecosystems and combat climate change in realizing more efficient, resilient, and sustainable agri-food systems, FAO is developing a new generation of analysis and tools to support the improved targeting and design of climate finance investments in agri-food systems consistent with the priorities of member countries and public and private sector donor organizations. Specifically, RAP is working with partners developing tools to support integrated investments in climate and ecological resilience through nature-based solutions in the GEF and GCF portfolios.

THIRD-PARTY VALIDATION AND MONITORING AND DEVELOPMENT OF DATA ANALYTICS TOOL OF SINDH FLOOD EMERGENCY REHABILITATION

AIT Research Theme: Climate Change

AIT Unit: Artificial Intelligence Technology Center

Duration: 15 Dec 2023 to 31 Dec 2026

Project Sponsor/Client: 360 Engineering & Management Solutions Company Limited (360EMS)

Project Partner:

1. Carthago Consultancy International, Pakistan
2. Impact International

Expected Social Impact: This project promises significant social benefits. It will improve transparency and coordination among stakeholders, ensure timely project completion, and protect the environment and local communities. By understanding local needs, benefits can be distributed fairly and grievances addressed. Engaging with communities will empower them, while data analytics will guide decision-making for sustainable development in Sindh.

Description:

Sindh province in Pakistan suffered the most from the 2022 floods, with damages estimated at US$9 million and recovery needs at US$7.9 billion. Over 12 million people were affected, and 24 out of 30 districts were declared as "calamity hits." The Sindh Flood Emergency Recovery Project (SFERP) will focus on infrastructure rehabilitation, short-term livelihood support, and building long-term resilience to climate change and natural disasters.

SENTINEL ASIA AND CAPACITY BUILDING CLIMATE CHANGE ADAPTATION IN AGRICULTURE FOR ENHANCED RECOVERY AND SUSTAINABILITY OF HIGHLANDS

AIT Research Theme: Climate Change

AIT Unit: AIT extension

Duration: 01 Dec 2020 to 30 Aug 2024

Project Sponsor/Client: ADB

Description:

The project has four outputs:

i. Capacity to assess climate change vulnerability of highland agriculture improved;
ii. Gender-responsive, climate-smart agricultural practices prioritized and demonstrated;
iii. Agricultural product quality, value addition and market linkages enhanced;
iv. The capacity of local governments and communities to address climate change was strengthened.

DOWNSCALING FUTURE EXTREME WEATHER AND NATURAL HAZARD RISKS FOR BANGLADESH

AIT Research Theme: Infrastructure

AIT Unit: Geoinformatics Center

Duration: 24 Jan 2024 to 30 Jun 2025

Project Sponsor/Client: The World Bank

Project Partner:

1. NCAR, USA
2. RTI, India

Expected Social Impact: This project will improve the resilience of the communities against climate change and hydrometeorological (flood and tropical cyclone) disasters.

Description:

This technical assistance assignment seeks to downscale global and regional climate models to assess the changing intensity and occurrence of climate hazard risks in Bangladesh, with the objective of informing resilient

power system planning. Considering a range of plausible scenarios, the assignment prepares hazard risk profiles for overlaying with available power system asset location data, including for electricity networks, generators, and fuel supply. The objective is to equip the Government of Bangladesh and power sector agencies with resources to facilitate asset and system-level resilience planning and policy under uncertainty.

USING REMOTE SENSING AND AI TECHNIQUES TO FORECAST FUTURE PEATLAND FIRE RISK OF THE KUAN KRENG LANDSCAPE (KKL) IN THAILAND

AIT Research Theme: Climate change

AIT Unit: Water Engineering and Management

Duration: 10 Jan 2024 to 31 Jul 2025

Project Sponsor/Client: ECOSECURITIES GROUP LIMITED

Expected Social Impact: This project is expected to enhance preparedness and resilience in communities vulnerable to wildfires. These developed maps can inform land use planning, emergency response strategies, and resource allocation, reducing the risk of catastrophic fires and their associated health hazards, property damage, and displacement. By considering climate change projections, such initiatives facilitate proactive measures to mitigate risks, safeguarding lives, livelihoods, and ecosystems dependent on peatlands.

Description:

This project will develop a map of 10 years (2012 (or earlier)-2022) of historical fires across the KKL Project Zone based on the data collected by satellite data and other relevant information. It also includes the development of future fire risk information under human intervention and climate change.

PYAEZ FOR LOCALIZED CROP SUITABILITY AND LAND PRODUCTIVITY ASSESSMENT

AIT Research Theme: Climate change, Food-Energy-Water, Technology, Policy and Society

AIT Unit: Geoinformatics Center

Duration: 01 Apr 2024 to 31 Jul 2025

Project Sponsor/Client: Food and Agriculture Organization of the United Nations

Expected Social Impact:

- Create an open-access AEZ framework for developing nations
- Promote climate resilience aspect in the agricultural management

Description:

The natural suitability of lands for agriculture is of crucial importance in developing regions where low-input subsistence agriculture and local crop production determine food security and economic return. The risks of decreased land suitability for the main staple crops, or the consequences of natural variations in yield, call for flexible strategies and institutional support to rural families to facilitate climate resilience and the adaptation of agricultural practices to local needs and conditions.

ENERGY DEMAND CHANGES INDUCED BY TECHNOLOGICAL AND SOCIAL INNOVATIONS

AIT Research Theme: Technology, Policy and Society

AIT Unit: SMARTS Center

Duration: 01 Jun 2024 to 31 Dec 2027

Project Sponsor/Client: METI/RITE

Expected Social Impact: Research, Publications, Policy recommendations

Description:

The assessment of the energy demand side, first addressed in the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), has not yet been sufficiently quantitatively and comprehensively analyzed. The latest scientific knowledge on climate change must be provided during the writing period of the upcoming 7th Assessment Report

ADVANCING AGRICULTURE, CLIMATE, ENVIRONMENTAL, AND DISASTER MONITORING THROUGH SATELLITE-BASED SOIL MOISTURE RETRIEVAL AND APPLICATIONS IN SOUTHEAST

AIT Research Theme: Climate Change

AIT Unit: Water Engineering and Management

Duration: 01 Jul 2024 to 31 Dec 2025

Project Sponsor/Client: AIT

Project Partner: Asian Disaster Preparedness Center (ADPC), Hydro-Informatics Institute (HII), and Kasetsart University (KU)

Expected Social Impact: This workshop aims to improve understanding and application of soil moisture data to improve sustainable development goals. The workshop promotes effective water management in agriculture by enhancing access to accurate soil moisture information, thereby contributing to increased production and food security (SDG 2). It also improves climate resilience (SDG 13) by incorporating data into climate and disaster management plans, assisting with mitigation efforts and improving adaptive measures. Furthermore, the workshop encourages land conservation (SDG 15) by enhancing soil health and biodiversity through educated land use practices. Overall, it provides an important venue for collaboration in fostering a sustainable future for Southeast Asia.

Description:

This workshop focused on enhancing the understanding and utilization of satellite soil moisture data, particularly in the context of climate, agriculture, and disaster management. It aims to raise awareness among stakeholders in Southeast Asia about the significance of satellite-derived soil moisture data, its applications, and the necessity of calibration and validation efforts to improve data accuracy. The primary objective is to foster collaboration among experts in soil moisture, remote sensing, GIS, climate science, agriculture, and data science to discuss methodologies for producing enhanced soil moisture information and addressing the challenges associated with its use in the region.

EMPOWERING THE THAILAND HIGH-RESOLUTION SEASONAL HYDROMETEOROLOGICAL FORECASTING SYSTEM (THFS) TO SUPPORT SMART AGRICULTURE UNDER CLIMATE

AIT Research Theme: Climate Change

AIT Unit: Water Engineering and Management

Duration: 15 Jul 2024 to 14 Jul 2025

Project Sponsor/Client: Agricultural Research Development Agency (ARDA)

Project Partners: Rajamangala University of Technology Thanyaburi, Thai Meteorological Department, Royal Irrigation Department, Thailand's National Electronics and Computer Technology Center, Office of Agricultural Economics

Expected Social Impact: The project to simulate high-resolution hydrology and climate variables promises significant social impact by enabling precise seasonal forecasts at a 1 km scale. This capability supports agriculture by enhancing crop planning and irrigation strategies, thereby reducing losses and strengthening food security. By improving the accuracy of climate predictions, the project also contributes to SDG 2 (Zero Hunger), SDG 13 (Climate Action), and SDG 15 (Life on Land) by facilitating better adaptation strategies and mitigation efforts. Ultimately, these advancements hold the potential to elevate agricultural productivity, minimize resource waste, and foster more resilient communities in the face of climate variability and change.

Description:

The project aims at creating a model system capable of simulating real-time data for the agricultural sectors, producing high-resolution data (1 km) for the entire Thailand to forecast hydrological and climate variables up to a season ahead.

STRATEGIC CUSTOMIZED PROGRAM LIAISON: AIT-HOHAI UNIVERSITY (BATCH 1)

AIT Research Theme: Climate Change

AIT Unit: Office of International and Public Affairs

Duration: 30 Jun 2024 to 30 Jun 2025

Project Sponsor/Client: Hohai University, China

Expected Social Impact: The program will foster a shared commitment to sustainable water management through a formal declaration by participants. It will promote cross-border collaboration by facilitating joint research initiatives among young professionals. Participants will expand their international professional networks, enhancing regional cooperation. The workshop will also encourage creative thinking and innovation to address real-world water challenges in the Lancang-Mekong region.

Description:

The 2024 International Leadership Training Program for Lancang-Mekong River Young Professionals in Water Sciences will be held on the AIT campus, offering learning, dialogue, analysis, and networking to elicit research and innovation ideas from young student participants from China and various countries. Co-organized by the Asian Institute of Technology (AIT) and Hohai University, this Workshop will address critical challenges faced by the Lancang-Mekong region, emphasizing scientific and environmental engineering analyses and solutions

TACKLING CLIMATE CHANGE: INTEGRATING LOSS AND DAMAGE, ADAPTATION AND MITIGATION, 04-10 SEPTEMBER 2024

AIT Research Theme: Climate Change

AIT Unit: AIT Extension

Duration: 04 Sep 2024 to 30 Mar 2025

Project Sponsor/Client: NETZ

Expected Social Impact: Design and implement strategies that contribute to a more resilient and sustainable future. Explore mechanisms and frameworks for addressing loss and damage from climate change impact. Explore various adaptation and mitigation methods and practices to build climate resilience. Develop strategies to promote climate justice in policy and practice.

Description:

Professional training of 10 senior NGO professionals from Bangladesh, India, and Nepal.

VIDEO PRODUCTION OF CLIMATE-SMART AGRICULTURE PRACTICES AND ALTERNATIVE LIVELIHOOD OPTIONS FOR HIGHLANDS, 15 OCTOBER-15 NOVEMBER 2024

AIT Research Theme: Climate Change

AIT Unit: AIT Extension

Duration: 15 Oct 2024 to 14 May 2025

Project Sponsor/Client: Asian Development Bank

Expected Social Impact: Sustainable Agriculture and Climate Adaptation for local farmers and communities in highland regions.

Description:

To produce 7 videos of a general and 6 demonstration sites in Nan province, which are designed to offer a comprehensive and engaging overview that captures the essence and impact of the TA. Two key components, the content and the video clip, will achieve this aim.

TESTING POINT-SOURCE CARBON CAPTURE TECHNOLOGY UNDER SMR PROCESS CONDITIONS

AIT Research Theme: Climate Change

AIT Unit: Environmental Engineering and Management

Duration: 30 Nov 2024 to 31 Jan 2026

Project Sponsor/Client: Bangchak

Project Partner: Bangchak Corporation, PCL Mitico

Expected Social Impact: Provide the actual real-time testing results of the efficiency of carbon capture technology in Thailand.

Description:

AIT will work with Mitico (https://www.mitico.tech/), a US company specializing in carbon capture technology with funding from Bangchak Corporation PCL, to install a pilot-scale carbon capture technology at the Bangchak refinery in Bangkok. The carbon capture technology is quite new in Thailand. Thus, working with Mitico will provide AIT with an opportunity to learn from them.

SPARKING FAIRY DUST: ACTIVATING METHANOTROPHY IN RICE PADDIES, THROUGH MISSING MICRONUTRIENTS

AIT Research Theme: Climate Change, Food-Energy-Water

AIT Unit: Environmental Engineering and Management

Duration: 16 Dec 2024 to 16 Dec 2026

Project Sponsor/Client: EQT Foundation

Expected Social Impact: The study is a breakthrough research project; there is no direct social impact. However, the indirect social impact is that because of research like mine, there are global initiatives to mitigate GHG emissions, which in turn will decelerate climate change with global implications. There are significant effects from climate change in all sectors, and deceleration of global warming has an impact at a global scale.

Description:

Funded by the EQT Foundation, a Swedish philanthropy, under the Foundation's Breakthrough Science Grant program. In this project, I will investigate micronutrient management and its effect on the methanotroph microbiology in Thai soils, which are capable of preventing massive unaccounted methane GHG emissions. The outcome will be a mesocosm experiment in chambers where cerium and cupper will be amended, and we will monitor in the lab and in the field the effect on methane oxidation in batch experiments. We will also do a trial in real land conditions, where I will monitor the methane emissions over the complete planting season cycle and, in parallel, land plots with the amendment.

ACCELERATING RESEARCH FOR SUSTAINABLE AND INCLUSIVE SOLUTIONS FOR ENHANCED URBAN RESILIENCE TO CLIMATE CHANGE IN ASEAN

AIT Research Theme: Climate change, Smart communities

AIT Unit: Sustainable Energy Transition

Duration: 15 Nov 2024 to 31 Dec 2027

Project Sponsor/Client: IDRC Canada

Expected Social Impact: The project will be carried out in close collaboration with the ASEAN secretariat and aims to deliver clear policy impact to the decision-makers in ASEAN. It focuses on applied (action-oriented) research, co-creation, actor-centered, place-based approach, and in-built partnerships and engagements to ensure impact.

Description:

The project is a CLARE-ASEAN initiative, led by AIT. It is aimed to advance knowledge and enhance the research capacity for urban resilience to climate change in ASEAN member states. The focus is on action-oriented research and activities to provide better information on climate risks, better decision-making tools, guidance, and better climate adaptation solutions to enable transformational change in ASEAN countries. Two key research themes are (a) multifaceted and hazard-agnostic urban-wide or sector-wide response to urban resilience to climate change that

leads to structural change in the way a city/sector can be better acted/governed/managed by urban planners/policy/decision makers and (b) resilience against worsening urban heat extremes. AIT will set up and manage the research consortium, advance knowledge by producing research outputs and facilitating policy dialogues, and foster international collaboration and engagement for urban resilience to climate change in ASEAN. CLARE is funded by the UK Foreign, Commonwealth and Development Office (FCDO-UK) and the International Development Research Centre (IDRC-Canada) and currently implements applied research projects in 30 countries across Africa and Asia.

REGIONAL TRAINING WORKSHOP ON NATIONAL ADAPTATION PLAN DEVELOPMENT PROCESS: STRENGTHENING CAPACITY FOR MULTI-SECTORAL INVOLVEMENT IN THE NAP PROCESS IN ASIA-PACIFIC REGION, BANGKOK

Duration: 11-13 Jun 2024

Expected Social Impact: The workshop aims to improve climate change adaptation planning in eight Asian countries by training government and academic representatives. This effort will lead to more effective, inclusive, and gender-sensitive National Adaptation Plans, better protecting vulnerable groups and ecosystems. The workshop also provides guidance on integrating adaptation into national development and accessing climate finance, fostering long-term resilience and sustainable development in the region.

Description:

The Asian Institute of Technology, Regional Resource Centre for Asia and the Pacific (AIT RRC.AP) Climate Change Cluster, designed, organized, and conducted the Regional Training Workshop on National Adaptation Plan Development Process from June 11 to 13, 2024, at the Sukosol Hotel in Bangkok, Thailand. The workshop focused on strengthening capacity for multi-sectoral involvement in the National Adaptation Plan (NAP) process in the Asia-Pacific region.

Attended by 26 participants from governments and academic institutions across eight Asian countries, namely, Bangladesh, Brunei Darussalam, Lao PDR, Malaysia, the Philippines, Sri Lanka, Thailand, and Vietnam, the 3-day training program aimed to support governments

in their national adaptation planning (NAP) processes by enhancing capacities and providing practical, internationally tested models and tools. The workshop focused on improving understanding and awareness of the NAP process, familiarizing participants with key NAP elements and support channels, and offering practical guidelines for establishing institutional arrangements, developing gender-sensitive and inclusive NAPs, integrating climate adaptation into national development plans, creating monitoring and evaluation frameworks, and accessing climate finance, particularly through preparing proposals for Green Climate Fund (GCF) Readiness Grants.

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-04.aspx

REGIONAL TRAINING WORKSHOP ON DEVELOPING CONCEPT NOTES FOR THE GREEN CLIMATE FUND: STRENGTHENING CLIMATE RESILIENCE IN PACIFIC SMALL ISLANDS DEVELOPING STATES, NADI, FIJI

Duration: 17-21 Jun 2024

Expected Social Impact: The workshop empowered Pacific Small Island Developing States (PSIDS) training participants to develop strong Green Climate Fund (GCF) concept notes. This process directly increases their ability to access crucial climate finance, enabling them to implement projects that build resilience against the disproportionate impacts of climate change. The collaborative environment fostered knowledge sharing among the seven participating nations, leading to context-specific solutions and ultimately contributing to a more sustainable and secure future for communities and ecosystems across the Pacific region.

Description:

AIT RRC.AP Climate Change, designed, developed and organized a Regional Training Workshop on developing GCF Concept Notes for Pacific Small Island Developing States (PSIDS). The "Regional Training Workshop on Developing Concept Notes for the Green Climate Fund: Strengthening Climate Resilience in Pacific Small Island Developing States," focusing on enhancing climate resilience in PSIDS, was successfully concluded in Nadi, Fiji, from 17 to 21 June 2024. The five-day training program was organized by the AIT RRC.AP with financial support from the Ministry of the Environment, Japan (MoEJ), and in collaboration with the Pacific Climate Change Centre (PCCC), the Secretariat of the Pacific Regional Environment Programme (SPREP), the Green Climate Fund (GCF), and the National Institute for Environmental Studies, Japan (NIES).

About 30 participants, including resource speakers, representatives of National Designated Authorities (NDAs), officers from relevant national ministries, and representatives

of civil society organizations from Fiji, Kiribati, Niue, Papua New Guinea, Solomon Islands, Tonga, and Tuvalu. The workshop aimed to work together in crafting high-quality concept notes for securing climate finance from the GCF for their respective countries.

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-05.aspx

Operations:

AIT'S NET ZERO COMMITMENT: LEADING BY EXAMPLE ON SDG 13

The Asian Institute of Technology (AIT) has made a bold and measurable commitment to **achieve net-zero greenhouse gas emissions by 2030,** supporting **Sustainable Development Goal 13: Climate Action.** A comprehensive carbon audit conducted for 2023 shows AIT emitted **9,629 tCO_2e,** composed of **Scope 1** (direct emissions from fuel and refrigerants—620 tCO_2e), **Scope 2** (electricity consumption—5,404 tCO_2e), and Scope 3 (waste, travel, and procurement—3,605 tCO_2e).

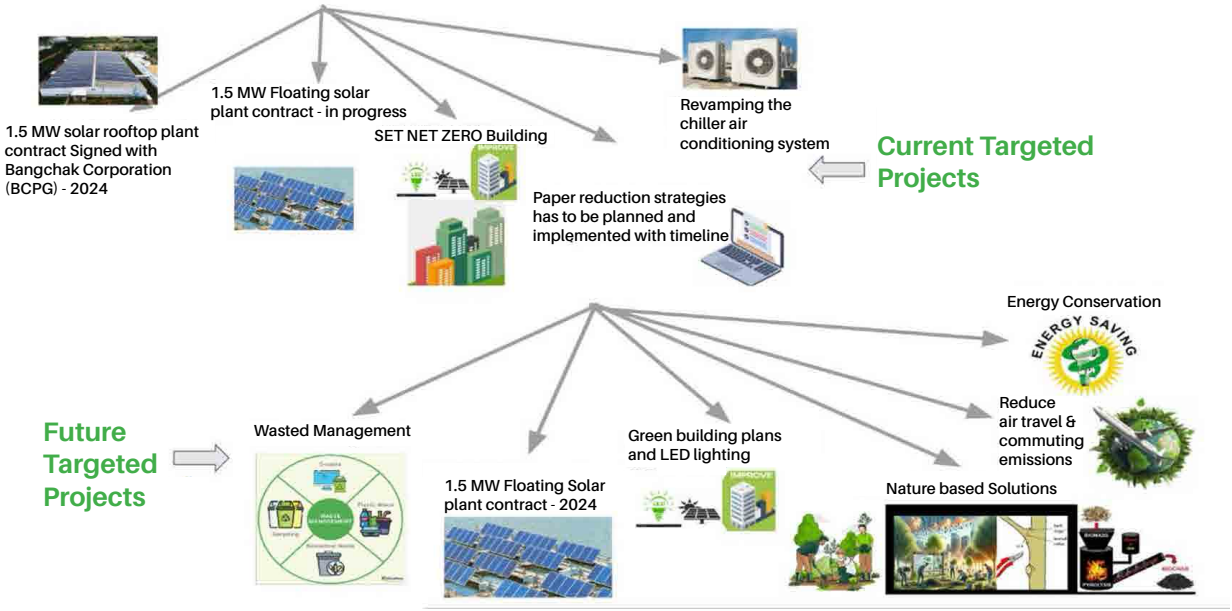
To mitigate these emissions, AIT has implemented a structured **Decarbonization Roadmap**, which includes energy transition, infrastructure upgrades, and nature-based solutions. The institute has already commissioned a **1.5 MW rooftop solar plant**, reducing over 1,000 tCO_2e annually. Additional planned projects include two **floating solar farms totaling 4 MW**, deep retrofits of buildings (e.g., SET Net Zero Building, chiller and AC replacements), and system-wide **energy conservation**.

Crucially, **Nature-Based Solutions (NbS)** such as tree planting and green landscaping are projected to offset **1,900 tCO_2e**, complemented by behavioral shifts like reducing paper use and improving waste management. With combined interventions, emissions are expected to fall from **9,629 tCO_2e in 2023** to **-194 tCO_2e by 2030,** reaching net negative emissions.

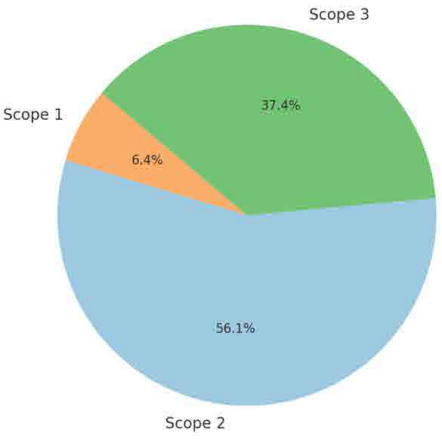
AIT has implemented a 1.5 MW solar rooftop project as part of its Climate Action Plan. The project, which has been operational since August 2024 and is installed on 20 buildings, is anticipated to generate 1.95 GWh annually and reduce emissions by 973 tCO_2e. Additionally, preparations are being made for the installation of a 1.2 MW floating solar array. The institute is simultaneously planning an increase in energy efficiency through improved operation efficiency by revamping the chiller plant, which consumes more than 30% of the campus's power consumption, using resource-efficient appliances, and renovating green buildings. Additional strategies include a program for remodeling waste management that aims to achieve 100% waste segregation throughout the campus and various smart administrative and conservation initiatives. AIT's strategic and data-driven approach to achieving its vision of becoming a "Botanical Garden Net Zero Campus" is reflected in its e-waste management initiatives, which advocate for the circular economy through the promotion of maximal recyclable upscaling and recycling.

https://ofam.ait.ac.th/ait-net-zero-plans/

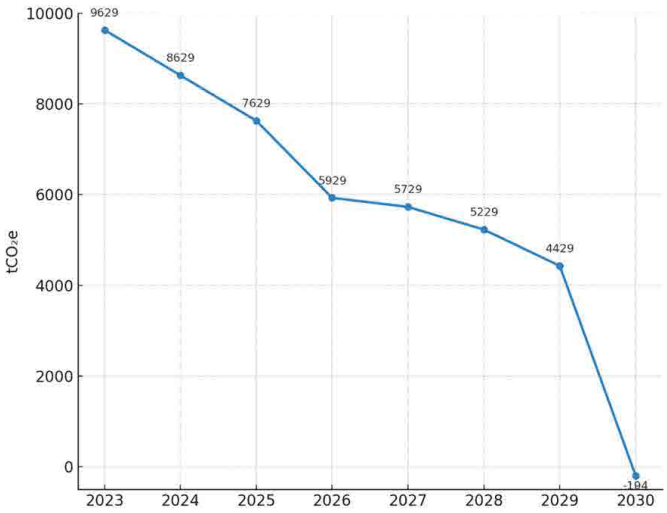
AIT Campus DeCarbonization Road Map



AIT GHG by Scope (2023)



AIT Net Zero Roadmap (2023 - 2030)

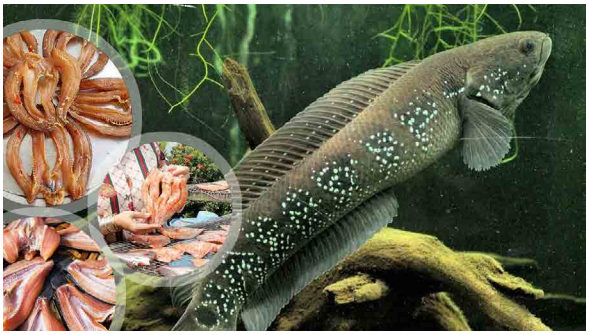


News:

STUDY TOUR ON FISH PROCESSING AND VALUE ADDITION IN THAILAND (20–24 MAY 2024)

Description:

From 20 to 24 May 2024, the Aquaculture and Aquatic Resources Management (AARM) program at AIT organized a study tour in Central Thailand to provide hands-on exposure to fish processing and value addition. Tailored for small-scale fisheries and aquaculture operators, especially SME entrepreneurs, the tour offered insights into innovative ways to add value to and market fishery products for domestic and export markets. Participants visited commercial enterprises producing value-added products such as dried Snakehead (Channa striata), dried Snakeskin Gourami (Trichogaster pectoralis), and fish sauce, while also observing food safety practices and management systems widely followed in Thailand.



https://aitaquaculture.org/fish-processing-facilities-in-thailand.htm

MASTERING NILE TILAPIA AQUACULTURE: STUDY TOUR ON FISH PROCESSING AND VALUE ADDITION IN THAILAND

Description:

From 10–28 June 2024, a comprehensive three-week short course on Nile tilapia aquaculture was held at the Asian Institute of Technology (AIT), Thailand. The program covered seed production, grow-out culture, and advanced health management, equipping participants with practical skills in breeding monosex tilapia in tanks and hapas, larval and nursery rearing, and biosecure farming practices. Participants also visited intensive hatcheries and grow-out farms across Thailand to explore commercial pond and cage culture systems and learn firsthand about the

production and marketing strategies of the Thai tilapia industry. One week of the course focused on fish health management, including disease diagnostics, microbiology techniques, and biosecurity measures, led by leading tilapia experts.

https://aitaquaculture.org/hands-on-training-on-nile-tilapia-hatchery-management-grow-out-production-and-biosecurity-v2.htm

AQUA-FEED FOR FUTURE AQUACULTURE

Description:

The short course *"Aqua-Feed for Future Aquaculture: Cutting-edge Feed Technologies for 21st Century Aquaculture"* was successfully held from 25 to 29 November 2024 at the Asian Institute of Technology (AIT) and Kasetsart University, Thailand. Designed for practitioners in the aquaculture industry, the course introduced recent innovations in aquaculture nutrition, feed technology, and precision feeding strategies. Participants explored the latest developments in alternative protein and energy sources, functional feed additives, advanced feed processing and delivery systems, and methods to enhance feed efficiency while reducing environmental impact. Through expert-led lectures, panel discussions, and interactive sessions, attendees gained practical knowledge in quality control, feed safety, and sustainable aquaculture practices—equipping them with the tools

to optimize fish health, growth, and welfare in modern production systems.

https://aitaquaculture.org/aqua-feed-for-future-aquaculture.htm

ADVANCING SUSTAINABLE AQUACULTURE: SMART SHRIMP FARMING IN CIRCULAR PONDS

Description:

The Asian Institute of Technology (AIT) offers a specialized short course on smart shrimp farming, emphasizing sustainable practices through the use of circular ponds and Recirculating Aquaculture Systems (RAS). This intensive program, held from March 17 to 23, 2024, in Vietnam, targets the cultivation of white shrimp using innovative methods aimed at minimizing environmental impact. Participants will gain insights into the principles of the circular economy as applied to aquaculture, focusing on techniques that reduce effluents and promote sustainability. The course includes expert-led sessions and field visits to operational circular-pond shrimp farms in Vietnam, providing hands-on experience with best management practices. The program fee is US$1,800, covering accommodation, meals, local transportation, and translation services. This training is particularly relevant for aquaculture professionals and enthusiasts seeking to

enhance their knowledge and skills in sustainable shrimp farming practices.

https://aitaquaculture.org/smart-shrimp-production-in-ras-and-circular-tanks.htm

PROFESSIONAL SHORT COURSE ON MUD CRAB AQUACULTURE

Description:

The Asian Institute of Technology (AIT), in collaboration with the Kung Krabaen Bay Royal Development Study Centre, offers a comprehensive short course on mud crab aquaculture. Scheduled for April 21–27, 2024, in Thailand, the program is designed to equip participants with both theoretical knowledge and practical skills essential for successful mud crab farming. The curriculum covers a wide range of topics, including mud crab biology and ecology, hatchery and larval rearing technologies, pond design and construction, water quality management, nutrition and feed formulation, disease prevention, and marketing strategies. Participants will engage in hands-on training sessions and field visits to local mud crab farms and research centers, providing real-world insights into the industry. The course fee is US$1,800, which includes accommodation, meals, local transportation, and translation services. This program is ideal for aquaculture professionals, entrepreneurs, and enthusiasts aiming to harness the lucrative field of mud crab farming.

https://aitaquaculture.org/smart-shrimp-production-in-ras-and-circular-tanks.htm

PROFESSIONAL SHORT COURSE ON ASIAN SEABASS HATCHERY AND FARMING TECHNIQUES

Description:

The Asian Institute of Technology (AIT) offers a comprehensive short course on Asian Seabass (Barramundi) hatchery and farming techniques, scheduled from April 28 to May 4, 2024, in Thailand. This program aims to equip participants with in-depth knowledge and practical skills in seabass aquaculture. The curriculum encompasses theoretical lectures on seabass biology, culture systems, hatchery and nursery practices, nutrition, feed formulation, disease management, and value addition. Renowned experts, including Donald Macintosh and Krishna R. Salin, lead the sessions. The hands-on training involves laboratory examinations of seabass anatomy and developmental stages, along with field visits to operational hatcheries and grow-out farms. The course fee is US$1,800, covering accommodation, meals, local transportation, and translation services. This program is ideal for aquaculture professionals, entrepreneurs, and enthusiasts seeking to enhance their expertise in sustainable practices for farming sea bass.

https://aitaquaculture.org/asian-seabass-hatchery-and-farming.htm

SMART SHRIMP FARMING: INTENSIVE MULTI-PHASE SHRIMP PRODUCTION IN CIRCULAR TANKS

Description:

The Asian Institute of Technology (AIT) offers a professional short course on Smart Shrimp Farming, focusing on intensive multi-phase shrimp production in circular tanks. Scheduled for December 2–7, 2024, in Thailand and Vietnam, this program aims to equip participants with advanced techniques in sustainable shrimp farming. The course covers emerging concepts and practices in earthen pond and circular pond farming techniques for white shrimp, emphasizing the circular economy approach to eliminate aquaculture effluents and enhance sustainability. Led by international experts, the training includes field visits to advanced shrimp farms in both countries, providing hands-on experience with best management practices. Participants will also have the opportunity to attend the Thai Aqua Expo, one of the largest aquaculture exhibitions in Thailand. The course fee is US$1,800 per person, which includes accommodation, meals, local transportation, and

translation services. This program is ideal for aquaculture professionals, entrepreneurs, and enthusiasts seeking to enhance their expertise in modern, sustainable shrimp farming practices.

https://aitaquaculture.org/smart-shrimp-farming.htm

Projects:

MARINE DEBRIS FIELD SURVEYS AND DATA ANALYSIS IN THAILAND

AIT Research Theme: Technology, Policy and Society

AIT Unit: Environmental Engineering and Management

Duration: 01 May 2023 to 31 Dec 2024

Project Sponsor/Client: Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Description:

Marine debris has been identified as a significant risk to biodiversity, economies, human health, fisheries management, tourism, and invasive species transport. Most marine debris, with estimates up to 80% or more, comes from land-based sources. Having data from across the landscape will help us better understand where, why, and when plastic leaks into the environment. In 2024, the project conducted field surveys with data collection, data analysis, and additional fieldwork in Thailand (inland, riverine, coastal, and at-sea surface trawls) at a regional scale and uploaded all data.

DIAGNOSIS OF AQUATIC ANIMAL DISEASES AND HEALTH MANAGEMENT SERVICES

AIT Research Theme: Food, Energy, Water

AIT Unit: Aquaculture and Aquatic Resources Management

Duration: 24 Jul 2023 to 31 Dec 2025

Project Sponsor/Client: National and international donors

Project Partner: Centex Shrimp (Mahidol University/ BIOTEC)

Expected Social Impact: The successful implementation of this project will contribute to the sustainable growth of the aquaculture industry, ensuring healthier and more productive farming.

Description:

Infectious diseases represent a critical bottleneck for the sustainable development of the aquaculture industry. Offering timely diagnosis and appropriate health management solutions, this project aims to provide vital services to farmers, enabling them to effectively prevent losses caused by diseases. The ultimate goal is to contribute to the enhancement of the aquaculture sector through specialized disease diagnosis and health management support.

PISCES - PARTNERSHIP TO PREVENT PLASTIC POLLUTION IN INDONESIAN SOCIETIES

AIT Research Theme: Technology, Policy and Society

AIT Unit: SMARTS Center

Duration: 01 Jan 2024 to 01 Apr 2026

Project Sponsor/Client: National and international donors

Project Partners: Academic Partners Brunel University London (lead) University of Leeds Partner Institutes & Collaborators GIRAFFE INNOVATION Limited Mura Technology Limited Yayasan Green Books Indonesia Plastic Oceans SYSTEMIQ Ltd Waste4Change Coordinating Ministry of Maritime Affairs and Investments (CMMAI)—Indonesian Government Pasuruan Regional Environment Agency Indonesian Waste Platform Indonesia Solid Waste Association (INSWA) Waste and Resources Action Partnership (WRAP) (GIZ) Deutsche Gesellschaft für Internationale Zusammenarbeit Germany GmbH University of Oxford Asian Institute of Technology (AIT) University of Esa Unggul Sepuluh Nopember Institute of Technology Bandung Institute of Technology Universitas Airlangga Udayana University The Indonesian Institute of Science The Indian Institute of Science University of Vienna

Expected Social Impact: Under the 'PISCES' program, our work will aim at the 'costs' and 'benefits' for municipalities, mainly focusing on drainage systems and the impact of plastic debris on their productivity & damage to the engineered infrastructures in cities (e.g., engineered storm water and sewerage drainage systems), to identify the chain of actors addressing plastic impacts through alternative instruments viz. regulatory, incentive-based, non-economic, etc., including links to social and cultural issues, and to determine the economic cost burden through valuation of total welfare loss using a production function approach.

Description:

The project 'A Systems Analysis Approach to Reduce Plastic Waste in Indonesian Societies (PISCES) has Multiple Work Packages' funded by UK Research and Innovation - Global Challenges Research Fund (UKRI-GCRF) aims to create hope spots in Indonesia's battle against plastic waste with the help of an international multidisciplinary team.

SEA OF SOLUTIONS

AIT Research Theme: Smart communities, Technology, Policy and Society

AIT Unit: Environmental Engineering and Management

Duration: 28 Aug 2024 to 31 May 2025

Project Sponsor/Client: United Nations Environment Programme

Expected Social Impact: Better plastic waste management

Description:

This project will contribute to UNEP's Programme of Work and its UNEP Plastics Initiative (SMA ID 130677) by supporting delivery of project output under reducing marine litter by addressing the management of the plastic value chain in Southeast Asia (SEA circular, with funding support from the Government of Sweden, specifically Output 4 Regional Networking, to support planning and implementation of the SEA of Solutions 2024). It will also contribute to achieving Outcome 1 of the UNPDF capacity-building project.

TECHNICAL ASSISTANCE FOR AQUACULTURE DEVELOPMENT IN NEPAL (TAADIN)

AIT Research Theme: Food-Energy-Water

AIT Unit: Aqua-Centre

Duration: 15 Nov 2024 to 14 Nov 2027

Project Sponsor/Client: Farm Land Agro-Concern Research Collaboration Center (FLACRC) Co. Ltd.

Expected Social Impact: Create hundreds of direct and indirect jobs for the youths in Nepal, produce hundreds of tons of fish and make them available to the people in the communities. Millions of people will be aware of the benefits of fish farming and fish consumption.

Description:

The main objective of this project is to provide technical assistance to the private sector for the establishment and operation of a model farm, named Integrated Agriculture Forestry with Ecological Park, to support the government's goal of advancing agricultural entrepreneurship and developing skilled technical manpower. With aquaculture as the main component spanning half of the project area, i.e., 50 Bigha or 34 ha, the company aims to implement a commercial fish farm using cutting-edge technology developed and promoted by AIT. This initiative seeks to reduce yield gaps in Nepal and other countries due to various factors and strengthen traditional revenues from fish cultivation in Nepal while creating job opportunities in-country and promoting economic development.

INNOVATE FOR IMPACT: SOLUTIONS TO COMBAT PLASTIC POLLUTION IN RIVERS AND CANALS

AIT Research Theme: Water, Energy, Food, Climate Change

Description:

The fight against plastic pollution received a significant boost with the successful conclusion of the online competition "Innovate for Impact: Solutions to Combat Plastic Pollution in Rivers and Canals. Held on February 15, 2024, the event was organized by the Asian Institute of Technology (AIT) as part of its project CounterMEASURE III, with the support of the United Nations Environment Programme (UNEP), generously funded by the Government of Japan.

https://ait.ac.th/2024/02/innovate-for-impact-solutions-to-combat-plastic-pollution-in-rivers-and-canals/

A SYSTEMS ANALYSIS APPROACH TO REDUCE PLASTIC WASTE IN INDONESIAN SOCIETIES AND CIRCULAR PLASTIC ECONOMY: BRIDGING THEORY AND PRACTICE TO TRAIN FUTURE LEADERS IN SUSTAINABLE PLASTICS RESEARCH.

AIT Research Theme: Water, Energy, Food, Climate Change

AIT Unit: SMARTS Center

Duration: 2024-2026

Description:

As a part of consortia of institutes, SMARTS is engaged in model development and estimation of economic 'costs' and 'benefits' for municipalities, mainly focusing on drainage systems and the impact of plastic debris on their productivity. The project aims to identify the chain of actors responsible for addressing plastic impacts through alternative instruments such as regulatory, incentive-based, and non-economic measures, while also incorporating links to social and cultural issues. As a follow-up grant, CPEN project supports a bespoke set of networking and brainstorming activities in the key areas of plastic pollution prevention, management, and environmental leadership development to co-create a high-level, multidisciplinary training program for students, researchers, and practitioners in academia, industry, government, and civil society; to provide hands-on training in mapping, monitoring, evaluation, and modeling of plastics production, consumption, and management; and to foster leadership in plastics research and innovation, supporting the research needs of the forthcoming Global Plastics Treaty. The training program will take the form of a summer school.

Weblink:

- https://smartscenter.ait.ac.th/smarts-pisces,
- https://smartscenter.ait.ac.th/cpen
- https://smartscenter.ait.ac.th/smarts-events-n-gallery
- https://smartscenter.ait.ac.th/smarts-publications

News:

AIT AND G20 GLI HOST GLOBAL TRAINING ON URBAN PLANNING TOOLS FOR LAND RESTORATION

Description:

AIT and the G20 Global Land Initiative hosted a five-day training program on urban planning tools for land restoration, attended by 21 participants from 17 countries. The program focused on sustainable urban planning, featuring hands-on sessions, workshops, and site visits. Participants learned about advanced technologies and methodologies to combat land degradation.

https://ait.ac.th/2024/07/ait-and-g20-gli-host-global-training-on-urban-planning-tools-for-land-restoration/

LIVING DELTAS RESEARCH HUB: BUILDING EQUITABLE PARTNERSHIPS FOR SUSTAINABLE DELTA FUTURES

Description:

The Living Deltas Research Hub is funded for five years (2019-2024) and operates across four delta systems—the Red River and Mekong deltas in Vietnam and the Ganges-Brahmaputra-Meghna system in Bangladesh and India. We call these socio-ecological systems. The Living Deltas Hub's AIM is to tackle the problem of delta degradation in the face of multiple threats (sea level rise and saline intrusion, mangrove degradation and loss of coastal buffering, climate change, population rise, land use changes, saline intrusion and communities health and well-being, and unsustainable engineering interventions like damming and sand mining). GCRF also aims at helping delta countries to better achieve their UN Sustainable Development Goals (SDGs) Voluntary National Review agendas. The Hub aims to achieve its objectives via a process of CAPACITY-BUILDING through EQUITABLE PARTNERSHIP—only by doing its part will the Hub have a legacy beyond its five-year funding period. As such, this is an extremely ambitious research program—the most ambitious that the UK Research Councils have done up to now. The Hub is truly interdisciplinary and brings together

the natural and physical sciences, the social sciences, and the arts & humanities on an equal basis to seek new solutions (building on the research already carried out in the delta countries) to complex, intertwined issues through capacity-building and knowledge co-production towards BETTER DELTA FUTURES.

https://dds.ait.ac.th/sdgs/2019/08/20/living-deltas/#more-2485

Projects:

THE 3RD CHULA TECH HACK FOR SUSTAINABILITY 2024

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Dec 2024

Project Sponsor/Client: South Pole

Project Partner: School of Integrated Innovation, Chulalongkorn University

Expected Social Impact: Sustainable forestry; Expanded human capital

Description:

The 3rd Chula Tech Hack for Sustainability 2024 was organized by AIT faculty members and students on 6th December 2024 at Chulalongkorn University's School of Integrated Innovation (SCII). The event showcased innovative ideas on "Technology Solutions for EUDR (EU

Regulation on Deforestation-free Products) Compliance" by talented students of SCII. It was exciting to organize this special hackathon and to engage with forward-thinking ideas for EUDR compliance.

NATURAL RESOURCES MANAGEMENT FIELD LAB II

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Mar 2024

Project Sponsor/Client: N/A

Project Partner: Khao Hin Sorn Royal Development Study Center; Khao Laem Ya-Mu Ko Samet National Park

Expected Social Impact: Expanded human capital

Description:

On 29-31 March 2024, the field laboratory was organized in Phetchaburi Province, Thailand, by the Natural Resources Management academic program. The field visit emphasized swift field observations, immediate data collection, and technology-aided analysis. In collaboration

with local entities, participants refined their understanding and application of common-pool resource management theories to real-world scenarios.

SUSTAINABLE PRESERVATION OF CAMBODIAN WOODEN HOUSES - A CASE ON NBS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Mar 2024

Project Sponsor/Client: N/A

Expected Social Impact: Expanded human capital

Description:

On 1 April 2024, the seminar was organized at AIT by featuring Hok Sokol (Registered ASEAN Architect), an accomplished architect dedicated to safeguarding Khmer architectural heritage. Through his pioneering work, including the notable publication "Cambodian Wooden Houses," Sokol highlighted the critical intersection of environmental sustainability and cultural preservation. His efforts highlighted the importance of nature-based solutions

(NbS) and sustainable forest management in revitalizing and preserving Cambodia's historical architecture for future generations.

SUSTAINABLE PRESERVATION OF CAMBODIAN WOODEN HOUSES - A CASE ON NBS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Mar 2024

Project Sponsor/Client: N/A

Project Partner: IGES (Institute for Global Environmental Strategies)

Expected Social Impact: Expanded human capital, Enhanced network

Description:

On the occasion of the International Day of Forests, 21 March 2024, the NRM program organized the dual competition event: AI Art Competition and the Eloquence Competition. Congratulations to the deserving winners. We thank all faculty members, external judges, and everyone who attended and took part in the competitions and the event. Their enthusiasm and support made this day a memorable celebration of the International Day of Forests.

Jun Ichihara, Program Director, IGES (Institute for Global Environmental Strategies) Regional Centre

SUSTAINABLE PRESERVATION OF CAMBODIAN WOODEN HOUSES - A CASE ON NBS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Mar 2024

Project Sponsor/Client: American Geophysical Union (AGU)

Project Partner: N/A

Expected Social Impact: Expanded human capital, Enhanced network

Description:

The AGU Thriving Earth Exchange is a program that supports community science by connecting communities with scientists to collaboratively address local challenges. A Master student from Myanmar (ADB-JSP Scholarship Holder) was selected as a Community Science Fellow for Thriving Earth Exchange, February 2024 Cohort. The Follows worked with communities across the United States and Mexico to launch impactful community science projects. The partnership connected communities with scientists and technical experts and supported them as they worked together to tackle local challenges related to natural hazards, natural resources, and climate change.

SUSTAINABLE PRESERVATION OF CAMBODIAN WOODEN HOUSES - A CASE ON NBS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Natural Resources Management

Duration: Jun 2024

Project Sponsor/Client: Tsinghua University

Project Partner: Tsinghua University

Expected Social Impact: Expanded human capital, Enhanced network

Description:

A master student participated in the Global Summer Exchange Program at Tsinghua International Graduate School in June 2024. At the end of this program, she received the award "Most Engaged Participant" at the Institute of Environment and Ecology (iEE), an accolade awarded to one individual from each institute of Tsinghua SIGS.

EMPOWERING DEVELOPING MEMBER COUNTRIES TO USE MULTISPECTRAL SATELLITE IMAGES AND ARTIFICIAL INTELLIGENCE FOR LAND USE AND COASTAL PLANNING

AIT Research Theme: Food-Energy-Water

AIT Unit: Geoinformatics Center

Duration: Mar 2024

Project Sponsor/Client: Asian Development Bank

Expected Social Impact: Empower government agencies to process satellite data for crop monitoring and coastal zone planning to help the communities maximize production and sustainable use.

Description:

Through this project (TA6672-REG), ADB aims to empower developing member countries (DMCs) to use multispectral satellite images and AI for land use and coastal zone planning. ADB has developed a cloud-based platform using a building blocks approach to process radar and optical satellite data. It is robustly linked to a series of processors on a platform for accessing data information. The processors for the satellite images are embedded in a GeoNode-based portal.

1. Optimization of the backbone cloud infrastructure;
2. Support for the enhancement of Cloud SEOS based on Geocode;
3. Engineering of satellite processing algorithms in Cloud SEOS;
4. Review of technical documentation such as algorithm descriptions and user manuals of both
5. Cloud SEOS and Regional Carbon Platform for Planning and Policy;
6. Organization of Pre-Operational Cloud SEOS Applications Workshop for Southeast Asia at AIT premises - the countries considered will be Cambodia, Indonesia, Timor-Leste, and Viet Nam, based on the use of Cloud SEOS running a series of country cases for mangrove mapping, land cover, coffee mapping, tree and food crop mapping to be used for capacity-building purposes.

News:

TECHNOLOGY AND GLOBAL GOVERNANCE: THE RELEVANCE OF GANDHI'S PHILOSOPHY FOR CONTEMPORARY INTERNATIONAL RELATIONS.

Description:

Ambassador Shambhu Ram Simkhada delivered a compelling seminar titled "Technology and Global Governance: The Relevance of Gandhi's Philosophy for Contemporary International Relations." The thought-provoking event took place on Monday, 8 January 2024, at the Milton Bendor Auditorium on the campus of the Asian Institute of Technology (AIT).

https://ait.ac.th/2024/01/technology-and-global-governance-the-relevance-of-gandhis-philosophy-for-contemporary-international-relations/

TECHNOLOGY AND GLOBAL GOVERNANCE: THE RELEVANCE OF GANDHI'S PHILOSOPHY FOR CONTEMPORARY INTERNATIONAL RELATIONS.

Description:

The AIT Board of Trustees meeting was held on January 18, 2024, at the AIT campus under the chairmanship of Anat Arbhabhirama. The meeting covered a range of significant topics. The chair extended a warm welcome to the new board and the executive committee members and thanked all the members for their continued support and commitment to the institute.

https://ait.ac.th/2024/01/ait-board-of-trustees-meeting-held-on-campus/

CALLING OUT ADDICTION: WHISTLEBLOWING FOR A SUSTAINABLE WORLD

Description:

Muhammad Junaid of AIT examined the phenomenon of brand addiction, where consumers develop an uncontrollable urge to acquire specific brands' products, leading to financial strain and societal disparities. He highlighted the ethical dilemma for marketers between exploiting such behaviors for profit and promoting sustainable consumption practices. Junaid advocates for ethical marketing to foster a consumer culture rooted in sustainability and well-being.

https://ait.ac.th/2024/05/calling-out-addiction-whistleblowing-for-a-sustainable-world/

TECHNOLOGY AND GLOBAL GOVERNANCE: THE RELEVANCE OF GANDHI'S PHILOSOPHY FOR CONTEMPORARY INTERNATIONAL RELATIONS.

Description:

AIT participated as an academic partner in the ICNWP 2024 held in Bangkok from June 26-28. The convention focused on addressing global disparities and fostering inclusive development, featuring discussions among experts and representatives from various sectors.

https://ait.ac.th/2024/06/ait-engages-in-2024-international-convention-on-nation-building-wellness-peace/

AIT AND RIGGS COLLABORATE TO ADVANCE LEADERSHIP, GOVERNANCE, AND KNOWLEDGE SHARING ON A GLOBAL SCALE

Description:

The Asian Institute of Technology (AIT) and the Royal Institute for Governance and Strategic Studies (RIGSS), Bhutan, signed a Memorandum of Understanding (MoU) on 29 November 2024 to establish a partnership aimed at enhancing knowledge transfer, professional development, and international collaboration.

https://ait.ac.th/2024/11/ait-and-rigss-collaborate-to-advance-leadership-governance-and-knowledge-sharing-on-a-global-scale/

"OUR RIGHTS, OUR FUTURE, RIGHT NOW," INTERNATIONAL HUMAN RIGHTS DAY

Description:

At AIT, the Gender and Development Academic Program (GDS) places human rights at the core rights at the core of its academic discourse and research. Courses such as "Gender and Human Rights" engage students in understanding the intersections between gender and human rights, fostering a comprehensive view of how systemic inequalities impact different groups. Many other courses delve into the human rights challenges faced by indigenous women, people with disabilities, displaced and migrant populations, and LGBTQ+ communities, ensuring a holistic approach to these complex issues.

https://ait.ac.th/2024/12/our-rights-our-future-right-now-international-human-rights-day/

Projects:

STRENGTHENING COLLECTIVE ADVOCACY OF WOMEN HUMAN RIGHTS DEFENDERS IN MYANMAR

AIT Research Theme: Technology, Policy and Society

AIT Unit: SERD-Gender and Development Studies

Duration: 31 Jan 2024 to 30 Nov 2024

Project Sponsor/Client: UN Women

Project Partner: Women and Gender Equality Network, Myanmar

Expected Social Impact: Sustainability of advocacy activities of human rights in Myanmar

Description:

The project is to enhance the collective efforts of Myanmar's WHRD networks and organizations to advocate for different stakeholders at the national and international levels.

SUPPORT FOR SOCIAL RESEARCH CAPACITY IN MYANMAR

AIT Research Theme: Technology, Policy and Society

AIT Unit: Gender and Development Studies, SERD

Duration: 15 Dec 2022 to 29 Sep 2025

Project Sponsor/Client: The SecDev Foundation

Project Partner: The SecDev Foundation

Expected Social Impact: Social research capacity in Myanmar will be strengthened.

Description:

This project will support coordinating the SecDevs project in building research capacity in Myanmar through funding small research projects led by Burmese researchers.

GOVERNANCE AND ANTI-CORRUPTION: THE METHOD AND TOOLS BEHIND AN EFFECTIVE CORRUPTION-ERADICATION STRATEGY (BATCH 1)

AIT Research Theme: Technology, Policy and Society
AIT Unit: AIT Extension
Duration: 27 Feb 2023 to 31 Jan 2025
Project Sponsor/Client: CIAA, Nepal

Description:

Enhance the skills and capabilities of the CIAA officers in practical approaches and methods to implement anti-corruption strategies to help create a well-disciplined and uncorrupted culture in the organizations.

GOVERNANCE AND ANTI-CORRUPTION: THE METHOD AND TOOLS BEHIND AN EFFECTIVE CORRUPTION-ERADICATION STRATEGY (BATCH 2)

AIT Research Theme: Technology, Policy and Society
AIT Unit: AIT Extension
Duration: 20 Mar 2023 to 29 Feb 2024
Project Sponsor/Client: CIAA, Nepal

Description:

Enhance the skills and capabilities of the CIAA officers in practical approaches and methods to implement anti-corruption strategies to help create a well-disciplined and uncorrupted culture in the organizations.

ADVANCED POLICY AND PRACTICES FOR ELECTION MANAGEMENT, 15 APRIL- 31 MAY 2024

AIT Research Theme: Technology, Policy and Society
AIT Unit: AIT Extension
Duration: 15 Apr 2024 to 11 Apr 2025
Project Sponsor/Client: The Election Commission of Bhutan (ECB)

Description:

Improved election management practices in Bhutan resulting in more transparent, fair, and credible elections in the Bhutanese electoral process; adoption of best practices and improved voter participation and increased confidence in the electoral system; Catalyze the adoption of digital solutions in Bhutan's election processes.

STRENGTHENING GLOBAL JUSTICE: A HIGH-LEVEL EXCHANGE ON COMBATING HUMAN TRAFFICKING, 17-23 SEPTEMBER 2024

AIT Research Theme: Technology, Policy and Society
AIT Unit: AIT Extension
Duration: 17 Sep 2024 to 16 Mar 2025
Project Sponsor/Client: K.J. Inter-Tech (Siam) Co., Ltd.
Description:

Enhanced legal framework; increased awareness and knowledge; improved human rights protection; strengthened international collaboration; and increased capacity building and public awareness.

ANTI-CORRUPTION: THE METHODS AND TOOLS BEHIND AN EFFECTIVE CORRUPTION-ERADICATION STRATEGY; 25 FEBRUARY - 5 MARCH 2025

AIT Research Theme: Infrastructure

AIT Unit: AIT Extension

Duration: 25 Feb 2025 to 01 Sep 2025

Project Sponsor/Client: CIAA, Nepal

Description:

Enhance the skills and capabilities of the CIAA officers in practical approaches and methods to implement anti-corruption strategies to help create a well-disciplined and uncorrupted culture in the organizations.

ANTI-CORRUPTION: THE METHODS AND TOOLS BEHIND AN EFFECTIVE CORRUPTION-ERADICATION STRATEGY; 25 FEBRUARY - 5 MARCH 2025

AIT Research Theme: Technology, Policy and Society

AIT Unit: AIT Extension

Duration: 01 Jan 2025 to 30 Jun 2026

Project Sponsor/Client: CIAA, Nepal

Description:

At the end of this training, participants will be able to increase the understanding of a proactive security attitude and the importance of situational awareness as well as related risk assessments and provide leaders with helpful tools and techniques needed to avoid or cope adequately with endangering or potentially dangerous situations.

News:

STRENGTHENING REGIONAL COOPERATION: AIT AND MRC SIGN MOU FOR SUSTAINABLE DEVELOPMENT OF THE MEKONG RIVER BASIN

Description:

A Memorandum of Understanding (MoU) has been signed between the Asian Institute of Technology (AIT) and the Mekong River Commission (MRC) Secretariat, Laos. This agreement aims to foster cooperation and coordinate efforts for the sustainable development of the Mekong River Basin. It focuses on shared interests and the effective use of resources for regional cooperation.

https://ait.ac.th/2024/03/strengthening-regional-cooperation-ait-and-mrc-sign-mou-for-sustainable-development-of-the-mekong-river-basin/

CITY OF MOSCOW OFFICIALS AND RUSSIAN EMBASSY VISIT TO EXPLORE PARTNERSHIPS IN TECH AND EDUCATION

Description:

On 27 March 2024, the Asian Institute of Technology hosted a senior-level delegation from the Government of Moscow for partnership discussions between Moscow's Department of External Economic and International Relations, Russian higher education institutions and AIT.

https://ait.ac.th/2024/03/city-of-moscow-officials-and-russian-embassy-visit-to-explore-partnerships-in-tech-and-education/

STRENGTHENING ACADEMIC AND COMMUNITY ENGAGEMENT: AIT AND SRU PARTNERSHIP

Description:

The Asian Institute of Technology (AIT) and Suratthani Rajabhat University (SRU) signed a Memorandum of Understanding (MoU) on 2 April 2024 to enrich education, research, and outreach activities between the two esteemed institutions.

https://ait.ac.th/2024/04/strengthening-academic-and-community-engagement-ait-and-sru-partnership/

AIT AND INTERNATIONAL COLLEGE OF BUSINESS AND TECHNOLOGY (ICBT), SRI LANKA SIGNED A MEMORANDUM OF UNDERSTANDING

Description:

Sampath Kannangara, Executive Director & CEO & Executive Dean of ICBT, signed the Memorandum of Understanding (MoU), which will enable cooperation between AIT and ICBT by developing collaboration in the Unified Bachelor's– Master's Degree Program, joint conferences, faculty development capacity building, short-term student mobility programs, training, and research activities.

https://ait.ac.th/2024/04/ait-and-international-college-of-business-and-technology-icbt-sri-lanka-signed-a-memorandum-of-understanding/

AIT AND UTCC ESTABLISH STRATEGIC PARTNERSHIP TO ADVANCE EDUCATION AND RESEARCH

Description:

The Asian Institute of Technology (AIT) and the University of the Thai Chamber of Commerce (UTCC) have recently formed a significant partnership. On April 22, 2024, a Memorandum of Understanding (MoU) was signed at the UTCC Campus in Bangkok, marking the commencement of a collaborative effort between the two esteemed institutions.

https://ait.ac.th/2024/04/ait-and-utcc-establish-strategic-partnership-to-advance-education-and-research/

AIT AND DAFFODIL INTERNATIONAL UNIVERSITY (DIU), BANGLADESH ESTABLISH NEW PARTNERSHIP FOR ACADEMIC EXCELLENCE AND SUSTAINABLE DEVELOPMENT

Description:

The Asian Institute of Technology (AIT) and Daffodil International University (DIU), Bangladesh, signed a Memorandum of Understanding (MoU) to enhance academic and cultural cooperation between the two institutions. The signing ceremony took place at AIT's campus, marking a commitment to mutual assistance and collaborative initiatives in teaching and research.

https://ait.ac.th/2024/04/ait-and-daffodil-international-university-diu-bangladesh-establish-new-partnership-for-academic-excellence-and-sustainable-development/

ADVANCING GLOBAL EDUCATIONAL ALLIANCES: AIT ENHANCES INTERNATIONAL COLLABORATIONS THROUGH KEY EDUCATIONAL EVENTS IN EUROPE

Description:

Sirima Sirimattayanan, Senior Program Officer at the Asian Institute of Technology (AIT)'s International Affairs Unit, Office of International and Public Affairs (OIPA) actively participated in two significant international events in Europe, fostering collaboration and sharing innovative practices in the realm of international education from April 15 to 22, 2024.

https://ait.ac.th/2024/04/advancing-global-educational-alliances-ait-enhances-international-collaborations-through-key-educational-events-in-europe/

STRENGTHENING NEPAL-AIT COLLABORATION: AMBASSADOR'S VISIT EMPHASIZES PROSPECTS FOR ENHANCED PARTNERSHIP

Description:

His Excellency Dhan Bahadur Oli, Ambassador of Nepal to Thailand and member of the AIT Board of Trustees, met with Kazuo Yamamoto, President of the Asian Institute of Technology (AIT), and other officials on 30 April 2024. The visit focused on enhancing the already robust ties between Nepal and AIT and exploring prospects for further cooperation and collaboration.

https://ait.ac.th/2024/04/strengthening-nepal-ait-collaboration-ambassadors-visit-emphasizes-prospects-for-enhanced-partnership/

AIT STRENGTHENS EDUCATIONAL AND DEVELOPMENTAL TIES DURING PRESIDENT'S OFFICIAL VISIT TO BHUTAN

Description:

AIT President Kazuo Yamamoto undertook an official visit to Bhutan from 22 May to 25 May 2024 with the aim of enhancing existing partnerships and exploring potential collaborations with key government, academic, and private entities. Accompanying him were Sanjeev Jayasinghe, Executive Director of the Office of Advancement & Alumni Affairs; Voravate Chonlasin, Executive Director of AIT Extension; and Sumana Shrestha, Director of International Affairs of the Office of International and Public Affairs.

https://ait.ac.th/2024/05/ait-strengthens-educational-and-developmental-ties-during-presidents-official-visit-to-bhutan/

AIT AND CHITKARA UNIVERSITY SIGN MOU FOR ACADEMIC AND RESEARCH COLLABORATION

Description:

AIT and Chitkara University signed an MoU to collaborate on academic and research initiatives. The partnership aims to enhance learning opportunities through joint degrees, training programs, and research projects.

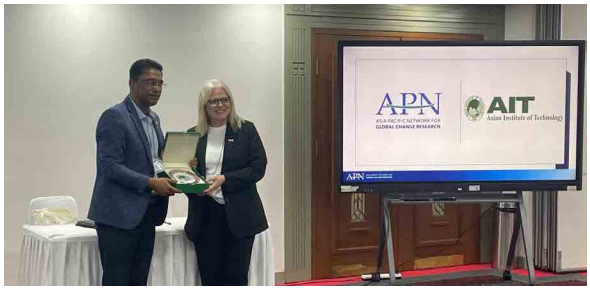
https://ait.ac.th/2024/06/ait-and-chitkara-university-sign-mou-for-academic-and-research-collaboration/

AIT AND APN ESTABLISH PARTNERSHIP TO ADDRESS GLOBAL CHALLENGES THROUGH NEW MOU

Description:

On June 13, 2024, AIT signed a Memorandum of Understanding with the Asia-Pacific Network for Global Change Research (APN) in Jakarta, Indonesia. This partnership aims to address global challenges through joint initiatives, including workshops and policy-relevant research, enhancing capacity development and collaboration in the Asia-Pacific region.

https://ait.ac.th/2024/06/ait-and-apn-establish-partnership-to-address-global-challenges-through-new-mou/



AIT SIGNS MOU WITH WRC, SOUTH AFRICA

Description:

AIT signed a Memorandum of Understanding with the Water Research Commission (WRC) of South Africa on June 26, 2024. This partnership aims to enhance cooperation in research, development, and capacity building related to water and sanitation, aligning with Sustainable Development Goal 6.

https://ait.ac.th/2024/06/ait-signs-mou-with-wrc-south-africa/

NEW ACADEMIC COLLABORATION ESTABLISHED BETWEEN AIT AND IIM SHILLONG WITH MOU SIGNING

Description:

AIT and IIM Shillong signed an MoU on June 12, 2024, to promote academic and research collaboration. The agreement includes joint degree programs, faculty exchanges, and research initiatives, enhancing educational opportunities for students from both institutions.

https://ait.ac.th/2024/06/new-academic-collaboration-established-between-ait-and-iim-shillong-with-mou-signing/

AIT AND HARBIN INSTITUTE OF TECHNOLOGY, CHINA COLLABORATE ON ACADEMIC AND RESEARCH INITIATIVES

Description:

AIT and Harbin Institute of Technology signed an MoU on July 5, 2024, to enhance collaboration in research, dual master's degree programs, and student exchanges, focusing on environmental engineering and sustainability.

https://ait.ac.th/2024/07/ait-and-harbin-institute-of-technology-china-collaborate-on-academic-and-research-initiatives/

JAPAN STRENGTHENS TIES WITH AIT: HIGH-LEVEL DELEGATION VISIT HIGHLIGHTS STRONG SUPPORT

Description:

AIT welcomed a delegation led by H.E. Artur Dmochowski, the Polish Ambassador, on July 9, 2024. The visit aimed to strengthen educational and technological collaboration, discussing partnerships and support from Japan for AIT's initiatives.

https://ait.ac.th/2024/07/japan-strengthens-ties-with-ait-high-level-delegation-visit-highlights-strong-support/

H.E. ARTUR DMOCHOWSKI, THE AMBASSADOR OF THE REPUBLIC OF POLAND TO THAILAND, CAMBODIA AND LAO PDR, AND MONIKA DMOCHOWSKA VISIT AIT

Description:

The Polish Ambassador and Monika Dmochowska visited AIT on July 10, 2024, to discuss strengthening academic ties and explore collaborative opportunities in research and education.

https://ait.ac.th/2024/07/h-e-mr-artur-dmochowski-the-ambassador-of-the-republic-of-poland-to-thailand-cambodia-and-lao-pdr-and-dr-monika-dmochowska-visit-ait/

AIT AND THE UNIVERSITY OF TEXAS AT ARLINGTON FORGE STRATEGIC PARTNERSHIP FOR GLOBAL LEARNING

Description:

AIT signed an MoU with the University of Texas at Arlington on July 2, 2024, to promote academic exchanges and dual degree programs, enhancing educational opportunities for students across continents.

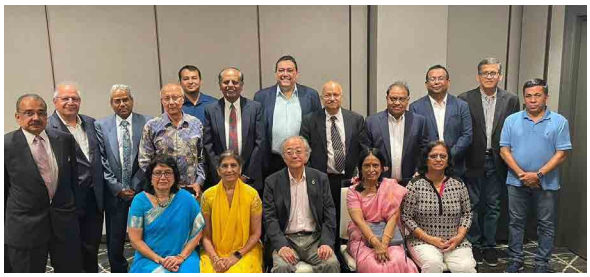
https://ait.ac.th/2024/07/ait-and-the-university-of-texas-at-arlington-forge-strategic-partnership-for-global-learning/

AIT STRENGTHENS BONDS WITH ALUMNI RESIDING IN THE USA THROUGH ALUMNI GATHERINGS

Description:

AIT organized alumni gatherings in New Jersey and Texas to reconnect with alumni and discuss support for campus life initiatives. The events facilitated discussions on collaboration and resource allocation for student well-being.

https://ait.ac.th/2024/07/ait-strengthens-bonds-with-alumni-residing-in-the-usa-through-alumni-gatherings/



PROJECT INCEPTION WORKSHOP SUCCESSFULLY COMPLETED IN PHNOM PENH, CAMBODIA

Description:

AIT, in collaboration with SEI and Cambodian authorities, successfully organized a workshop to develop a groundwater management framework.

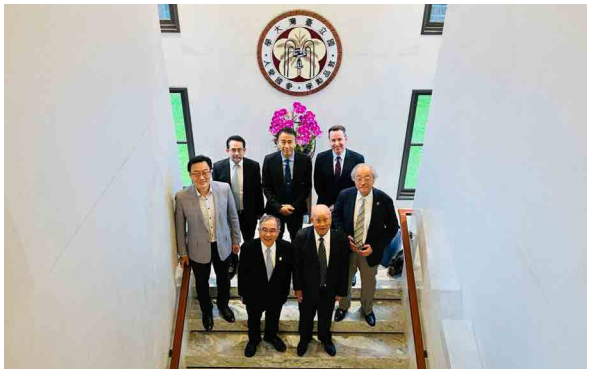
https://ait.ac.th/2024/07/project-inception-workshop-successfully-completed-in-phnom-penh-cambodia/

AIT CHAIRMAN'S MISSION TO TAIWAN HIGHLIGHTS STRENGTHENED PARTNERSHIPS AND FUTURE COLLABORATIONS

Description:

AIT Chairman Anat Arbhabhirama led a mission to Taiwan from July 30 to August 1, 2024, to strengthen partnerships with key institutions. Meetings included discussions with National Taiwan University to explore joint academic programs and collaborations with engineering firms like Sinotech and MDX. The mission emphasized AIT's commitment to international cooperation and industry-academia collaboration, laying the groundwork for future educational initiatives and partnerships.

https://ait.ac.th/2024/08/ait-chairmans-mission-to-taiwan-highlights-strengthened-partnerships-and-future-collaborations/



UZBEKISTAN CONSUL GENERAL VISITS AIT: EXPLORES NEW AVENUES OF ACADEMIC AND TECHNOLOGICAL COLLABORATION

Description:

On August 23, 2024, H.E. Fakhriddin Sultanov, the Consul General of Uzbekistan, visited AIT to discuss potential academic and technological collaborations. The meeting with AIT President Kazuo Yamamoto focused on establishing an AIT center in Uzbekistan to address regional challenges through innovation and education. Both parties explored opportunities for unified degree programs and short-term exchanges and emphasized collaboration in areas such as water management and renewable energy. This visit underscores the commitment to strengthening ties for mutual growth and sustainable development.

https://ait.ac.th/2024/08/uzbekistan-consul-general-visits-ait-explores-new-avenues-of-academic-and-technological-collaboration/

BRRC TAKES PROACTIVE STEPS TO FOSTER COLLABORATION IN SOUTHERN CHINA

Description:

From September 9 to 14, 2024, AIT's Belt and Road Research Center (BRRC) conducted a promotional trip to Guangxi and Yunnan provinces in China to enhance educational collaboration and forge strategic partnerships. The delegation engaged with universities, research institutions, and NGOs, exploring opportunities in postgraduate education and capacity building. Key visits included the Guangxi Institute of Industrial Technology and Yunnan Agricultural University, where they co-organized a "Belt and Road" Science Salon on Green Energy. This initiative positions BRRC as a regional hub for innovation and sustainability, aiming to drive technological and economic development within the China-ASEAN cooperation framework.

https://ait.ac.th/2024/10/brrc-takes-proactive-steps-to-foster-collaboration-in-southern-china/

AIT, GL SCIENCES INC., AND IDEA CONSULTANTS UNITE TO ENHANCE RESEARCH COLLABORATION THROUGH NEW MOA

Description:

On October 30, 2024, AIT, GL Sciences Inc. (GLS), and IDEA Consultants Inc. signed a Memorandum of Agreement (MoA) to enhance research collaboration. This partnership will utilize the IDEA EEM Laboratory and the IDEA R&D Center at AIT, focusing on joint research initiatives. GLS will provide essential laboratory consumables, while AIT will cover operational costs and facilitate research services. The collaboration aims to strengthen research capabilities through resource sharing and coordinated efforts among the institutions, with key signatories including AIT President Pai-Chi Li and GLS President Yoshihiro Nagami.

https://ait.ac.th/2024/10/ait-gl-sciences-inc-and-idea-consultants-unite-to-enhance-research-collaboration-through-new-moa/

AIT PRESIDENT PAI-CHI LI GRANTED ROYAL AUDIENCE WITH HRH PRINCESS MAHA CHAKRI SIRINDHORN

Description:

On 28 October 2024, AIT President Pai-Chi Li had the honor of a Royal Audience with Her Royal Highness Princess Maha Chakri Sirindhorn at Sa Pathum Palace. The occasion marked Li's appointment as AIT President, which he assumed on 1 September 2024.

https://ait.ac.th/2024/11/ait-president-professor-pai-chi-li-granted-royal-audience-with-hrh-princess-maha-chakri-sirindhorn/

MIT SLOAN SCHOOL OF MANAGEMENT VISITS AIT TO EXPLORE COLLABORATIVE OPPORTUNITIES IN SUSTAINABLE DEVELOPMENT

Description:

The Asian Institute of Technology (AIT) welcomed a distinguished delegation from the MIT Sloan School of Management on 28 October 2024 as part of its ongoing effort to foster collaboration in addressing pressing sustainability issues across Thailand and the ASEAN region.

https://ait.ac.th/2024/11/mit-sloan-school-of-management-professors-visit-ait-to-explore-collaborative-opportunities-in-sustainable-development/

AIT PRESIDENT PAI-CHI LI PAYS A COURTESY VISIT TO VIKROM KROMADIT, CHAIRMAN OF THE BOARD OF DIRECTORS AND ACTING CHIEF EXECUTIVE OFFICER, AMATA CORPORATIONS PCL

Description:

AIT President Pai-Chi Li met with Vikrom Kromadit, Chairman of the Board of Directors and Acting Chief Executive Officer of Amata Corporations PCL, to explore potential collaborative initiatives that align industry with academic excellence. Also present at the meeting was Yeap Swee Chuan, President and CEO of AAPICO Hitech PLC, whose company will be providing full scholarships to students enrolled in AIT's master's degree programs from the January 2025 semester onward.

https://ait.ac.th/2024/11/ait-president-prof-pai-chi-li-pays-a-courtesy-visit-to-mr-vikrom-kromadit-chairman-of-the-board-of-directors-and-acting-chief-executive-officer-amata-corporations-pcl/

AIT DELEGATION VISITS HOHAI UNIVERSITY TO STRENGTHEN COLLABORATION ON LANCANG-MEKONG RESEARCH

Description:

Invited by the National Research Center on Lancang-Mekong Area Studies of Hohai University, a delegation from the Asian Institute of Technology conducted a faculty and staff exchange at Hohai University in Nanjing, China, from November 12 to 15, 2024.

https://ait.ac.th/2024/11/ait-delegation-visits-hohai-university-to-strengthen-collaboration-on-lancang-mekong-research/

HER ROYAL HIGHNESS MAHA CHAKRI SIRINDHORN VISITS AIT BOOTH AT CRMA EXHIBITION

Description:

Her Royal Highness Maha Chakri Sirindhorn visited the Asian Institute of Technology's (AIT) booth at the Royal Military Academy Exhibition held at Chulachomklao Royal Military Academy (CRMA) on November 19, 2024. During her visit, she bestowed a token of appreciation to AIT, which was received by the AIT president Pai-Chi Li for the institute's participation in the event and its efforts in showcasing impactful research projects.

https://ait.ac.th/2024/11/her-royal-highness-maha-chakri-sirindhorn-visits-ait-booth-at-crma-exhibition/

53RD AITAA GOVERNING BOARD MEETING (GBM) IN VIENTIANE, LAO PDR

Description:

The AITAA Lao Chapter hosted the 53rd Asian Institute of Technology Alumni Association Governing Board Meeting (AITAA-GBM) held at the Soutsaka Institute of Technology in Vientiane, Lao PDR. This event brought together 54 official delegates and 26 observers from 20 chapters worldwide. The theme for this year's meeting is "Enhancing Connectivity and Strengthening Partnerships," focusing on fostering collaborations among AIT alumni, institutions, and industries to drive innovation and sustainable growth.

https://ait.ac.th/2024/11/53rd-aitaa-governing-board-meeting-gbm-in-vientiane-lao-pdr/

STRENGTHENING COLLABORATION BETWEEN AIT AND FIRST NURTURE INTERNATIONAL SDN BHD (FNI), MALAYSIA

Description:

The Asian Institute of Technology (AIT) welcomed a delegation from First Nurture International SDN BHD (FNI), Malaysia, to deepen their ongoing collaboration in developing impactful programs, particularly in the areas of Environmental, Social, and Governance (ESG) and Artificial Intelligence (AI). This engagement builds on over two years of productive partnership, with a focus on advancing regional cooperation and knowledge-sharing.

https://ait.ac.th/2024/12/strengthening-collaboration-between-ait-and-first-nurture-international-sdn-bhd-fni-malaysia/

MOU SIGNED BETWEEN AIT AND UNIVERSITY OF MARYLAND, BALTIMORE COUNTY, USA

Description:

A Memorandum of Understanding (MoU) was signed between the Asian Institute of Technology (AIT) and the University of Maryland, Baltimore County (UMBC), USA, to enhance academic and research collaboration. The MoU was signed by AIT President Pai-Chi Li and UMBC Provost & Senior Vice President Manfred H.M. van Dulmen.

https://ait.ac.th/2024/12/mou-signed-between-ait-and-university-of-maryland-baltimore-county-usa/

STRENGTHENING BILATERAL COLLABORATION: MINISTER LE MINH HOAN OF THE SOCIALIST REPUBLIC OF VIETNAM VISITS AIT

Description:

In a landmark visit, His Excellency Le Minh Hoan, Minister of Agriculture and Rural Development of the Socialist Republic of Vietnam, led a high-profile delegation from both the Ministry and various provinces to the Asian Institute of Technology (AIT) on February 23, 2024. The visit, marked by vibrant discussions and strategic exchanges, aimed to foster collaborative efforts between Vietnam and AIT, particularly in advancing agricultural and rural development initiatives.

https://ait.ac.th/2024/02/strengthening-bilateral-collaboration-minister-le-minh-hoan-of-the-socialist-republic-of-vietnam-visits-ait/

AIT AND IITGN, INDIA FORM STRATEGIC PARTNERSHIP

Description:

The Asian Institute of Technology (AIT) and the Indian Institute of Technology Gandhinagar (IITGN) formalized a Memorandum of Understanding (MoU) and a Memorandum of Agreement (MOA) on 8 January 2024. This partnership aims to strengthen ties between the two esteemed institutions, facilitating joint endeavors in academic, research, and faculty development domains.

https://ait.ac.th/2024/01/ait-and-iitgn-india-form-strategic-partnership/

AIT INKS NEW STRATEGIC PARTNERSHIP WITH BEIJING UNIVERSITY OF POSTS AND TELECOMMUNICATIONS

Description:

A new partnership with China's Beijing University of Posts and Telecommunications is expected to yield a range of high-end collaborations for AIT in the areas of information and communications engineering, computer science and data science and artificial intelligence.

https://ait.ac.th/2024/03/ait-inks-new-strategic-partnership-with-beijing-university-of-posts-and-telecommunications/

AIT SIGNS MOU WITH UNIVERSITY OF SAINT JOSEPH IN MACAO, VISITS TO BOOST INTERNATIONAL COOPERATION IN THE GBA

Description:

A delegation from the Asian Institute of Technology, led by President Kazuo Yamamoto, visited the University of Saint Joseph in Macao (SAR) on 14 March 2024 to establish a new partnership in the Greater Bay Area of China. The Memorandum of Understanding signed between AIT and USJ will lead to academic and research cooperation and facilitate internationalization and exchanges for USJ and AIT in Southeast Asia, the Greater Bay Area (GBA) of China, and promising emerging markets, officials of both partners said.

https://ait.ac.th/2024/03/ait-signs-mou-with-university-of-saint-joseph-in-macao-visits-to-boost-international-cooperation-in-the-gba/

Projects:

STRENGTHENING COLLABORATION NETWORK BETWEEN THAILAND AND CHINA IN THE FIELD OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

AIT Research Theme: Climate change • Food-Energy-Water

AIT Unit: AIT Belt and Road Center

Duration: 01 Aug 2022 to 30 Jun 2024

Project Sponsor/Client: National Research Council of Thailand

Project Partner: National Research Council of Thailand Digital Belt and Road International Center of Excellence-Bangkok Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences International Research Center of Big Data for Sustainable Development Goals etc.

Expected Social Impact:

- Improve the public awareness on environmental protection and Sustainable Development Goals
- Strengthen the regional and international collaboration between Thailand and China on environment and SDGs

Description:

This project aims to reconnect and strengthen the robust research networks and collaboration between Thailand and China in the field of environment and sustainable development after the COVID-19 pandemic and seek opportunities for joint research between the two countries in the near future. To fulfill the goal of this project, four seminars will be jointly organized by collaborators and partners from Thailand and China, focusing on "SDG 6 Water and Sanitation," "Sustainable Watershed Management," "Big Earth Data for SDGs," and "SDG 13 Climate Action."

CONSTRUCTION CONTRACT MANAGEMENT IN PRACTICE & STANDARD TURNKEY/EPC CONTRACTS FROM 28 OCTOBER TO 28 NOVEMBER, 2023

AIT Research Theme: Infrastructure

AIT Unit: AIT Extension

Duration: 31 Oct 2023 to 30 Jun 2024

Project Partner: Consultant

Description:

Job site efficiency, leading to reduced project delays and cost overruns, ultimately benefiting both construction companies and local communities through timely and cost-effective infrastructure development.

STOCKTAKING AND METHODOLOGICAL ASSESSMENT OF EMISSIONS INVENTORIES AND SOURCE APPORTIONMENT OF AIR POLLUTION IN SOUTHEAST ASIA

AIT Research Theme: Technology, Policy and Society

AIT Unit: Regional Resource Center for Asia and the Pacific

Duration: 31 Oct 2023 to 30 Jun 2024

Project Sponsor/Client: UNEP

Expected Social Impact: Awareness on air pollution and country level policy formulation for air pollution reduction

Description:

Emissions inventories and source apportionment of air pollution are fundamental elements of an air quality management framework. They enable policymakers, government regulators, and experts to better understand the sources of air pollution and their contribution to ambient air quality and identify appropriate policies. Many emissions inventory and source apportionment studies have been conducted in the EANET region. This project aims to collate and analyze relevant key studies based on research and consultations with EANET National Focal Points and make these studies available as a database on the EANET website. The project will also identify follow-up opportunities and projects to work on emissions inventories and source apportionment in the region.

STRATEGIC CUSTOMIZED PROGRAMS LIAISON: AIT-GBA (BATCH I)

AIT Research Theme: Climate change

AIT Unit: Office of International and Public Affairs

Duration: 31 Oct 2023 to 30 Jun 2024

Project Sponsor/Client: Georgia Tech Shenzhen Institute, China

Expected Social Impact: Bringing together young leaders from China, Thailand, and countries in Asia, this camp aims to foster collaboration and inspire participants to make a positive impact on their communities.

Description:

This camp is designed to provide young leaders with an opportunity to learn about the latest research and technologies in environmental science and sustainable development. It is also designed to encourage them to think creatively and come up with innovative solutions to some of the world's most pressing challenges.

By bringing together young leaders from China, Thailand, and countries in Asia, this camp aims to foster collaboration and inspire participants to make a positive impact on their communities.

STRENGTHENING SDG MONITORING AND REPORTING IN THAILAND THROUGH EARTH OBSERVATION AND REGIONAL PARTNERSHIPS

AIT Research Theme: Technology, Policy and Society

AIT Unit: Office of International and Public Affairs

Duration: 08 May 2024 to 07 May 2025

Project Sponsor/Client: NRCT

Project Partners: Mahidol University Digital Belt and Road ICoE - Bangkok (DBAR ICoE - Bangkok) International Research Center of Big Data for Sustainable Development Goals (CBAS) China-ASEAN Big Earth Data Platform and Applications (CARIC) National Research Council of Thailand (NRCT)

Expected Social Impact: The outcomes of this project will support the government and policymakers in proper evaluation of SDG progress at a provincial scale in Thailand.

Description:

This project proposal addresses critical challenges in the assessment of Sustainable Development Goals (SDGs) in Thailand, aligning with the 2030 Agenda for Sustainable Development set by the United Nations. Collaborating with the Digital Belt and Road Program, the DBAR International Center of Excellence in Bangkok aims to enhance the utilization of Earth observation data for a more comprehensive evaluation of SDG progress. Based on previous research efforts, a few challenges have been identified in current SDG progress evaluation and reporting in Thailand and the Southeast Asian region. These challenges include the need for quantitative assessments using various data and information sources, localized monitoring and reporting of SDG progress, simplification of SDG evaluation indicators, and lack of a holistic evaluation framework, etc. In expansion of previous initiatives, this project proposes to conduct a nationwide assessment of SDG progress across all provinces and covering multiple dimensions of SDG indicators. Objectives of this project include further consolidating the function of DBAR ICoE-Bangkok through strategic development planning, identifying data and knowledge gaps, strengthening regional networks, building capacity, and conducting sub-projects focused on integrated assessment of SDG progress at the provincial level in Thailand. The research methodology encompasses data screening, stakeholder/expert consultation, data gap filling through technical collaboration, spatial and temporal analysis, and development of an acceptable integrated assessment framework. Potential outputs include enhanced regional impact of the DBAR partnership, advanced capacity of SDG monitoring, assessment, and reporting in Thailand and the SEA region utilizing big earth data, and informed policy decisions for resource-efficient and inclusive SDG implementation in the region.

INDUSTRY-ACADEMIA INTERNATIONAL BUSINESS INCUBATION CONCLAVE 2024

AIT Research Theme: Climate change, Infrastructure, Technology, Policy and Society

AIT Unit: Sponsored and Contracted Project

Duration: 15 Jul 2024 to 30 Jun 2025

Project Sponsor/Client: AIT and other partners

Project Partners: Private and Public sector partners

Expected Social Impact: : The event would be the perfect platform for researchers and entrepreneurs from the region to showcase their project ideas and create opportunities for start-ups and collaboration with entities from South and Southeast Asia.

Description:

The event aims to be a platform that would bring AIT's strategic partners from both the private and public sectors together and have thought-provoking discussions and provide opportunities for new startups and entrepreneurs to establish their businesses at the AIT Science and Technology Park.

CORPORATE GOVERNANCE, 27 TO 30 NOVEMBER 2024

AIT Research Theme: Smart communities, Technology, Policy and Society

AIT Unit: AIT Extension

Duration: 15 Jul 2024 to 30 Jun 2025

Project Sponsor/Client: Asian Development Bank

Description:

The program enhances participants' understanding of governance frameworks, risk management, and decision-making processes by combining expert-led sessions with study visits to key public and private sector institutions in Thailand. It also equips them with the practical skills to apply this knowledge in their roles.

GLOBAL EXPERIENCE & ENGAGEMENT PROGRAM FOR MEGHALAYA-ADC MEMBERS

AIT Research Theme: Smart communities

AIT Unit: School of Management

Duration: 19 Nov 2024 to 30 Mar 2025

Project Sponsor/Client: IIM Shillong

Expected Social Impact: This global immersion program enables ADC to experience diverse cultures, enhancing empathy, understanding, and appreciation for sustainability in action, with a focus on circular economy and social enterprise success in India and Thailand. It broadens perspectives on sustainability, inspiring positive contributions to local communities and addressing social, economic, and environmental challenges for sustainable development.

Description:

Global Experience & Engagement Program for Meghalaya-ADC Members in collaboration with AIT-School of Management, Bangkok & IIM Shillong, India.

FUTURE H2O-B INC

AIT Research Theme: Food-Energy-Water

AIT Unit: Water Engineering and Management

Duration: 01 Mar 2024 to 31 Aug 2024

Project Sponsor/Client: Future H2O-B Inc

Description:

AIT and FH2O-B desire to exercise their best efforts to promote the following activities and forms of cooperation, which may be formally developed by means of a separate legally binding agreement(s) between the parties that detail the scientific and financial responsibilities of each party.

THE 14TH ASIAN CO-BENEFITS PARTNERSHIP ADVISORY GROUP MEETING, VIRTUAL MEETING

Duration: 19 Jan 2024

Expected Social Impact: The ASEAN Co-benefits Partnership's (ACP) social impact revolves around creating a more sustainable, equitable, and resilient Asia by fostering collaboration and knowledge sharing that leads to development practices that benefit both people and the environment.

Description:

The Asian Co-benefits Partnership (ACP) held its 14th Advisory Group Meeting virtually on 19th January 2024. R. L. Verma, representing the AIT RRC.AP and head of its Air Pollution Cluster, participated in the meeting. Verma provided an overview of AIT RRC.AP's work across its three clusters: Air Pollution, Climate Change, and Waste and Resources Management. He highlighted how its activities promote co-benefits in various ways, including

- **Air Pollution:** Supporting regional cooperation in South Asia to develop science-based policies for tackling air pollution issues.
- **Climate Change:** Promoting nature-based solutions for adaptation across Asia, along with offering free, user-friendly climate data tailored for Southeast Asian policymakers.
- **Capacity Building:** Organizing workshops to enhance air quality management skills in Asian countries.

Additionally, they provide tools and resources for climate change adaptation planning and disaster risk reduction while raising awareness through webinars that empower cities and local governments.

- **Partnerships and Resources:** Strengthening regional cooperation in South Asia on environmental issues, developing Green Climate Fund projects for climate adaptation in various countries, and mobilizing financial resources for implementing solutions related to air pollution, climate change adaptation, urban resilience, and disaster risk reduction.

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-13.aspx

https://cobenefit.org/

EANET PROJECT MEETING, EMISSIONS INVENTORIES AND SOURCE APPORTIONMENT OF AIR POLLUTION IN SOUTHEAST ASIA, BANGKOK

Duration: 29 May 2024

Expected Social Impact: This meeting aims to improve air quality and public health in Southeast Asia by enhancing emission inventory accuracy through collaboration and knowledge sharing. This will lead to better air pollution policies, strengthened environmental governance, and data-driven decision-making, ultimately creating a healthier and more sustainable region.

Description:

The Secretariat for the Acid Deposition Monitoring Network in East Asia (EANET), in partnership with the Regional Resource Centre for Asian and the Pacific at Asian Institute of Technology – (AIT RRC.AP), organised the project meeting on "Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia" on 29 May 2024 at UNCC, Bangkok, Thailand (hybrid mode).

The objective of the meeting was to share the updates on emission inventories (EI) and source apportionment (SA) studies in Southeast Asia including the analytical framework for meta-analysis and assessment of EI-related regulations in Southeast Asian countries. The meeting also aimed to discuss challenges in data collection and harmonizing EI and SA methodologies. A total of 28 participants representing the EANET participating countries, EANET network center, UNEP, international organizations, NGOs, AIT RRC.AP, and academic institutions participated in the meeting. The proceedings of the meeting focused on sharing the assessment of institutional capabilities for air pollution EI development and SA studies in Southeast Asian countries, progress on EI data collection and meta-analysis framework including discussion on challenges in harmonizing EI and SA methodology and data collection and ways of overcoming the challenges. The meeting suggested avoiding duplication of work and the need for capacity building and collaboration with academic institutions, and the ways to promote the involvement of the government.

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-02.aspx

AIT RRCAP AT THE 25TH ASEAN PARTNERS COORDINATION MEETING ON COASTAL AND MARINE ENVIRONMENT (AWGCME), VIENTIANE, LAO PDR

Duration: 26 Jun 2024

Expected Social Impact: The AIT RRC.AP presented their work on preventing marine plastic pollution to ASEAN, highlighting foundational reports and guidelines from Phase 1. Phase 2, the CaRMPAC Project, will build on these findings by training government officials and the informal recycling sector to reduce plastic leakage, aiming for better waste management, protected marine life, and a healthier environment across ASEAN.

Description:

Upon the invitation of the ASEAN Working Group on Coastal and Marine Environment (AWGCME), the Regional Resource Centre for Asia and the Pacific at the Asian Institute of Technology (AIT RRC.AP) participated in a regional meeting to present ongoing projects aimed at preventing plastic pollution in the marine environment on 26 June at Vientiane, Lao PDR. Representing the Centre, Solomon Huno, Senior Programme Officer of the Waste and Resource Management Cluster, shared significant insights from the Phase 1 project on the Development and Dissemination of Technical Guidelines for Preventing Plastics and Resin Pellets Leakage from Formal and Informal Recycling Factories. He emphasized that the situation assessment

reports and technical guideline documents developed during this phase will serve as foundational materials for capacity building and knowledge sharing in Phase 2 of the project.

The Phase 2 initiative, titled "Capacity Building Programme for Reducing Recycling-Related Plastic Leakage to Marine Environment" (the CaRMPAC Project), aims to build on the outcomes of Phase 1 by addressing gaps and enhancing the capacities of national and local government officials. The project also targets the informal recycling sector, aiming to raise awareness and capacity to prevent plastic leakage.

https://www.rrcap.ait.ac.th/news/Pages/vol25no2-06.aspx

THE AIT RRC.AP PARTICIPATED IN ASEAN CONFERENCE ON COMBATTING PLASTIC POLLUTION 2024, VIENTIANE, LAO PDR

Duration: 28-29 Oct 2024

Expected Social Impact: The ASEAN Conference on Combatting Plastic Pollution 2024 addressed the critical issue of plastic waste in the region, with a significant focus on the social impact of behavioral change. AIT RRC moderated the session. AP underscored that altering mindsets and social norms to reduce single-use plastic consumption is crucial for a sustainable solution, going beyond the limitations of recycling alone. This emphasis on individual and community action aims to foster a more responsible relationship with plastic, leading to cleaner environments, healthier ecosystems, and a more sustainable future for ASEAN communities.

Description:

The ASEAN Conference on Combatting Plastic Pollution 2024 took place on October 28-29, 2024. This pivotal event brought together environmental experts, policymakers, and industry leaders under the theme "Action, Innovation, and Partnership to Phase Out Plastic Pollution." The conference aimed to encourage collaborative efforts to address the plastic pollution crisis, a significant challenge in the ASEAN region.

One of the standout sessions was "Session 5: Behavioral Change to Reduce Single-Use Plastics in ASEAN," held on October 29. Moderated by Bishal Bhari, Program Officer at the Regional Resource Centre for Asia and the Pacific (AIT RRC.AP), this session focused on the critical role of behavioral change in addressing single-use plastic (SUP) consumption across ASEAN communities.

Bhari set the stage with a compelling introduction, noting that 40% of all plastic produced worldwide is designated for single-use items. Looking ahead, he warned that plastic production is projected to double within the next few decades, which would require a corresponding expansion of recycling facilities if business-as-usual (BAU) consumption patterns continue. However, Bhari emphasized that relying solely on recycling may not be enough to address the growing plastic problem. Instead, he argued, changing mindsets and social norms associated with plastic use is essential, as behavior change could significantly reduce SUP consumption and offer a more sustainable solution.

https://www.rrcap.ait.ac.th/news/Pages/vol25no4-01.aspx

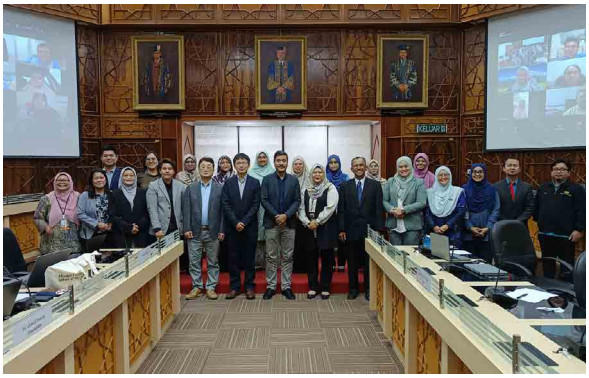
UNDERSTANDING AIR POLLUTION AND ITS SOURCES, WEATHER, CLIMATE, AND TOPOGRAPHY IN MALAYSIA: EANET NATIONAL STAKEHOLDER AWARENESS WORKSHOP IN MALAYSIA, KUALA LUMPUR

Duration: 26 Nov 2024

Expected Social Impact: AIT RRC.AP's involvement in Malaysia's EANET air pollution workshop fostered understanding and collaboration among academics, officials, and experts. This knowledge exchange aims to inform better air quality policies in Malaysia, benefiting public health and the environment, while also strengthening regional cooperation on transboundary air pollution within East Asia.

Description:

AIT RRC.AP played an active role in the "Understanding Air Pollution and its Sources, Weather, Climate, and Topography in Malaysia: EANET National Stakeholder



Awareness Workshop in Malaysia." This workshop was a collaborative effort between the Secretariat for the Acid Deposition Monitoring Network in East Asia (EANET) and Universiti Kebangsaan Malaysia (UKM), with the support of the Malaysian Ministry of Natural Resources and Environmental Sustainability. Held at Universiti Kebangsaan Malaysia, Bangi, Kuala Lumpur, on November 26, 2024, the workshop adhered to the EANET Work Programme and Budget 2024, as well as the EANET Rules of Procedure.

A total of 65 individuals participated in the workshop, with 25 attending in person and 40 joining online. Participants included faculty members from UKM and the University of Sultan Azlan Shah, Perak, along with officials from the Department of Environment Malaysia, the Malaysian Meteorological Department, the EANET Secretariat, the EANET Network Center, and AIT RRC. AP.

https://www.rrcap.ait.ac.th/news/Pages/vol25no4-06.aspx

STOCKTAKING AND METHODOLOGICAL ASSESSMENT OF EMISSIONS INVENTORIES AND SOURCE APPORTIONMENT OF AIR POLLUTION IN SOUTHEAST ASIA, BANGKOK (HYBRID MEETING)

Duration: 26 Mar 2024

Expected Social Impact: The potential social impacts of this meeting on air pollution in Southeast Asia aimed to improve public health by informing pollution-reducing policies, enhance environmental protection through better monitoring, and strengthen regional collaboration for effective air quality management.

Description:

The Asian Institute of Technology, Regional Resource Centre for Asia and the Pacific (AIT RRC.AP), in partnership with the Secretariat for the Acid Deposition Monitoring Network in East Asia (EANET), organised the meeting **"Stocktaking and Methodological Assessment of Emissions Inventories and Source Apportionment of Air Pollution in Southeast Asia"** on 26 March 2024 at the United Nations Conference Center (UNCC), Bangkok, Thailand. The objective of the meeting was to better understand the emissions inventories and source apportionment situation in the countries of Southeast Asia and discuss with project partners and experts the framework for metadata analysis

and project ideas pertaining to emission inventories and source apportionment studies in the region. Based on the outcome of the meeting, a regional project to develop emission inventories for air pollution in Southeast Asia will be drafted. A total of 28 participants (22 onsite and 6 online) participated in the meeting. Out of 28 participants, 16 were male and 12 were female.

https://www.rrcap.ait.ac.th/news/Pages/vol25no1-03.aspx

SUSTAINABLE DEVELOPMENT GOALS DASHBOARD

SCHOOL	DEPARTMENT	PROGRAM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Website
School of Environment, Resources, and Development	Department of Development and Sustainability	Development and Sustainability	■	■		■	■	■	■			■	■	■	■	■	■	■	■	Development and Sustainabilty
		Development Planning Management and Innovation	■	■		■	■					■	■	■	■			■	■	Development Planning Management and Innovation
		Gender and Development Studies	■	■		■	■					■			■			■	■	Gender and Development Studies
		Natural Resources Management	■	■				■	■				■	■	■	■	■		■	Natural Resources Management
		Society and Environmental Governance	■	■								■	■	■		■	■	■	■	Regional and Rural Development Planning
		Urban Innovation & Sustainability	■			■		■	■				■	■	■				■	Urban Environmental Management
	Department of Energy, Environment, and Climate Change	Climate Change and Sustainable Development													■					Climate Change and Sustainable Development
		Environmental Engineering and Management						■						■			■		■	Environmental Engineering and Management
		Marine Plastic Abatement											■	■	■	■	■		■	Marine Plastic Abatement
		Regenerative Sanitation						■							■	■	■		■	Regenerative Sanitation
		Sustainable Energy Transition							■						■		■		■	Sustainable Energy Transition
	Department of Food, Agriculture, and BioResources	AgriBusiness Management		■						■				■			■		■	AgriBusiness Management
		Agricultural Systems & Engineering		■		■								■			■		■	Agricultural Systems and Engineering
		Aquaculture and Aquatic Resources Management		■												■	■		■	Aquaculture and Aquatic Resources Management
		Food Engineering and Bioprocess Technology		■		■				■							■		■	Food Engineering and Bioprocess Technology
		Food Innovation, Nutrition and Health		■										■			■		■	Food Innovation Nutrition and Health
School of Engineering and Technology	Department of Civil and Infrastructure Engineering	Construction, Engineering and Infrastructure Management				■				■	■		■					■	■	Construction Engineering and Infrastructure Management
		Geotechnical and Earth Resources Engineering				■				■	■		■					■	■	Geotechnical and Earth Resources Engineering
		Structural Engineering				■				■	■		■					■	■	Structural Engineering
		Transportation Engineering				■				■	■		■					■	■	Transportation Engineering
		Water Engineering and Management		■	■	■		■		■	■		■	■	■		■	■	■	Water Engineering and Management
	Department of Information and Communication Technologies	Computer Science				■				■	■		■	■			■	■	■	Computer Science
		Data Science and AI				■				■	■		■					■		Data Science and AI
		Information & Communications Technologies				■				■	■		■					■		Information and Communications Technologies
		Information Management				■				■	■		■					■	■	Information Management
		IoT (Internet of Things) Systems Engineering				■				■	■		■					■		Internet of Things (IoT) Systems Engineering
		Remote Sensing and Geographic Information Systems				■				■	■		■	■			■	■	■	Remote Sensing and Geographic Information Systems
		Telecommunications				■				■	■		■					■	■	Telecommunications
	Department of Industrial Systems Engineering	Bio-Nano Material Science and Engineering				■				■	■		■					■		Bio-Nano Material Science and Engineering
		Industrial and Manufacturing Engineering				■				■	■		■	■			■	■	■	Industrial and Manufacturing Engineering
		Mechatronics				■				■	■		■	■			■	■	■	Mechatronics
		Microelectronics and Embedded Systems				■				■	■		■	■			■	■	■	Microelectronics and Embedded Systems
School of Management		Management				■		■		■	■			■					■	Management
SET & SERD		Disaster Preparedness, Mitigation, and Management	■	■	■	■		■		■	■	■	■	■	■		■	■	■	Disaster Preparedness Mitigation and Management
		Urban Water Engineering and Management				■		■		■	■		■					■	■	Urban Water Engineering and Management

SUSTAINABLE DEVELOPMENT GOALS DASHBOARD

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Website
AIT's Five Thematic Research Areas																		
Climate Change	■					■	■						■				■	
Food, Energy, Water Security	■	■				■	■					■	■	■	■		■	
Infrastructure									■		■						■	
Smart Communities						■	■		■		■		■				■	
Technology, Policy and Society	■	■			■	■	■	■		■		■	■				■	
Institute Outreach Centers																		
AIT AI Technology (AIT²) Center	■	■	■	■	■	■	■	■	■	■	■	■						*AIT AI Technology (AIT2) Center*
AIT Center in Vietnam (AITCV)							■		■			■						*AIT Center in Vietnam (AITVN)*
AIT Extension	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	*AIT Extension*
AIT Solutions				■					■		■				■			*AIT Solutions*
Air Quality Nexus Center			■	■	■		■			■	■	■	■	■	■		■	*Air Quality Nexus Center*
Belt and Road Research Center				■				■	■								■	*Belt & Road Research Center*
Center for Global Challenges		■				■	■	■	■	■		■	■			■		
CIFAL Bangkok - International Training Centre for Authorities and Leaders for South and Southeast Asia established by the AIT and UNITAR				■		■	■		■		■		■			■	■	*CIFAL Bangkok*
Entrepreneurship Center				■	■				■		■	■					■	*AIT Entrepreneurship Center*
Geoinformatics Center (GIC)		■											■	■	■			*Geoinformatics Center*
Internet Education & Research Laboratory (intERLab)				■				■		■	■		■					*Internet Education and Research Laboratory*
Regional Resource Center for Asia & the Pacific (RRC.AP)							■				■	■	■				■	*Resource Center for Asia & the Pacific (RRC.AP)*
SMARTSCenter - The South and South-east Asia Multidisciplinary Applied Research Network on Transforming Societies of Global South	■				■		■	■	■	■	■	■	■	■		■	■	*SMARTS Center*
Yunus Center AIT	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■	*Yunus Center AIT*
Institute Service Centers																		
Facilities		■				■	■				■	■	■		■			*Office of Facilities & Assets Management*
Human Resources			■		■											■		*Human Resources Office*
Student Affairs	■	■			■					■						■		*Admissions / Career Center*

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