

Tawee Chaipimonplin



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Education

- 1997 Bachelor of Science (Agriculture-Soil Science), Khon Kaen University, Khon Kaen, Thailand
- 2002 Master of Applied Science (Geospatial Information), RMIT University, Melbourne, Australia
- 2004 Certificate of Processing the Radar Data of Earth Surface Remote Sensing, NPO Mashinostroyenia, Russian Federation
- 2005 Certificate of GIS and Remote Sensing for Natural Hazard and Risk Assessment, ITC, The Netherlands
- 2010 Ph.D. (Physical Geography), The University of Leeds, UK

Training Experience

- Workshop in Water Urban Risks: Designing Evacuation Strategies in Case of Flooding with Agent-Based Modeling and GAMA, under ASEAN Water Platform 2019, at National University of Management (NUM), Phnom Penh, Cambodia, 4-13 July 2019
- Workshop in Computer modeling and simulation of socio-environmental systems: “Exploring and designing adaptation strategies against salinity intrusion in the Vietnamese Mekong Delta” under ASEAN Water Platform 2018, at Can Tho University, Can Tho, Vietnam, 6-14 July 2018
- Fusion Project at Anglia Ruskin IT Research Institute, Anglia Ruskin University, 15 November – 14 December 2016
- Workshop in Program “Summer School in Rapid Mapping Technique for Disaster Observation and Global Change Data Acquisition” at Yogyakarta, Indonesia, 10-17 October 2016
- Workshop in Program “Climate Science Using Remote Sensing Data” at Chiang Mai University, Chiang Mai, Thailand, 5 August 2016

- Workshop in Program “Techniques of data analysis with data mining technique” at Chiang Mai Rajabhat University, Chiang Mai, Thailand, 30 June – 2 July 2016
- Workshop in Program “Integration of Geo-Informatics for Environment and Disaster Management” at GISTDA, Bangkok, Thailand, 13-17 June 2011
- Joining research using GIS and Remote Sensing for natural hazard management at Vietnam Institute of Environment and Sustainable Development (VESDI), Vietnam, 10 March – 3 June 2006. Thai government funding under project “Faculty and Student Exchange Program between Thailand and Greater Mekong Sub-region Countries”.
- Workshop Capacity Building in Asia using Information Technology Application (CASITA) Development of a course curriculum on “Multi hazard risk assessment”. 14 - 25 November 2005, Hanoi, Vietnam.
- The 26th Asian Conference on Remote Sensing. 7 – 11 November 2005, Hanoi, Vietnam.
- International Workshop on Disaster Monitoring and Assessment through Images. 4 – 6 November 2005, Asia Institute of Technology-AIT, Bangkok, Thailand

- The First International Symposium on Geo-information for Disaster Management, Delf University of Technology. 21 - 22 March 2005, Delf, The Netherlands.
- The 25th Asian Conference on Remote Sensing. 22 - 26 November 2004, Chiang Mai, Thailand
- Asian Program for Regional Capacity Enhancement for Landslide Impact Mitigation (RECLAIM), ADPC. 13 - 15 September 2004, Bangkok, Thailand
- Innovative Practices for Sustainable Sloping Lands and Watershed Management. 5 - 9 September 2004, Chiang Mai, Thailand
- CASITA Final Workshop. 16 - 19 March 2004, Indian Institute of Remote Sensing (IIRS), Dehradun, India.
- The Potential Geo-information Users Groups (PGUG). 7-10 November 2003, Chiang Mai University, Thailand
- Application of Space Technology for Flood Management Workshop by GISTDA. 18 September 2003, Chiang Mai, Thailand
- Sustainable Capacity Building on Urban Disaster Mitigation in Asia using IT&C Learning Tools (CASITA) Training Course. 11 - 22 August 2003, Asian Disaster Preparedness Center (ADPC), Bangkok, Thailand
- Technical Workshop on Data Information Systems and Services (DISS) for Satellite-based Earth Observation

Data: Development of On-line Applications for Distributed Data Archives by Geo-Informatics and Space Technology Development Agency (GISTDA) and Michigan State University's Center for Global Change and Earth Observations (CGCEO). 10-11 June 2003, GISTDA, Bangkok, Thailand

Teaching Subjects

- Undergraduate
 - Introduction to Atmosphere, Introduction to Geography, Physical Geography, Introduction to Soil Geography, Soil Geography, Map Reading and Interpretation, Introduction to Natural Disaster, Environment Conservation, Natural Disaster Assessment and Risk Assessment, Disaster in Modern World, Remote Sensing, Hydrology and water management
- Postgraduate
 - Multimedia Cartography, Seminar in Geoinformatic, GIS and Remote Sensing for Disaster Management, Seminar in, Disaster management, Analytic in Disaster Management (team teaching)

Research Project

- Tawee Chaipimonplin and Supachai Mukdasanit. (2020). The Development of Artificial Neural Network Model for Flood Forecasting in Mobile Application. (On going)
- Supathida Aumtong, Tawee Chaipimonplin and Chakrit Chotamonsak. (2020). The Transferring of Knowledge of ICT Smart NPK Application for Soil and Fertilizer Managements for Large Size Plantation Plots in Chiang Mai Province. (On going)
- Tawee Chaipimonplin and Phaothai Sin-ampol. (2019). The Application of Artificial Neural Network Model for Water Level Prediction in the Future from Climate Change and Community Adaptation to Climate Change in Bangrakam District. National Research Council of Thailand.
- Supathida Aumtong, Tawee Chaipimonplin and Chakrit Chotamonsak. (2018). Agriculture management to reduce the impact and adaption of climate change. Chiang Mai.
- Tawee Chaipimonplin. (2017). The Development of Neural Network Model for Flood Forecasting by Using Data from Climate Model, Faculty of Social Sciences, Chiang Mai University.
- Tawee Chaipimonplin. (2017). The Strategy of Artificial Neural Network Model Design for Flood Forecasting, Case Study: Upper Ping and Lower Mun Catchment, National Research Council of Thailand.

- Tawee Chaipimonplin. (2015). The Development of Neural Network Model for Flood Forecasting in Upper Ping Catchment: Case Study P.67 and P.1 Station, Chiang Mai University.
- Tawee Chaipimonplin and Thaveesak Vangpaisal. (2014). Development of Neural Network Model for Water Level Forecasting for Flood Warning in Nam Mun Catchment, National Research Council of Thailand.
- Tawee Chaipimonplin. (2012). The Development of Neural Network Model for Flood Forecasting in Upper Ping Catchment Using Radar Imagery and Hydrology Information, Faculty of Social Sciences, Chiang Mai University.

Publications

International Journal

- Kaiser, M.S., Lwin, K.T., Mahmud, M., Hajjalizadeh, D., Chaipimonplin, T., Sarhan, A. and Hossain, M.A. (2018). Advances in crowd analysis for urban applications through urban event detection. **IEEE Transactions on Intelligent Transportation Systems**, 19(10), 3092-3112.
- Chaipimonplin, T. (2017) The efficiency of using different of learning algorithms in artificial neural network model for flood forecasting at Upper River Ping Catchment,

Thailand. **International Journal of Advanced Computational Engineering and Networking**, 5(1), 40-44.

Chaipimonplin, T. (2016) Investigation internal parameter of neural network model for flood forecasting at Upper River Ping, Thailand. **KSCE Journal of Civil Engineering**, 20(1), 478-484.

Phadermrod, C., Prapbudhanitisarn, S., Sa-Ngawongse, S. and Chaipimoplin, T. (2016). Conflicts between communities and industry and conflict management from evidence-based solutions: A case study of Zinc Mine Project, Mae Sod District, Tak Province, Thailand. **PSAKU International Journal of Interdisciplinary Research**, 5(1), 84-92.

Chaipimonplin, T. and Vangpaisal, T. (2015) The efficiency of input determination techniques in ANN for flood forecasting, Mun Basin, Thailand. **Journal of Water Resource and Hydraulic Engineering**, 4(2), 131-137.

Chaipimonplin, T. and Vangpaisal, T. (2014). Comparison of the efficiency of input determination techniques with LM and BR algorithms in ANN for flood forecasting, Mun Basin, Thailand. **International Journal of Computer and Electrical Engineering (IJCEE)**, 6(2), 90-94.

Chaipimonplin, T., See, L.M. and Kneale, P.E. (2010). Using radar data to extend the lead time of neural network

forecasting on the River Ping. **Disaster Advances**, 3(3), 35-43.

International Conference

Sim-ampol, P., Chaipimonplin, T. and Songka, S. (2019). Future Flood Prediction with Artificial Neural Network Model from Rainfall Grid Data at Bangrakam District, Thailand. **International Conference on Capacity Building for Research and Innovation in Disaster Resilience 2019**, 14-18 January 2019.

Chaipimonplin, T. and Sim-ampol, P. (2019). Local Community Engagement for Adaptation to Future Challenges in Pilot Flood Detention Area of Thailand. **International Conference on Capacity Building for Research and Innovation in Disaster Resilience 2019**, 14-18 January 2019, pp. 138-151.

Chaipimonplin, T., Aumthong, S. and Chotamonsak, C. (2018). Prediction of total organic carbon storage with artificial neural network model in 9 Northern Province, Thailand. **7th Chiang Mai University-Kagawa University Joint Symposium 2018**, August 2018. Chiang Mai, Thailand, pp. 48-51.

Chaipimonplin, T. (2017). Comparison learning algorithms of artificial neural network model for flood forecasting, Chiang

Mai, Thailand. In Syme, G., Hatton MacDonald, D., Fulton, B. and Piantadosi, J. (eds) MODSIM 2017, **22nd International Congress on Modelling and Simulation Society of Australia and New Zealand**, December 2017, pp. 473-479.

Chaipimonplin, T. (2016). The efficiency of using different of learning algorithms in artificial neural network model for flood forecasting at Upper River Ping Catchment, Thailand. **International Conference on Civil and Environmental Engineering (I2C2E 2016)**, 16-17 November 2016, Oxford, UK, 1-5.

Chaipimonplin, T. (2016) Global navigation satellite system in Thailand. **The 2nd International Conference of Indonesian Society for Remote Sensing (ICOIRS 2016)**, 17-19 October 2016, Yogyakarta, Indonesia, 86-89.

Aumtong, S., Chaipimonplin, T. and Pongwongkhum, P. (2016) Artificial neural network development for forecasting soil carbon sequestration of paddy soils in Thailand. Workshop **SOMmic- Microbial Contribution and Impact on Soil Organic Matter**, 9-11 November 2016, Leipzig, Germany.

Chaipimonplin, T. and Vangpaisal, T. (2015) The efficiency of input determination techniques in ANN for flood forecasting Mun Basin, Thailand. **The 2015 International Conference**

on Water Resource and Environment (WRE 2015), 25-28 July 2015, Beijing, China.

Chaipimonplin, T. (2013). The effective of different learning algorithms of Artificial Neural Network for flood forecasting at Upper Ping River, Thailand. **BIT's 1st Annual International Conference of Emerging Industry (ICEI 2013)**, 6-7 November, Shenzhen, China. (Invited speaker).

Chaipimonplin, T. and Vangpaisal, T. (2013). Comparison of the efficiency of input determination techniques with LM and BR algorithms in ANN for flood forecasting, Mun Basin, Thailand. **The 2013 6th International Conference on Advanced Computer Theory and Engineering (ICACTE 2013)**, 17-18 August, Male, Maldives.

Chaipimonplin, T., See, L.M. and Kneale, P.E. (2011). Improving Neural Network for Flood Forecasting Using Radar Data on the Upper Ping River. In Chan, F., Marinova, D. and Anderssen, R.S. (eds) **MODSIM 2011, 19th International Congress on Modelling and Simulation**. Modelling and Simulation Society of Australia and New Zealand, December 2011, pp.1070-1076.

Chaipimonplin, T., See, L.M. and Kneale, P.E. (2011). Comparison of Neural Network Learning Algorithms; BR and LM, for Flood Forecasting, Upper Ping Catchment. **10th International Symposium on New Technologies for**

Urban Safety of Mega Cities in ASIA (USMCA 2011) 12-14
October 2011, Chiang Mai, Thailand.

Chaipimonplin, T., See, L.M. and Kneale, P.E. (2008). Use of neural network to predict flooding in Chiang Mai, Thailand: comparison of input determination techniques. **AOGS 2008**, The Asian Oceania Geosciences Society, Pusan, South Korea, 17-19 June 2008.

Chaipimonplin, T., See, L.M. and Kneale, P.E. (2008). Neural network prediction of flooding in Chiang Mai, Thailand: comparison of input determination techniques. **EGU**, Vienna, Austria, 13-18 Apr 2008.

National Journal

Suphathida Aumthong, Tawee Chaipimonplin, and Chakrit Chotamonsak. (2019) Relationship between Organic Carbon by Permanganate-Oxidizable Carbon (POXC) method with Soil Organic Matter for Quality Indicator of Longan and Paddy Soils. **Journal of Agricultural Research and Extension**, 36(1), 1-10 (Thai).

Yupin Chaisompran and Tawee Chaipimonplin. (2019). Influence factor the performance of artificial neural network model for flood forecasting: Case study Chiang Mai Municipality. **Journal of Science and Technology Mahasarakham University**, 38(3), 330-337 (Thai).

- Tawee Chaipimonplin. (2018). Artificial neural network model for water level forecasting at Lower Yom Catchment with rainfall grid data from climate model. **Journal of Social Sciences Srinakharinwirot University**, 21, 80-93 (Thai).
- Tawee Chaipimonplin. (2018). Comparison of 12 learning algorithms of artificial neural network models for flood forecasting in Upper Ping Catchment. **Journal of Science and Technology Mahasarakham University**, 37(3), 389-401 (Thai).
- Supawadee Songka and Tawee Chaipimonplin. (2018). Development of artificial neural network model for flood prediction at Y.16 Bang-Rakam station. **Journal of Science and Technology Mahasarakham University**, 37(1), 119-129 (Thai).
- Yupin Chaisompran, Tawee Chaipimonplin and Chakrit Chotamonsak (2017) Neural network modelling of climate change impact on future flood prediction: A case study of Chiang Mai Municipal, **Journal of Social Sciences Srinakharinwirot University**, 20, 169-178. (Thai).
- Yupin Chaisompran and Tawee Chaipimonplin (2017) Water level forecasting by artificial neural network model with rainfall data from WRF-ECHAM5 **Journal of Srinakharinwirot University, (Science and Technology)**, 9(17), 83-90. (Thai).

- Tawee Chaipimonplin and Thaveesak Vangpaisal (2016) Artificial neural network models for flood forecasting in Lower Mun Catchment, **Journal of Science and Technology Mahasarakham University**, 35(5), 587-595.
- Wipa Inruang and Tawee Chaipimonplin (2015) The prediction of landslides risk areas in Uttaradit province by applying geo-informatics technology with an artificial neural network, **Journal of Social Sciences Srinakharinwirot University**, 18, 191-207. (Thai).
- Tawee Chaipimonplin (2014) 50 Years with the applications of artificial neural network for flood forecasting in Thailand, **Journal of Social Sciences Chiang Mai University**, 26(2), 171-192. (Thai).
- Tawee Chaipimonplin (2014). The roles of artificial neural network for geographical research in Thailand, **Journal of Social Sciences Srinakharinwirot University**, 17, 315-327. (Thai).
- Tawee Chaipimonplin (2014). Flood prevention in the Netherlands, **Journal of Srinakharinwirot University, (Science and Technology)**, 6(11), 55-65. (Thai).
- Tawee Chaipimonplin. (2014) The used of radar imagery and hydrology information with artificial neural network model for flood forecasting in Upper Ping Catchment, **Journal of**

Science and Technology Mahasarakham University, 33(4), 267-274. (Thai).

Tawee Chaipimonplin. (2013). The use of artificial neural network model for soil sciences, **Khoen Kaen Agriculture Journal**, 41 (Supplement 2), 147-154. (Thai).

Chaipimonplin, T. (2005) God creates us but Dutch make the Netherlands: Review protected land from flooding in the Netherlands. **Contemporary Global Issues in Social Sciences**, Faculty of Social Sciences, Chiang Mai University, pp 179-187. ISBN: 974-656-770-5.

National Conference

Suphathida Aumthong, Tawee Chaipimonplin, and Chakrit Chotamonsak. (2019). CO₂ and CH₄ Emission potential from agricultural soils of Upper Northern Part of Thailand, **The 6th National Soil and Fertilizer Conference**. 3-5 July, Kasetsart University, Thailand (Poster) (Thai).

Aumthong, S., Chotamonsak, C. and Chaipimonplin, T. (2019). Effect of some modulators under various land uses for soil C storage in Northern Thailand. **The 6th National Soil and Fertilizer Conference**. 3-5 July, Kasetsart University, Thailand (Oral).

Yupin Chaisompran and Tawee Chaipimonplin. (2015). Application of artificial neural network model with regional

climate model data to predict floods in Nakorn Chiang Mai Municipality, **The 8th Thai Student Symposium on Geography and Geo-informatics**. 25-26 December, pp 11. (Thai).

Chaipimonplin, T. (2013). The use of artificial neural network model for soil sciences. **The 3rd National Soil and Fertilizer Conference**. 25-27 April, pp. 331-338, KhonKaen, Thailand (Thai).

Chaipimonplin, T. (2013). Investigation Bayesian Regularization algorithm and ranges of normalizations for artificial neural network model for flood forecasting. **The 18th National Convention on Civil Engineering**. 8-10 May, pp. APP1-APP6, Chiang Mai, Thailand (Thai).

Inruang, W. and Chaipimonplin, T. (2013) Using an artificial neural network with geo-informatics technology for prediction the landslide risk area in Uttaradit province: Comparison learning algorithms and the suitable architecture structure. **The 18th National Convention on Civil Engineering**. 8-10 May, pp. APP53-APP58, Chiang Mai, Thailand (Thai).

Dengwongsa, C. and Chaipimonplin, T. (2013) Water reservoir inflow forecasting using artificial neural networks model with geo informatics technology maeguang Udomthara

Dam. **The 18th National Convention on Civil Engineering**. 8-10 May, pp. APP59-APP64, Chiang Mai, Thailand (Thai).

Books

Tawee Chaipimonplin. (2019). Disaster in the Modern World. Department of Geography, Faculty of Social Sciences, Chiang Mai University. pp 154. (Thai)

Tawee Chaipimonplin. (2019). Introduction to Natural Disaster. Department of Geography, Faculty of Social Sciences, Chiang Mai University. pp 199. (Thai)

Tawee Chaipimonplin. (2015). Introduction to Soil Geography. Department of Geography, Faculty of Social Sciences, Chiang Mai University. pp 154. (Thai)

Tawee Chaipimonplin. (2014). Introduction to Natural Disaster. Department of Geography, Faculty of Social Sciences, Chiang Mai University. pp 194. (Thai)

Tawee Chaipimonplin. (2012). Introduction to Natural Disaster. Department of Geography, Faculty of Social Sciences, Chiang Mai University. pp 145. (Thai)