




[AUGUST 19, 2019]

DR. SANGAM SHRESTHA
CURRICULUM VITAE



Dr. Sangam Shrestha

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I. Biographical Data

A. Name

Dr. Sangam Shrestha

B. Education

- Diploma, Connection and Flows: Water, Energy and Digital Information in the Global South, Brown University, USA (July, 2013)
- Ph.D. in Integrated River Basin Management (IRBM), University of Yamanashi, Japan (2007)
- M.Sc. in Integrated Water Resources Management (IWRM), Asian Institute of Technology, Thailand (2004)
- M.Sc. in Agriculture (1 year, Major: Soil Science), Institute of Agriculture and Animal Science, Tribhuvan University, Nepal (2002)

C. Positions held

Professor (January 2020 – to date)

Employer: **Asian Institute of Technology (AIT), Thailand**

Associate Professor (January 2015 – December 2019)

Employer: **Asian Institute of Technology (AIT), Thailand**

Chair, Water Engineering and Management Program (March 2017 – to date)

Employer: **Asian Institute of Technology (AIT), Thailand**

SEI Associate (January 2019 – December 2021) [Appointed Position]

Employer: **Stockholm Environment Institute (SEI)**

Program Advisor, Special Education Program (April 2019 – March 2022) [Appointed Position]

Employer: **University of Yamanashi, Japan**

Visiting Professor (01 September 2018 –31 August 2020) [Appointed Position]

Employer: **College of Water Sciences, Beijing Normal University, China**

Assistant Professor (November 2009 – December 2014)

Employer: **Asian Institute of Technology (AIT), Thailand**

Program Advisor, International Program on River Basin Environment (September 2016 – March 2019) [Appointed Position]

Employer: **University of Yamanashi, Japan**

Visiting Professor, Water Resources and Climate Change (November 2016 – December 2018)

Employer: **National University of Laos (NUoL), Lao PDR** [Appointed Position]

Regional Coordinator (Asia), The Transboundary Water Assessment Programme (TWAP)
(May–October, 2014)
Employer: **UNESCO**

Research Fellow (01 April 2016 – June 30 2017) [Appointed Position]
Employer: **Institute for Global Environmental Strategies (IGES), Japan**

Research Fellow (01 April 2013 – 31 March 2016) [Appointed Position]
Employer: **Institute for Global Environmental Strategies (IGES), Japan**

Associate Dean, School of Engineering and Technology (01 January 2013 –December, 2013)
Employer: **Asian Institute of Technology (AIT), Thailand**

Research Fellow (November 2009 – 31 March 2013) [Appointed Position]
Employer: **Institute for Global Environmental Strategies (IGES), Japan**

Visiting Faculty (01 April 2008 – to date) [Appointed Position]
Employer: **University of Yamanashi, Japan**

Water Resources Management Expert for ICCPL (April 2008 – May 2010)
Employer: **Institute for Global Environmental Strategies (IGES), Japan**

Policy Researcher (November 2007 – October 2009)
Employer: **Institute for Global Environmental Strategies (IGES), Japan**

Post-Doctoral Researcher (01 April, 2007 – 14 November 2007)
Employer: **University of Yamanashi, Japan**

Research Assistant (1 May 2004 – 30 March 2007)
Employer: **University of Yamanashi, Japan**

D. Special honors and awards

- Awarded “*AIT Distinguished Researcher Awards*” for 2019 by Asian Institute of Technology.
- Awarded “*Groundwater Award 2019*” for significant contribution in groundwater research in Nepal by Nepal-National Water Week 2019.
- Awarded “*AIT Distinguished Researcher Awards*” for 2015 by Asian Institute of Technology.
- Designated as “*NPA Ambassador for the Nepal PhD Association (NPA) International Chapter in Thailand.*”
- Nominated (among 3 top scientist) for ‘*Young Scientist Award 2011*’ by Nepal Academy of Science and Technology (NAST).
- *The Takeda Techno-Entrepreneurship Award* (2007) by The Takeda Foundation, Japan for techno-entrepreneurial achievement for world environmental well-being.
- *Best Full Paper Award*, the 3rd IWA Young Researcher Conference (YRC2006) for the paper entitled ‘Development of land use export coefficients for the modeling of non-point source pollution loads in Fuji river basin, Japan’.
- *AIT –DANIDA full scholarship* (2002-2004) to pursue Masters of Science in Integrated Water Resources Management in Asian Institute of Technology, Thailand.
- *Tribhuvan University (Nepal) Merit Scholarship* (1997-2000) to pursue Bachelor of Science in Agriculture in Institute of Agriculture and Animal Science, Nepal.

E. Membership in academic and professional societies/associations

- Board Member, Asia Water Council (AWC)
- Member, World Association of Soil and Water Conservation (WAWSC)

- Member, American Geophysical Union (AGU)
- Member, International Association of Hydrological Sciences (IAHS)
- Member, International Water Association (IWA)
- Member, Japan Society of Civil Engineers (JSCE)
- Member, AIT Alumni Association (AITAA)
- Member, Environment and Public Health Organization (ENPHO)
- International Coordinator, Rotary Community Corps (RCC), Dhulikhel, Nepal.
- Coordinator, Indonesia Earthquake Victim Relief Fund, University of Yamanashi, Japan.
- Coordinator, University of Yamanashi, Japan – Environment, and Public Health Organization, Nepal Research Group.
- General Secretary, Asian Institute of Technology Nepalese Society, Thailand. (2002-2003)
- Advisor, Post Graduate Society, Institute of Agriculture and Animal Science, Nepal. (2001-2002)
- Vice-Chairmen, Hitkari Samiti, Institute of Agriculture and Animal Science, Nepal. (2000- 2001)
- Vice-Chairmen, Nepal Youth Red-Cross Society, IAAS, Nepal. (1999-2000)
- Editor, The Profile of Agricultural Graduates, 2001, IAAS, Nepal. (2001)
- Editor, The Springtide, IAAS, Nepal. (2000)

II. Pedagogy

A. Experience as a teacher

1. Courses taught, including courses taught at partner institutions. Student enrollment in each course taught and average grade in each course.

Courses Taught at the Asian Institute of Technology (January 2010- to date)

Course	Course Category	Av. No. of credit students	Av. Grade
2010, January Semester			
CE74.9002 Climate Change and Water Resources	Elective	9	3.50
2010, August Semester			
CE74.13 Water Resources Systems	Required	24	3.50
2011, January Semester			
CE74.900 1 Research Design and Experimental Methods	Required	24	3.40
CE74.52 Groundwater Development and Management	Elective	7	3.00
CE74.9002 Climate Change and Water Resources	Elective	27	3.30
2011, August Semester			
CE74.13 Water Resources Systems	Required	37	3.40
UG104 Praxis I (UG)	Required	12	3.43
2012, January Semester			
CE74.900 1 Research Design and Experimental Methods	Required	32	3.55
CE74.52 Groundwater Development and Management	Elective	12	3.50
CE74.9002 Climate Change and Water Resources	Elective	38	3.41
UG 108 Praxis II (UG)	Required	12	3.38
2012, August Semester			
CE74.13 Water Resources Systems	Required	19	3.53

<i>UG104</i> Praxis I (UG)	Required	11	3.68
<i>WEM402</i> Water Supply and Wastewater Engineering (UG)	Elective	1	3.5
2013, January Semester			
<i>CE74.9001</i> Research Design and Experimental Methods	Required	25	3.54
<i>CE74.52</i> Groundwater Development and Management	Elective	24	3.27
<i>CE74.9002</i> Climate Change and Water Resources	Elective	24	3.54
<i>UG104</i> Praxis I (UG)	Required	14	3.44
<i>UG 108</i> Praxis II (UG)	Required	11	3.44
<i>WEM801 Selected topic:</i> Climate Change and Water Resources (UG)	Elective	1	3.50
2013, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	31	3.39
<i>UG104</i> Praxis I (UG)	Required	5	3.60
<i>WEM402</i> Water Supply and Wastewater Engineering (UG)	Elective		
2014, January Semester			
<i>CE74.9001</i> Research Design and Experimental Methods	Required	27	3.56
<i>CE74.52</i> Groundwater Development and Management	Elective	8	3.56
<i>CE74.9002</i> Climate Change and Water Resources	Elective	18	3.44
<i>WEM801 Selected topic:</i> Climate Change and Water Resources (UG)	Elective	9	3.60
2014, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	13	3.50
<i>CE74.21</i> Irrigation and Drainage Engineering	Elective	28	3.48
<i>UG104</i> Praxis I (UG)	Required	7	3.76
2015, January Semester			
<i>CE74.9001</i> Research Design and Experimental Methods	Required	35	3.41
<i>CE74.52</i> Groundwater Development and Management	Elective	9	3.50
<i>CE74.9002</i> Climate Change and Water Resources	Elective	38	3.42
2015, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	28	3.25
<i>CE74.9004</i> Climate change impacts, vulnerability and adaptation: Concepts, tools and practices	Elective	6	3.50
<i>WEM401</i> Water Resources Planning and Management (UG)	Elective	3	4.0
2016, January Semester			
<i>CE74.9001</i> Research Design and Experimental Methods	Required	26	3.5

<i>CE74.52</i> Groundwater Development and Management	Elective	23	3.2
<i>CE74.9002</i> Climate Change and Water Resources	Elective	26	3.19
<i>WEM401</i> Water Resources Engineering (UG)	Elective	17	3.32
2016, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	25	3.42
<i>ED82.06</i> Climate change impacts, vulnerability and adaptation: Concepts, tools and practices	Elective	14	3.54
<i>WEM405</i> Water Resources Planning and Management (UG)	Elective	14	3.67
<i>WEM401</i> Water Resources Engineering (UG)	Elective	34	3.35
2017, January Semester			
<i>CE74.9001</i> Research Design and Experimental Methods	Required	31	3.48
<i>CE74.9002</i> Climate Change and Water Resources	Elective	24	3.46
2017, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	48	3.22
<i>ED 82.06</i> Climate change impacts, vulnerability and adaptation: Concepts, tools and practices	Elective	13	3.42
<i>WEM401</i> Water Resources Planning and Management (UG)	Elective	9	3.61
2018, January Semester			
<i>CE74.9001</i> Research Design and Experimental Methods	Required	47	3.55
<i>CE74.9002</i> Climate Change and Water Resources	Elective	33	3.32
<i>CE74.9007</i> Sustainable Hydropower Development	Elective	19	3.5
2018, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	35	3.43
2019, January Semester			
<i>CE74.15</i> Research Design and Experimental Methods	Required	32	3.17
<i>CE74.18</i> Climate Change and Water Resources	Elective	28	3.36
<i>CE74.9007</i> Sustainable Hydropower Development	Elective	34	3.31
2019, August Semester			
<i>CE74.13</i> Water Resources Systems	Required	14	

B. Evaluation of teaching

1. Copy of student teaching evaluation reports*
Attached

Course: CE 74.9002- Climate Change and Water Resources, 3 (3-0); Semester: January, 2010
No. of Credit Students: 8; Participation in evaluation: 100% (All have evaluated); Av. Grade: 3.5

Overall Assessment	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
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33. I learned a lot from this course	0%	0%	0%	25%	75%
34. You would recommend the course to other students	0%	0%	0%	0%	100%
35. Overall I am satisfied with the course	0%	0%	0%	0%	100%

Course: CE 74.13- Water Resources Systems, 3 (3-0); Semester: August 2010
 No. of Credit Students: 24; Participation in evaluation: 58.33%; Av. Grade: 3.5

Comments on Course Characteristics:

‘One of the necessary subjects as because from this course we can learn the decision making part by the programming topic and it is a very important as a water engineer.’

Comments on Faculty:

‘He is also the most punctual and most explaining teacher and mostly doing the problems in the class itself that is the best quality in him.’

Overall Assessment	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
33. I learned a lot from this course	0%	0%	0%	35.71%	64.29%
34. You would recommend the course to other students	0%	0%	0%	28.57%	71.43%
35. Overall I am satisfied with the course	0%	0%	0%	21.43%	78.57%

C. Pedagogical Development

1. Publications: textbooks, laboratory manuals, articles in journals oriented toward pedagogy.

1. Pal, I., Meding, J., **Shrestha, S.**, Ahmed, I., Gajendra, T. (2019). An Interdisciplinary Approach for Disaster Resilience and Sustainability. Springer Nature Publishing. DOI: 10.1007/978-981-32-9527-8. ISBN: 978-981-329-526-1.
<https://www.springer.com/gp/book/9789813295261#otherversion=9789813295278>
2. Pandey, V.P. **Shrestha, S.** and Wiberg, D. (2019). Water, Climate Change and Sustainability. AGU-Wiley Publications (In Press).
3. Shrestha, P. K., Birkinshaw, S., **Shrestha, S.** (2017). Parallel Execution with Automated Changes (PAC)-SHETRAN Hydrological Model. <http://research.ncl.ac.uk/shetran/PAC.htm>
4. Salam, P. A., **Shrestha, S.** Anal, A. K., Pandey, V. P. (Eds.) (2017). Water-Energy-Food Nexus: Theories and Practices. AGU-Wiley Book Series. <https://www.wiley.com/en-us/Water+Energy+Food+Nexus%3A+Principles+and+Practices-p-9781119243137>
5. **Shrestha, S.**, Pandey, V.P, Shivakoti, B and Thatikonda, S. (2016). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
6. **Shrestha, S.**, Anal, A.K., Salam P.A. and Valk van der M. (2015). Managing Water Resources under Climate Uncertainty: Examples from Asian and Europe. (Springer Publications, <http://www.springer.com/environment/global+change++climate+change/book/978-3-319-10466-9>)
7. **Shrestha, S.**, Babel, M.S. and Pandey, V.P. (2014). Climate Change and Water Resources. (CRC Press of Taylor and Francis Group LLC, <http://www.amazon.com/Climate-Change-Resources-Sangam-Shrestha/dp/1466594667>)
8. **Shrestha, S.** (2014). Climate Change Impacts and Adaptation in Water Resources and Water Use Sectors. (Springer Publications <http://www.springer.com/environment/global+change++climate+change/book/978-3-319-09745-9>).
9. **Shrestha S.**, Pradhananga D., Pandey V.P. (Eds.) (2012). Kathmandu Valley Groundwater Outlook. Asian Institute of Technology (AIT), The Small Earth Nepal (SEN), Center of

Research for Environment Energy and Water (CREEW), International Research Center for River Basin Environment-University of Yamanashi (ICRE-UY), Kathmandu, Nepal. ISBN:978-9937-2-4442-8

10. **Shrestha, S.**, Clemente R., and Bhattarai, U. and Sinlapasuwanchai. (2012). Technical Manual, Pesticide Fate And Dynamics in the Environment model (PESTFADE), 2012. Asian Institute of Technology.
11. **Shrestha, S.**, Clemente R., and Bhattarai, U. and Sinlapasuwanchai. User Manual, Pesticide Fate And Dynamics in the Environment model (PESTFADE), (2012). Asian Institute of Technology.

2. Grants related to pedagogy and curriculum development.

1. Curriculum Development in '*MSc in Climate Change Program*' in Royal University of Phnom Penh, Cambodia.
Funding: Royal University of Phnom Penh (RUPP), Cambodia
Period: December 2017 to March 2018, Total Budget: US\$ 8,000
2. Curriculum Development for an '*Undergraduate Program in Water Resources and Environmental Engineering*' in Kandahar University, Afghanistan.
Funding: Canadian International Development Agency (CIDA)
Period: September 2012 – February 2013, Total Budget: CAD\$98,000, Role: PI
3. Curriculum Development for '*Undergraduate Program of Faculty of Engineering*' in Balkh University (BU), Afghanistan in AIT-BU Academic Partnership Project.
Funding: World Bank, Total Budget: US\$2million, Role: Member

3. Initiation of new courses, degree programs, curricula (indicate the period delivered)

- Development of '*Double Degree Program*' between Asian Institute of Technology and University of Iowa, USA. The MoU and MoA will be signed on 27 August 2019.
- Development of *Professional Master's Program in Water Engineering and Management (PM-WEM)* in 2018. The PM-WEM has started in January 2018 with 7 students from Sindh Irrigation Department, Pakistan.
- Development of curriculum of eight new courses (three in Postgraduate Program and four in Undergraduate Program)
 - CE74.9007 '*Sustainable Hydropower Development*' (delivered from January 2018)
 - CE74.9004 '*Climate Change Impacts, Vulnerability and Adaptation: Concepts, Tools and Practices*' (delivered from August 2015)
 - CE74.9002 '*Climate Change and Water Resources*' (delivered from January 2010 semester)
 - WEM401 '*Water Resources Engineering*' (delivered from December 2015 in UG)
 - WEM 402 '*Water Supply and Wastewater Engineering*' (delivered in BSE in Civil and Infrastructure Engineering)
 - WEM 404 '*Groundwater Engineering*' (Offered in BSE in Civil and Infrastructure Engineering)
 - UG 104 *Praxis I*' (delivered from September 2011 semester)
 - UG108 '*Praxis II*' (delivered from January 2012 semester)
- Development of curriculum of BSE in '*Civil and Infrastructure Engineering*', International Undergraduate Program in Engineering at Asian Institute of Technology.

- Development of curricula for a Training Course on ‘*Capacity Building & Knowledge Sharing: Climate Change Downscaling and Hydrological Modelling & Time Series Analysis of Hydroclimate and Fisheries*’ on 15–21 October at AIT, Thailand.
- Development of curricula for a Training Course on ‘*Hydrological Modelling for Water Accounting*’ on 18–24 December, 2017 in AIT, Thailand.
- Development of curricula for a Training Course on ‘*Quantifying Climate Change Impacts on Water and Agriculture Sectors*’, on 13–15 August, 2016 in AIT, Thailand.
- Development of curricula for a Training Course on ‘*Training on ‘Climate Services for Water, Agriculture and Food Sectors*’ 21–23 July, 2016 in AIT, Thailand.
- Development of curricula for a Training Course on ‘*Design of Diversion Works*’ for 10 officials from Ministry of Energy and Water, Afghanistan on 02–15 October, 2015 at Asian Institute of Technology, Thailand.
- Development of curricula for a Training Course on ‘*Design of Drainage and Irrigation Structures*’ for 10 officials from Ministry of Energy and Water, Afghanistan on 01–14 September, 2015 at Asian Institute of Technology, Thailand.
- Development of curricula for a Training Course on ‘*Feasibility Studies for Irrigation Projects*’ for 10 officials from Ministry of Energy and Water, Afghanistan on 13–26 August, 2015 at Asian Institute of Technology, Thailand.
- Development of curricula for a Training course on ‘*Hydrology Measurement and Analysis*’ on 6–12 January 2014 at Asian Institute of Technology (AIT), Thailand.

4. Participation in workshops, short courses, etc. relating to improvement of teaching.

- 1) Consultation Workshop on ‘*Curriculum Development for Master of Science in Climate Change*’ in Royal University of Phnom Penh(RUPP), 6 February, 2018 in Phnom Penh, Cambodia.
- 2) Facilitation for Facilitators (F4F) Workshop for ‘*Sustainable Hydropower Development*’ on 23-24 October 2017 in Yangon, Myanmar.
- 3) Sustainable Hydropower Practice Forum: Dialogue with Hydropower Developers on 10-11 August, 2017 in Vientiane, Lao PDR
- 4) Workshop on ‘*Initiatives for Development of Professional Masters Course in Hydropower Development*’ on 20 March, 2011 in Kathmandu, Nepal
- 5) Workshop on ‘*Effective Performance Management*’ organized by Hay Group Limited on 10-25 August 2010 at AIT.

III. Student Research Supervision

A. Theses supervised. Number of master and doctoral students graduated each year, on which the faculty served as committee chair or co-chair.

3. A.1 Summary of student research supervision at AIT (November 2009 – August 2019)

STUDENTS	COMPLETED		IN-PROGRESS		As member (total)
	Chair of the Committee	Co-Chair of the Committee	Chair of the Committee	Co-Chair of the Committee	
Doctoral	5	3	10	3	31
Master’s	74 + 3 (R)	6	12	1	147
Undergraduate Capstone Project	37	13			

B. Doctoral students. For each student who obtained the doctoral degree under your supervision, provide the following:

Summary of Doctoral student's thesis supervision

	Name of student	Title of Thesis/Research Study	Enrolled	Graduation	Committee
1	Mr. Kifayat Ullah	Development of Decision Support Tool for Regional Climate Change Assessment and Trend Analysis Publication: Ullah, K., Shrestha, S. and Guha, S. (2012). A decision support tool for selection of suitable General Circulation Model and future climate assessment. <i>Journal of Earth Science and Climate Change</i> , Publisher: OMIS, [http://omicsonline.org/2157-7617/pdfdownload.php?download=2157-7617-3-117.pdf&&aid=9044] Impact factor: 0.6 (2012). SCOPUS citation:-	2009	Graduated (May 2013)	Co-chair
2	Mr. Domingos Pinto	Assessment of Groundwater Potential Zones and Its Sustainable Yield in Dili Alluvial Plain, Timor Leste Publication: Pinto, D. Shrestha, S., Babel, M.S., Ninsawat, S. (2015). Delineation of groundwater potential zone in the Comoro River Basin, Timor Leste using the GIS, Remote Sensing and Analytic Hierarchy Process (AHP) technique. <i>Applied Water Science</i> . Publisher: Springer.	2012 (August)	Graduated (2016)	Chair
3	Mr. Aung Ye Htut	Simulating Hydrological Changes of Bago River Basin under Climate Change Scenarios in Myanmar Publication: Ye Htut, A., Shrestha, S., Nittivanon, V., Kawasaki, A. (2014). Forecasting climate change scenarios in Bago River Basin, Myanmar. <i>Journal of Earth Science and Climate Change</i> .	2012	Graduated (2015)	Chair
4	Mr. Min Thu Aung	Assessment of Climate Change Impacts on Hydrology and Hydropower Generation in Belu Chaung Basin of Myanmar Publication: Aung M.T., Shrestha S., Weesakul S., Shrestha P.K. (2016). Multi-model Climate Change Projections for Belu River Basin, Myanmar under Representative Concentration Pathways. <i>Journal of Earth Science & Climatic Change</i> , 7:323, Publisher: OMICS International, Impact Factor: 1.16 (2015), SCOPUS citation: -	2012	Graduated (2016)	Chair
5	Mr. I. Putu Santikayasa	Decision support for the evaluation of water management system: A case study of Citarum River Basin,	2010	2015 (Graduated)	Co-chair

		Indonesia Publication: Santikayasa, I.P., Babel, M.S., Shrestha, S. , Jourdain, D. Clemente, R.S. (2014). Evaluation of water use sustainability under future climate and irrigation management scenarios in Citarum River Basin, Indonesia. International Journal of Sustainable Development & World Ecology, 21 (2): 181-194. Publisher: Taylor and Francis, Impact Factor: 1.213 (2012). SCOPUS citation: -			
6	Mr. Yutthaphong Kheereemangkla	Consequences of Watershed Degradation on Watershed Ecosystem Services using SWAT and EM-DSS in the Northeast Thailand Publication: Kheereemangkla, Y., Shrestha, R., Shrestha, S. , Jourdain, D. (2016). Modeling hydrologic responses to land management scenarios for the Chi River Sub-basin Part II, Northeast Thailand. Environmental Earth Sciences, 75(9):793, Publisher: Springer, Impact factor: 1.435 (2017). Citation: 1	2010	2017 (Graduated)	Co-chair
7	Mr. Jessada Techamahasaranont	Hydrologic Effects of Change in Forest Landscape in Watersheds of Thailand Publication: Techamahasaranont, J., Shrestha, S. , Babel, M.S., Shrestha, R.P., Jourdain, D. (2017). Spatial and temporal variation in the trends of hydrological response of forested watersheds in Thailand. Environmental Earth Sciences, 76(12): 430. Publisher: Springer, Impact factor: 1.435 (2017). Citation: -	2011	2019 (Graduated)	Chair
8	Russel Mohammad Fazlul Haque	Impact of Biofuel Production on Water Quality and Quality and GHG Emission	2011		Co-chair
9	Ms. Thiantheera Piriya Wong	Development and application of decision support system for reservoir operation under climate change scenarios	2015		Chair
10	Mr. Siriwat Boonwichai	Evaluation of climate change impact on water resources and crop yield: Multi-modelling approach Publication: Boonwichai, S., Shrestha, S. , Babel, M.S., Weesakul, S., Datta, A. (2018). Climate change impacts on irrigation water requirements, crop water productivity and rice yield in the Songkhram River Basin, Thailand. Journal of Cleaner Production. Publisher: Elsevier, Impact Factor: 5.651 (2017)	2015	2018 (Graduated)	Chair
11	Mr. Rana Ammar Aslam	Groundwater Vulnerability and Adaptation Assessment to Climate	2017		Chair

		Change in Lahore, Pakistan Publication: Aslam, R.A., Shrestha, S., Pandey, V.P. (2018). Groundwater vulnerability to climate change: A review of the assessment methodology. Science of the Total Environment, (612): 853-875. Publisher: Elsevier, Impact factor: 4.610 (2017). Citation: 4			
12	Ms. Saniwan Buaban	Strategic Assessment for Tak Special Economic Zone, Thailand: A Focus on Selected SDGs	2017		Co-Chair
13	Mr. Thundorn Oakwala	Assessment of Climate Change Impact on Salinity Intrusion and Water Availability under Climate Change Scenarios in Bang Pa Klong River Basin, Thailand	2017		Chair
14	Mr. Nawhath Thanvisitthpon	Development and Application of Framework to Assess the Adaptive of Cities to Flood Hazards Induced by Climate Change	2017		Chair
15	Ms. Hoàng Thị Ngọc Anh	To be decided (under course work)	2018		Chair
16	Ms. Nguyen Quyen	Evaluation of Machine Learning Models for Hydrology and Water Quality Assessment under Climate Change Scenarios: A Case Study in 3S River Basin	2018		Chair
17	Ms. Shakthi Gunawardana	To be decided (under course work)	2018		Chair
18	Ms. Nisha Maharjan	To be decided (under course work)	2018		Co-chair
19	Mr. Sanjiv Neupane	To be decided (under course work)	2019		Chair
20	Mr. Saurav GC	To be decided (under course work)	2019		Chair
21	Ms. Pragya Pradhan	To be decided (under course work)	2019		Chair

Summary of Doctoral thesis supervision (Foreign)

	Name	Institute	Thesis	Year	Role
1	Ms. Talipova Elmira Kairatovna	Kazakh National University, Almaty, Republic of Kazakhstan	Impact of Current and Projected Climate Change on Water Resources in the Ile River Basin	2018	Foreign Supervisor
2	Mr. Doan Thanh Vu	Vietnam National University – Ho Chi Minh City, Vietnam	Integrated Water-Related Risks Management Approach for River Basin	2018	Co-supervisor

Summary of Master students' thesis supervision

	Name of student	Title of Thesis/Research Study	Enrolled	Graduation	Committee
1	Mr. Chalermchon Lertlum	Development of Neuro-Fuzzy Computing for Real Time Reservoir Operation	2009	2011	Chair
2	Mr. Nazir Ahmad Quani	Evaluation of Lined and Unlined Irrigation Watercourses in Kandahar Province, Afghanistan	2009	2011	Chair
3	Mr. Trang Ngo	Analysis of Bay Shapes Under Static Equilibrium in Vietnam	2009	2011	Chair
4	Ms. Weerasinghe L. K. Kaushalya	Effect of Future Climate on the Offshore Wave Characteristics at Songkhla in Gulf of Thailand	2009	2011	Chair
5	Mr. Chatchai Chingchanagool	Impact of Future Climate on Trends of Inflow to Ubolratana Dam, Thailand	2009	2011	Chair
6	Mr. Parmeshwar Digamber Udmale	Development of Groundwater Sustainability Indicators and Its application: A case study of Sina river basin in Maharashtra State	2009	2011	Chair
7	Mr. Chawalit Chanamai	Estimation of water footprint and virtual water flow related to the consumption of agricultural products	2009	2011	Chair
8	Mr. Birat Gyawali	Climate Change Impacts on Irrigation Water Requirements for Rice-Wheat Cultivation in Bagmati River Basin, Nepal	2010	2012	Chair
9	Mr. Mohammad Aslam Haziq	Assessment of household water consumption in Kandahar city, Afghanistan	2010	2012	Chair
10	Mr. Worapong Lohpaisankrit	Application of Distributed Hydrological Models for Flood Risk Assessment under Climate Change Scenarios in Yang River Basin, Thailand	2010	2013	Chair
11	Mr. Foyya Yusufu Aquino	Assessment of Irrigation System performance in Telagasari Irrigation Scheme, Karawang District, Indonesia	2011	2013	Chair
12	Mr. Duong Anh Tran	Climate change impact assessment on rice productivity in Vietnam	2010	2013	Co-chair
13	Ms. Naw May Mya Thin	Impact of climate change on future irrigation water demand for rice production in Myanmar	2011	2013	Chair
14	Ms. Medha Khatiwada	Impact of climate change on hydropower production potential in Hindu Kush Himalayan Region	2011	2013	Chair
15	Mr. Kshitij Parajuli	Development of an index to measure water, energy and carbon nexus in cities of Asia	2011	2013	Chair
16	Ms. Bui Thi Thu	Investigating future rice yield and	2011	2013	Chair

	Trang	adaptation measures in rice production under climate change scenarios in Quang Nam Province, Vietnam			
17	Ms. Supitcha Thaikeaw	Investigating major causes of The Thailand's Great Flood 2011 and optimal reservoir operation for flood control under changing climate	2011	2013	Chair
18	Mr. Shankar Shrestha	Impact of climate change on the fate and behavior of pesticide in surface water and groundwater	2011	2013	Chair
19	Mr. Vichet Amnouypon	Flood risk assessment and management options for AIT under future climate	2011	2013	Chair
20	Mr. Dickson John Semkuyu	Groundwater Vulnerability and Risk Assessment to Pollution in Kathmandu Valley, Nepal	2012	2014	Chair
21	Mr. Bach Viet Tran	Assessment of Groundwater Resources in Context of Climate Change: A Case Study of Mekong Delta in Vietnam	2012	2014	Chair
22	Mr. Saroj Adhikari	Evaluation of Groundwater-based Irrigation System of Southeast Nepal Considering Water-Energy-Food Nexus Approach	2012	2014	Chair
23	Mr. Manish Shrestha	Evaluation of Water Supply and Demand under Climate Change Scenarios in Kathmandu Valley, Nepal	2012	2014	Chair
24	Ms. Matchima Ussarawutthikit	Impact of climate variability and climate change on groundwater resources	2011	2013	Chair
25	Mr. Panumet Wattananont	Assessment of climate change impact on water quantity and quality for Khun Dan Prakan Chon Dam, Nakhon Nayok, Thailand	2013	2015	Chair
26	Ms. Trang Thi Thuy Nguyen	Evaluation of water quality models to estimate the pollution loads into the rivers of 3S (Sekong, Sesang, Srepok) basin	2013	2015	Chair
27	Ms. Hsu Myat Maw	Modeling climate change impacts and adaptation strategies for crop production in Bago River Basin, Myanmar	2013	2015	Chair
28	Mrs. Ranjana Kafle	Evaluation of groundwater vulnerability assessment methods to pollution	2013	2015	Chair
29	Mrs. Massouda Sidiqi	Evaluation and Comparison of Satellite and GCM Rainfall Estimates for the Kabul River Basin, Afghanistan	2013	2015	Chair
30	Mr. Siriwat Boonwichai	Water accounting of Chao Phraya River Basin using remote sensing data: Application of a new water accounting plus (WA+) framework	2013	2015	Chair
31	Mr. Prosper	Evaluation of groundwater	2013	2015	Chair

	Umubyeyi	vulnerability assessment methods			
32	Ms. Natasha Nuujoma	Groundwater vulnerability assessment of urban centers of Southeast Asia	2013	2015	Chair
33	Ajay Ratna Bajracharya	Assessment of climate change impact on upper Tamakoshi Hydropower project, Nepal	2013	2015	Chair
34	Ms. Nisha Maharjan	Impacts of Climate Change and Land Use Change on Hydrology in Transboundary River Basin: A Case Study in 3S (Sekong, Sesan, Srepok) River Basin	2013	2015	Chair
35	Mr. Muhammad Nabeel Aslam	Climate Change Impact on Water Availability in the Hub River Basin in Pakistan	2014	2016	Chair
36	Mr. Saqib Ashraf	Groundwater Recharge in the Context of Climate Change and Land Use/Land Cover Change in Lower Ravi River Basin, Pakistan	2014	2016	Chair
37	Mr. Mohib Ullah Ali	Adaptation Strategies for Rice Cultivation Under Climate Change Scenarios in Gujranwala District of Punjab, Pakistan	2014	2016	Chair
38	Mr. Anil Aryal	Quantifying Uncertainties in Climate Projections on Hydrologic Modeling in the Tamakoshi River Basin, Nepal	2014	2016	Chair
39	Mr. Ahmad Hussan	Assessing Climate Change Impacts on Satpara Dam in Pakistan	2014	2016	Chair
40	Ms. Pisinee Bariboon	Climate Extremes, People's Perception and Adaptation in Lower Songkram River Basin, Thailand	2014	2016	Chair
41	Ms. Ranju Chapagain	Climate Change Impacts on Water Footprint of Rice Production in Nam Oon Irrigation Project, Thailand	2014	2016	Chair
42	Ms. Hoang Thi Ngoc Anh	Assessment of Climate Change Impact on Groundwater Resources in Hau Giang Province, Vietnam	2014	2016	Chair
43	Mr. Ahmad Mustafa	Investigation of Sediment Exclusion Efficiency of Silt Excluder by Physical Modeling; A Case Study of Right Undersluice Taunsa Barrage in Pakistan	2014	2016	Chair
44	Ms. Aye Chan Myint	Assessment of Wetland Vulnerability to Climate Change: A Case Study of Moeyungyi Wetland in Myanma	2014	2016	Chair
45	Mr. Muhammad Mudassar Rehan	Analysis of Rainfall Pattern and Validation of Design Storm Shape for Asian Monsoon	2014	2016	Chair
46	Mr. Zeeshan Ashraf Sheikh	Farmer's Perceived Agricultural Adaptation to Climate Change Impact in Rangsit Canal Area of Nong Sua District, Thailand	2014	2016	Co-Chair
47	Mr. Chatuphorn Somphong	2D-Numerical Modeling Approach for Development of Dynamic Equilibrium Bay Shape	2014	2016	Chair
48	Mr. Wutthichai	Flood Alleviation Plan for Practical	2014	2016	Co-chair

	Tengchaisun	Operation in Bangpakong-Prachinburi Basin			
49	Mr. Binod Bhatta	Climate and Land Use Change Impacts on Streamflow and Water Quality in the Songkhram River Basin, Thailand	2015	2017	Chair
50	Mr. Dhiraj Acharya	Evaluation of Climate and Land Use Change Impact on Hydrology of the Songkhram River Basin, Thailand	2015	2017	Chair
51	Ms. Hira Sattar	Modeling Climate Change Impact on Hydrology and Sediment Yield in the Swat Basin in Pakistan	2015	2017	Chair
52	Ms. Maryam Yusufi	Ground Vulnerability Assessment to Climate Change: A Case Study of Herat City and Surrounding Districts, Afghanistan	2015	2017	Chair
53	Ms. Mitra Safar Zadeh	Assessment of Green and Blue Water under Climate Change: A Case of the Harirud-Murghab Basin, Afghanistan	2015	2017	Chair
54	Ms. Naheed Karimi	Groundwater Potential Zone Identification and Recharge Management: A Case of the Lower Hari Rud River Basin, Afghanistan	2015	2017	Chair
55	Mr. Rateb Hamim	Evaluation of Water Demand and Supply in Lower Harirud River Basin, Afghanistan	2015	2017	Chair
56	Mr. Ameya Piya	Development and application of methodology to estimate hydropower potential considering socio-economic and environmental risks	2016	2018	Chair
57	Ms. Denkar	Optimization of reservoir operation for hydropower production and environmental flows under climate change scenarios in Bhutan	2016	2018	Chair
58	Mr. Hok Panha	Optimization of Reservoir Operations for Hydropower Generation and Fish Habitat Conservation under Climate Change Scenarios in Srepok River Basin, Cambodia	2016	2018	Chair
59	Ms. Imiya Mudiyansele Chathuranika	Climate Change Impact on Hydrology, Hydro-power and Water Quality in Upper Kotmale River Basin, Sri Lanka	2016	2018	Chair
60	Ms. Kuruwita Arachchige Naditha Damsarani Imbulana	Assessment of climate change impact on river hydrology and morphology and their impact on livelihood of the community in Chindwin River Basin, Myanmar	2016	2018	Chair
61	Ms. Shakthi Kalpani Gunawardana	Assessment of climate change impact on hydrology and pollutant contributing areas affected by mining in Chindwin basin, Myanmar	2016	2018	Chair
62	Mr. Thitiphat Ratanawaraha	Climate change impact on streamflows and water security in	2016	2018	Chair

		Yang River, Thailand			
63	Ms. Myat Su Mon	Climate Change Impact on Stream Flow and Irrigation Water Requirement in Chindwin River Basin, Myanmar	2016	2018	Chair
64	Mr. Pannavit Fuangthong	Evaluation of water saving on rice ratoon cultivation and recommendation for rice varieties in Thailand	2016	2018	Chair
65	Mr. Shakil Abbas	Modelling the impact of Irrigation and Fertigation on Productivity of Drip Irrigated Maize and Potato crops	2017	2019	Chair
66	Mr. Zahid Hussain	Simulating the design of farm-level rainwater harvesting system and analyzing its socio-economic prospects for climate smart agriculture development in Pothohar, Pakistan	2017	2019	Chair
67	Ms. Ananya Suksri	Understanding and managing water-energy-food nexus: example from Hydroponics	2017	2019	Chair
68	Mr. Sanjiv Neupane	Mapping groundwater resilience to climate change and human development in selected Asian cities	2017	2019	Chair
69	Mr. Riwarz Kumar Adhikari	Mapping groundwater resilience to climate change and human development in selected Asian cities	2017	2019	Chair
70	Mr. Chirayut Chirachawala	Evaluation of Artificial Intelligence techniques and physical-based modeling of hydrological processes	2017	2019	Chair
71	Mr. Raksmeay Ang	Hydrologic model calibration using remotely sensed soil moisture and discharge measurements: the impact on predictions at gauged and ungauged locations	2017	2019	Chair
72	Mr. Saurav K C	Flood risk assessment and management under urbanization and climate change scenarios in Kathmandu Valley, Nepal	2017	2019	Chair
73	Mr. Vidanelage Ruwan C. De Mel	Assessment of hydropower development impacts on hydrology and eco-system services in the upper Ayeyawaddy River Basin, Myanmar	2017	2019	Chair
74	Ms. Trang Thi Huyen Pham	Quantifying the impact of human activities on water resources in Srepok River Basin, Vietnam	2017	2019	Chair
75	Ms. Phub Zam	Assessment of climate change impacts on hydrology of international rivers of Asia	2017	2019	Chair
76	Ms. Sanju Thapa Shrestha	Assessment of landuse change impact on river flows and sediment in the Chindwin River Basin, Myanmar	2017	2019	Chair
77	Ms. Pragya Pradhan	Evaluation of Artificial Intelligence techniques and physical-based modeling of hydrological processes	2017	2019	Co-Chair

78	Ms. Alisha Shrestha	Robustness-based evaluation of hydropower infrastructure design under climate change	2017	2019	Co-Chair
79	Ms. Pantila Ramanandana	Dam Breach Modeling and Downstream Flood Inundation Hazard at Kaeng Krachan Dam in Phetchaburi Province, Thailand	2017	2019	Co-Chair
80	Ms. Ayushmita Pokharel	Flood Risk Assessment under Climate Change Scenarios in Hanumante River Basin, Nepal	2017	2019	Chair
In Progress					
81	Ms. Phattamon Heawchaiyaphum	Analysis of Climate Anomalies and Relationship with Floods and Drought in Songkhram River Basin, Thailand	2017		Co-Chair
82	Mr. Pichayapong Srisawad	Evaluation of artificial intelligence techniques for downscaling extreme precipitation events in Yom River Basin, Thailand	2017		Chair
83	Mr. Bibek Shrestha	The assessment of lift irrigation potential of Marsyandi corridor : A case study of Lamjung District, Nepal	2018		Chair
84	Mr. Sanaullah	Impact of climatic variability and drought on Groundwater quality in district Nawabshah , Sindh, Pakistan	2018		Chair
85	Mr. Shakir Habib Memon	Flood Hazard Assessment and Management of LBOD for Flood Prevention in District Badin, Sindh, Pakistan	2018		Chair
86	Mr. Divakar Thapaliya	Groundwater Extraction Induced Land Subsidence in Kathmandu Valley, Nepal	2018		Chair
87	Ms. Manzari Singh	Assessment of Hydrological Extremes under Climate Change and Basin Development Plan in Nam Ou basin, Laos PDR	2018		Chair
88	Ms. Usha Ghimire	Mapping Groundwater Resilience under Climate Change and Human Development in Bangkok and its Vicinity, Thailand	2018		Chair
89	Mr. Neththikumarage Shalinda Fernando	A meta-analysis of Multiple Drivers on Recent Floods using Global Datasets	2018		Chair
90	Ms. Kasuni Erandika Adikari	Evaluating Artificial intelligence models for floods and droughts forecasting in Tropical and Arid climatic regions	2018		Chair
91	Ms. Shumaila Sharif	Water–Energy–Food Nexus Assessment of High Efficacy Drip irrigation and Solar Energy Farming	2018		Chair
92	Mr. Zaffar Munir	Assessment of climate change & policy impact on wheat yield: multi-modeling study	2018		Chair
93	Mr. Ijaz Younas	Adaptation strategies for rice cultivation in Sialkot District of	2018		Chair

		Punjab under Climate change Scenarios			
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Summary of Master student's research study supervision (Graduated)

	Name of student	Title of Research Study	Enrolled	Graduation	Committee
1	Ms. Sosorburam Boldbaatar	Spatial and temporal variations of aquatic macroinvertebrates in Selenge River Basin, Mongolia	2009	2011	Chair
2	Ms. Davaanyam Tegshjargal	Trend analysis of rainfall and runoff in Tuul River Basin, Mongolia	2010	2012	Chair
3	Mr. Thuan Nguyen	A review of water supply status for urban poors in developing countries	2010	2012	Chair

Summary of Undergraduate student capstone project (10 credits) supervision

	Name of student	Graduation	Committee
1	Ms. Thamali Menaka Gunaratna	2012	Chair
2	Ms. Ardhige Thedini Asali Peiris	2013	Chair
3	Mr. Cao Ngoc Hoa	2013	Chair
4	Mr. Ishara Rakith Perera	2013	Chair
5	Mr. Shashwat Dhungana	2013	Chair
6	Mr. Kinlay Wangchuk	2014	Chair
7	Ms. Bicen Jia	2014	Chair
8	Mr. Kinlay Wangchuk	2014	Chair
9	Mr. Anup Shrestha	2014	Chair
10	Mr. Sirish Suwal	2014	Chair
11	Mr. Shashank Raj Bhattarai	2014	Chair
12	Ms. Wathsala Jeewanthi Warusamana	2014	Co-chair
13	Ms. Surige Dona Dulangi Madushika Padmalal	2014	Chair
14	Ms. Erandi Hirosha Chandanayake	2014	Chair
15	Ms. Pamoda Kaumadi Imbulana	2014	Chair
16	Mr. Tenzin Gyatsho Dorji	2014	Chair
17	Mr. Aung Kyaw Hein	2014	Chair
18	Mr. Tenzin Gyatsho Dorji	2014	Chair
19	Ms. Moe Thaw Dar	2016	Chair
20	Ms. Eaindra Oo	2016	Chair
21	Mr. Sonam Wangchuk	2016	Chair
22	Mr. Aung Kyaw Hein	2016	Chair
23	Ms. Kuruwita Arachchige Naditha Damsarani Imbulana	2016	Chair
24	Ms. Cherry Nay Oo	2016	Chair
25	Ms. Shakthi Kalpani Gunawardana	2016	Chair
26	Ms. Nidhi Adhikari	2016	Chair
27	Mr. Ajay Acharya	2016	Chair
28	Ms. Itasha Pokharel	2016	Chair
29	Ms. Cristin Swar	2016	Chair
30	Mr. Zaw Nyein Htwe	2016	Co-Chair
31	Ms. Pan Nandar Yu Zan	2016	Co-Chair
32	Mr. Nipuna Udhara Moragoda	2016	Co-Chair
33	Ms. Pavithra Madushani Weerasekara	2016	Co-Chair
34	Mr. Harindu Sathsara Sumanasekara	2016	Co-Chair
35	Ms. Aruma Kankani Thiloka Nirmanie Gunathilaka	2016	Co-Chair
36	Ms. Thiha Soe Htike	2016	Co-Chair
37	Ms. Yunn Aykare	2016	Co-Chair
38	Mr. Soe Yan Paing Minn	2016	Co-Chair
39	Mr. Paing Myint Mo	2016	Co-Chair

40	Mr. Kyaw Chan Thar	2016	Co-Chair
41	Ms. Weerawarnakurukulasooriya Busabaduge Dinukshi Tharika Fernando	2016	Chair
42	Mr. Faisal Islam	2016	Chair
43	Mr. Randesh Lilushan Weragoda Kapuge	2016	Chair
44	Mr. Sanchit Raj Bhattarai	2018	Co-Chair
45	Ms. Adikari Appuhamilage Kasuni Erandika Adikari	2018	Chair
46	Ms. Neelahandi Yenushi Kavindi De Silva	2018	Chair
47	Ms. Khine Zin Zin Theint	2018	Chair
48	Ms. Myat Thiri Lwin	2018	Chair
49	Mr. Nay Lin Htet	2018	Chair
50	Mr. Zaw Nyein Htwe	2019	Chair

IV. Research

A. Publications

Publications must be listed with complete citations in the categories indicated below. Include all names of authors in the order in which they appear. List the number of the first page and last page of the paper. If papers are submitted or accepted for publication, copies of the letter of receipt or acceptance must be provided. Manuscripts in preparation should not be listed. Papers of a principally pedagogical nature must be listed in Section II, C.

1. Books and Monographs

1. Pal, I., Meding, J., **Shrestha, S.**, Ahmed, I., Gajendra, T. (2019). An Interdisciplinary Approach for Disaster Resilience and Sustainability. Springer Nature Publishing. DOI: 10.1007/978-981-32-9527-8. ISBN: 978-981-329-526-1.
<https://www.springer.com/gp/book/9789813295261#otherversion=9789813295278>
2. Pandey, V.P. **Shrestha, S.** and Wiberg, David (2019). *Water, Climate Change and Sustainability*. AGU-Wiley Publications (In Press).
3. Salam, P. A., **Shrestha, S.** Anal, A. K., Pandey, V. P. (Eds.) (2017). *Water-Energy-Food Nexus: Theories and Practices*. AGU-Wiley Book Series.
<https://www.wiley.com/en-us/Water+Energy+Food+Nexus%3A+Principles+and+Practices-p-9781119243137>
4. **Shrestha, S.**, Pandey, V.P, Shivakoti, B and Thatikonda, S. (2016). *Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies*. Elsevier. ISBN: 9780128031667. <https://www.elsevier.com/books/groundwater-environment-in-asian-cities/shrestha/978-0-12-803166-7>
5. **Shrestha, S.**, Anal, A.K., Salam P.A. and Valk van der M. (2015). *Managing Water Resources under Climate Uncertainty: Examples from Asian and Europe*. (Springer Publications, <http://www.springer.com/environment/global+change+-+climate+change/book/978-3-319-10466-9>)
6. **Shrestha, S.**, Babel, M.S. and Pandey, V.P. (2014). *Climate Change and Water Resources*. (CRC Press of Taylor and Francis Group LLC, <http://www.amazon.com/Climate-Change-Resources-Sangam-Shrestha/dp/1466594667>)
7. **Shrestha, S.** (2014). *Climate Change Impacts and Adaptation in Water Resources and Water Use Sectors*. (Springer Publications <http://www.springer.com/environment/global+change+-+climate+change/book/978-3-319-09745-9>).
8. **Shrestha S.**, Pradhananga D., Pandey V.P. (Eds.) (2012). *Kathmandu Valley Groundwater Outlook*. Asian Institute of Technology (AIT), The Small Earth Nepal (SEN), Center of Research for Environment Energy and Water (CREEW), International Research Center for River Basin Environment-University of Yamanashi (ICRE-UY), Kathmandu, Nepal. ISBN:978-9937-2-4442-8

9. **Shrestha, S.**, Clemente R., and Bhattarai, U. and Sinlapasuwanchai. (2012). *Technical Manual, Pesticide Fate And Dynamics in the Environment model (PESTFADE)*, 2012. Asian Institute of Technology.
10. **Shrestha, S.**, Clemente R., and Bhattarai, U. and Sinlapasuwanchai. *User Manual, Pesticide Fate And Dynamics in the Environment model (PESTFADE)*, (2012). Asian Institute of Technology.

2. Book Chapters

1. **Shrestha, S.** and Saraphirom, P. (2018). Climate Change and Sustainable Groundwater Management in Thailand. In Trisurat, Y. and Shrestha, R.P. (Eds). Thailand: Environmental Resources and Related Policy and Social Issues. Nova Publishers.
2. Salam, P. A., Pandey, V. P. **Shrestha, S.** Anal, A. K., (2017). The Need for the Nexus Approach. In Salam et al (Eds). Water-Energy-Food Nexus: Theories and Practices. AGU-Wiley Book Series.
3. Pandey, V. P. **Shrestha, S.** (2017). Evolution of the Nexus as a Policy and Development Discourse. In Salam et al (Eds). Water-Energy-Food Nexus: Theories and Practices. AGU-Wiley Book Series.
4. **Shrestha, S.**, Adhikari S. (2017). Assessment of Water, Energy, and Carbon Footprints of Crop Production: A Case Study from Southeast Nepal. In Salam et al (Eds). Water-Energy-Food Nexus: Theories and Practices. AGU-Wiley Book Series.
5. **Shrestha, S.** and Pandey, V.P. (2016). Groundwater as an Environmental Issue in Asian Cities. In Shrestha, S., Pandey, V.P, Shivakoti, B and Thatikonda, S. (Eds). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
6. **Shrestha, S.** and Pandey, V.P. (2016). DPSIR Framework for Evaluating Groundwater Environment. In Shrestha, S., Pandey, V.P, Shivakoti, B and Thatikonda, S. (Eds). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
7. Pinto, D. and **Shrestha, S.** (2016). Groundwater Environment in Dili, Timor-Leste. In Shrestha, S., Pandey, V.P, Shivakoti, B and Thatikonda, S. (Eds). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
8. Pandey, V.P., and **Shrestha, S.** (2016). Water Environment in Southeast Asia: An Introduction. In Shrestha, S., Pandey, V.P, Shivakoti, B and Thatikonda, S. (Eds). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
9. Pandey, V.P., **Shrestha, S.**, Thatikonda, S. (2016). Water Environment in South Asia: An Introduction. In Shrestha, S., Pandey, V.P, Shivakoti, B and Thatikonda, S. (Eds). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
10. **Shrestha, S.**, Pandey, V.P, Shivakoti, B. (2016). Water Environment in Central and East Asia: An Introduction. In Shrestha, S., Pandey, V.P, Shivakoti, B and Thatikonda, S. (Eds). Groundwater Environment in Asian Cities: Concepts, Methods and Case Studies. Elsevier. ISBN: 9780128031667.
11. **Shrestha, S.** and M. S. Babel (2015). Climate Change Projections in South and South East Asia. ADB book chapter
12. Datta, A., **Shrestha, S.** Ferdous, Z., Win, CC. (2015). Strategies for Enhancing Phosphorus Efficiency in Crop Production Systems - Nutrient Use Efficiency: from Basics to Advances, 2015
13. Htut, A.Y. and **Shrestha, S.** (2015). Uncertainties in SWAT extreme flow simulation under climate change of the Bago River Basin in Myanmar. Excellent Science in ASEASN, pp26-43
14. Santikayasa, I.P. and **Shrestha, S.** (2015). Climate change impacts on hydrology and rice yield in Northeast of Thailand. Excellent Science in ASEASN, pp10-25
15. Santikayasa, I.P., Babel, M.S., **Shrestha, S.** (2015). Assessment of the impact of climate change on water availability in the Citarum river basin, Indonesia: The use of statistical downscaling and water planning tools. In Shrestha, S., Anal, A.K., Salam,

- P.A., van der Valk, M. (eds.) (2015). *Managing Water Resources under Climate Uncertainty: Examples from Asia, Europe, Latin America, and Australia*. Series: Springer Water, Springer International Publishing, DOI 10.1007/978-3-319-10467-6_6, pp 105-126.
16. Babel, M.S., Anusart, K. Victor R. Shinde, V. R., **Shrestha, S.** (2014). Water and energy security nexus: a case of Bangkok water supply system. Closing Symposium on Five Years of Exceed. TECHNISCHE UNIVERSITÄT BRAUNSCHWEIG, September 22 - 23, 2014.
 17. **Shrestha, S.** and Singh P. (2014). Global Climate System, Energy Balance, and the Hydrological Cycle. In: Shrestha S., Babel, M.S., Pandey, V.P. (Eds). *Climate Change and Water Resources*. CRC Press of Taylor and Francis Group LLC. pp. 1-30. ISBN: 9781466594661
 18. Shivakoti, B. and **Shrestha, S.** (2014). International Negotiations on Climate Change and Water. In: Shrestha S., Babel, M.S., Pandey, V.P. (Eds). *Climate Change and Water Resources*. CRC Press of Taylor and Francis Group LLC. pp.331-358. ISBN: 9781466594661
 19. Datta A, **Shrestha S**, Ferdous Z, Win CC. (2014). Strategies for enhancing phosphorus efficiency in crop production systems. Springer
 20. Santikayasa, I. P., Babel, M.S., **Shrestha, S.** (2014). Assessment of the Impact of Climate Change on Water Availability in the Citarum River Basin, Indonesia: The Use of Statistical Downscaling and Water Planning Tools. In: Shrestha, S., Anal, A.K., Salam, A.P., Valk, M. (2014). *Managing Water Resources under Climate Uncertainty: Examples from Asian and Europe*.
 21. **Shrestha S.**, Pradhananga D., Shrestha S., Shrestha, V. (2012). Groundwater development and management institutions and policies in Nepal. In: Shrestha S., Pradhananga D., Pandey V.P. (Eds.) *Kathmandu Valley Groundwater Outlook*. Asian Institute of Technology (AIT), The Small Earth Nepal (SEN), Center of Research for Environment Energy and Water (CREEW), International Research Center for River Basin Environment-University of Yamanashi (ICRE-UY). pp 115-124. ISBN:978-9937-2-4442-8
 22. Kataoka, Y. and **Shrestha, S.** (2010). Promoting Wise Use of Water: Application of Economic Instruments. In: *Sustainable Consumption and Production in the Asia-Pacific Region: Effective Responses in a Resource Constrained World*, Vol III, 2010. pp149-170. Publisher: IGES (Hayama, Japan). ISBN:978-4-88788-048-1
 23. **Shrestha, S.**, Kataoka, Y. and Kuyama, T. (2010). No-Regret Adaptation Strategies to Cope with Potential Impacts of Climate Change on Groundwater Resources of Asian Cities. In: *Sustainability in Food and Water: An Asian Perspective* (K. Fukushi, K.M. Hassan, R. Honda and A. Sumi eds.), Springer, New York. ISBN: 978-90-481-9913-6
 24. **Shrestha, S** and Kataoka, Y. (2008). Groundwater and climate change: No longer the hidden resource. In: IGES White Paper, *Climate Change Policies in the Asia-Pacific: Re-uniting Climate Change and Sustainable Development*, pp 159-183. Institute for Global Environmental Strategies (IGES). ISBN:978-4-88788-048-1
 25. Nakamura, T., **Shrestha, S.**, Satake H., Kazama, F. (2007). Tracing Nitrate Transport in the Groundwater Aquifers using Isotope Techniques- a case study in Western Kofu Basin, Japan. In H. Furumai, F. Kurisu, H. Katayama, H. Satoh, S. Ohgaki and N. C. Thanh (Eds), *Southeast Asian Water Environment 2*, pp. 173-180, ISBN: 1-84339-124-4. International Water Association (IWA).
 26. **Shrestha, S.**, Kazama, F. (2006). Development of landuse export coefficients for the modeling of non-point source pollution loads in Fuji river basin, Japan. In Stuetz, R. and Teik-Thye, L (Eds), *Young Researchers 2006, Water and Environmental Management Series*, pp. 317-324. ISBN: 1843395134. International Water Association (IWA).
 27. **Shrestha, S.** (2005). Application of AnnAGNPS model for watershed quality assessment in the Siwalik Hills of Nepal. In Zoebisch, M., Cho, K.M., Hein, S., Mowla, R. (Eds), *Integrated Watershed Management: Studies and Experiences from Asia*. Asian Institute of Technology, Thailand.

3. Refereed journal articles: international, regional, national. For each article, indicate the publisher of the journal and the number of SCOPUS citations.

3. A Summary of journal articles published (2005 – to-date)

Refereed International Journals	Refereed Regional Journals	Refereed National Journals
91		(1)

In Progress		
Refereed International Journals	Refereed Regional Journals	Refereed National Journals
25		

3.B Articles in Refereed International Journals

Submitted

1. Thanvisitthpon, N., **Shrestha, S.**, Chaowiwat, W., Pal, I., Ninsawat, S. (2019). Assessment of Urban Flood Adaptability Using Adaptive Capacity Index: A Case Study of Thailand’s Flood-prone Phetchaburi Municipality. Global Environmental Change. Publisher: Elsevier. Impact Factor: 6.371 (2019)
2. **Shrestha, S.** and M. S. Babel (2019). Climate change projections in South and Southeast Asian River Basins, Submitted to International Journal of Disaster Risk Reduction. Publisher: Elsevier. Impact Factor: 2.568
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 76. **Shrestha, S.**, Dulal, K.N., Bastola, S., Ishidaira, H., Kazama, F. and Takeuchi, K. (2006). Evaluation of spatial and temporal transferability of BTOPMC model parameters for simulating stream flow in Nepalese river basins. *The Fourth International Symposium on Southeast Asian Water Environment*, 6-8, December 2006, Asian Institute of Technology, Bangkok, Thailand.
 77. Nakamura T., **Shrestha, S.**, Kazama, F. (2006). The preliminary studies of deep groundwater recharge systems in Kathmandu Valley, Nepal. *The Fourth International Symposium on Southeast Asian Water Environment*, 6-8, December 2006, Asian Institute of Technology, Bangkok, Thailand.
 78. **Shrestha, S.**, Kazama, F., Babel, M.S. and Das Gupta, A. (2005). Use of AnnAGNPS for watershed modeling in Siwalik Hills of Nepal. In Proc. *Simulation and Modeling 2005*, 401-409, Bangkok, Thailand, 17-19, January.
 79. Kazama F. and **Shrestha, S.** (2005). Statistical modeling of water quality and pollutant load estimation using long term monitoring data of Fuji river basin. *Annual Meeting on*

- Environmental Science*. Society of Environmental Science, Japan, September 8-9, 2005, Nagoya, Japan.
80. **Shrestha, S.** and Kazama, F. (2005). Development of landuse export coefficients for the estimation of nutrient loads in Fuji river basin, Japan. In Proc. *The 14th Korea/Japan Symposium on Water Environment*, 52-69, Masan, South Korea, 25-27, September.
 81. Pathak, B.K., Kazama, F., Toshiaki, I and **Shrestha, S.** (2005). Nitrogen leaching monitoring from a tropical paddy field using soil-water sampler. In Proc. *7th Inter Regional Conference on Environment and Water*, 972-978, 11-15, October, Beijing, China.
 82. **Shrestha, S.** and Kazama, F. (2005). Development of landuse export coefficients for Fuji river basin, Japan. In Proc. *The Third International Symposium on Southeast Asian Water Environment*, 64-71, 6-8, December 2005, Asian Institute of Technology, Bangkok, Thailand.
 83. Nakamura, T., **Shrestha, S.**, Satake H., Kazama, F. (2005). Tracing Nitrate Transport in the Ground-water Aquifers using Isotope Techniques- a case study in Western Kofu Basin, Japan. In Proc. *The Third International Symposium on Southeast Asian Water Environment*, 87-94, December 6-8, 2005, Asian Institute of Technology, Bangkok, Thailand.
 84. **Shrestha, S.**, Babel, M.S. and Das Gupta, A. (2004). Evaluation of AnnAGNPS model for watershed in the Siwalik Hills of Nepal. In Proc. *7th Inter Regional Conference on Environment and Water*, 675-681, Beijing, China, 11-15, October.

5. Papers in Workshops

1. **Shrestha S.**, Pandey VP (2015). Non-economic Loss and Damage (NELD): Thai Perspective. Presented at the one-day workshop titled “Indicators for addressing the non-economic loss and damage”, 23 June 2015, Tokyo, Japan.
2. Pandey V. P. and **Shrestha S.** (2015). Towards groundwater management in Southeast Asia: Lessons learnt from responses in selected cities. Presented at the Third International Young Researchers’ Workshop on River Basin Environment and Management, 21-22 December 2015, Naresuan University, Thailand.
3. Pandey V.P., **Shrestha S.** (2015). An introduction to Analytical Hierarchy Process (AHP). Presented at the oneday workshop titled “Addressing non-economic losses and damages associated with climate change: Learning from the recent past extreme climatic events for future planning”, 7TH October 2015, Asian Institute of Technology (AIT), Thailand.
4. **Shrestha, S.** (2012). Flood Situation at AIT: Chronology of Events and Lesson Learned. In Proc. *Workshop on Disaster Information Dissemination System for Local Community in Rural Mountainous Area: Part I*, 41-54, Tokyo, Japan, 23-26 January, 2012.
5. **Shrestha, S.** (2011). Groundwater Management in Asia-Experiences of Asian Cities. In: ‘Workshop and Exposure Visit on Integrated Water Resources Management in Thailand’ 30 May-06 June, 2011, Asian Institute of Technology, Thailand.

6. Posters

1. Boonwichai, S. and **Shrestha, S.** (2018). Adaptations to Climate Change Impacts on Rice Yield in the Upper Songkhram River Basin, Thailand. In: APN's 23rd Intergovernmental Meeting, Bangkok, Thailand, 11-12 July, 2018. (Poster No: 23IGM-YS13)
2. Techamahasaranont J., **Shrestha S.** and Tangtham N. (2012). Effects of Climate Change and Land Use Change on Water Resources in the Upland of Chao Phraya River Basin, Thailand, In: ‘Planet Under Pressure 2012’, 26-29, London. (Poster Number: P1.296, Awarded Travel Grants)
3. Shrestha Sujana, **Shrestha, S.**, Nakamura, T. and Kazama, F. (2012). Stable isotopic composition of $\delta^{15}\text{N-NO}_3^-$ and $\delta^{18}\text{O-NO}_3^-$ in bulk precipitation of Kathmandu valley, Nepal. In: International Global Atmospheric Chemistry (IGAC) 2012 Open Science Conference “Atmospheric Chemistry in the Anthropocene”, 17-21 September 2012, Beijing, China. (Awarded Young Scientist Travel Grant).
4. Shrestha Sujana, **Shrestha S.**, Nakamura T. and Kazama, F. (2012). Stable isotopic composition of $\delta^{15}\text{N-NO}_3^-$ and $\delta^{18}\text{O-NO}_3^-$ in precipitation of Kathmandu valley during monsoon season. In: European Geosciences Union General Assembly, 22-27 April 2012, Vienna, Austria.

5. Udmale P. and **Shrestha, S.** (2011). Geospatial analysis of groundwater quality using Geographical Information System: A case study from Maharashtra State (India). In: The 10th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA 2011), 12-14 October, 2011, The Empress Hotel, Chiang Mai Thailand.
6. Shrestha Sujan, **Shrestha, S.** and Kazama, F. (2011). Chemical composition of bulk precipitation in Kathmandu Valley. In: The 8th International Conference on Acid Deposition: ACID RAIN 2011, 15-18 June, 2011, Beijing, China.
7. Shrestha Sujan, **Shrestha S.**, Nakamura, T., Kazama F. (2011). Stable isotopic composition of rainwater and soil water of Kathmandu valley, Nepal, In: JpGU International symposium- Japan Geosciences Union Meetings, 27 May 2011. Chiba, Japan.
8. Shrestha, Sujan, **Shrestha, S.**, Nakamura T. and Kazama, F. (2011). Stable isotopic composition of rainwater and soil water of Kathmandu Valley, Nepal. Presented (Poster No. AHW023-P05) in Japan Geoscience Union Meeting 2011, May 20-27, 2011, Makuhari, Chiba, Japan.
9. Shrestha Sujan, **Shrestha, S.**, Nakamura, T. Kazama, F. (2010). Chemical and Isotopic Characteristics of Rainwater of Kathmandu Valley, Nepal, In: International Graduate Conference on Climate change and People, 15-19 November, Kathmandu, Nepal.
10. Pandey, V. P., Babel, M. S., **Shrestha, S.** and Kazama, F. (2008). Water resources reconstruction: Adaptive capacity approach. Presented in the poster session of Western Pacific Geophysics Meeting 2008 (29 July – 01 Aug 2008) @ Cairns, Australia.
11. **Shrestha, S.**, Kazama F., Sakamoto, Y. and Bastola, S. (2005). Modelling of pollutant load in different river system: A case study in Fuji River Basin, Japan. *IWA Watershed Conference 2005, 10th International Specialist Conference on Watershed and River Basin Management 2005*, September 13-15, Calgary, Alberta, Canada. .
12. Adhikari, K.R., **Shrestha, S.**, Adhikari, P.P, and Chen, Z.S. (2006). Effectiveness of Liming Material to Amend Acidic Upland Soil and Wheat Productivity. *18th World Congress of Soil Science 2006*, July 9-15, Philadelphia, Pennsylvania, USA.
13. **Shrestha, S.**, Kazama, F. (2006). Developing a Framework to Estimate Land Use Export Coefficients for the Modelling of Point and Non-Point Source Pollutant Loads into Water Bodies. *AGU Fall Meeting 2006*, December 11-15, 2006, San Francisco, USA.

6. Development Project Reports

1. *World Small Hydropower Development Report 2019*. Thailand chapter. Published by United National Industrial Development Organization (UNIDO) and International Center on Small Hydro Power (ICSHP).
2. Project report on ‘*Training on Hydrological Modelling for Water Accounting*’ 2018. Submitted to FAO Afghanistan.
3. *World Small Hydropower Development Report 2017*. Thailand chapter. Published by United National Industrial Development Organization (UNIDO) and International Center on Small Hydro Power (ICSHP).
4. Project report on ‘*Understanding and Quantifying the Water-Energy-Carbon Nexus for Low Carbon Development in Asian Cities*’, APN E-Lib, accessed March 28, 2018. (Link: <http://www.apn-gcr.org/resources/items/show/1916>)
5. Project report ‘*Building Capacity and Strengthening Community Participation for Water Resources Management and Wetland Ecosystem Restoration in the context of Climate Change in Lower Songkhram River Basin*’ 2017. Submitted to WWF, Thailand.
6. Project report on ‘*Adaptation to groundwater vulnerability of Asian Cities to climate change: Developing capacity to bridge the science and policy interface*’ submitted to Asia Pacific Network for Global Change Research (APN).
7. Project report on ‘*Capacity building for Moeyingyi wetland conservation in Myanmar in the context of climate change*’. Published by Ramsar International.

8. Project report on ‘*Crop production for food security and rural poverty Baseline and pilot modelling*’, 2014. Submitted to Mekong River Commission (MRC). [Authors: Shivakoti, G.P., Minami, I., Jantakad, P., Ullah, R, **Shrestha, S.** and Datta, A)
9. Project report on ‘*Curriculum Development for an Undergraduate Program in Water Resources and Environmental Engineering in Kandahar University, Afghanistan*’2013. Submitted to Canadian International Development Agency (CIDA).
10. Project report on ‘*Assessment of water availability under climate change scenarios in Thailand*’ 2013. Submitted to Institute for Global Environmental Strategies (IGES), Japan.
11. Project report on ‘*Policy learning: integrating poverty reduction and climate change responses in Finland's development cooperation and CDM activities 2012*’ Jointly submitted by Finnish Environment Institute (SYKE) and Asian Institute of Technology (AIT) to Ministry for Foreign Affairs of Finland (MFA).
12. Project report on “*Climate change and adaptation to water scarcity: Strategies for integrated water and land use management to enhance the resilience of rural communities in the Gangetic Basin 2011*” submitted to Institute for Global Environmental Strategies (IGES), Japan.
13. Project report on ‘*Climate Change Program Loan (II), Advisory and Monitoring in Republic of Indonesia 2007-2009*’ submitted by Global Group 21 Japan Co., Ltd and Institute for Global Environmental Strategies (IGES) to Japan International Cooperation Agency (JICA).
14. Program Evaluation Report on ‘*Indonesia Climate Change Program Loan, 2007-2009*’ submitted by Global Group 21 Japan Co., Ltd and Institute for Global Environmental Strategies (IGES) to Japan International Cooperation Agency (JICA).
15. Project report on ‘*Sanitation Constraints Classification and Alternatives Evaluation for Asian Cities (SaniCon-Asia project) 2011*’ Submitted to Graduate School of Global Environmental Studies, Kyoto University, Japan.
16. Project report on ‘*Integrated strategies and communities to protect and restore water quality of Kathmandu Valley, Nepal 2009*’. Submitted to Toyota Environmental Activities Grant Program, Toyota Motor Corporation, Japan.
17. Project report on ‘*Promoting 3R concept (reduce, reuse and recycle) for the sustainable solid waste management in the Gokarneswor Village Development Committee of Kathmandu valley, Nepal*’ 2008. Submitted to Asia-Pacific Forum for Environment and Development (APFED).

7. Invited Lectures and Keynote Addresses

1. Invited speech on ‘*Adaptation of water and agriculture sector to climate change*’ in International Training Course on “Adapting to Climate Change: Facing the Consequence” Faculty of Environment and Resource Studies Mahidol University, Thailand on 2 – 22 July 2019.
2. Invited speech on ‘*Synergies and conflicts of trans-boundary uses of water resources: The Case of Mekong River and Myanmar*’ in Program Development Workshop on Sustainable Water Resources Management for Food Security in Southeast Asia on 26–28 June, SEARCA Headquarters, College, Los Baños, Laguna, Philippines.
3. Invited speech on ‘*The Mekong River Basin under Environmental Change: Evidence from Modeling Studies*’ in the International Forum on Sustainable Future in Asia (4th NIES International Forum) in Hanoi, Vietnam on 23-24 January 2019.
4. Key note speech on ‘*Climate Change and Landuse Change Impact on Water Resources in the Mekong River Basin: Evidence from Modelling Studies*’ in Lower Mekong Initiative Young

- Scientist Program’s Annual Scientific Symposium, 13-14 December, 2018 Ho Chi Minh City, Vietnam.
5. Invited speech on ‘*Hydro-met disasters: recent trends, responses and management challenges*’ in ‘Training Program on Disaster Risk Management and Governance’ for Busia County Officials, Kenya organized by DPMM, AIT on 7 –14 December, 2018.
 6. Invited speech on ‘*Integrated assessment of climate and land use change impact on streamflow and water quality in the Songkhram River Basin, Thailand*’ in College of Water Sciences in Beijing Normal University on 27 November 2018.
 7. Invited speech ‘*Climate Change Projections in South and Southeast Asian River Basins*’ in workshop on ‘Status of Climate Science and Technology in Asia – for IPCC AR6’ on 15-16 November 2018, Sheraton Imperial Kuala Lumpur Hotel, Malaysia.
 8. Key note speech on ‘*Decision making under climate change uncertainty in water sector*’ in the the 6th International Symposium on Advances in Civil and Environmental Engineering (ACEPS-2018) organized in University of Ruhuna, Sri Lanka on 15 March, 2018 in Galle, Sri Lanka.
 9. Invited Speech on ‘*Climate Change Impact on Water Environment*’ in the CES Talk Series 2018 organized by University of Peradeniya in Sri Lanka on 25 October, 2018.
 10. Invited speech on ‘*Adaptation of water and agriculture sector to climate change*’ in International Training Course on “Adapting to Climate Change: Facing the Consequence” Faculty of Environment and Resource Studies Mahidol University, Thailand on 9 – 27 July 2018.
 11. Invited speech on ‘*Climate change impact on groundwater recharge in Asian cities*’ in International Symposium on Urban Water Management in Southeast Asia. 23 Feb, 2018. Phnom Penh, Cambodia
 12. Key note speech on ‘*Groundwater Management in Asian Cities*’ in ‘2017 Lower Mekong Policy Forum on Energy, Agriculture, and Natural Resources’ on 07-08 December, 2017 in Danang, Vietnam.
 13. Invited speech on ‘*Challenges and opportunities for sustainable management of natural resources and water environment in the climate change era*’ in seminar organized by Hue University, Vietnam on 16 June, 2017.
 14. Invited lecture on ‘*Climate Change and Water Resources*’ in National University of Laos (NUoL), Lao PDR on 6 April, 2017.
 15. Invited lecture on ‘*Global Climate Change and Water Resources*’ in Beijing Normal University, China on 24 May, 2017.
 16. Key note speech on ‘*Save Groundwater: Secure Future*’ in the 8th National Groundwater Symposium on Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal" on 20 March 2017 in Kathmandu, Nepal.
 17. Key note speech on ‘*Groundwater Pollution: Trends, Opportunities and Challenges in Asia*’ in the 12th International Symposium on Southeast Asian Water Environment (SEAWE12) on 28-30 November 2016 in Hanoi, Vietnam.
 18. Invited speech on ‘*Nepal 2015 Earthquake: Lesson learnt and areas of improvement in water sector*’ in ‘Disaster Emergency: Emergency Preparedness “session in IWA World Water Congress & Exhibition on 09-14 October in Brisbane, Australia.
 19. Invited speech on ‘*Sustainable groundwater withdrawal and management in urban settings: Case of Bangkok*’ in the session ‘Ensuring Sustainable Withdrawal of Water Resources’ organized by UNEP in 1st Asia International Water Week (AIWW) in Korea. on 20-23 October in Gyeongju, South Korea.
 20. Invited speech on ‘*Water in SDGs: Research, Education and Capacity Building Needs*’ in Korea International Water Week (KIWW) on 18-21 October, 2016 in Daegu, South Korea.
 21. Invited speech on ‘*Climate change adaptation challenges in Thailand*’ in International Workshop ‘Energy Security and Climate Change in South Asia’ organized by Konrad Foundation in Kathmandu, Nepal on 03-05 July, 2016.
 22. Invited speech on ‘*Groundwater management challenges in Asian Cities*’ in ‘Groundwater Forum’ organized by The Government of India, in partnership with the World Bank (WB) and the International Water Association (IWA) in Jaipur, India on 01-03 June, 2016.
 23. Invited speech on ‘*Groundwater management challenges in Asian Cities*’ in ‘Groundwater Forum’ organized by The Government of India, in partnership with the World Bank (WB) and the International Water Association (IWA) in Jaipur, India on 01-03 June, 2016.

24. Invited speech on '*Challenges for climate change adaptation in water resources sector*' in International Workshop 'Energy Security and Climate Change in South Asia' organized by Konrad Foundation on 03-05 July, 2016 in Kathmandu, Nepal.
25. Key note speech on '*Hydro-meteorological disaster: recent trends, challenges and opportunities*' the 'First International Conference on Disaster Mitigation and Management for Sustainable Development and Risk Reduction (ICDMSDR-16)' organized by NIT, Tiruchirapalli, India on 22-24 Feb, 2016 in Tiruchirapalli, India.
26. Key note speech on '*Climate change impacts on water resources and selected water use sectors: Case studies from Asia*' in 'The 3rd International Young Researchers Workshop on River Basin Environment and Management', organized Naresuan University, Phitsanulok, Thailand on 21-22 December, 2015.
27. Invited speaker and panelist in the symposium '*Global Expansion of Smart Water Treatment System for Sustainable Water Management*', organized by JST/JICA on 05-06 December, 2015 in Kathmandu, Nepal.
28. Invited lecture on '*Use of Hydrologic and Hydraulic Simulation Models in Climate Impact Assessment and Project Risk Management*' in 'Training on climate resilience in water sector investment projects' organized by ADB on 13-14 October 2015, ADB Headquarters.
29. Invited lecture on '*Overview of Adaptation Options for Water Sector Projects*' in 'Training on climate resilience in water sector investment projects' organized by ADB on 13-14 October 2015, ADB Headquarters.
30. Invited lecture on '*Assessment of climate change impacts and adaptation in water and water use sectors*' in 'Training on climate resilience in water sector investment projects' organized by ADB on 13-14 October 2015, ADB Headquarters.
31. Invited lecture on '*Assessment of climate change impacts on irrigation water requirement and rice yield for Ngamoeyeik Irrigation Project in Myanmar*' in Workshop on Integration of Adaptation Measures against Climate Change for Asian Rice-based Agriculture, organized by FFTC, NIEAS on 25-28 August, 2015 in Tsukuba, Japan.
32. Invited speech on "*Indicators for addressing the non-economic loss and damage*", workshop organized by IGES, Japan on 23 June in Tokyo, Japan.
33. Invited speech on '*Climate change impacts on water resources and selected water use sectors: Case studies from Asia*' in '7th World Water Forum' on 12-15 April in S. Korea.
34. Key note speech on '*Climate Change Impacts and Adaptation in Water Resources and Water Use Sectors: Examples from Asian River Basins*' in 'International workshop on adaptation to climate change in major river basins of Asia' organized by ADB on 29 -30 April 2015 in Bogor, Indonesia.
35. Invited lecture on '*Assessment of Surface Water Quality Using Environmetric Techniques: A Case Study of the Lower Songkhram River Basin, Thailand*' in the "UNESCO International Symposium on Scientific, Technological and Policy Innovations for Improved Water Quality Monitoring in the Post-2015 SDGs Framework" on 14-18 July in Kyoto, Japan.
36. Invited speech and panelist on '*Addressing water management challenges in Southeast Asia: Sharing best management practices*' in ASEAN-EU Research & Innovation Cooperation Policy Consultation Workshop STI Days, Paris, March 19, 2015.
37. Invited speech on '*Climate Change Impacts and Adaptation in Water Resources and Water Use Sectors: Examples from Asian River Basins*' in International Conference on Climate Change Innovation and Resilience for Sustainable Livelihood on 12- 14 January, 2015 Soaltee Crowne Plaza, Kathmandu, Nepal.
38. Key note speech on '*Towards Sustainable Groundwater Management of Groundwater Resources*' in the Fifth National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley, Nepal' on 21 March, 2014 in Kathmandu, Nepal.
39. Invited speech on '*Climate change impact on Kulekhani Hydropower Project, Nepal*' in "International Conference on Climate Change, Water Resources and Disasters in Mountainous Regions: Building Resilience to Changing Climate" November 27-29, 2013 in Kathmandu, Nepal.
40. Invited speech on '*Groundwater Governance*' in workshop on 'Comparative research of groundwater management in the coastal areas in Southeast Asia' 24 March-03 April, 2013 in Ho Chi Minh City, Vietnam.

41. Invited speech on ‘*Water Management Training and Capacity Building at AIT*’ in Regional Workshop on “Strengthening Regional Capacity for Irrigation Revitalization and Agriculture Water Governance”, organized by FAO on 4 - 6 March 2013 in Nanjing, China.
42. Invited lecture on ‘*Water Supply and Sanitation Situation in Kathmandu Valley, Nepal*’ in International Seminar on Sanitation Constraints Classification and Alternatives Evaluation, organized by Kyoto University, Japan on 19-22 July, 2010 in Kyoto University, Japan.
43. Invited presentation on ‘*Groundwater studies at AIT and collaboration between AIT and IGES*’ in the second International Forum for Sustainable Asia and the Pacific (ISAP2010), organized by Institute for Global Environmental Strategies (IGES), Japan on 12-13 July, 2010 in Yokohama, Japan.
44. Invited lecture on ‘*Groundwater Management in Asia- Experiences on Asia Cities*’ in the Groundwater Expert Meeting: Sustainable Groundwater Resources Management of Kathmandu Valley, Nepal, organized by the Kathmandu Valley Water Supply Management Board (KVWSMB) on 4-5 July in Hotel Himalaya, Nepal.
45. Invited lecture on ‘*Global Climate Change and Environmental Management*’ in the Second Public Management Executive Development Program, organized by The Damrong Rajanupab Institute (DRI) and Asian Institute of Technology (AIT) on June 28 – July 13, 2010 in Grand Miracle Hotel, Thailand.
46. Invited lecture on ‘*Groundwater and climate change: No longer the hidden resource*’ in the Training Course in Environmental and Natural Resource Economics, organized by the South Asian Network for Development and Environmental Economics (SANDEE) on 3 - 21 May, 2010, Bangkok, Thailand.
47. Invited presentation on ‘*Centre of Excellence on Sustainable Development in the Context of Climate Change (SDCC) at AIT*’ in AWI Climate Change Research Meeting & Workshop on 16 – 19 March, 2010 at University of Indonesia, Jakarta, Indonesia.
48. Key note speech on ‘*Groundwater and climate change: No longer the hidden resource*’ in the National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley, Nepal’ on 28 December, 2009 in Kathmandu, Nepal.

8. Total number of citations to the faculty member’s published work, as shown by SCOPUS (excluding self citations).

- **Total number citation:** 1716 total citations by 1591 documents (2006 – ugust 19, 2019)

- **h-index:** 19 [Excluding Self-citation]

B. Research in progress

1. Brief descriptions of current projects

1. *Connecting climate change, hydrology & fisheries for energy and food security in Lower Mekong Basin (CC-HYDRO)*

Funding: United States Agency for International Development (USAID)

Period: January 2017 – December, 2020; Total Budget: US\$ 210,000; Role: PI (with Dr. Vilas Nittivatanon, Co-PI)

Overhead: Baht 857,095.00, Faculty time: -, Student Scholarships/Fellowships: Baht 448,000.00

Followings are the objectives of this project: a) to develop hydrological model to simulate hydrology of selected river basins across Asia, b) to assess the impact of climate change on the hydrology of selected river basins of Asia and c) to assess and compare the performance of local and global hydrological model to simulate the impact on climate change on hydrology in selected river basins of Asia.

2. *Mapping groundwater resilience to climate change and human development in Asian cities (GROUNDWATER-ASIA)*

Funding: Asia Pacific Network for Global Change Research (APN)
Period: September 2018 – August 2021; Total Budget: US\$ 92,900; Role: PI
Overhead: -, Faculty time: -; Student Scholarships/Fellowships: Baht 1,134,000.00

The aim of the project is to improve understanding of the impacts of climate change and human development on groundwater resources and local demand. The project will develop policy recommendations for sustainable groundwater development and management that will support adaptation and build resilience.

3. *Enhancing Resilience to future Hydro-meteorological extremes in the Mun river basin in Northeast of Thailand (ENRICH)*

Funding: Thailand Research Fund (TRF) & The Natural Environment Research Council (NERC), UK

Period: October 2018 – March, 2021; Total Budget: Baht 5,000,000.00 (US\$ 160,000); Role: Co-PI (With Prof. Mukand S. Babel, PI)

Overhead: Baht 426,266.85, Faculty time: Baht 175,000; Student Scholarships/Fellowships: Baht 264,000

Followings are the objectives of the project: to understand the impact of the combined stressors of climate variability, climate change and land-use change on hydro-meteorological extremes in the Mun River basin; and to recommend adaptation measures to enable sustainable management of water resources and improve water security in the coming decades.

4. *A comparative study of global and local model for climate change impact assessment in Asia region (HYDRO-ASIA)*

Funding: Sejong University Industry Academy Cooperation Foundation, Korea

Period: January 2018 – December 2019; Total Budget: US\$92, 300; Role: PI

Overhead: Baht 426,266.85, Faculty time: Baht 175,000; Student Scholarships/Fellowships: Baht 264,000

Followings are the objectives of this project: a) to develop hydrological model to simulate hydrology of selected river basins across Asia, b) to assess the impact of climate change on the hydrology of selected river basins of Asia and c) to assess and compare the performance of local and global hydrological model to simulate the impact on climate change on hydrology in selected river basins of Asia.

5. *Disaster resilience and sustainable development education network in Asia (DR SDE ASIA)*

Funding: UNU Japan

Period: March 2018–March 2019; Total Budget: US\$ 18,000; Role: Co-PI (with Dr. Indrajit Pal, PI)

Overhead: -; Faculty time:-; Student's Scholarships/Fellowships: -

6. *Training on Hydrological Modelling for Water Accounting (HYDRO-WA)*

Funding: Food and Agriculture Organization of the United Nations (FAO)

Period: December 2017 – November 2018; Total Budget: US\$31,109; Role: PI (with Dr. Duc Hoang Nguyen)

Overhead: Baht 93,521.69; Faculty time:-; Student Scholarships/Fellowships: Baht 192,000.00

The purpose of the 'Hydrological Modeling for Water Accounting' training project is to make the participants familiar with the theory and practice of numerical modeling. The training consists of class-room lectures and hands-on exercises and field visits. Whereas the purpose of preparing training manual is to develop a tailor made training packages in water accounting and water productivity to build national capacities in water related agencies in Afghanistan.

7. *Developing an operational framework for river health assessment in the Mekong River Basin (MK25)*

Funding: CGIAR Consortium Research Program on Water, Land and Ecosystems (WLE)

Period: May 2015 – December 2018; Total Budget: US\$450,000; Role: Co-PI (With Prof. Mukand S. Babel, PI)

Overhead: Baht 1,456,220.00; Faculty time: Baht 368,320.35; Student's Scholarships/Fellowships: -

The project MK25's objective is to develop an indicator system to monitor and evaluate river health in the Mekong River Basin (MRB), and demonstrate its application in a selected catchment—the Songkhram (Thailand). River Health Indicators (RHIs) (and corresponding health assessments) in the MRB, and especially the study area, have traditionally been centred on river water quality parameters. However, other drivers of river health, such as catchment disturbance, hydrological changes, and riparian habitat conditions must be taken into consideration in developing a more complete RHI system. The proposed project seeks to plug existing gaps by developing a holistic indicator system, using a systems-based approach, at two scales – catchment and community.

8. *Evaluation of climate change impacts and suitable adaptation strategies for crop production and its environmental and economic implications in vulnerable regions of Thailand and India (RFCC WEM Research)*

Funding: French Ministry of Foreign Affairs and International Development

Period: January 2017 – December 2018; Total Budget: US\$45,000; Role: Co-PI (with Prof. Mukand S. Babel, Dr. Sanyogita Andriyas and Dr. Damien Jourdain)

Overhead: Baht 291,837.00; Faculty time: Baht 364,579.00; Student's Scholarships/Fellowships: -

The study will project climate change scenarios and assess their effects on agriculture and subsequently its impacts on environment and socio-economy of the region. Mitigation and adaptation measures will be suggested for coping with the future climate conditions. Alternatives like conservation agriculture, beneficial crop mix or tradeoffs for planting single crops will also be investigated with resultant environmental impact to give feasible solutions with regards to climate change. Same crop and similar agricultural practices will be studied in a similar region in India to improve understanding and suggest suitable mitigation and adaptation measures.

9. *Irrigation Feasibility and Design*

Funding: Ministry of Energy and Water, Afghanistan

Period: May 2015 – December 2021; Total Budget: US\$221,116; Role: PI

Overhead: -; Faculty time: Baht 294,276.00; Student Scholarships/Fellowships: -

The project aims to contribute to train 30 senior officials of Ministry of Energy and Water, Afghanistan.

10. *Building Capacity and Strengthening Community Participation for Water Resources Management and Wetland Ecosystem Restoration in the context of Climate Change in Lower Songkhram River Basin (CC-HYDRO)*

Funding: HSBC and WWF

Period: Nov 2014 – December 2020; Total Budget: US\$300,000; Role: PI

Overhead: -, Faculty time: Baht 320,979.00, Student Scholarships/Fellowships: -

The project aims to contribute to an integrated approach of water and land use policies to climate change adaption with the following objectives:

- Assessment of climate change impacts on water availability and water quality in the Lower Songkhram River Basin
- Conduct “River & Wetland Watch Program” for HSBC Staffs and stakeholders of Lower Songkhram river basin

11. *Climate Technology Centre and Network (CTCN)*

Funding: United Nations Environment Program (UNEP),

Period: Oct 2013 – June 2015, Total Budget: US\$ 130,000, Role: PI (with Prof. Mukand S. Babel, Prof. Rajendra Shrestha)

Overhead: Baht 291,837.00; Faculty time: Baht 364,579.00; Student's Scholarships/Fellowships: -

The central theme of the project is to foster capacity building in developing mitigation and adaptation strategies for the water and forestry sector in response to climate change. Diverse tools and resources have been identified to be added to the knowledge management system of UNEP. Webinars and workshops will be conducted to enhance the capacity of NDEs.

12. *Capacity Development on Adaptation and Disaster Management of the Water Section related to Climate Change (DUET-CD)*

Funding: Wageningen University, the Netherlands.

Period: October 2012 - December 2015, Total Budget: Euro 66,560, Role: Member (with Prof. Mukand S. Babel, PI)

Overhead: Baht 110,934.12; Faculty time: Baht 35,862.80; Student's Scholarships/Fellowships: -

The thematic focus of this project is to develop and strengthen technical and managerial skills of the Dhaka University of Engineering and Technology (DUET) in addressing imminent concerns related to the water sector as a result of climate change. Selected staff members of DUET are expected to receive their Masters and PhD degrees by means of this project. Further, short training courses conducted during the duration of the project will seek to plug evident knowledge gaps. A vital component of the project is to develop gender policy to ensure women's involvement in decision-making.

13. *Capacity Development of Higher Education on IWRM at CUET (CUET IWRM)*

Funding: UNESCO-IHE, the Netherlands.

Period: January 2011 - December 2016, Total Budget: Euro 95,407, Role: Member (with Prof. Mukand S. Babel, PI)

Overhead: Baht 134,695.72; Faculty time: Baht 35,862.80; Student's Scholarships/Fellowships: -

This project is designed to foster capacity development for higher education on Integrated Water Resources Management at the Chittagong University of Engineering and Technology (CUET). The extent of work entails developing an undergraduate course, eight post graduate courses, and short training courses for students and staff at CUET. Further, the lab capacity is endeavored to be developed. Additionally, selected staff members will earn their masters and PhD degrees at AIT and IHE.

14. *SEA-EU-NET 2 – EU-ASEAN S&T cooperation to jointly tackle societal challenges (SEA EU NET II)*

Funding: The International Bureau of the German Federal Ministry of Education and Research (DLR), Germany

Period: December 2012 – December 2018, Total Budget: Euro 221,000, Role: Co-PI (with Dr. Anil Kumar Anal and Dr. P. Abdul Salam)

Overhead: Baht 501,129.34; Faculty time: Baht 411,183.56; Student's Scholarships/Fellowships: -

The strategic objective of this project is to strengthen bi-regional EU-ASEAN S&T Cooperation through coordination and support actions targeted towards the societal challenges: Water management Health, Food security and safety. AIT is leading a component of 'Water Management' with an objective to create network of different stakeholders in order to strengthen research capacity and to build a platform towards better system in managing water resources and to respond specifically towards different stakeholder.

15. *Establishment of overseas collaboration centre at Asian Institute of Technology (OCC-UY/AIT):*

Funding: University of Yamanashi, Japan

Total Budget: First phase: US\$22,632, Second Phase: US\$31,832, Third Phase: US\$40,733, Role: PI

Overhead: Baht 430,654.00; Faculty time: Baht 520,614.50; Student Scholarships/Fellowships: -

A project on “Establishment of overseas collaboration centre at Asian Institute of Technology (OCC-UY/AIT)” aims to coordinate and facilitate project collaboration between University of Yamanashi, Japan and AIT and other local partners such as the Thai Government agencies. The center focuses its collaboration on integrated river basin management in the Asian Monsoon Region. Other activities of the center include exchange of faculty, staff and students. The center also provides scholarships for higher studies for doctoral programs at University of Yamanashi. The center has started in June 2010 for an initial period of 1 year and now it is extended until December 2018.

C. Research grants and sponsored projects

1. List of proposals submitted.

No.	Proposal title	Submitted to	Budget	Role	Status
1	International Symposium on ‘Climate Change Impact, Vulnerability and Adaptation: Asian Perspective’	Asian Pacific Network for Global Change Research (APN)	\$ 20,000	PI	Accepted (17 July, 2019)
2	Water Resources Management in the Mekong River Basin	DoI, USA	\$127,187	PI	Accepted & waiting for contract (December 2018)
3	An integrated modeling approach for groundwater sustainability of Indo-Gangetic plain in India	ASEAN-India Collaborative R&D	\$150,000	PI from Thailand (Dr. Pallavi Chattopadhyay, PI from IIT Roorkee)	Short-listed & full proposal submitted (25 July, 2019)
4	Integrated Regional Assessment on Groundwater Study of Mekong Region	Stockholm Environment Institute (SEI)	\$215,000	PI	Short-listed & invited for full proposal (15 July, 2019)
5	Sustainable groundwater management under socio-economic and climate change in Mekong Delta, Vietnam	USAID	\$ 80,000	Co-PI (PI, Vietnam National University, Ho Chi Minh, Vietnam)	Pre-proposal accepted & full proposal submitted (Final Results will be announced by Sep, 2019)
6	Impacts of Climate Change & Climate	TRF-China	Baht 3.99 million	Co-PI (PI, Prof. Mukand S. Babel)	Short-listed & presented

	Variability on Hydrometeorological Extremes and Their Adaptations in the Lancang-Mekong River Basin				on 12 July, 2019
7	Disaster Education for integrating SFDRR and SDG in Asia	ProSPER.Net, UNU, Japan	\$ 20,000	Co-PI (PI, Dr. Indrajit Pal)	Submitted on 31 July, 2019
8	Climate variability; drought; Adaptation; Hydrology; Southeast Asia; Water Resources	Thai Research Fund (TRF)	Baht 3.83 million	Co-PI (with Dr. Sarawut Ninsawat)	Not successful
9	Influences of flash droughts on adaptation strategies in Water Resources Management in Southeast Asia	Thai Research Fund (TRF)	Baht 3.8 million	Co-PI (with Dr. Sarawut Ninsawat)	Short-listed (June, 2018) But unsuccessful
10	Response mechanisms of rice production and integrated river basin management to drought and flooding with climate change, risk assessment, and adaptation options under 1.5°C and 2°C warming scenarios	NRCT	Baht 4 million	Co-PI (with Dr. Vilas Nitivattanon)	Submitted (29 March, 2018) But unsuccessful
11	Assessment of climate change and climate variability impact on low flow hydrology and rice production in Tonle Sap Lake, Cambodia	USAID	US\$300,00	Co-PI (with ITC, Cambodia)	Short listed (March, 2018), Unsuccessful
12	Mapping groundwater resilience to climate change and human development in Asian cities	APN	\$100,000	PI (with Dr. Duc Hoang Nguyen)	Accepted (18 July, 2018)
13	Climate change impact assessment on ecosystem services of Southeast Asian River Basins	SEA-JFS	Euro 105,444	PI	Unsuccessful (May 2017)
14	IRES Project: Water-energy-food nexus in the Mekong Basin- Research Experience at Asian Institute of Technology in Thailand	NSF, USA	n/a	With Virginia Technology University	Submitted (Sep, 2017)
15	Enhancing adaptive capacity of community to climate change in water and agriculture sector for environmental sustainability in Lower Songkhram Basin,	CFLI, Canada	CAD 62,800	PI (with Mr. Jessada Techamahasaranont)	Submitted (June, 2017), Unsuccessful

	Thailand.				
16	Climate change impacts on floods and droughts in Songkram River Basin, Thailand	SERVIR-Mekong	\$30,000	PI (with Dr. Duc Hoang Nguyen)	Unsuccessful (Sep, 2016)
17	Enhancing adaptive capacity of community to climate change in water and agriculture sector for environmental sustainability in Lower Songkhram Basin, Thailand.	CFLI, Canada	CAD 62,800	PI (with Thai Water Partnership)	Unsuccessful (June, 2016)
18	Evaluation of Tibetan Plateau's influence on climate change/variability and adaptation strategies in water sector in Southeast Asia	TRF	Thai Baht 4.65 Million	PI	Short-listed but unsuccessful (April, 2016)
19	Urban Environment and Climate Change and Adaptation Project – Hoi An Flood Forecasting and Warning System	ADB	US\$ 2,581,294	PI (with AIT Faculty)	Short-listed (April, 2016)
20	Towards low-carbon Bangkok City: Mainstreaming sustainable consumption of water and energy in policy and planning	UNEP	US\$ 250,000	PI	Unsuccessful (March, 2016)
21	Weather data network for climate-smart agriculture in Nepal	GCFSI Lab, USA	\$50,000	PI	Unsuccessful (March, 2015)
22	Water Resources and Energy Planning in the Context of Climate Change in Myanmar (Burma)	USAID	US\$329,950	PI (with Dr. Shobhakar Dhakal and Dr. Jai G. Singh)	Unsuccessful (Jan, 2014)
23	A multi-facet approach for climate change adaptation over the glacier-fed Ganges river basin	CARIAA	US\$1.27million	PI	Not successful (April, 2013)

2. List of research grants and sponsored projects. For each grant and project specify the project duration, overhead and faculty time income to the institute. [Completed; Administered through AIT and non-AIT]

- *Adaptation to groundwater vulnerability of Asian Cities to climate change: Developing capacity to bridge the science and policy interface (CCA-GW)*
Funding: Asia-Pacific Network for Global Change Research (APN)
Period: August 2016 – December 2018; Total Budget: US\$ 40,000; Role: PI
Overhead: -; Faculty time: -; Student's Scholarships/Fellowships: Baht 457,400.00

The project aims to assess the current and future climate, analyse the vulnerability of groundwater systems to climate and non-climatic changes, and then formulate adaptation strategies to reduce the vulnerability of groundwater resources in selected Asian Cities (Bangkok, Bandung, Ho Chi Minh, and Lahore). The project will also conduct training/workshop to enhance capacity of policy-makers to assess the vulnerability of groundwater system through customization and application of several indicators and indices.

- *Climate Services for Water, Agriculture and Food Sectors (CCWat-Ag)*
Funding: Ministry of Agricultural Development, Nepal
Period: July 2016 – December 2018; Total Budget: US\$ 27,000; Role: PI
Overhead: Baht 50,036.00; Faculty time: 46,200.00; Student's Scholarships/Fellowships: Baht 168,000.00

The project aims to strengthen capacity of 30 participants from the ministry in the areas of climate change impact assessment, generating climate information systems, and tailoring the climate/weather information to a wide-range of users/stakeholders related to water and agriculture sector. We will also introduce case studies and demonstration on precision-farming and agro-advisory systems that the ministry Nepal may update as the best practices.

- *Facilitating the Bi-Regional EU-ASEAN Science and Technology Dialogue SEA-EU-NET Partners in Science- European Union (SEA-EU-NET Partners in Science)*
Funding: The International Bureau of the German Federal Ministry of Education and Research (BLR), Germany
Period: 2011-2012 Total Budget: Euro 53,286, Role: Co-PI
Overhead: Baht128, 914.80; Faculty time: 175,303.17; Student's Scholarships/Fellowships: -
- *Understanding and Quantifying the Water-Energy-Carbon Nexus for Low Carbon Development in Asian Cities (WEC Nexus)*
Funding: Asia-Pacific Network for Global Change Research (APN)
Period: June 2013 – May 2015, Total Budget: US\$80,000, Role: Co-PI
Overhead: -; Faculty time: -; Student's Scholarships/Fellowships: -

This is a regional research to be carried out in an interdisciplinary and comparative fashion in three Asian cities. The research activities will integrate three key dimensions- i.e. water, energy and carbon. It will be carried out in policy relevant manner for the benefit of a number of Asian cities in understanding and devising low-carbon urban development. The research activities are place-based in nature. We will carry out three research activities (a) comparative case-studies of Asian cities to characterize the nature of water-energy-carbon nexus and (b) quantification of the nexus in order to show the extent of the direct and indirect importance and to illustrate the potentials of the nexus to the low carbon development in cities, and (c) based on these, we will gauge the extent and relevancy of addressing the barrier and opportunities for optimizing the water-energy-carbon nexus. We will cover three big Asian cities in this research: Tokyo, Bangkok and Delhi.

- *Capacity building for Moeyingyi wetland conservation in Myanmar in the context of climate change (CC Myanmar)*
Funding: Ramsar Convention Secretariat, Switzerland and Ministry of Foreign Affairs, Japan
Period: Jan 2014- May 2016, Total Budget: US\$ 42,000, Role: PI
Overhead: Baht 71,031.78; Faculty time: -; Student's Scholarships/Fellowships: -

The main objective of the project is to assess the impact of climate change on socio-economic values of Moeyingyi wetland as well as to develop the adaptation strategies and adaptation guidelines for the conservation of Moeyingyi wetland against the climate change impacts. Further workshop on capacity building for a team of Government officials and local authorities would raise awareness about future challenges and put forward probable solutions to overcome those challenges for conservation of wetlands.

- *Hydrology Measurement and Analysis (HYDO TRAINING)*
Funding: Food and Agriculture Organization (FAO)
Period: October 2013- September 2014, Total Budget: US\$ 56,800, Role: PI
Overhead: Baht 140,987.00; Faculty time: 67,823.00; Student's Scholarships/Fellowships: -
- *Climate Technology Centre and Network (CTCN)*
Funding: United Nations Environment Program (UNEP),
Period: Oct 2013 – June 2015, Total Budget: US\$ 130,000, Role: PI (with Prof. Mukand S. Babel, Dr. Rajendra Shrestha)
Overhead: Baht 579,846.00; Faculty time: Baht 179,314; Student's Scholarships/Fellowships: -
- *Enhancing the Groundwater Management Capacity in Asian Cities through the Development and Application of Groundwater Sustainability Index in the Context of Global Change (APN GW)*
Funding: Asia-Pacific Network for Global Change Research (APN)
Period: June 2013 – May 2014, Total Budget: US\$42,000, Role: PI
Overhead: -; Faculty time: -; Student's Scholarships/Fellowships: -
- *Assessment of water availability and demand in Thailand in consideration of climate change (Wat Energy)*
Funding: Institute for Global Environmental Strategies (IGES)
Period: September 2012 – August 2013, Total Budget: US\$24,000, Role: PI
Overhead: Baht 72,716.00; Faculty time: Baht 67,416.50-; Student's Scholarships/Fellowships: -
- *Water interventions for improving smallholder farming and rural livelihoods in Asia and the Pacific (FAO Project)*
Funding: Food and Agriculture Organization (FAO)
Period: July 2012- June 2013, Total Budget: USD 80,124, Role: Member
Overhead: Baht 302,890.90; Faculty time: Baht 134,833.00; Student's Scholarships/Fellowships: -
- *Curriculum Development for an Undergraduate Program in Water Resources and Environmental Engineering in Kandahar University, Afghanistan (CIDA-KU-AIT)*
Funding: Canadian International Development Agency (CIDA)
Period: September 2012 – February 2013, Total Budget: CAD\$98,000, Role: PI
Overhead: Baht 291,837.00; Faculty time: Baht 364,579.00; Student's Scholarships/Fellowships: -
- *Estimation of water footprint and virtual water flow related to the consumption of agricultural products (VW/Nepal)*
Funding: Center of Research for Environment Energy and Water (CREEW), Nepal Total Period: 2011- 2012, Budget: US\$5,000; Role: PI
Overhead: Baht 20,310.02; Faculty time: Baht 40,049.49; Student's Scholarships/Fellowships: -

- *Climate change and adaptation to water scarcity: Strategies for integrated water and landuse management to enhance the resilience of rural communities in the Gangetic Basin (CLIMADPT)*
Funding: Institute for Global Environmental Strategies (IGES) - Strategic Fund, Institute for Global Environmental Strategies (IGES), Japan
Period: 2011-2012, Total Budget: US\$10,000; Role: PI
Overhead: Baht 39,913.98; Faculty time: Baht 67,604.14; Student's Scholarships/Fellowships: -
- *Policy learning: linking development policy and climate change in Finland's relations with developing countries (SYKE - Policy Learning)*
Funding: Ministry of Foreign Affairs, Finland; Partner: Finnish Environment Institute & Asian Institute of Technology; Period: 2011-2012, Total Budget: Euro 39,000; Role: PI
Overhead: Baht 120,854.05; Faculty time: Baht 116,754.51; Student's Scholarships/Fellowships: -
- *APWF Knowledge hub for Groundwater Management Pre-launch workshop (APWF Pre Launch Workshop)*
Funding: Institute for Global Environmental Strategies (IGES); Period: 2011-2012, Total Budget: Baht 93,000; Role: PI
Overhead: Baht 10,510.02; Faculty time: Baht 26,966.60; Student's Scholarships/Fellowships: -
- *Workshop on Exploring Good Practices on Water Resources Management (WWWF Nepal Workshop)*
Funding: Water and Energy Commission Secretariat (WECS), Nepal; Period: 2011-2012, Total Budget: Baht 243,500.00; Role: PI
Overhead: Baht 43,306.68; Faculty time: Baht 26,966.60; Student's Scholarships/Fellowships: -
- *Addressing non-economic losses and damages associated with climate change: Learning from the recent past extreme climatic events for future planning*
Funding: Asia-Pacific Network for Global Change Research (APN)
Period: July 2014 – June 2016, Total Budget: US\$80,000, Role: Collaborator
Overhead: -; Faculty time: -; Student's Scholarships/Fellowships: -

The research will: 1) Develop an assessment framework to identify and measure non-economic losses for key vulnerable sectors (e.g., agriculture, water, livelihood and gender): The assessment framework consist of methodological steps for identifying and incorporating non-economic damages into various risk and vulnerability assessments underlying climate change adaptation and disaster risk reduction decisions; 2) Identify range of best practices for addressing the non-economic loss and damage: The best practices will guide the practitioners and policy makers on how to incorporate non-economic loss and damage into decision making processes and 3) Develop policy mainstreaming guidelines addressing non-economic losses and damages targeting the key policy makers and the practitioners: Will help practitioners and policy makers to evaluate their existing decision making mechanisms on the extent to which they consider non-economic loss and damages and enable to consider these issues to the fullest possible extent. E.g. guidelines for insurance agencies will help considering full range of non-economic damages that have not been considered thus far.

- *Policy Brief Writeshop for Researchers: An Approach to Promote Greater Science-Policy Interfacing in South Asia*
Funding: Asia-Pacific Network for Global Change Research (APN)
Period: June 2013 – May 2014, Total Budget: US\$36,000, Role: Collaborator
Overhead: -; Faculty time: -; Student's Scholarships/Fellowships: -

This project intends to fill this gap between science and policy by building capacity. Four-day intensive training by policy research experts and policy practitioners, and writing fellowship to them to published peer-reviewed journal on policy science interface will be career milestones for the young researchers. Hence, the project aims to achieve

- Capacity-building of young researchers from south Asia to write policy briefs from their research outcomes; and

- Publication of a peer-reviewed journal on policy-science interface in the field of global change research in South Asia and its continuation as a project outcome.
- *University of Yamanashi Young Researcher Grant (US\$3,000) (2005-2006)* to conduct research on “Assessment and redesign of water quality monitoring stations of Fuji river basin, Japan”. (Principle Investigator)
- *Fuji Xerox Setsutaro Kobayashi Memorial Fund (US \$ 12,000) (2005-2006)* to conduct research on “Identification of major processes and modeling of pollutant loads in different river systems of Asia Pacific Region”. (Principle Investigator)
- *Fuji Xerox Setsutaro Kobayashi Memorial Fund (US\$ 10,000) (2006-2007)* to conduct research on “Identification of major processes and modeling of pollutant loads in different river systems of Asia Pacific Region”. (Principle Investigator)
- *Toyota Environmental Activities Grant (US\$ 67,600) (2006-2009)* to conduct research on “Integrated strategies and communities to protect and restore water quality of Kathmandu Valley, Nepal”. (Principle Investigator)
- *Toyota Environmental Activities Grant (US\$ 30,000) (2006-2009)* to conduct research on “Developing a human network for the environmental management in Asian countries”. (Co-Investigator)
- *International Foundation for Science (IFS) Grant (US\$11,000) (2007-2008)* to conduct research on “A comprehensive and integrated approaches to identify groundwater potential zones, recharge areas and recharge rates for the sustainable management of groundwater resource in Kathmandu Valley, Nepal”. (Principle Investigator)
- *Fuji Xerox Setsutaro Kobayashi Memorial Fund (US\$ 10,500) (2007-2008)* to conduct research on “Assessment of groundwater quality of urban, peri-urban and rural areas of Kathmandu Valley, Nepal”. (Co- Investigator)
- *APFED Innovation Showcase for Sustainable Development (US\$ 29,950) (2007-2009)* to conduct research on promoting 3R concept (reduce, reuse and recycle) for the sustainable solid waste management in the Gokarneswor Village Development Committee of Kathmandu valley, Nepal. (Principle Investigator)

V. Service/Outreach

A. Professional Service

1. *Organization of training courses, conferences, seminars, and workshops.*

1. Organized ‘**The First Regional Workshop on Mapping Groundwater Resilience to Climate Change and Human Development in Asian Cities**’ on 5 – 7 August, 2019 in AIT, Thailand.
2. Organized ‘**AIT-Mitrl Phol Group Workshop**’ on 9 May, 2019 at AIT, Thailand.
3. Organized a session on ‘**Adapting Water Resources and Water Use Sectors to Climate Change: Examples from Asian River Basins**’ in Vietnam International Water Week (VACI 2019) on 22 March, 2019 in Hanoi, Vietnam.
4. Co-organized ‘**The 10th National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources in Nepal**’ on 18 March 2019, at the Hotel Ambassador, Kathmandu, Nepal.
5. Co-organized ‘**International Symposium on Disaster Resilience and Sustainable Development**’ on 7–8 March, 2019 at AIT, Thailand.

6. Co-organized '**Webinar on Multidisciplinary Curriculum Need for Disaster Resilience and Sustainable Development**' on 20 November 2018 in AIT, Thailand.
7. Organized training on '**Capacity Building & Knowledge Sharing: Climate Change Downscaling and Hydrological Modelling & Time Series Analysis of Hydroclimate and Fisheries**' on 15-21 October at AIT, Thailand.
8. Organized workshop on '**Communicating for Results**' on 28 September in AIT, Thailand.
9. Organized a session '**Climate Change Adaptation in Asian River Basins**' in Vietnam International Water Week (VACI 2018) on 4 March, 2018 in Hanoi, Vietnam.
10. Organized seminar on '**Climate Change and Water Resources**' for student from Tsinghua University (THU), China on 31 July – 3 August, 2018 at AIT, Thailand.
11. Organized a stakeholder consultation workshop on '**Connecting climate change, hydrology and fisheries for energy and food security in Lower Mekong Basin**' on 07 February 2018, in Phnom Penh, Cambodia.
12. Organized a training on '**Hydrological Modelling for Water Accounting**' on 18–24 December, 2017 in AIT, Thailand.
13. Co-organized an '**International Expert Forum on 'Mainstreaming Resilience and Disaster Risk Reduction in Education**' on 1–2 December, 2017 at AIT, Thailand.
14. Co-organized '**5th International Young Researchers Workshop on River Basin Environment & Management**' on 28–29 October, 2017 in Universiti Malaysia Pahang, Malaysia.
15. Organized a session on '**Establishing a River Health Monitoring System in Thailand: The Scientific, Community and Institutional Stories**' in 2017 Greater Mekong Forum on Water, Food and Energy on 27 October in Inya Lake Hotel, Yangon, Myanmar.
16. Organized a session '**Adapting the management of water and environmental resources to climate change**' in the 1st Asia International Water Week, 20–23 September, 2017, Gyeongju, Rep. of Korea.
17. Organized '**Final Regional Workshop on Adaptation to Groundwater Vulnerability of Asian Cities to Climate Change: Developing Capacity to Bridge Science and Policy Interface**' 8–9 September, 2017 in AIT, Thailand.
18. Organized a session '**Emerging Technologies in Water Management and Environment towards Nexus**' in THA 2017 International Conference on Water Management and Climate Change Towards Asia's Water-Energy-Food Nexus on 25-27 January 2017 on Swissôtel Le Concorde, Bangkok.
19. Organized '**First Regional Workshop on Adaptation to Groundwater Vulnerability of Asian Cities to Climate Change: Developing Capacity to Bridge Science and Policy Interface**' 13-14 December, 2016 in AIT, Thailand.
20. Organized a side Event 11 on '**Climate Change Impact and Adaptation in Agriculture: Examples from Climate-Water-Crop Modelling and Field Studies**' in Second World Irrigation Forum on 8th November 2016, in Chiang Mai, Thailand.
21. Organized training on '**Quantifying Climate Change Impacts on Water and Agriculture Sectors**, on 13-15 August, 2016 in AIT, Thailand.
22. Organized training on '**Training on 'Climate Services for Water, Agriculture and Food Sectors**' 21-23 July, 2016 in AIT, Thailand.

23. Organized '**Batch IV Water Quality Training**' at Amphawa, Thailand on 27 March, 2016.
24. Organized '**Batch III Water Quality Training**' at Amphawa, Thailand on 28 February, 2016.
25. Organized workshop on '**Workshop on Water, Energy, Carbon Nexus at Asian Cities: Bangkok, Delhi, Tokyo and Kathmandu**' on 02-03 February, 2016 at TERI University, India.
26. Organized '**The Third International Young Researchers' Workshop on 'River Basin Environment and Management' in Asia**' on 21 – 22 December 2015 at Naresuan University, Thailand. [<http://web.eng.nu.ac.th/rbem2015/>]
27. Organized '**International Expert Workshop: Towards urban water security in Southeast Asia: Managing risk of extreme events**' on 19-20 November 2015 in Phnom Penh, Cambodia.
28. Organized an "**Expert Workshop on Addressing Non-Economic Losses and Damages Associated with Climate Change: Learning from the Recent Past Extreme Climatic Events for Future Planning**" on 07 October, 2015 at Asian Institute of Technology, Thailand.
29. Organized training program on '**Design of Diversion Works**' for 10 officials from Ministry of Energy and Water, Afghanistan on 02-15 October, 2015 at Asian Institute of Technology, Thailand.
30. Organized training program on '**Design of Drainage and Irrigation Structures**' for 10 officials from Ministry of Energy and Water, Afghanistan on 01-14 September, 2015 at Asian Institute of Technology, Thailand.
31. Organized training program on '**Feasibility Studies for Irrigation Projects**' for 10 officials from Ministry of Energy and Water, Afghanistan on 13-26 August, 2015 at Asian Institute of Technology, Thailand.
32. Organized '**Second Regional Workshop on Enhancing the groundwater management capacity in Asian cities through the development and application of groundwater sustainability index in the context of global change**' on 24-25 July 2015 at Asian Institute of Technology (AIT), Thailand. [http://www.ait.ac.th/news-and-events/2014/events/workshop-on-2018enhancing-the-groundwater-management-capacity-in-asian-cities-through-the-development-and-application-of-groundwater-sustainability-index-in-the-context-of-global-change2019#.VrW4S_197IU]
33. Organized '**Local Stakeholders Water Quality Training**' at Nakhon Phanom, Thailand on 14-16 July, 2015. [<http://wetlandwatchthailand.org/water-quality-training-at-lower-songkhram-communities/>]
34. Organized '**Water Energy Food Nexus: International Co-operation and Technology Transfer**' in The ASEAN-EU STI Days 2015. 17-19 March, 2015, Paris, France. [<http://www.stidays.net/workshops/water-energy-food-nexus/>]
35. Organized '**Batch I Water Quality Monitoring Training**' on 26 March, 2015 at Asian Institute of Technology. [<http://wetlandwatchthailand.org/batch-i-water-quality-training-at-ait/>]
36. Organized '**International Expert Workshop on Water Energy Food Nexus: Opportunities and Challenges in Mekong Region**' 22-23 January, 2015, Asian Institute of Technology, Thailand. [<http://www.ait.ac.th/news-and-events/2015/events/international-expert-workshop-on-water-energy-food-nexus-opportunities-and-challenges-in-mekong-region201d/#.Vaxe2vmqqko>]
37. Organized '**International Symposium on Environmental Flow and Water Resources Management**, 30-31 October, 2014, Asian Institute of Technology, Thailand.

38. Organized **‘Workshop on Capacity building for Moeyingyi wetland conservation in Myanmar in the context of climate change’** 4-5 September, 2014, Irrigation Technology Center, Myanmar.
39. Organized Seminar on **‘Sustainable Water Resources Management in Nepal’** on 22 March, 2014 in Hotel Everest, Kathmandu, Nepal.
40. Co-organized **‘Fifth National Symposium Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley’**, on 21 March, 2014 at the Indreni Complex, Kathmandu. This symposium is one of the major events of a week-long program for which a NNWW-2014 (Nepal National Water Week-2012) with the theme “Water and Energy Nexus”. [http://creew.org.np/index.php/using-joomla/extensions/components/content-component/article-categories/123-the-5th-national-groundwater-symposium-concludes-read-more]
41. Organized **‘Workshop on Climate Change and Water Resources: Knowledge Gaps and Research Needs’** in ASEAN-EU Science Technology and Innovation (STI) Days, 21-23 January, 2014 in NSTDA, Thailand. [http://www.sea-eu.net/tag/view/Water]
42. Organized **‘First Regional Workshop on Enhancing the groundwater management capacity in Asian cities through the development and application of groundwater sustainability index in the context of global change’** on 16-17 January, 2014 at Asian Institute of Technology (AIT), Thailand.[<http://www.apngw.ait.ac.th/activities/regional-workshop/102-reginal-workshop>]
43. Organized **‘Training on Hydrology Measurement and Analysis’**6-12 January 2014 at Asian Institute of Technology (AIT), Pathumthani, Thailand. [http://www.ait.ac.th/news-and-events/2014/news/training-program-for-afghan-officials-on-hydrological-measurement-and-analysis-concludes#.U8AZffmSygY]
44. Organized **‘International Young Researchers’ Workshop on ‘River Basin Environment and Management’ in Asia** ‘on 8-9 February, 2014 at Asian Institute of Technology (AIT). [http://www.ait.ac.th/news-and-events/2014/news/ait-hosts-international-young-researchers-workshop-on-2018river-basin-environment-and-management2019-in-asia#.U8AYV_mSygY]
45. Organized **‘International Expert Workshop Managing Water Resources under Climate Uncertainty: Challenges and Opportunities’**, 17-18 October, 2013 in Bangkok, Thailand. [http://www.ait.ac.th/news-and-events/2013/news/60-participants-from-8-countries-join-expert-workshop-on-201cmanaging-water-resources-under-climate-uncertainty201d/view#.U8AW__mSygY]
46. Organized **‘Workshop on Curriculum Development of Undergraduate Program in Water Resources and Environmental Engineering in Kandahar University, Afghanistan’**, 29-30 April, 2013, Asian Institute of Technology, Thailand.
47. Organized **‘First Workshop on Curriculum Development of Undergraduate Program in Water Resources and Environmental Engineering in Kandahar University, Afghanistan’**, 24-26 January, 2013 at Asian Institute of Technology, Thailand. [http://www.ait.ac.th/news-and-events/2013/ait-in-the-news/jan/ait-inks-mou-to-assist-afghanistan2019s-kandahar-university/#.U8AcGfmSygZ]
48. Organized **‘Knowledge Sharing workshop on Integrated River Basin Management in Asian Monsoon Region’** on 05-06 January, 2013 at Asian Institute of Technology (AIT), Thailand.
49. Co-organized **“Third National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley”** on 22 March 2012, at the Indreni Complex, Kathmandu. This symposium is one of the major events of a week-long program for which a NNWW-2012 (Nepal National Water Week-2012) with the theme water and urbanization and with the slogan “Water and Food Security”. [http://www.smallearth.org.np/news.php?id=124]

50. Organized workshop on ‘**Groundwater-its myth and reality**’ on 01 June, 2011. This workshop is a pre-launch event of launching IGES as a regional water knowledge hub on groundwater management. The objective of the workshop was to increase the knowledge and understanding about groundwater related issues among students and younger professionals working on water related issues. Sixty participants from AIT, Mahidol University and Department of Groundwater Resources, Thailand participated in the workshop. [<http://www.ait.ac.th/news-and-events/2011/news/apwf-holds-knowledge-hub-workshop-at-ait/view>]
51. Organized workshop and exposure visit on ‘**Integrated Water Resources Management in Thailand**’ on 30 May-07 June, 2011. The programme has been designed to give additional exposure to the high government officials from Water and Energy Commission Secretariat (WECS) and WWF-Nepal regarding the various aspects of water resources management in Thailand. The program consists of lectures from water experts and field visits showcasing good water management practices in Thailand. [<http://pwl.ait.asia/index.php/archives>]
52. Co-organized “**Second National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley**” on 22 March 2011, at the Everest Hotel, Kathmandu. This symposium is one of the major events of a week-long program for which a NNWW-2011 (Nepal National Water Week-2011) with the theme water and urbanization and with the slogan “Water for Cities: Responding to the urban Challenges”. [<http://nnww2011.wordpress.com/news/>]
53. Co-organized “**International Graduate Conference on Climate Change and Society Participation**” on 15-19 November, 2010 in Kathmandu, Nepal. The Conference was mainly focused on the multidisciplinary capacity building of graduate students of various disciplines through the sharing of knowledge and experience by experts and participants on Climate Affairs from climate-related science to impacts to policy & economics to ethics & equity. In the conference, seventeen experts from different fields like biodiversity, water resources, climate change science, natural hazards, policy, equity and ethics etc. shared their experiences and opinions among 130 delegates representing 17 countries from Greater South Asia and beyond. [<http://www.smallearth.org.np/news.php?id=67>]

2. Editing or serving on advisory boards of journals

1. Managing Guest Editor of Special Issue ‘*Climate Change Impact, Vulnerability and Adaptation: Asian Perspective*’ in Environmental Research (Publisher: Elsevier, IF: 5.026) [Proposal Accepted]
2. Guest Editor of Special Issue ‘*Advances in Groundwater and Surface Water Impact Investigation and Assessment*’ in Science of the Total Environment (Publisher: Elsevier, IF: 5.589)
3. Guest Editor of Special Issue ‘*Climate Change Impact on Water Environment*’ in Science of the Total Environment (Publisher: Elsevier, IF: 5.589) (<https://www.journals.elsevier.com/science-of-the-total-environment/calls-for-papers-virtual-special-issues/call-for-papers-special-issue-on-climate-change-impact-on-wa>)
4. Guest Editor of Special Issue ‘*Climate Risk Assessment, Coping and Adaption*’ in Advances in Meteorology (Publisher: Hindawi, IF:)
5. Associate Editor, International Journal of Ecology and Development (<http://www.ceser.in/ceserp/index.php/ijed/pages/view/eb-ijed>)
6. Sustainability Science (Springer, IF: 2.0) (Adhoc Reviewer)
7. Journal of Water and Climate Change (International Water Association (IWA), IF 1.0) (Adhoc Reviewer)
8. Science of the Total Environment (Ad hoc Reviewer)
9. Ecological Modelling (Adhoc Reviewer)
10. Journal of Hydro-environment Research (Adhoc Reviewer)
11. Journal of Water Resources Management (Adhoc Reviewer)
12. Journal of Environmental Management (Adhoc Reviewer)
13. Journal of Spatial Hydrology (Adhoc Reviewer)
14. Environmental Progress (Adhoc Reviewer)

15. The 3rd Biennial meeting of the International Environmental Modelling and Software Society, July 9-12, 2006, Burlington, Vermont, USA.
16. International Water Association 5th World Water Congress and Exhibition, Sustainable Water Management Practices, September 10-14, 2006, Beijing, China.
17. Reviewed Manuscript Number LW06010 in *Agricultural Engineering International: CIGR Journal* (<http://www.cigrjournal.org/index.php/Ejournal>)
Title of manuscript: A Framework for the Analysis of Uncertainty in the Measurement of Precipitation Data: a Case Study for Nepal
Published in: International Commission of Agricultural Engineering (CIGR, Commission Internationale du Genie Rural) E-Journal Volume 8 (2006): A Framework for the Analysis of Uncertainty in the Measurement of Precipitation Data: a Case Study for Nepal. Manuscript LW 06 010. Vol. VIII. September, 2006.
(www.cigrjournal.org/index.php/Ejournal/article/view/674/668)
18. Reviewed manuscript in *IAHS Redbook Series*
Title of manuscript: Regionalization of Watershed Yield in the Sakarya River Basin by Cluster Analysis
Published in: IAHS Redbook series (<http://iahs.info/redbooks.htm>)
19. Reviewed manuscript in *International Journal of Ecology and Development*
Title of Manuscript: Decision Support Tool for Water Management of Double Cropping Rice System Part I: Water Allocation
Published in: Winter 2008, Volume 9, Number W08, International Journal of Ecology and Development (<http://ceser.in/ceserp/index.php/ijed/article/view/290>)
20. Reviewed manuscript in *International Journal of Ecology and Development*
Title of Manuscript: Decision Support Tool for Water Management of Double Cropping Rice System Part II: Water Allocation
Published in: Winter 2008, Volume 9, Number W08, International Journal of Ecology and Development (<http://ceser.in/ceserp/index.php/ijed/article/view/290>)
21. Reviewed manuscript in *Journal of Spatial Hydrology*
Title of the manuscript: Modelling and simulation of monthly DO and BOD records of River Ganges: Box-Jenkins time series approach
Published in: Journal of Spatial Hydrology
(www.spatialhydrology.com/journal/...files/Papers/.../Paper_DO-BOD.doc)

6. Government or international organization panels, expert witness, reports to government or international agencies

1. Chair of session ‘*Review of challenges and opportunities for sustainable groundwater resources management in Nepal and way forward*’ in the 10th National Groundwater Symposium: Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal, 18 March 2019, Kathmandu, Nepal.
2. Chair of session ‘*Hydro-met Disaster: Sharing Regional Experiences*’ in International Symposium on Disaster Resilience and Sustainable Development, 7–8 March, 2019, AIT, Thailand.
3. Chair of ‘Technical Session – 10’ in International Symposium on Disaster Resilience and Sustainable Development, 7–8 March, 2019, AIT, Thailand.
4. Lead Discussant of roundtable deep dive/brainstorm session ‘*Harnessing Groundwater-Based Natural Infrastructure for Improved Resiliency and Water Security*’ in ‘Regional Workshop on Managing Water Extremes in South Asia’ organized by World Bank in Bangkok on 10 December, 2018.
5. Chair of session ‘*River Engineering and Hydroinformatics*’ in 6th International Symposium on Advances in Civil and Environmental Engineering Practices for Sustainable Development (ACEPS- 2018) on 15th March 2018, Faculty of Engineering, University of Ruhuna, Galle, Sri Lanka.

6. Moderator of session ‘*Disaster Resilience and Role of Science and Technology*’ in International Expert Forum on Mainstreaming Resilience and Disaster Risk Reduction in Education, 1 - 2 December, 2017 at AIT, Thailand.
7. Moderator of session ‘*Applying scientific knowledge and innovation: Identifying topics/collaboration for integrated regional assessment in the Mekong Region*’ in SUMERNET Phase 3 Learning Forum 8-10 November, 2017 at Eastin Grand Hotel Sathorn, Bangkok, Thailand.
8. Panelist in session ‘*How climate change may impact development*’ in SUMERNET Annual Policy Forum 2016, organized by SEI in Phnom Penh, 30 March 2017.
9. Panelist in session ‘*Drought in the Mekong: A New Normal?*’ in SUMERNET’s 10th Anniversary and Annual Meeting 2016 on 26 January, 2016 in Bangkok, Thailand organized by SEI.
10. Chair of session ‘*Sustainable Development Goals*’ in Korea International Water Week (KIWW 2016) on 20 October, 2017 in Daegu, S. Koera.
11. Dhakal, S., Shrestha, S., Shrestha, A., Kansal, A., and Kaneko, S. (2015). Towards a better water-energy-carbon nexus in cities (APN Global Change Perspectives Policy Brief No. LCD-01). Kobe: Asia-Pacific Network for Global Change Research. (Link: <http://www.apn-gcr.org/2015/10/26/policy-brief-towards-a-better-water-energy-carbon-nexus-in-cities-lcd-01/>)
12. Panelist on the symposium ‘*Global Expansion of Smart Water Treatment System for Sustainable Water Management*’, organized by JST/JICA on 05-06 December, 2015 in Kathmandu, Nepal.
13. Panelist on ‘*Addressing water management challenges in Southeast Asia: Sharing best management practices*’ in ASEAN-EU Research & Innovation Cooperation Policy Consultation Workshop STI Days, Paris, March 19, 2015.
14. Panelist on the ‘*Fifth National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley, Nepal*’ on 21 March, 2014 in Kathmandu, Nepal.
15. Panelist on the ‘*Groundwater Expert Meeting: Sustainable Groundwater Resources Management of Kathmandu Valley, Nepal*’, organized by the Kathmandu Valley Water Supply Management Board (KVWSMB) on 4-5 July in Hotel Himalaya, Nepal.
16. Panelist on the ‘*National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley, Nepal*’ on 28 December, 2009 in Kathmandu, Nepal.
17. Panelist, ‘*Groundwater in IWRM*’ in the Regional Launch and Workshops of Center for River Basin Organizations and Management (CRBOM), Indonesia, organized by ADB, NARBO and APWF Water Knowledge Hubs, 27 April – 1 May 2009.

B. Significant Institute Committee Service (Indicate the period of service)

1. School

- *SET Representative: Summer School*
- *Coordinator, Curriculum Development Committee of BSE in Civil and Infrastructure Engineering, International Undergraduate Program in Engineering at Asian Institute of Technology (May 2010- to date)*
- *Member, School of Engineering and Technology- Undergraduate Program (SET-UG) Working Group*
- *Member, Curriculum Development Team, Civil and Infrastructure Engineering, School of Engineering and Technology*

2. Institute

- *Chair, Doctoral Progress Review Committee (DPRC) (01 July, 2016 – to date)*
- *Member, Faculty Evaluation Panel (FEP), (01 April, 2016- March 2018)*
- *Member, Doctoral Progress Review Committee (DPRC) (01 July, 2016 – xxxx)*
- *Member, Steering Committee, AIT Living Laboratory (20 March, 2014- xxxx)*
- *Member, AIT-Sri Lanka Satellite Campus Task Force (16 July, 2013 – xxxx)*
- *Member, Doctoral Progress Review Committee (DPRC) (01 June, 2013 – December, 2015)*
- *Member, Steering Committee, Asian Water Research and Education Center (AWARE)*
- *Member, Nepal Local Currency Fund Award Committee (NLCF) (25 September, 2012-to-date)*
- *Member, Task Force for Future Flood Protection (02 March 2012- to-date)*
- *Member, Undergraduate Program Review Committee (UGPRC) (April, 2012- June 2014)*
- *Member, Facility Implementation Group (08 November 2011- 15 February 2012)*
- *Member, AIT Flood Emergency Operations Group (11 October, 2011-November, 2011)*
- *Member, AIT Research Strategy, Subcommittee *Networking**
- *Coordinator, Curriculum Development Committee of BSE in Civil and Infrastructure Engineering, International Undergraduate Program in Engineering at Asian Institute of Technology (May 2010- to date)*
- *Member, Review Committee for Evaluation of Applications for AITAA Doctoral Conference Participation Grant (June, 2010)*
- *Member, AIT Nepal Task Force (November, 2009- to date)*

C. Administrative Service (Indicate the period of service)

• **School**

- *Acting Head, Department of Civil and Infrastructure Engineering (Several Occasions)*
- *Associate Dean, School of Engineering and Technology. (January – December 2013)*
- *Acting Dean, School of Engineering and Technology during following dates:*

02-06 September, 2013	24-30 April, 2013
02-05 August, 2013	20-24 March, 2013
03-07 June, 2013	09-10 January, 2013
02-03 May, 2013	20 December, 2012- 07 January, 2013

- **Field-of-Study/Program**

Program Chair: March 2017- to date

Member, Program Committee of Climate Change and Sustainable Development

Acting Coordinator of WEM during following dates:

01 December, 2012- 31 March, 2013	30 May-03 June, 2011
02-26 June, 2012	05-12 April, 2011
16-19 April, 2012	13-16 December, 2010
20-24 April, 2012	19-24 December, 2009
15-17 June, 2011	

D. Promotion and Marketing (Briefly describe role or involvement)

1. ***Visit to Nepal Academy of Science and Technology (NAST), Kathmandu Valley Water Supply Management Board (KVWSMB), International Water Management Institute (IWMI)- Nepal & Department of Hydrology and Meteorology (DHM), Nepal (13 June 2019)***

I had visited and presented about AIT’s water related education, research and outreach activities and discussed potential collaboration with Nepal Academy of Science and Technology (NAST), Kathmandu Valley Water Supply Management Board (KVWSMB), International Water Management Institute (IWMI)- Nepal & Department of Hydrology and Meteorology (DHM) in Nepal.

2. ***Visit to Hue University, Vietnam (16 June, 2017)***

With faculty colleague, Dr. Duc Hoang Nguyen, we visited Hue University in Vietnam on 16 June 2017 to promote AIT among prospective Masters and PhD students. We delivered a seminar and had discussion with about 30 prospective applicants in Hue University in Vietnam.

3. ***AIT Day in Nepal (11 February, 2017)***

I had participated and presented ‘Academics, Research and Outreach Activities of School of Engineering and Technology in AIT Nepal on 11 February. More than 150 prospective applicants witnessed the AIT Day 2017.

4. ***Symposium on “Responding to Development Priorities of Nepal” in Kathmandu on 10 Feb, 2017***

Together with other faculty colleagues from AIT, I have led the session ‘Building Climate-Resilience in Agriculture & Water Sectors in Nepal’. This session aimed at exploring the needs of capacity building in climate change, agriculture and water sector in Nepal and offer AIT’s assistance. A high-level panel discussion was held consisting experts from Government of Nepal, private sectors and education institutions in Nepal. More than 100 participants witnessed this session.

5. ***MoU between AIT & China Sciences Map Universe Technology Co. Ltd (MAPUNI),***

Following my visit to MAPUNI, China in May, 2017, I have initiated a MoU between AIT and MAPUNI, China. Dr. Liu Rei, Vice President, China Science Map University Technology, and AIT President Prof. Worsak Kanok-Nukulchai signed the MoU on 18 August 2017. The MoU entails the development of a joint proposal for the construction of a laboratory under the Belt and Road Initiative (BRI). Project cooperation includes big data construction of Mekong River Basin Water Resource Management. MAPUNI focuses on enterprise-university research integration and it provides an industrial outreach on Geographical Information Systems and Remote Sensing.

MAPUNI is characteristic of remote sensing spatial information application service and environment information full-service industrial group co., ltd. It was established in 2001 with 10 staffs and currently it has about 1000 staffs (100-fold increase in 16 years) (<http://www.mapuni.com/eportal/ew/VOICE%20OF%20CHAIRMAN.html>)

6. ***AIT Promotion on International Conference on Climate Change Innovation and Resilience for Sustainable Livelihood on 12- 14 January 2015 Soaltee Crowne Plaza, Kathmandu, Nepal.***
7. ***Seminar on ‘Sustainable Water Resources Management in Nepal’ on 22 March, 2014 in Hotel Everest, Kathmandu, Nepal***

On the occasion of Nepal National Water Week 2014, I have organized a seminar on “*Sustainable Water Resources Management in Nepal: Recent Research and Direction for Future*” on 22 March, 2014 in The Everest Hotel, Kathmandu, Nepal. I have presented AIT’s research and capacity building activities and moderated panel discussion on “*Research and capacity building need for sustainable water resources management in Nepal*”. Four WEM alumni presented their water related research at AIT and eight members from government agencies and academic sectors took part in panel discussion. The seminar was witnessed by more than 100 participants who are experts from academia, government agencies, INGOs, and NGOs working in water sector in Nepal. At the end, an interaction session was also conducted with the prospective students who wanted to study WEM at AIT, and with prospective institutes to collaborate in research and capacity building activities with AIT. As a result, more than 7 applications were received for the intake of August 2014.

8. ***Visit to Punjab Irrigation Department (PID)Lahore, Pakistan on 16-19 February, 2014***

To operationalize its MOU with the Asian Institute of Technology (AIT), the Punjab Irrigation Department (PID) hosted a 3-member Needs Assessment Mission, who discussed specific capacity-building needs with the Secretary and senior officials of the department as well as the Project Management Office for Barrages before undertaking field visits to sites in and around Lahore, and engaging directly with a cross section of technical and administrative personnel deployed at a number of field locations. A visit and consultation workshop was also organized for the mission to the Government Engineering Academy, Punjab (GEAP), where discussions were held with the Principal and senior faculty and specific areas of cooperation explored.

The key outcome of the mission has been three-fold:

1. ***MEng (Water Engineering & Management):*** Identification of key specializations relevant to PID that are to be included in AIT’s purpose-designed offering of a Master of Engineering (MEng) in Water Engineering & Management for 20 qualified PID nominees for the academic year 2014-2016. AIT has already received more than 35 applications for admissions.
2. ***Technical & Professional Training Portfolio:*** Confirmation of a portfolio of short-term technical and professional courses and exposure visits identified in the MOU, that are to be designed and delivered for PID personnel at AIT and off-campus locations including GAEP.
3. ***GEAP Strategic Knowledge Infrastructure:*** Validation of the scope of work and level of effort necessary to upgrade the GEAP’s offerings & curricula, knowledge infrastructure, faculty resources, and credentialing capabilities to AIT Extension Cluster standards.

A closing meeting with the Secretary, PMO Director and senior PID officers reviewed the findings of the mission, which form the crux of this mission report.

9. ***Seminar on ‘Engineering and Technology Education and Research at AIT’ in Kasetsart University on 07 July, 2013.***

With the help of faculty colleagues in Kasetsart University and Thai students, we organized a seminar on 'Engineering and Technology Education and Research at AIT' in Kasetsart University

on Sunday, 07 July. I myself and Prof. Sumanta Guha delivered a talk and helped students to fill in the AIT application form onsite. Altogether 10 Thai students have already filled the application form (AIT admission action form).

10. Initiation and preparation of MoU with Ministry of Education (MoE), Bhutan

AIT and the Ministry of Education, Bhutan has signed a Memorandum of Understanding (MoU) in October, 2012 to enable cooperation for capacity building of undergraduate students from Bhutan by providing scholarships. Under this MoU, Ministry of Education, Bhutan shall nominate nine students under scholarship to study undergraduate program starting from 2013. These students will be selected from among the top 300 in the National level Exam in Bhutan. Ministry of Education shall provide scholarship for six students covering full tuition and registration fee, and provide for their living cost. AIT will provide for scholarship to three students covering full tuition and registration fee.

11. Initiation and preparation of MoU with University of Hawaii, USA (Prepared)

The purpose of this MoU is to promote academic research and education collaboration in various areas of engineering most specifically in water resources research between UHM and AIT. The major objectives are to establish specific topics for scholarly activity of mutual interest and to select faculty and staff for the implementation for this collaboration; and to establish a research exchange program for graduate students.

12. Initiation and preparation of MoU with SPS Global Cooperation Ltd. Thailand (Prepared)

The purpose of this MoU is to enable cooperation between AIT and SPS Global Cooperation Ltd. Thailand for academic collaboration, to promote mutually beneficial research, designing of structural engineering projects, environment, resource, and development projects, and others activities as specified by the two parties, in relations to structural engineering and environment resources development. Under this MoU SPS Global Corporation is providing one year full tuition fee as a scholarship of US\$ 8,000/- (U S Dollars Eight Thousand only) to a bright and financially needy student to enroll for the Master's program at AIT for August 2013 intake, which will be provided on the day of signing this MoU as a commitment and with generosity by the SPS Global Co., Ltd.

13. AIT Promotion in Hawaii University at Manoa, USA (06-12 May, 2012)

Upon invitation from Prof. Chittaranjan Ray, Director of Water Resources Research Center (WRRC), I visited University of Hawaii at Manoa, USA from 06-12 May, 2012 to discuss about the possible research and academic collaboration between AIT and University of Hawaii at Manoa. The following activities were accomplished:

- Delivered a seminar on research and projects related to climate change and water resources at AIT
- Prepared a MoU for research and academic collaboration between AIT and Hawaii University at Manoa

14. AIT Promotion in Bhutan (18-20 March, 2012)

I along with SET Promotion and Student Recruitment Officer Ms. Tripti Rajbhandari participated in the 2nd International Education Fair in Bhutan organized by Bhutan Chamber of Commerce and Industry (BCCI) in Thimpu on 17-18 March, 2012. The fair brought under one roof 108 educational institutes from Australia, India, Japan, Malaysia, Mauritius and Thailand, to offer various career options and information on further studies, both at undergraduate and post graduate levels. About 800 students witnessed the fair and more than 80 students expressed their interest and registered their contact details to apply for undergraduate and postgraduate studies at AIT. The AIT booth was visited by Ms. Sangay Zam, Secretary of Ministry of Education and also by H.E. Tshering Dorji, the former Ambassador of Bhutan to Thailand.

On 19 March, I and Ms. Rajbhandari had a meeting with senior officials of Ministry of Education in Bhutan and finalized the MoA on Capacity Building of Bhutanese Nationals at AIT. Under this MoU and MoA, Ministry of Education plans to send several outstanding Bhutanese students to study various disciplines of engineering at undergraduate program of AIT under Bhutanese Government Scholarships. The MoA will be signed during the visit of Secretary of Ministry of Education in the first week of May, 2012 in AIT. The same day, Dr. Shrestha and Ms. Rajbhandari also had a meeting with Mr. Bharat B. Tamang, Managing Director and other senior officials of Bhutan Power Corporation (BPC). Dr. Shrestha presented the concept note on initiating a Professional Masters Program in Hydropower Development and Management in Bhutan. Mr. Tamang and other officials have provided various inputs on curriculum development and mode of delivery to make the program more suitable for Bhutanese environment and also expressed their willingness to collaborate with AIT and other domestic partners such as Royal University of Bhutan (RUB) and College of Science and Technology (CST).

I along with BPC senior officials met with Honorable Pemba Thinley, Vice-Chancellor of the Royal University of Bhutan (RUB). Dr. Shrestha briefed the recent status and developments at AIT and expressed the interest to collaborate with RUB to develop and deliver Professional Masters Programs in Hydropower Development and Management and Construction Engineering and Infrastructure Management in Bhutan. In response, Honorable Pemba Thinley expressed his full support to this endeavors and requested the support of AIT for capacity building of RUB faculty members in terms of pursuing Masters Degree and Doctoral Degree at AIT under full scholarships and partial scholarships. Furthermore, he suggested developing and delivering a program which can upgrade the Diploma program to Degree program of various staffs of RUB.

15. AIT Promotion in Nepal (03-06 May, 2011)

Together with SET Dean Dr. Nitin Afzulpurkar, SOM Dean Dr. Barbara Igel, Dr. Poompat Saengudomlert, Ms. Tripti Rajbhandari and I visited Kathmandu, Nepal for 'AIT Day Seminar' and other promotion activities. On 3rd May 2011, we had a meeting with more than 10 high schools from Kathmandu, Nepal, which was conducted at the Himalaya Whitehouse College (Nepal Education Foundation – Consortium of College in Nepal). On 4th May 2011, SET and SOM organized an open AIT Day – open seminar at the Hotel Himalaya and around 100 students participated in the seminar. The same day we visited Rato Bangla School where 80 students attended the seminar. We also visited the Institute of Engineering (IOE) – Pulchowk and had a meeting with the Dean, Dr. Bharat R. Pahari and faculty members Prof. Timila Yami Thapa and Dr. Subarna Shakya.

On 5th May 2011, we visited Budhanilkantha School and had brief meeting with the principal, Mr. N.P Sharma and guidance counselor, Mr. Attiram K.C and we made presentation to 50 students in the seminar. On the same day, we visited Kathmandu University (K.U) and had a meeting with the Registrar, Dr. Shakya, Dean of School of Engineering, Dr. Bhola Thapa, Dr. Bim Shrestha (Mechanical Engineering). On 6th May 2011, we had a meeting with the Ambassador of Thailand to Nepal and the President of Federation of Nepalese Chamber of Commerce and Industry (FNCCI) Mr. Suraj Vaidya, who is also a member of the SOM Board. The discussions was focused on the capacity building of Nepalese based on the demand in the country and how AIT and FNCCI could collaborate and work with the Royal Thai Embassy's support in some concrete initiatives.

16. AIT Promotion in Bhutan (24-29 November, 2010)

Together with SERD Dean Dr. Weerakorn and Ms. Tripti Rajbhandari, Promotion and Recruitment Officer, I had visited several government departments of Bhutan and conducted few seminars. We had visited Royal Civil Service Commission (RCC), Ministry of Works and Human Settlement, Scholarship Division, Ministry of Education and Bhutan Power Corporation (BPC) and also participated in Thailand Education Exhibition in Bhutan organized by the DEP-Ministry of Commerce Thailand. As a result, a MoU has been developed between AIT and Scholarship

Division, Ministry of Education which is going to be materialized by September, 2011. Furthermore, more than 12 students from Bhutan have applied for UG program of AIT.

17. AIT Promotion and participation in 'Thailand Today' in Nepal (23-27 September, 2010)

Together with Dr. Weerakorn Ongsakul Dean, SERD, Dr. Anil K. Anal, SERD, Ms. Tripti Rajbhandari, SET Promotion & Recruitment Officer and Ms. Sumana Shrestha, Program Officer at ERCO, I participated in "Thailand Today" event organized by the Royal Thai Embassy in Kathmandu, Nepal to promote cultural, health, educational and private sector opportunities of Thailand to the Nepalese people. We also had had a separate meeting with the Thai Ambassador H.E. Maris and discussed on following agenda: the establishment of a resource center for education in Thailand at Royal Thai Embassy, Nepal; exploring the possibility of providing financial support to at least 2 Nepalese students per year to study at AIT by the Royal Thai Embassy in Nepal and Visa for AIT students and other issues.

18. AIT Promotion in Nepal (31 May-4 June, 2010)

Together with Ms. Tripti Rajbhandari, Promotion and Recruitment Officer from the School of Engineering and Technology (SET), I conducted open seminars in Kathmandu and Pokhara on 1st and 2nd June 2010. A total of 230 students participated in the seminar, where more than half of the students were interested in Post Graduate programs at AIT and rest was interested in Undergraduate programs.

We also had a meeting with Prof. Dr. Geeta Pradhan (Dean- Faculty of Management Studies) who presented Pokhara University and with representatives from Apex College and Ace Institute (Affiliated to Pokhara University). Discussion on prospective activities between Pokhara University and AIT initially with short term programs (Certificate Diploma Programs). We visited the Department of Irrigation and met Mr. Naveen M. Joshi (Project director) for discussions on double degree programs offered by the Water Engineering Management field of study, SET. In the meeting with UN-Habitat, Dr. Roshan Raj Shrestha, we discussed possibilities of promotion through involvements in projects in Nepal. In addition, we have also visited the Little Angels School / College and had a brief meeting with Dr. Madan Manandhar, the faculty members and the founders and discussed on possibilities of an agreement to have a flow of students from LA (+ 2 and A' Levels) to AIT for Undergraduate Program.

19. School Promotion and Sida Scholarship Workshop at Phnom Penh, Cambodia (10-11 May, 2010)

Together with Dr. Theo Ebberts, Dr. Matthew Laszewski (from AIT) and staffs from Word Fish Center, I presented AIT and three thematic groups and its field of studies (Civil and Infrastructure Engineering, Industrial Systems Engineering, Information and Communication) of School of Engineering and Technology (SET) among 10 invited selected potential candidates for Sida scholarship at AIT. I also assisted in organizing individual and groups exercises to assess the students to short individual presentations by potential candidates for Sida scholarship and also checked AIT Application forms filled up by all potential candidates and assisted them for addition/necessary changes and suggested for required documents to complete the application forms.

20. Visit to Balkh University (BU), Afghanistan (02-08 April, 2010)

I visited Balkh University (BU), Afghanistan with a team led by AIT President Prof. Said Irandoust during 02-08 April, 2010. During my visit, I discussed about the establishing of 'Department of Water Engineering and Management' at Balkh University with the assistance of AIT. I have also delivered one-day lecture to faculty members and students at BU. The topics covered in the lectures were: i) 'Challenges and opportunities for water resources management in Asia', ii) AIT-Afghanistan student's research at Water Engineering and Management (WEM) and iii) 'Climate change impacts and adaptation in water sector'

21. Visit to University of Yamanashi, Japan (28 Feb-02 March, 2010)

Upon invitation from Prof. Kengo Sunada, I visited University of Yamanashi, Japan from 28 Feb-02 March, 2010 to discuss about renewal of MoU and MoA between University of Yamanashi and AIT. The following topics were also discussed:

- Establishing collaboration center of UY and AIT
- Developing a joint course and credit transfer between UY and AIT
- Faculty exchange between UY and AIT
- Developing joint proposals

E. Community Service

1. Serving on program committees

1. Member, Advisory Committee, International Conference on "Water, Environment and Climate Change: Knowledge Sharing and Partnership", April 10-12, 2018, Kathmandu, Nepal
2. Member, Organizing Committee, '9th National Groundwater Symposium on 'Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal' was held in Radisson Hotel, Kathmandu on 20th March 2018.'
3. Member, Scientific Committee, THA 2017 International Conference on "Water Management and Climate Change toward Asia's Water-Energy-Food Nexus" 2017
4. Co-chair, International Expert Forum: Mainstreaming Resilience and Disaster Risk Reduction in Education, 2017
5. Member, Organizing Committee, '8th National Groundwater Symposium on 'Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal' was held in Radisson Hotel, Kathmandu on 20th March 2017.'
6. Member, Organizing Committee, '7th National Groundwater Symposium on 'Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal' on 20th March 2016.'
7. Member, Advisory Committee, "The 1st International Conference on Disaster Mitigation Management for sustainable Development and Risk Reduction" 2016
8. Member, Scientific Committee, Regional Forum on Climate Change, 2015
9. Member, Scientific Committee, THA 2015 International Conference on "Climate Change and Water & Environment Management in Monsoon Asia"
10. Member, Organizing Committee, '6th National Groundwater Symposium on 'Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal', 20th March 2015
11. Reviewer, National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan.
12. Member, Organizing Committee, '5th National Groundwater Symposium on 'Challenges and Opportunities for Sustainable Groundwater Resources Management in Nepal', 20th March 2014
13. Member, Organizing Committee, 'Fourth National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley' 22 March 2013, Indreni Complex, Kathmandu, Nepal.
14. Speaker and Facilitator, 'Workshop on Groundwater- its myths and reality' 01 June, 2011, Asian Institute of Technology, Thailand.
15. Member, Organizing Committee, 'Third National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley' 22 March 2012, Indreni Complex, Kathmandu, Nepal.
16. Member, Organizing Committee, 'Second National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley' 22 March 2011, Everest Hotel, Kathmandu, Nepal.
17. Member, Organizing Committee, 'International Graduate Conference on Climate Change and Society Participation' on 15-19 November, 2010 in Kathmandu, Nepal.

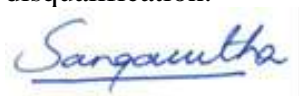
18. Member, Organizing Committee, 'First National Symposium on Challenges and Opportunities for Sustainable Management of Groundwater Resources of Kathmandu Valley' November 2010, WTC, Kathmandu, Nepal.
19. Vice-chair, Organizing Committee, 'International Symposium on Environment Energy and Water in Nepal: Recent Researches and Direction for Future' 31 March-01 April, 2009, Hotel Himalaya, Kathmandu, Nepal.
20. Chairpersons of several sessions at various national and International Conferences.

2. Serving as external examiner

1. Member, Foreign Evaluators Panel of PhD Scholar in Visvesvaraya Technological University, India, August, 2019, Dissertation title: '*Investigative Studies on Treatment of Lechate from Soild Waste Disposal Site*' by Ms. Rashma Shetty.
2. Member, Foreign Evaluators Panel of PhD Scholar in Visvesvaraya Technological University, India, July, 2019, Dissertation title: '*Development of Sensors for Measurement of BOD, Selected Heavy Metals and Pesticides in Wastewater*' by Ms Sabike Noobia.
3. Member, Foreign Evaluators Panel of PhD Scholar in Visvesvaraya Technological University, India, June, 2019, Dissertation title: '*Flow Measurement of Environmental Fluids*' by Mr. Nandan S. Shenoy.
4. Chairperson of PhD Dissertation Exam of Mrs. Nar Mar Lar in Mahidol University. PhD dissertation: '*The Potential Impacts of Climate Change on Rice Yield and Farmers' Livelihood in Myaungmya Township, Ayeyarwady Region, Myanmar*'. 2018.
5. Member, Foreign Evaluators Panel of PhD Scholar in Anna University, India, April 2018, Dissertation title: '*Estimation of Sediment in Reservoir Using Remote Sensing and SWAT Modeling*' by Ms. Ninija Merina.
6. Member, Foreign Evaluators Panel of PhD Scholar in Anna University, India, March 2018, Dissertation title: '*A Contaminant Fate Transport Modelling Approach to Assess the Impact Of Tannery Wastewater On Groundwater Vulnerability In A Hard Rock Terrain*' by Colins Johnny J.
7. Member, Foreign Evaluators Panel of PhD Scholar in Anna University, India, November 2017, Dissertation title: '*Impacts of urban development on water quality through modeling*' by Ganesh Babu O.
8. Member, Foreign Evaluators Panel of PhD Scholar in Anna University, India, July 2017, Dissertation title: '*Hydrological Modeling and Degraded Land Evaluation of a Tank Cascade Semi-Arid Catchment for Bioenergy Crop Production*' by Ms. Rajeswori
9. Member, Foreign Evaluators Panel of PhD Scholar in Civil Engineering, National Institute of Technology Calicut, India, December 2015, Dissertation title: '*Predicting the of Projected Change on Streamflow in a River Basin Using Statistical Downscaling Techniques and SWAT*' by Ms. Chithra N R.
10. Member, Foreign Evaluators Panel of PhD Scholar in Civil Engineering, College of Engineering Andhra University, India, March 2013, Dissertation title: '*A study on minor irrigation under tanks in Srikakulam district, Andhra Pradesh*' by Mr. Yerramsetty Abbulu.
11. Member, Foreign Evaluators Panel of PhD Scholar in Civil Engineering, A C Tech, Anna University, Chennai, India, June, 2012, Dissertation title: '*Impact Assessment of Rain Water Harvesting (RWH) in an Urban Environment*' by Mrs. A. Jebamalar.

CERTIFICATION: I, the undersigned, certify that, to the best of my knowledge and belief, this biodata correctly describe myself, my qualifications and my experience. I understand that any willful misstatement described herein may lead to my disqualification.

SIGNATURE:



DATE: August 14, 2019