

CURRICULUM VITAE

Profile

Name: Panon Latcharote
Date of birth: 1987/01/27
Place of birth: Nakorn Si Thammarat, Thailand
Gender: Male
Nationality: Thai
Language: Thai (Native), English (Fluent), Japanese (Basic)
Programming: C++, Fortran, Python, CUDA, OpenMPI, VBA
Software: Ansys, SAP2000, ETABS, PERFORM3D, MATLAB, ArcGIS, SPSS, MATHEMATICA

Contact

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Education

Postdoctoral Fellowship, Tohoku University, Japan

2015/04 – 2017/03

International Research Institute of Disaster Science (IRIDeS)

1) Seismic Risk Assessment using Integrated Earthquake Simulation (IES)

Financial support: Earthquake Research Institute, University of Tokyo

Principal Investigator: Prof. Muneo Hori, ERI, University of Tokyo

Status: Co-Investigator

Year: 2016-2017

2) Pan Asian/Oceania Tsunami Risk Assessment

Financial support: Willis Research Network

Principal Investigator: Prof. Fumihiko Imamura, IRIDeS, Tohoku University

Status: Co-Investigator

Year: 2015-2017

3) Evaluation of Tsunami hazard along the Kuwaiti Coastline due to Possible Earthquakes and Landslides

Financial support: Kuwait Institute for Scientific Research (KISR)

Principal Investigator: Prof. Fumihiko Imamura, IRIDeS, Tohoku University

Status: Co-Investigator

Year: 2016-2017

Doctor of Engineering, Kochi University of Technology, Japan **2012/04 – 2015/03**

Infrastructure Systems Engineering

Thesis: Development of nonlinear analysis method to simulate nonlinear behavior of RC walls in RC wall-frame buildings suffering damage from earthquake and subsequent tsunami

Supervisor: Prof. Yoshiro Kai

Special Scholarship Program (SSP)

Japan Student Services Organization (JASSO) Scholarship

Master of Engineering, Chulalongkorn University, Thailand **2009/10 – 2011/04**

Structural Engineering

Thesis: Impact factor at different locations on a bridge girder

Supervisor: Assoc.Prof. Tospol Pinkaew

Bachelor of Engineering, Chulalongkorn University, Thailand **2005/06 – 2009/04**

Civil Engineering

Senior project: Analysis and design method of curved beam in horizontal plane

Supervisor: Assoc.Prof. Akharawat Lenwari

Employment Records

Mahidol University, Thailand **2019/10 – Present**

Assistant Professor, Department of Civil and Environment Engineering, Faculty of Engineering

Deputy Director, Institute for Technology and Innovation Management

Thammasat University, Thailand **2017/10 – 2019/09**

Lecturer and Assistant Dean for Information Technology, Faculty of Science and Technology

Deputy Director, Office of Information and Communication Technology

Chulalongkorn University, Thailand **2011/12 - 2012/03**

Research engineer

Seismic vulnerability analysis of PTT Headquarter Buildings, Bangkok

Performance Evaluation of Khumkiao Building in Bhumibol Adulyadej Hospital, Bangkok

Aurecon consulting (Thailand) Co., Ltd. **2011/09 - 2011/12**

Structural engineer

Design of Long-Span Steel Frames for a Train Station in Taiwan

Chulalongkorn University, Thailand

2011/05 - 2011/09

Structural engineer

Seismic Performance Test and Analysis of Precast Houses

Ritta Co., Ltd., Thailand

2009/06 - 2009/09

Civil site engineer

Project of the Sukhothai Residences, Bangkok

Research Interests

Physics-based numerical modeling

Multi-hazard risk assessment

Statistical modeling and uncertainty quantification

Geographic Information System (GIS)

Earthquake and tsunami engineering

Integrated Earthquake Simulation

Nonlinear structural response analysis

Parallel programming on CPUs and GPUs

Membership in Professional Associations

Earthquake Research Center of Thailand (EARTH)

Thailand Structural Engineers Association (TSEA)

The Council of Engineers Thailand (COET)

American Geophysical Union (AGU)

Asia Oceania Geosciences Society (AOGS)

Publication Database

1) ISI

Number of publications = 19 h-index = 8 Number of citations = 220

2) SCOPUS

Number of publications = 28 h-index = 11 Number of citations = 320

3) Google Scholar

Number of publications = 46 h-index = 12 i10-index = 14 Number of citations = 440

List of Publication

Peer-reviewed journals

- [1] Bandara, S.C., **Latcharote, P.** (2023) Service Life Assessment of Steel Girder Bridge Under Actual Truck Traffic, Mechanisms and Machine Science, 125, 142–151. https://doi.org/10.1007/978-3-031-15758-5_14
- [2] Saengyuan, S., **Latcharote, P.** (2022) Investigation of Seismic Performance for Low-Rise RC Buildings with Different Patterns of Infill Walls, *Buildings*, 12 (9), 1351. <https://doi.org/10.3390/buildings12091351>
- [3] Pakoksung, K., **Latcharote, P.**, Suttinon, P., Bunditsakulchai, P., Suppasri, A., Imamura, F. (2022) The probability of community-scale building damage and economic loss in Thailand increased after the 2004 Indian Ocean tsunami, *International Journal of Disaster Risk Reduction*, 79, 103171. <https://doi.org/10.1016/j.ijdr.2022.103171>
- [4] Komolvilas, V., Tanapalungkorn, W., **Latcharote, P.**, Likitlersuang, S. (2021) Failure analysis on a heavy rainfall-induced landslide in Huay Khab Mountain in Northern Thailand, *Journal of Mountain Science*, 18(10), 2580–2596. <https://doi.org/10.1007/s11629-021-6720-8>
- [5] Subedi, B., Kiyono, J., Furukawa, A., Ono, Y., Ornthammarath, T., Kitaoka, T., Charatpangoon, B., **Latcharote, P.** (2021) Estimation of Ground Profiles Based on Microtremor Survey in the Bangkok Basin, *Frontiers in Built Environment, section Earthquake Engineering*, 7, 651902. <https://doi.org/10.3389/fbuil.2021.651902>
- [6] Hansapinyo, C., **Latcharote, P.**, Limkatanyu, S. (2020) Seismic Building Damage Prediction From GIS-Based Building Data Using Artificial Intelligence System, *Frontiers in Built Environment, section Earthquake Engineering*, 6, 576919. <https://doi.org/10.3389/fbuil.2020.576919>
- [7] Tanapalungkorn, W., Mase, L.Z., **Latcharote, P.**, Likitlersuang, S. (2020) Verification of attenuation models based on strong ground motion data in Northern Thailand, *Soil Dynamics and Earthquake Engineering*, 133, 106145. <https://doi.org/10.1016/j.soildyn.2020.106145>
- [8] Leelawat, N., **Latcharote, P.**, Suppasri, A., Sararit, T., Srivichai, M., Tang, J., Chua, T., Kumnetrut, D., Saengtabtim, K. and Imamura, F. (2020) Today in Thailand: multidisciplinary perspectives on the current tsunami disaster risk reduction, *Geological Society, London, Special Publications*, 501. <https://doi.org/10.1144/SP501-2019-97>
- [9] Duereh, A., Anantpinijwatna, A., **Latcharote, P.** (2020) Prediction of Solvatochromic Polarity Parameters for Aqueous Mixed-Solvent Systems, *Applied Science*, 10(23), 8480. <https://doi.org/10.3390/app10238480>
- [10] Suppasri, A., Pakoksung, K., Charvet, I., Chua, C. T., Takahashi, N., Ornthammarath, T., **Latcharote, P.**, Leelawat, N. and Imamura, F. (2019) Load-resistance analysis: An alternative approach to tsunami damage assessment applied to the 2011 Great East Japan tsunami, *Natural Hazards and Earth System Sciences*, 19, 1807-1822. <https://doi.org/10.5194/nhess-19-1807-2019>
- [11] **Latcharote, P.**, Terada, K., Hori, M. and Imamura, F. (2018). A Prototype Seismic Loss Assessment Tool using Integrated Earthquake Simulation, *International Journal of Disaster Risk Reduction*, 31, 1354-1365. <https://doi.org/10.1016/j.ijdr.2018.03.026>
- [12] **Latcharote, P.**, Al-Salem, K., Suppasri, A., Pokavanich, T., Toda, S., Jayaramu, Y., Al-Enezi, A., Al-Ragum, A. and Imamura, F. (2018). Tsunami hazard evaluation for Kuwait due to Makran

- Subduction Zone and subaerial landslides, *Natural Hazards*, 93, S127-S152. <https://doi.org/10.1007/s11069-017-3097-7>
- [13] Pakoksung, K., Suppasri, A., **Latcharote, P.**, Muhari, A. and Imamura, F. (2018). Global Tsunami Risk Assessment: Industry-Academic Collaboration under the Willis Research Network, *Journal of Disaster Research*, 13(7), 1272-1287. <https://doi.org/10.20965/jdr.2018.p1272>
- [14] **Latcharote, P.**, Leelawat, N., Suppasri, A., Thamarux, P. and Imamura, F. (2018). Estimation of Fatality Ratios and Investigation of Influential Factors in the 2011 Great East Japan Tsunami, *International Journal of Disaster Risk Reduction*, 29, 37-54. <https://doi.org/10.1016/j.ijdr.2017.06.024>
- [15] Leelawat, N., Suppasri, A., **Latcharote, P.**, Abe, Y., Sugiyasu, K. and Imamura, F. (2018). Tsunami Evacuation Experiment using a Mobile Application: A Design Science Approach, *International Journal of Disaster Risk Reduction*, 29, 63-72. <https://doi.org/10.1016/j.ijdr.2017.06.014>
- [16] Leelawat, N., Suppasri, A., **Latcharote, P.** and Imamura, F. (2017). Evacuation Operation of Thai Citizens during the 2016 Kumamoto Earthquake: an ICT Focus, *Journal of Disaster Research*, 12, 669-677.
- [17] **Latcharote, P.**, Suppasri, A., Yamashita, A., Adriano, B., Koshimura, S., Kai, Y. and Imamura, F. (2017). Possible Failure Mechanisms of Building Overturned during the 2011 Great East Japan Tsunami in the Town of Onagawa, *Frontiers in Built Environment, section Earthquake Engineering*, 3(16). <https://doi.org/10.3389/fbuil.2017.00016>
- [18] **Latcharote, P.**, Suppasri, A., Imamura, F., Aytore, B. and Yalciner, A.C. (2016). Possible Worst-Case Tsunami Scenarios around the Marmara Sea from Combined Earthquake and Landslide Sources, *Pure and Applied Geophysics*, 173, 3823–3846. <https://doi.org/10.1007/s00024-016-1411-z>
- [19] **Latcharote, P.**, Suppasri, A., Hasekawa, N., Takagi, H. and Imamura, F. (2016). Effect of Breakwaters on Loss Reduction of Fatality Ratio during the 2011 Great East Japan Earthquake and Tsunami, *Journal of Japan Society of Civil Engineers, Series B2 (Coastal Engineering)*, 72(2), 1591-1596. https://doi.org/10.2208/kaigan.72.I_1591
- [20] Suppasri, A., Leelawat, N., **Latcharote, P.**, Roeber, V., Yamashita, K., Hayashi, A., Ohira, H., Fukui, K., Hisamatsu, A., Nguyen, D., and Imamura, F. (2017). The 2016 Fukushima Earthquake and Tsunami: Local Tsunami Behavior and Recommendations for Tsunami Disaster Risk Reduction, *International Journal of Disaster Risk Reduction*, 21, 323-330. <http://dx.doi.org/10.1016/j.ijdr.2016.12.016>
- [21] Suppasri, A., **Latcharote, P.**, Bricker, J. D., Leelawat, N., Hayashi, A., Yamashita, K., Makinoshima, F., Roeber, V. and Imamura, F. (2016). Improvement of Tsunami Countermeasures Based on Lessons from the 2011 Great East Japan Earthquake and Tsunami — Situation After Five Years, *Coastal Engineering Journal*, 58(4). <https://doi.org/10.1142/S0578563416400118>
- [22] Suppasri, A., **Latcharote, P.**, Pokavanich, T., Al-Salem, K., Al-Enezi, A., Toda, S. and Imamura, F. (2016). Tsunami Hazard Assessment for the Arabian Gulf from Earthquake and Surface Landslides, *Journal of Japan Society of Civil Engineers, Series B2 (Coastal Engineering)*, 72(2), 1675-1680. https://doi.org/10.2208/kaigan.72.I_1675
- [23] Suppasri, A., Hasekawa, N., Makinoshima, F., Imamura, F., **Latcharote, P.** and Day, S. (2016). An Analysis of Fatality Ratios and the Factors that Affected Human Fatalities in the 2011 Great East

Japan Tsunami, *Frontiers in Built Environment, section Earthquake Engineering*, 2(32).
<https://doi.org/10.3389/fbuil.2016.00032>

- [24] **Latcharote, P.** and Kai, Y. (2015). Numerical Derivations of a Macroscopic Model for Reinforced Concrete Walls considering In-plane and Out-of-plane Behavior, *Journal of Japan Association for Earthquake Engineering*, 15(2). https://doi.org/10.5610/jaee.15.2_45
- [25] **Latcharote, P.**, Suppasri, A. and Kai, Y. (2013). Practical Applications of Earthquake and Tsunami Simulation Output for Disaster Management, *Society for Social Management Systems Internet Journal*, 3, SMS13-6767. <http://hdl.handle.net/10173/1253>

Peer-reviewed international conferences

- [1] Krutphong, K., Treeranurat, W., Laosunthara, A., Leelawat, N., Tang, J., Trumikaborworn, N., **Latcharote, P.**, Raising the Community's Awareness of Disaster through the Board Games: A Review K Krutphong, W, *Proceeding of 1st International Symposium on One Health, One World*, Pattaya, Thailand, December 2022.
- [2] Trumikaborworn, N., **Latcharote, P.**, Warnitchai, P., Tsunami evacuation simulation and the effect of population distribution: a case study of Patong, Phuket, *Proceeding of 1st International Symposium on One Health, One World*, Pattaya, Thailand, December 2022.
- [3] Trumikaborworn, N., **Latcharote, P.**, Suppasri, A., Warnitchai, P., Crafting effective tsunami evacuation measures using multiagent simulation: A case study of Khao Lak, Thailand, *Proceeding of 14th Aceh International Workshop and Expo on Sustainable Tsunami Disaster Recovery (AIWEST-DR 2022)*, Sydney, Australia, September 2022.
- [4] Trumikaborworn, N., **Latcharote, P.**, Warnitchai, P., Tsunami evacuation simulation using multi-agent simulation: A case study of Khao Lak, Thailand, *Proceeding of 17th World Conference on Earthquake Engineering*, Sendai, Japan, September 2020.
- [5] **Latcharote, P.**, C. Hansapinyo, C., Warnitchai, P., Seismic risk assessment in Chiang Mai Municipality using adapted fragility functions, *Proceeding of 17th World Conference on Earthquake Engineering*, Sendai, Japan, September 2020.
- [6] **Latcharote, P.**, Terada, K., Hori, M., Imamura, F., Seismic Risk Assessment of Wooden Buildings using Integrated Earthquake Simulation, *Proceeding of 7th Asian Conference on Earthquake Engineering*, Bangkok, Thailand, November 2018.
- [7] **Latcharote, P.**, Leelawat, N., Suppasri, A., Imamura, F., Developing Estimating Equations of Fatality Ratio based on Surveyed Data of the 2011 Great East Japan Tsunami, *IOP Conference Series Earth and Environmental Science*, 56(1):012011, February 2017.
- [8] Leelawat, N., Suppasri, A., **Latcharote, P.**, Imamura, F., Abe, Y. and Sugiyasu, K., Increasing Tsunami Risk Awareness via Mobile Application, *IOP Conference Series Earth and Environmental Science*, 56(1):012001, February 2017.
- [9] **Latcharote, P.**, Suppasri, A., Leelawat, N. and Imamura, F., Developing A Relationship between Fatality and Tsunami Arrive Time based on the 2011 Great East Japan Tsunami for Future Loss Assessment, *13th Annual Meeting Asia Oceania Geosciences Society (AOGS)*, Beijing, China, July 2016.
- [10] **Latcharote, P.**, Suppasri, A., Pokavanich, T., Al-Salem, K. and Imamura, F., Evaluation of Tsunami Hazards on Urban Area in Kuwait due to Possible Earthquake and Landslide Sources using

- Numerical Simulation, *Proceeding of International Conference on Urban Risks (ICUR2016)*, Lisbon, Portugal, June 2016.
- [11] Leelawat, N., Suppasri, A., **Latcharote, P.** and Imamura, F., Prototype Design of Mobile Solution for Tsunami Awareness, *13th Annual Meeting Asia Oceania Geosciences Society (AOGS)*, Beijing, China, July 2016.
- [12] Leelawat, N., Suppasri, A., Park, J., Charvet, I., **Latcharote, P.**, Imamura, F., Iijima, J. and Abe, Y., DamageEstimateApp: A Mobile Application to Estimate Building Damage from Tsunami Disaster, *Proceeding of International Conference on Urban Risks (ICUR2016)*, Lisbon, Portugal, June 2016.
- [13] **Latcharote, P.**, Suppasri, A., Imamura, F., Aytore, B. and Yalciner, A.C., Re-evaluation of Tsunami Hazard in Marmara Sea Generated from Combined Earthquake and Landslide Sources Focusing on Istanbul, Oral presentation, *American Geophysical Union (AGU) fall meeting*, San Francisco, USA, December 2015.
- [14] **Latcharote, P.** and Kai, Y., Double-Layer Platform of High Performance Computing for Damage Prediction of RC Buildings subject to Earthquake and Subsequent Tsunami in a Target Area, *Proceeding of 5th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Crete Island, Greece, May 2015.
- [15] **Latcharote, P.** and Kai, Y., Nonlinear Structural Analysis of Reinforced Concrete Buildings Suffering Damage from Earthquake and Subsequent Tsunami, *Proceeding of 10th U.S. National Conference on Earthquake Engineering (10NCEE)*, Earthquake Engineering Research Institute, Alaska, USA, July 2014. DOI: 10.4231/D33J39197
- [16] **Latcharote, P.**, Kai, Y. and Matsuzaki, K., Utilization of a Supercomputer in Earthquake and Tsunami Simulation, *Proceeding of 6th Thailand-Japan International Academic Conference (TJIA2013)*, 92-93, Osaka, Japan, November 2013.
- [17] **Latcharote, P.** and Kai, Y., High Performance Computing of Dynamic Structural Response Analysis for the Integrated Earthquake Simulation, *Proceeding of 13th East Asia Pacific Conference on Structural Engineering and Construction (EASEC-13)*, H-1-1, Hokkaido, Japan, September, 2013.
- [18] **Latcharote, P.** and Kai, Y., Object Oriented Modeling of Dynamic Structural Response Analysis, *Proceeding of 5th Thailand - Japan International Academic Conference (TJIA2012)*, 71-72, Tokyo, Japan, October 2012.

Domestic conferences

- [1] **Latcharote, P.**, Suppasri, A., Roeber, V. and Imamura, F., Preliminary Source Model of the Unexpected Tsunami in Sendai Bay from the 2016 Fukushima Earthquake, *Proceeding of JSCE Tohoku Research Meeting*, Sendai, Japan, March 2017.
- [2] **Latcharote, P.**, Suppasri, A. and Imamura, F., Developing Probability Curves of Fatality during the 2011 Great East Japan Tsunami in Sendai Plain, *Proceeding of JSCE Tohoku Research Meeting*, Iwate, Japan, March 2016.
- [3] **Latcharote, P.**, Suppasri, A., Imamura, F., Aytore, B. and Yalciner, A.C., Evaluation of Tsunami Hazards in Marmara Sea Generated from Combining Earthquake-Landslide Source, *Tsunami Joint-Research Meeting*, University of Tokyo, Japan, December 2015.

- [4] **Latcharote, P.**, Suppasri, A., Yamashita, A., Adriano, B., Koshimura, S., Kai, Y. and Imamura, F., Mechanism and Stability Analysis of Overturned Building by the 2011 Great East Japan Earthquake and Tsunami in Onagawa Town, *Proceeding of 14th Japan Earthquake Engineering Symposium (14JEES)*, Chiba, Japan, December 2014.
- [5] **Latcharote, P.** and Kai, Y., High Performance Computing of Dynamic Structural Response Analysis for the Integrated Earthquake Simulation, *Proceeding of AIJ Shikoku Chapter Architecture Research Meeting*, 57-58, Kochi, Japan, May 2013.
- [6] Nakagawa, E., Asada, K., **Latcharote, P.** and Kai, Y., Study on the Method of Calculating Tsunami Load on Structures using the Survey Results of the Building Tsunami, *Proceeding of AIJ Shikoku Chapter Architecture Research Meeting*, 33-34, May 2013.

Handbooks

- [1] Imamura, F., Suppasri, A., **Latcharote, P.** and Otake, T., A Global Assessment of Tsunami Hazards over the Last 400 Years, *World Tsunami Awareness Day*, 2016.
<http://www.preventionweb.net/publications/view/50889>
- [2] Suppasri, A., Charvet, I., Macabuag, J., Rossetto, T., Leelawat, N., **Latcharote, P.** and Imamura, F. (2015). Chapter 9 - Building Damage Assessment and Implications for Future Tsunami Fragility Estimations, *Handbook of Coastal Disaster Mitigation for Engineers and Planners*, Elsevier Science and Technology Books, 147-178.

List of Others

- [1] Expert group meeting on ICT for Disaster Risk Management, *Participant*, UNESCAP/APCICT, Bangkok, Thailand, August 2019.
- [2] The Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System, *Participant*, UNESCO/IOC, Kish Island, Iran, March 2019.
- [3] Expert Consultation on Scientific Tsunami Hazard Assessment of the Makran Subduction Zone, *Speaker*, UNESCO/IOC, Kish Island, Iran, March 2019.
- [4] DRR and DRM Session, *Chairman*, The 7th Asian Conference on Earthquake Engineering, Bangkok, Thailand, November 2018.
- [5] Earthquake Session, *Chairman*, The 8th Thailand-Japan International Academic Conference, Tokyo, Japan, October 2016.
- [6] UK-Japan Disaster Research Workshop: Cascading Risk and Uncertainty Assessment of Earthquake Shaking and Tsunami, *Participant*, Tokyo, Japan, August 2016.
- [7] Asian Conference on Disaster Reduction, *Participant*, Phuket, Thailand, February 2016.
- [8] Lessons learned from tsunamis in Japan and the right model for Thailand, verse Brain Drain e-Newsletter, 6(1) (pp. 11-13): Pathum Thani: National Science and Technology Development Agency, February, 2016.
- [9] The First International Workshop to Promote Seismic Protection Systems for Civil Structures, *Participant*, Sendai, Japan, November 2015.

- [10] Natural Disaster in Japan 2015 and The Role of IRIDeS, *Speaker*, Thailand-Japan Integrated Annual Education Talk, Kyoto, Japan, November 2015.
- [11] UK-Japan Seminar on Disaster Risk Reduction organized by IRIDeS-IRDR, *Participant*, London, England, October 2015.
- [12] Earthquake and Tsunami Simulation and Disaster Prevention, *Invited Speaker*, Special Seminar on Law and Disaster, Royal Thai Embassy, Tokyo, Japan, September 2013.
- [13] Erika NAKAGAWA, Akane YAMASHITA and Yoshiro KAI, Earthquake and Tsunami Simulation for a Target Area in Kochi City, *Broadcasting in Kochi Sun Sun TV*, 2013.