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## EDUCATION

### Degree : PhD.

GEOPHYSICS (2013), TOHOKU UNIVERSITY

**Thesis title :** Quantitative Precipitation Estimation and Cloud Microphysical Properties in Tropical Mesoscale Convective Systems over Northern Thailand

### Degree : Master of Science (M.S.)

EARTH SCIENCE (2004), CHULALONGKORN UNIVERSITY

**Thesis title :** Interannual Variability of Carbon dioxide Circulation in Paddy soil, Sukhothai Province, Thailand.

### Degree : Bachelor of Science (B.S.)

GENERAL SCIENCE (2000), KASSETSART UNIVERSITY



## AWARDS AND HONORS

- 2009 – 2013 Super Doctoral Course (SDC) fellowship of International Graduate Program for Advanced Science (IGPAS) by Tohoku University, Japan.
- 2005 - 2005 International Business Logistic Scholarship for short training 4 months.
- 2003 - 2004 Exchange student at Tokyo University of Agriculture and Technology: Atmospheric and Environment Laboratory, Japan.



## TEACHING EXPERIENCE

2020	GE329	Meteorology in Everyday Life
2018 - 2019	GE626	Programing for Geographer
2018	GE323	Geomorphology
2018	GE324	Natural Disaster for Geographer
2017 - 2018	KAES371	Disaster and Climate Risk Management
2017 - 2018	KAES476	Geo-hazard Management
2017 - 2018	KAES477	Informatics for Forecasting and Disaster Warning
2016 - 2017	KAGS381	Geochemistry
2015 - 2017	KAED170	General Meteorology
2015 - 2018	KAES270	Natural and Environmental Disasters
2014	KACM242	Product and Operation Management



## WORK EXPERIENCE

### **Lecturer | Srinakharinwirote University, Thailand**

DEC 1<sup>ST</sup>, 2017 – PRESENT : Department of Geography, Faculty of Social Science  
Teaching in subject : Climate Change, Natural Disaster, Programing for Geography,  
Geology of Thailand

### **Lecturer | Mahidol University, Thailand**

AUG 1<sup>ST</sup>, 2014 – NOV 30<sup>TH</sup>, 2017 : Environmental Engineering and Disaster Management  
Program, Kanchanaburi Campus

Teaching in subject : General Meteorology, Natural Disaster and Environment, Climate  
Change and Disaster Risk Management

### **Postdoctoral | Chulalongkorn University, Thailand**

FEB 1<sup>ST</sup>, 2014 – JUL 31<sup>ST</sup>, 2014 : Department of Geography, Faculty of Social Science

### **Associate Reseacher | Tohoku University University, Japan**

JUL 1<sup>ST</sup>, 2013 – NOV 30<sup>TH</sup>, 2013 : Department of Geophysics, Faculty of Science

### **Researcher and Teacher Assistant | Chulalongkorn University, Thailand**

JUL 1<sup>ST</sup>, 2009 – SEP 30<sup>TH</sup>, 2009 : Research Unit Name Research Unit for Earthquake and  
Tectonics Geology of Mainland Southeast Asia (EATGRU), Department of Geology, Faculty  
of Science

### **Production Planner | Hoya Lens Thailand Co. Ltd., Thailand**

SEP 1<sup>ST</sup>, 2006 – MAY 30<sup>TH</sup>, 2009 : Department of Logistic

### **Researcher and Teacher Assistant | Kasetsart University**

AGU 1<sup>ST</sup>, 2004 – MAR 31<sup>ST</sup>, 2005 : Department of General Science, Faculty of Science

### **Researcher and Teacher Assistant | Kasetsart University**

MAY 1<sup>ST</sup>, 2000 – APR 31<sup>ST</sup>, 2001 : Department of General Science, Faculty of Science



## ACADEMIC EXPERIENCE

- 2020
  - Editor: Monprapussorn, S., Lin, Z., Sitthi, A., **Wetchayont, P.** (2020) Geoinformatics for Sustainable Development in Asian Cities. Springer Geography.
  - Setting an examination questions for Ordinary National Educational Test (O-NET): Atmospheric part
- 2019
  - Mentor of Thai team in Earth Science Olympiad 2018, Daegu, South Korea
- 2019
  - Tutor of Earth Science Olympiad Preparation Camp 2019, Bangkok, Thailand
- 2019
  - Setting an examination questions for Ordinary National Educational Test (O-NET): Atmospheric part
- 2018
  - Mentor of Thai team in Earth Science Olympiad 2018, Karnchanaburi, Thailand
- 2018
  - Tutor of Earth Science Olympiad Preparation Camp 2018, Bangkok, Thailand



## BOOKS

Earth Science for Senior High school Chapter 6 and 7 : ISBN 976-616-203-689-7  
Exercise Book of Earth Science for Senior High school Part 2, Chapter 1 to Chapter 7



## PUBLICATION

- Wetchayont, P., 2019. Merging radar, satellite and rain gauge for precipitation estimation, Proc. Of AMS 39th international conference on radar meteorology (In Press)
- Wetchayont, P., and Chotpantarat S., 2015. Evaluation of Precipitation over Northern Thailand in CMIP5 MRI- CGCM3 Simulations. THA 2015 International Conference on “Climate Change and Water & Environment Management in Monsoon Asia”
- Wetchayont, P., T. Hayasaka, T. Satomura, S. Katagiri, and S. Baimoung. 2013. Retrieval of rainfall by combining rain gauge, ground-based radar and satellite measurements over Phimai, Thailand. SOLA, 9, 166–169, doi:10.2151/sola.2013-037
- Wetchayont, P., T. Hayasaka, and S. Katagiri. 2013. Application of a Precipitating Cloud Classification Method to Radar Observations in Thailand. Radiation Processes in the Atmosphere and Ocean (IRS2012), AIP Conf. Proc. 1531, 388-391 (2013); doi: 10.1063/1.4804788
- Wetchayont, P., T. Hayasaka, S. Katagiri, T. Satomura. 2012. Categorizing precipitating clouds by using radar and geostationary satellite. Remote Sensing of the Atmosphere, Clouds, and Precipitation IV, edited by T. Hayasaka, K. Nakamura, E. Im, Proc. Of SPIE 8523, 85231C, 2012, doi:10.1117/12.976833



## PRESENTATION

### Date | Topic

- |                 |   |
|-----------------|---|
| Sep 16-20, 2019 | Poster Presentation, Merging Radar, Satellite and Rain Gauge for Precipitation Estimation, AMS 39th International Conference on Radar Meteorology, Nara, Japan  |
| Jun 23-26, 2019 | Poster Presentation, Varsity of Cloud Microphysical Properties Influence by El Nino, International Conference on Earth Observations and Societal Impacts (ICEO&SI) 2019, Tainan, Taiwan   |
| Nov 20-22, 2018 | Poster Presentation, A machine learning system for rainfall estimation using Himawari-8 data, International Symposium on Frontier of Science, Technology and Engineering: FOSTE II 2018, Chiang Mai, Thailand   |
| Jul 1-3, 2018   | Poster Presentation, A comparison of Particulate Matter Concentration Estimations made by MODIS and Himawari 8 satellite data on critical haze days in Greater Bangkok, International Conference on Earth Observations and Societal Impacts (ICEO&SI) 2019, Hsinchu, Taiwan |
| Nov 12, 2016    | Keynote Speaker, Microphysical Properties of Marine Cloud associated  |

- with the 2015 El Nino, Application of Fisheries and Marine Science and Technology on Mitigation of Disaster and Environmental Degradation in Coastal Area, Semarang, Indonesia
- Jan 28, 2015 Oral Presentation, Evaluation of Precipitation over Northern Thailand in CMIP5 MRI-CGCM3 Simulation, THA 2015 International Conference on Climate Change and Water & Environment Management in Monsoon Asia, Bangkok, Thailand
- Nov 2, 2014 Oral Presentation, Verification of Hydrometeor Properties Simulated by JMA-NHM using Ground-based Radar and Rain Gauge Observations for MCS, The 40th Congress on Science and Technology of Thailand, Khon Kaen, Thailand
- Nov 20, 2013 Poster Presentation, Verification of Simulated Cold Pools in JMA-NHM Simulations with Different Microphysics Schemes, Autumn Meeting, Japan Meteorology Society (JMS), Tohoku University, Sendai, Japan
- Feb. 21, 2013 Oral Presentation, Model simulated and observed variation in cloud properties and surface precipitation of Mesoscale Convective System, Tohoku University Joint symposium for the six departments, Tohoku University, Sendai, Japan
- Sep. 21, 2012 Oral Presentation, Categorizing precipitating clouds by using Radar and Geostationary satellite, The 8th SPIE Asia-Pacific Remote Sensing Symposium, Kyoto, Japan
- Sep. 21, 2012 Oral Presentation, Application of rainfall estimation by using combined rain gauge, satellite and radar over Phimai, Thailand, The 8th APRU Research Symposium on Multi-hazards around the Pacific Rim, Sendai, Japan
- Aug 6-10, 2012 Poster Presentation, Application of a Method to Classify Precipitating Cloud Areas using Radar, International Radiation Symposium 2012, Berlin, Germany
- Jun. 16, 2012 Oral Presentation, Categorizing precipitating clouds by using Radar and Geostationary satellite, First Joint Project Meeting on Interannual variations of upper Tropospheric humidity (UTH) and radiation budget over the North Pacific High, Tohoku University, Sendai, Japan
- May 26-29, 2012 Poster Presentation, A Method of Identifying Precipitating Clouds in Thailand using Radar, Spring Meeting, Japan Meteorology Society (JMS), Tsukuba University, Japan
- Feb.29, 2012 Oral Presentation, Doctoral Student 3rd year meeting, The institute for the International Advanced Research and Education (IIARE), Tohoku University, Japan
- Sept. 16-18, 2011 Poster Presentation, On the calibration of Thailand Weather Radar, Autumn Meeting, Japan Meteorology Society (JMS), Nagoya University, Japan
- Jun. 28 – Jul. 7, 2011 Poster Presentation, Introduction of the Improvement of TRMM 3B42 satellite rainfall product over Thailand in 2009, 2011 International Union of Geodesy and Geophysics General Assembly (IUGG2011), Melbourne, Australia.

- Sept. 25, 2010 Oral Presentation, Research and Doctoral Student meeting for B Section of Department of Geophysics, Tohoku University, Japan.
- Dec. 12-15, 2005 Poster Presentation, Interannual Variability of Carbon dioxide Circulation in Paddy soil, Sukhothai Province, Thailand, 3rd Asian Pacific International Conference on Pollutants Analysis and Control, Bangkok, Thailand



## RESEARCH PROJECT

- 2019 Weather Radar as an application to Urban Flood Modelling of Bangkok Metropolis
- 2019 Effects of Small Aerosols on Cloud Microphysics Properties over Thailand from Satellite Data
- 2018 Impacts of Climate Change on Future Physical Environment over Nakornnayok Province
- 2018 Estimating Fine Aerosol Concentration over Greater Bangkok by Using Meteorological Satellite Observations
- 2018 Investigation of SWU Students' Preferences and Learning Behaviors in Thai MOOC: Disasters Everywhere



## RESEARCH INTEREST

- Estimation rainfall quantity and characteristics of rainfall by radar and satellite
- Regional Climate Model Simulation.
- Climate Change
- Study microphysics of cloud and radiation effect by aerosol
- Cloud Seeding Criterion in Atmospheric Water Resources Enhancement