CURRICULUM VITAE

Chia-Jeng (CJ) Chen, Ph.D.

Professor, Civil Engineering, National Chung Hsing University
145 Xingda Road, South District, Taichung 40227, Taiwan
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I. EXPERTISE AND RESEARCH INTERESTS

Hydro-climatic modeling and forecasting
Regional catastrophe modeling and risk assessments
Climate resilience and risk assessments
GIS and remote sensing applications
Statistical modeling and machine learning applications
Sustainability and environmental management
Optimization algorithms and applications

II. PROFESSIONAL APPOINTMENTS

Professor August 2023–present
Civil Engineering
National Chung Hsing University

Visiting Scholar July 2024–September 2024
Global System Laboratory
National Oceanic and Atmospheric Administration (NOAA)

Deputy Chair August 2022–July 2024
Civil Engineering
National Chung Hsing University

Associate Professor February 2020–July 2023
Civil Engineering
National Chung Hsing University

Assistant Professor August 2015–January 2020
Civil Engineering
National Chung Hsing University

Sr. Scientist July 2013–July 2015
Catastrophe Risk Engineering
AIR Worldwide

Postdoctoral Fellow August 2012–June 2013
Georgia Water Resources Institute
Georgia Institute of Technology, Atlanta, Georgia

Graduate Research Assistant January 2007–July 2012
School of Civil and Environmental Engineering
Georgia Institute of Technology, Atlanta, Georgia

Research Assistant August 2004–August 2006
Research and Development Center
Central Weather Bureau, Taipei, Taiwan

III. EDUCATION

Ph.D.,	**Civil and Environmental Engineering, August 2012**
	Georgia Institute of Technology, Atlanta, Georgia
Major:	Environmental Fluid Mechanics and Water Resources
Minor:	Earth and Atmospheric Sciences; Statistics
Thesis Title:	*Hydro-Climatic Forecasting Using Sea Surface Temperatures*
M.S.,	**Civil and Environmental Engineering, May 2008**
	Georgia Institute of Technology, Atlanta, Georgia
M.S.,	**Bioenvironmental Systems Engineering, May 2004**
	National Taiwan University, Taipei, Taiwan
Major:	Soil and Water Resources Engineering
Thesis Title:	*Inverse Analysis of Identifying Groundwater Contaminant Source and its Release History along with Optimizing Dispersivity Spatial Patterns*
B.S.,	**Bioenvironmental Systems Engineering, May 2002**
	National Taiwan University

IV. PROJECT EXPERIENCE, SPONSORED RESEARCH, AND COLLABORATION

1. A digital twin of regional hydrometeorology (**2030 Cross-Generation Young Scholars Program**), $5,400,000 NTD funded by Taiwan's **National Science and Technology Council (NSTC 114-2628-E-005-003-MY3; PI)** (August 2025–July 2028).

2. Climate-smart adaptation algorithm–development and integration of multi-source data and modeling methods, $2,494,000 NTD funded by **NSTC 112-2621-M-005-003-MY2; PI** (August 2023–July 2025).

3. Development of high-resolution soil moisture through satellite and model data merging and downscaling, $675,000 NTD funded by Taiwan's **Agency of Rural Development and Soil and Water Conservation; PI** (Feb 2024–December 2024).

4. Exploration of the rapid refresh forecast system in Taiwan's hydrometeorological studies, $383,680 NTD (visiting scholar grant) funded by **NSTC; PI** (July 2024–September 2024).

5. Regional flood hazard assessment adaptable to global environmental change: A hybrid mechanistic-empirical modeling framework, $2,571,000 NTD funded by Taiwan's **Ministry of Science and Technology (MOST 109-2221-E-005-001-MY3; PI)** (August 2020–August 2023).

6. Climate-smart adaptation algorithm on establishing interdisciplinary risk assessment and dynamic adaptation pathways, $2,912,000 NTD funded by **MOST 108-2621-M-005-008-MY3; PI** (August 2019–July 2022).

7. Taiwan typhoon catastrophe model: Typhoon characteristic analysis, loss prediction, and risk assessment, $720,000 NTD funded by **MOST 107-2625-M-005-001-; PI** (August 2018–July 2019).

8. Interactions between Taiwan's land-use/cover change and regional atmospheric and hydro-meteorological modeling and large-scale climate variability, $2,483,000 NTD funded by **MOST 105-2621-M-005-004-MY3; PI** (August 2016–July 2019).

9. Rainfall analysis in the context of climate change for Jen-I-T'an reservoir, Southwest Taiwan, $300,000 NTD funded by **Liming Engineering Consultants; PI** (May 2019–September 2019).

10. Hydro-climatic forecasting for East and Southeast Asia—methodology and integrated modeling, $901,000 NTD funded by **MOST 106-2625-M-005-004-; PI** (August 2017–October 2018).

11. Hydro-climatic forecasting for East and Southeast Asia—teleconnection patterns, methodology, and integrated modeling, $1,687,000 NTD funded by **MOST 104-2625-M-005-007-MY2; PI** (November 2015–July 2017).

12. Applying integrated numerical modeling of surface water and subsurface water to study groundwater resources management, $3,400,000 NTD funded by the Water Resources Agency under **MOEAWRA1050043; Co-PI** (November 2015–July 2017).

13. Development of inland flood modeling for Southeast Asian countries (Indonesia, the Philippines, and Vietnam), sponsored by **AIR Worldwide** (November 2013–July 2015).

14. Enable climate change responses in Asia and the Pacific—developing a disaster risk financing (DRF) capability—Phase 2: study of potential DRF options, in partnership with the **Asian Disaster Preparedness Center (Thailand) and Swiss Re (Switzerland)**, sponsored by the **Asian Development Bank** (November 2013–July 2015).

15. Philippines catastrophe risk assessment and modeling—Component 3: country catastrophe risk profiles, in partnership with the **Asian Disaster Preparedness Center**, sponsored by the **World Bank** (July 2013–December 2013).

16. Development of inland flood modeling for Southeast European countries (Albania, Macedonia, and Serbia), in support of the **Europa Re** operations, sponsored by the **World Bank** (July 2013–September 2013).

17. Apalachicola Chattahoochee Flint (ACF) sustainable water management plan—Phase I: ACF unimpaired flow review and assessment; Phase II: instream flow and lake levels assessment, sponsored by **Black and Veatch Corporation** and the **ACF Stakeholders** (May 2012–June 2013).

18. FY 2011 state water resources program, sponsored by **U.S. Dept. of Interior and Geological Survey** (January 2012–June 2013).

19. Establishing strategies for natural disaster research based on hydrometeorology and hydroclimatology, recipient of Taiwan Merit Scholarships, sponsored by the **National Science Council in Taiwan** (~$70,000USD, January 2007–December 2008).

20. Developing an atmospheric-pattern-based flood hazard module, sponsored by the **National Science Council in Taiwan** (August 2004–July 2006).

21. Developing a climate change and extreme weather monitoring and forecasting system, sponsored by the **Central Weather Bureau in Taiwan** (August 2004–July 2006).

V. TEACHING EXPERIENCE

Instructor Fall 2015–2025
CE 2287 Engineering Statistics (I)
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring 2016, 2018, and 2019
CE 2371 Fluid Mechanics
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring & Fall 2022–2024
CE 3405 (4252) Civil Engineering Practice (–Intern)
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring 2020–2022
CE 3397 Hydraulic Engineering
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring 2017–2021, 2024–2025
CE 4158 Topic Study in Civil Engineering (Capstone)
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring 2025
CE 6733 Advanced Hydrology
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring 2017–2023
CE 6747 Analysis of Water Resources System (I)
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Fall 2015–2021
CE 6765 Applied Statistics
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Fall 2018–2025
CE 6765 Random Data Analysis
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Spring 2016, 2017, 2020–2025
CE 3329 (7775) Climate Change and Environmental Impact (Disaster Risk Assessment)
Department of Civil Engineering
National Chung Hsing University, Taichung, Taiwan

Instructor Summer 2010 and 2011; Fall 2011
CEE 4210 Hydrology
School of Civil and Environmental Engineering
Georgia Institute of Technology, Atlanta, Georgia

Teaching Assistant Fall 2009, 2010, and 2012
CEE 6231 Probability and Statistics (Statistical Hydrology)
School of Civil and Environmental Engineering
Georgia Institute of Technology, Atlanta, Georgia

Laboratory Assistant Spring 2003
BSE 2016 Fluid Mechanics Laboratory
Department of Bioenvironmental Systems Engineering
National Taiwan University, Taipei, Taiwan

Teaching Assistant Fall 2002
BSE 5071 Climate Change and Environmental Ecology
Department of Bioenvironmental Systems Engineering
National Taiwan University, Taipei, Taiwan

VI. PUBLICATIONS AND PRESENTATIONS

Refereed Journal Articles:

1. **Chen C-J***, Ciou Y-R, Lee T-Y (2025) High-resolution soil moisture estimation via multi-source data merging and machine learning-based downscaling over Taiwan. *Geocarto International* (In press).

2. **Chen C-J***, Lin L-F, Tsou H-E, Liu J-J, Ladwig T (2025) Evaluation of the short-range weather application over Taiwan: A focus on extreme precipitation forecasts. *Weather and Forecasting* **40**, 2683–2697.

3. Chi M-H, **Chen C-J***, Kao S-C, Liu J-J (2025) Exploring flood predictability in Taiwan through coupled atmospheric-hydrological and high-performance hydrodynamic models. *Journal of Hydrometeorology*, **26**, 801–816.

4. Kao Y-C, Tsao H-E, **Chen C-J*** (2024) Development of Multi-Source Weighted-Ensemble Precipitation: Influence of bias correction based on recurrent convolutional neural networks. *Journal of Hydrology*, **629**, 130621.

5. **Chen C-J***, Chi M-H, Yeh J-R (2023) Assessing hydroclimate response to land use/cover change using coupled atmospheric-hydrological models. *Geoscience Letters*, **10**, 54.

6. Lee T-Y, Chiu C-C, **Chen C-J***, Lin C-Y, Shiah F-K (2023). Assessing future availability of water resources in Taiwan based on the Budyko framework. *Ecological Indicators*, **146**, 109808.

7. Kan C-Y, Tsai C-C, **Chen C-J** (2023). Simple method for probabilistic seismic landslide hazard analysis based on seismic hazard curve and incorporating uncertainty of strength parameters. *Engineering Geology*, **314**, 107002.

8. Tsai C-C, Huang L-Y, **Chen C-J** (2023). Earthquake-induced persistent and instantaneous groundwater variations caused by volumetric strain of soil in Taiwan

from 1999 to 2020. *Soil Dynamics and Earthquake Engineering*, **164**, 107586.

9. **Chen C-J***, Bao S (2023). Hydro-climatic trends, variability, and regime shifts. *Atmosphere*, **14(2)**, 198.

10. Huang S-H, Mahmud K, **Chen C-J*** (2022). Meaningful trend in climate time series: a discussion based on linear and smoothing techniques for drought analysis in Taiwan. *Atmosphere*, **13(3)**, 444.

11. Li P-L, Lin L-F, **Chen C-J*** (2021). Hydrometeorological assessment of satellite and model precipitation products over Taiwan. *Journal of Hydrometeorology*, **22**, 2897–2915.

12. Chen Y-C, **Chen C-J*** (2021) Flood potential assessment in the Gaoping region under climate change using an hourly rainfall generator. *Journal of the Chinese Institute of Civil and Hydraulic Engineering*, **33(6)**, 461–472 (in Chinese).

13. Mahmud K, **Chen C-J*** (2021). Space- and time-varying associations between Bangladesh's seasonal rainfall and large-scale climate oscillations. *Theoretical and Applied Climatology*, **145**, 1347–1367.

14. Chen P-Y, Tung C-P, Tsao J-H, **Chen C-J** (2021) Assessing future rainfall intensity-duration-frequency characteristics across Taiwan using the k-nearest neighbor method. *Water*, **13(11)**, 1521.

15. Tseng S-C, **Chen C-J***, Senarath SUS (2020) Evaluation of multi-site precipitation generators across scales. *International Journal of Climatology*, **40(10)**, 4622–4637, DOI: 10.1002/joc.6480.

16. **Chen C-J***, Chen C-C, Lo M-H, Juang J-Y, Chang C-M (2020) Central Taiwan's hydroclimate in response to land use/cover change. *Environmental Research Letters*, **15(3)**, 034015.

17. Shih D-S, **Chen C-J***, Lee M-H, Jang C-S, Chang C-M, Liao Y-Y (2019) Statistical and numerical assessments of groundwater resource subject to excessive pumping: case study in Southwest Taiwan. *Water*, **11(2)**, 360.

18. Chan C-M*, **Chen C-J** (2019) Application of neural networks to typhoon loss prediction. *Journal of Disaster Management*, **8(1)**, 55–88 (in Chinese).

19. **Chen C-J***, Lee T-Y, Chang C-M, Lee J-Y (2018) Assessing typhoon damages to Taiwan in the recent decade: return period analysis and loss prediction. *Natural Hazards*, **91(2)**, 759–783.

20. **Chen C-J**, Lee T-Y* (2017) Variations in the correlation between teleconnections and

Taiwan's streamflow. *Hydrology and Earth System Sciences*, **21**, 3463–3481.

21. **Chen C-J***, Senarath SUS, Dima West IM, Marcella MP (2017) Evaluation and restructuring of gridded precipitation data over the Greater Mekong Subregion. *International Journal of Climatology*, **37**, 180–196.

22. **Chen C-J**, Georgakakos AP* (2015) Seasonal prediction of East African Rainfall. *International Journal of Climatology*, **35**, 2698–2723.

23. **Chen C-J**, Georgakakos AP* (2014) Hydro-climatic forecasting using sea surface temperatures—methodology and application for the Southeast U.S. *Climate Dynamics*, **42**, 2955–2982. DOI: 10.1007/s00382-013-1908-4.

24. **Chen C-J**, Lu MM (2007) Detection of the climatic extreme rainfall events in Taiwan. *Atmospheric Sciences*, **35**(2), 105–118 (in Chinese).

25. Lu MM, **Chen C-J**, Lin YC (2007) Long-term variations of the occurrence frequency of extreme rainfall events during the period of 1951–2005. *Atmospheric Sciences*, **35**(2), 87–104 (in Chinese).

26. Lu MM, **Chen C-J** (2005) Statistical analysis of heavy rainfall frequency. *Meteorological Bulletin*, **46**(1), 45–49 (in Chinese).

27. Tung CP, **Chen C-J** (2002) Study of optimizing reservoir operation rules using Genetic Algorithms—case study of Liyu-Tan Reservoir. *Journal of Taiwan Water Conservancy*, **50**(3), 61–69 (in Chinese).

Journal Articles Under Review or in Preparation:

1. Lee T-Y, Chen Y-C, Lee J-Y, Chiu C-C, **Chen C-J*** (2025) Decoupling of Precipitation and Streamflow Trends Induced by an Altered Landscape. *Journal of Hydrology* (under review).

2. Wu W-F, **Chen C-J***, Lin-Che Tseng (2025) Flood susceptibility assessment under climate change using high-performance hydrodynamic and machine learning models: Case study in central Taiwan. *Journal of Water and Climate Change* (under review).

3. Tsou H-E, **Chen C-J*** (2025) Deep learning-based correction of high-resolution satellite precipitation over Taiwan (in preparation).

4. Mahumd K, **Chen C-J*** (2025) Seasonal hydrological forecasting using empirical and data-preprocessing techniques (in preparation).

Presentations to International Conferences, Symposia, and Seminars:

1. **Chen C-J**, Ciou Y-R (2025) Merging and downscaling of satellite and model soil moisture over Taiwan. The 105th AMS Annual Meeting, New Orleans, U.S., January 12–16.

2. **Chen C-J**, Chi M-H (2023) Combinatory impact of soil texture and land use/cover change on hydroclimate modeling over central Taiwan. 20th Annual Meeting Asia Oceania Geosciences, AOGS 2023, Singapore, July 30–August 4. (invited).

3. Tsou H-E and **Chen C-J** (2023) Correcting sub-daily satellite precipitation based on GRU and TrajGRU. 20th Annual Meeting Asia Oceania Geosciences, AOGS 2023, Singapore, July 30–August 4.

4. Wu W-F and **Chen C-J** (2023) Hybrid hydrodynamic-machine learning modeling-based flood susceptibility analysis under climate change. 20th Annual Meeting Asia Oceania Geosciences, AOGS 2023, Singapore, July 30–August 4.

5. Lu W-Y and **Chen C-J** (2023) River sediment prediction based on coupling WRF with GSSHA models. 20th Annual Meeting Asia Oceania Geosciences, AOGS 2023, Singapore, July 30–August 4.

6. Lu Y-Y and **Chen C-J** (2023) Assessment of river morphological changes based on coupling WRF-Hydro with SRH-2D models. 20th Annual Meeting Asia Oceania Geosciences, AOGS 2023, Singapore, July 30–August 4.

7. Chiou Y-R and **Chen C-J** (2023) Deep learning-based multi-source soil moisture merging and downscaling in central Taiwan. 20th Annual Meeting Asia Oceania Geosciences, AOGS 2023, Singapore, July 30–August 4.

8. **Chen C-J**, Chi M-H (2023) Using numerical weather prediction and high-performance hydrologic-hydraulic models for flood forecasting. EWRI World Water and Environmental Resources Congress, Henderson, Nevada, USA, May 21–25 (oral).

9. **Chen C-J**, Yeh J-R, Chi M-H (2022) Modeling assessment of hydroclimate variations in response to land use/cover change: Case study in central Taiwan. 19th Annual Meeting Asia Oceania Geosciences, AOGS 2022, Virtual, August 1–5.

10. **Chen C-J** (2022) Flood forecasting by coupling numerical weather prediction (NWP) and high-performance hydrologic-hydraulic models. Korean Water Resources Association Conference, Virtual, May 19 (invited keynote speaker).

11. **Chen C-J**, Li P-L (2019) Evaluation of GPM- and model-based precipitation over Taiwan. AGU Fall Meeting, San Francisco, December 9–13.

12. Li P-L, **Chen C-J** (2019) Assessment of WRF and IMERG precipitation over Taiwan. 16th Annual Meeting Asia Oceania Geosciences, AOGS 2019, Singapore, July.

13. Chen Y-C, **Chen C-J** (2019) Assessment of weather generators at fine spatiotemporal scales. 16th Annual Meeting Asia Oceania Geosciences, AOGS 2019, Singapore, July.

14. Yu C-Y, **Chen C-J** (2019) Flood simulation and loss estimate subject to land use/cover changes based on coupled 1D-2D analysis and neural networks. EGU General Assembly 2019, Vienna, Austria.

15. Chuang P-P, **Chen C-J** (2019) Application of data-preprocessing and –driven methods for irrigation water prediction. EGU General Assembly 2019, Vienna, Austria.

16. **Chen C-J**, Lee T-Y, Yu C-Y, Chang C-M (2018) Predicting typhoon losses in Taiwan: From data-driven to detailed modeling. AGU Fall Meeting, Washington, D.C., December 10–14 (oral).

17. **Chen C-J** (2018) Seasonal streamflow forecasting in Taiwan using derived climate variables. 2018 International Conference on Environmental and Water Resources Engineering, Jeju Island, Korea, October 12–14 (oral).

18. **Chen C-J**, Chen C-C, Chang C-M, Juang J-Y, Lo M-H (2018) Modelling the impact of land use/cover changes on Taiwan's climate. Global Land Project Asia Conference 2018, Taipei, September 3–5 (oral).

19. **Chen C-J**, Chen C-C, Chang C-M, Juang J-Y, Lo M-H (2017) Understanding the impact of land use/cover changes on regional climate modeling for Taiwan. 14th Annual Meeting Asia Oceania Geosciences, AOGS 2017, Singapore, August 6–11 (oral).

20. Tseng S-C, **Chen C-J** (2017) Intercomparison of stochastic weather generators using rainfall data in Taiwan. 14th Annual Meeting Asia Oceania Geosciences, AOGS 2017, Singapore, August 6–11.

21. **Chen C-J** (2017) Seasonal prediction of Taiwan's streamflow using teleconnection patterns. 19th EGU General Assembly, EGU 2017, Vienna, Austria, April 23–28.

22. **Chen C-J** (2016) Temporal disaggregation of seasonal forecasting for streamflow simulation. World Environmental and Water Resources Congress 2016, West Palm Beach, Florida, USA, May 22–26 (oral).

23. Jayasekera DL, **Chen C-J**, Senarath SUS, Marcella MP (2015). Generation of stochastic rainfall estimates for the Mekong River basin. Watershed Management Symposium 2015, Reston, Virginia, August 5–7.

24. **Chen C-J**, Jayasekera DL, Senarath SUS (2015) Assessing uncertainty in precipitation and hydrological modeling in the Mekong. World Environmental and Water Resources Congress 2015, Austin, Texas, USA, May 17–21 (oral).
25. Shen Yi, **Chen C-J**, Senarath SUS (2014) Sensitivity of a hydraulic model to land use uncertainty under extreme flooding. Floodplain Management Annual Conference, Santa Clara, California, USA, September 2–5.

26. **Chen C-J**, Senarath SUS (2014) Implications of SRTM- and ASTER-based DEMs on hydrologic responses at various catchment scales. EWRI World Water and Environmental Resources Congress, Portland, Oregon, USA, June 1–5 (oral).

27. Marcella PM, **Chen C-J**, Senarath SUS (2013) Analysis of non-tropical cyclone-induced flood events over Southeast Asia: investigating flood frequency and extremes in the Philippines. AGU Fall Meeting, San Francisco, California, USA, December 9–13.

28. **Chen C-J** (2013) Understanding the benefits of hydro-climatic forecasting to water resources planning and management. Southern Illinois University Edwardsville, April 24 (invited).

29. **Chen C-J**, Georgakakos AP (2012) Seasonal rainfall forecasting using SST dipoles with application to the Southeast US. AGU Fall Meeting, San Francisco, California, USA, December 3–7.

30. **Chen C-J**, Georgakakos AP (2011) Seasonal rainfall prediction using sea surface temperature with an application in the southeast US. AGU Fall Meeting, San Francisco, California, USA, December 5–9 (oral).

31. **Chen C-J**, Georgakakos AP (2011) Seasonal rainfall prediction using sea surface temperature information. Proceedings of the 2011 Georgia Water Resources Conference, University of Georgia, Athen, Georgia, USA, April 11–13 (oral).

32. **Chen C-J** (2008) Improving hydro-climatic assessment and forecasting by utilizing ocean-atmosphere information. Central Weather Bureau, Taipei, Taiwan, December 15 (invited).

33. Liu TM, Tung CP, **Chen C-J**, Chen SW (2004) Establishing a drought warning system based on long-lead climate forecasting. EWRI World Water and Environmental Resources Congress, Salt Lake City, Utah, USA, June 28–July 1.

34. Hsu SY, Tung CP, **Chen C-J**, Wang CF (2004) Application to reservoir operation rule-curves. EWRI World Water and Environmental Resources Congress, Salt Lake City, Utah, USA, June 28–July 1.

VII. PROFESSIONAL SERVICE, ACTIVITIES, AND MEMBERSHIP

Associate Editor:

Weather and Forecasting (American Meteorological Society, AMS), 2014–present
Terrestrial, Atmospheric and Oceanic Sciences (Chinese Geoscience Union), 2024–present.

Guest Editor/Topics Board:

Frontiers in Environmental Science (Frontiers), Research Topic: Leveraging AI and machine learning for enhanced extreme weather forecasting
Atmosphere (MDPI), Special Issue: Hydro-Climatic Trends, Variability, and Regime Shifts
Land (MDPI), Special Issue: Hydrological Processes in Urban Environments
Environments (MDPI), Special Issue: Understanding Land-Atmosphere Interactions: Knowledge from Monitoring to Modelling, 2018–2019

Journal Reviewer:

Atmosphere (MDPI)
Atmospheric Environment (Elsevier)
Bulletin of the American Meteorological Society (AMS)
Communications Earth & Environment (Nature Portfolio)
Ecological Indicators (Elsevier)
Environmental Monitoring and Assessment (Springer)
Environmental Modelling & Software (Elsevier)
Environmental Research Letters (IOP)
Journal of Applied Meteorology and Climatology (AMS)
Journal of Atmospheric and Oceanic Technology (AMS)
Journal of Climate (AMS)
Journal of Hydrology (Elsevier)
Journal of Hydrology: Regional Studies (Elsevier)
Journal of Hydrologic Engineering (ASCE)
Journal of Hydrometeorology (AMS)
Journal of the American Water Resources Association (AWRA)
Journal of Water Resources Planning and Management (ASCE)
Monthly Weather Review (AMS)
Natural Hazards (Springer)
Paddy and Water Environment (Springer)
PLOS One (PLOS)
Remote Sensing (MDPI)
Sustainability (MDPI)
Water (MDPI)
Water Resource Management (Springer)
Water Resources Research (AGU)

Weather, Climate and Society (AMS)
Weather and Forecasting (AMS)
Terrestrial, Atmospheric and Oceanic Sciences (CGU)
Theoretical and Applied Climatology (Springer Nature)
Taiwan Water Conservancy (in Chinese)
Journal of the Chinese Institute of Civil and Hydraulic Engineering (in Chinese)

Proposal Reviewer:

Taiwan's MOST/NSTC 2018–2025

Conference Organizer:

26th Hydraulic Conference in Taiwan, Taichung, August 29, 2023
Convener, Global Land Project Asia Conference 2018, Taipei, September 3–5, 2018

Member:

American Geophysical Union (AGU)
American Meteorological Society (AMS)
Asia Oceania Geosciences (AOGS)
American Society of Civil Engineers (ASCE)
Environmental and Water Resources Institute (EWRI)
Sigma Xi Full Member

VIII. HONORS AND AWARDS

2030 Cross-Generation Young Scholars Program, NSTC, 2025-2028
Outstanding Teaching Award, College of Engineering, NCHU, 2025
2019–2021 Best Reviewer of *Terrestrial, Atmospheric and Oceanic Sciences*
NCHU Distinguished Professor, 2020–2022
2019 Journal of Disaster Management Best Paper Award
PROM – International Scholarship Exchange of Academic Staff, SGGW, Poland, 2019
2016 ASCE Outstanding Reviewer of *Journal of Water Resources Planning and Management*
MOST Subsidies for Schools of Higher Education to Hire Distinguished Talents, 2015–2018
Georgia Tech's Nominee for the 2012 Lorenz G. Straub Award
Taiwan Merit Scholarships Program, National Science Council (NSC), Taiwan, 2006–2008
Thesis Award for the Memorial to Prof. Takasaka, National Taiwan University, 2002
Grant-In-Aid of the Undergraduate Monographic Study, NSC, Taiwan, 2001
Scholarship of Prof. Xu, National Taiwan University, 2001

IX. GRADUATE ADVISEES

Present Advisees:

Ph.D.: Arif Muhammad
M.S.: Ya-Heng Ma, Chen-Tai Hsu, and Lin-Che Tseng

Former Advisees:

Ph.D.: Khalid Mahmud
M.S.: Meng-Kai Yu, Shao-Chun Tseng, Pei-Pei Chuang, Chih-Yun Yu, Pin-Lun Li, Yang-Cheng Chen, Shih-Han Huang, Jing-Ru Yeh, Yung-Cheng Kao, Min-Hung Chi, Wei-Feng Wu, Yi-Yun Lu, Wen-Yi Lu, Hsiang-En Tsou, Yu-Ru Chiou, Hung-Ming Huang, Jian-Jun Liu, Qi-Rui Yang, and Chin-Chi Yeh

X. PROFICIENCY IN RESEARCH SKILLS

Programming, Database, and Statistical Packages

C++, FORTRAN, GrADS, MATLAB, NCL, OpenMP, Python, R, SPSS, SAS, Visual Basic, VBA

Hydrologic, Hydraulic, and Water Resources Modeling Essentials

ArcGIS, AutoCAD, CASC2D, GWLF, HEC-DSSVue, HEC-GeoHMS, HEC-HMS, HEC-RAS, HEC-ResSim, IHA, MODFLOW, PDM, TRITON, SERGHEI

Climate Modeling Essentials

WRF, Noah LSM, WRF-Hydro, SRW-App

Operating Systems and Others

Cygwin, LaTeX, Linux, Mac OS, MS Office, Windows

XI. PROFESSIONAL REGISTRATION

Engineer-In-Training, MD Board for Professional Engineers, License 43656

XII. COLLABORATORS & PROFESSIONAL REFERENCES

Dr. Liaofan Lin
Research Scientist
NOAA/Global Systems Laboratory (GSL)
Cooperative Institute for Research in the Atmosphere (CIRA)
325 Broadway
Boulder, CO 80305-3328
Email: liaofan.lin@noaa.gov

Dr. Shih-Chieh Kao
Program Manager
Oak Ridge National Laboratory (ORNL)
P.O. Box 2008, MS 6038
Oak Ridge, TN 37831-6038
Email: kaos@ornl.gov

Dr. Sharika U.S. Senarath
Director of Flood Peril
Berkshire Hathaway Specialty Insurance
2633 Camino Ramon, Suite 325
San Ramon, CA 94583
Email: ssenarath@live.com

Dr. Marc Marcella
Director of Climate Science
Travelers
Chicago, IL
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Dr. Min-Hui Lo
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National Taiwan University
1, Section 4, Roosevelt Road
Taipei 10673, Taiwan
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Dr. Tsung Yu Lee
Professor, Department of Geography
National Taiwan Normal University, Taipei, Taiwan
162, Section 1, HePing East Road
Taipei 10610, Taiwan
Email: tylee@ntnu.edu.tw

Dr. Chi-Chin Tsai
Distinguish Professor, Department of Civil Engineering
National Chung Hsing University
145 Xingda Road, South District,
Taichung 40227, Taiwan
Email: tsaicc@nchu.edu.tw

Dr. Dong-Sin Shih
Professor and Chair, Department of Civil Engineering
National Yang Ming Chiao Tung University
1001 University Road
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Dr. Mong-Ming Lu
Project Professor, Department of Atmospheric Sciences
National Taiwan University
1, Section 4, Roosevelt Road
Taipei 10673, Taiwan
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Dr. Aris P. Georgakakos
Turnipseed Family Professor
School of Civil and Environmental Engineering
Georgia Institute of Technology
Mason 2201D, 790 Atlantic Drive
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Dr. Yen-Sen Lu
Post Doc
Forschungszentrum Jülich GmbH
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