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[Research Center for Environmental Changes, ACADEMIA SINICA](https://rcec.sinica.edu.tw/index_en.php?action=member&id=73)

## a. Professional Preparation

Tung Hai University, Taiwan Depart. of Environmental Science B.S., 1996 – 2000

National Taiwan University Institute of Environmental Health M.S., 2000 – 2002

National Taiwan University Institute of Environmental Health Ph.D., 2002 – 2007

## b. Appointments

2023 – present Dean of Institutional Research and Sustainable Development, Chung Yuan Christian University

2023 – present Future Earth Health KAN Steering Committee member ([Health Knowledge-Action Network | Future Earth](https://futureearth.org/networks/global-research-networks/health/))

2021 – present Future Earth Taipei Health Group member

2021 – present Research Fellow (joint appointment), Research Center for Environmental Changes, Academia Sinica

2017 – present Professor, Environmental Engineering, Chung Yuan Christian University

2017 – 2021 Department Chair, Environmental Engineering, Chung Yuan Christian University

2013 – 2017 Associate Professor, Chung Yuan Christian University

2013 – 2016 Section Director in Center of Environmental Safety and Hygiene, Chung Yuan Christian University

2007 – 2013 Assistant Professor, Chung Yuan Christian University

## c. Publications (2020-2024) (\*: corresponding author)

1. Jia-Hong Tang; Ying-Jhen Huang; Ping-Hsien Lee; Yu-Ting Lee; Yu-Chun Wang; Ta-Chien Chan , “Associations between community green view index and fine particulate matter from Airboxes” , 2024 , Science of the Total Environment , vol.921 , p.1-9..
2. Ayushi Sharma; Priya Dutta; Priyanka Shah; Veena Iyer; Hao He; Amir Sapkota; Chuansi Gao; Yu-Chun Wang\* , “Characterizing the effects of extreme heat events on all-cause mortality: A case study in Ahmedabad city of India, 2002–2018” , 2024 , Urban Climate , vol.54 , p.1-12.
3. Ayushi Sharma; Bima Sakti Satria Wibawa; Gerry Andhikaputra; Bhavin Solanki; Amir Sapkota; Lin-Han Chiang Hsieh; Veena Iyer; Yu-Chun Wang\* , “Spatial analysis of food and water-borne diseases in Ahmedabad, India: Implications for urban public health planning” , 2024 , Acta Tropica , vol.253 , p.1-10.
4. Ayushi Sharma; Hsi-yu Hsiao; Jia-Yi Liu; Shih-Chun Candice Lung; Huey-Jen Su; Ching-Fen Shen; Nai-Tzu Chen; Pei-Chih Wu; Cheng-Yu Lin; Sheng-Fu Liang; Tain-Junn Cheng; Ta-Chien Chan; Yaw-Shyan Tsay; Hsin-Ying Chung; Yu-Chun Wang\* , “Assessment of PM2.5-associated mortality burden among the elderly: Insights into demographic, socio-economic, and geographic factors” , 2024 , Air Quality, Atmosphere & Health , p.1-11.
5. Bima Sakti Satria Wibawa; Yu-Chun Wang\*; Gerry Andhikaputra; Yu-Kai Lin; Lin-Han Chiang Hsieh; Kun-Hsien Tsai , “The impact of climate variability on dengue fever risk in central java, Indonesia” , 2024 , Climate Services , vol.33 , p.1-10.
6. Ayushi Sharma; Yu-Kai Lin; Chu-Chih Chen; Li-Wen Deng; Yu-Chun Wang\* , “Projections of temperature-associated mortality risks under the changing climate in an ageing society” , 2023 , Public Health , vol.221 , p.23-30.
7. Dong An; Jakob Eggeling; Linus Zhang; Hao He; Amir Sapkota; Yu-Chun Wang; Chuansi Gao , “Extreme precipitation patterns in the Asia-Pacific region and its correlation with El Nino-Southern Oscillation (ENSO)” , 2023 , Scientific Reports , vol.13 , p.1-12.
8. Ayushi Sharma; Liwen Deng; Yu-Chun Wang\* , “Estimation of effects of extreme temperature on the risk of hospitalization in Taiwan” , 2023 , Journal of Epidemiology & Community Health , vol.77 , p.375-383.
9. Gerry Andhikaputra; Yu-Han Lin; Yu-Chun Wang\* , “Effects of Temperature, Rainfall, and El Nino Southern Oscillations on Dengue-Like-Illness Incidence in Solomon Islands” , 2023 , BMC Infectious Diseases , vol.23 , p.206-215.
10. Gerry Andhikaputra; Amir Sapkota; Yu-Kai Lin; Ta-Chien Chan; Chuansi Gao; Li-Wen Deng; Yu-Chun Wang\* , “The Impact of Temperature and Precipitation on All-Infectious-, Bacterial-, and Viral-Diarrheal Disease in Taiwan” , 2023 , Science of the Total Environment , vol.862 , p.1-8.
11. Gerry Andhikaputra, Ayushi Sharma, Amir Sapkota, Hao He, Yu-Kai Lin, Li-Wen Deng, Yu-Chun Wang\* , “Quantifying the effects of anomalies of temperature, precipitation, and surface water storage on diarrhea risk in Taiwan” , 2023 , Epidemiology and Health , vol.45 , p.1-10.
12. Bima Sakti Satria Wibawa, Aussie Tahta Maharani, Gerry Andhikaputra, Marsha Savira Agatha Putri, Aditya Prana Iswara, Amir Sapkota, Ayushi Sharma, Arie Dipareza Syafei, Yu-Chun Wang\* , “Effects of Ambient Temperature, Relative Humidity, and Precipitation on Diarrhea Incidence in Surabaya” , 2023 , International Journal of Environmental Research and Public Health , vol.20 , p.2313-2326.
13. Yasmin Zafirah; Yu-Kai Lin; Gerry Andhikaputra; Fung-Chang Sung; Li-Wen Deng; Yu-Chun Wang , “Mortality and morbidity of chronic kidney disease associated with ambient environment in metropolitans in Taiwan” , 2022 , Atmospheric Environment , vol.289 , p.119317-119317. NSTC 110-2625-M-033-002
14. Ayushi Sharma,Gerry Andhikaputra, Yu-Chun Wang , “Heatwaves in South Asia: Characterization, Consequences on Human Health, and Adaptation Strategies” , 2022 , Atmosphere , vol.13 , p.0-0. NSTC 110-2625-M-033-002
15. Nicholas Adams, Meghnath Dhimal, Shifali Mathews, Veena Iyer, Raghu Murtugudde, Xin-Zhong Liang, Muhiuddin Haider, Raul Cruz-Cano, Dang Thi Anh Thu, Jamal Hisham Hashim, Chuansi Gao, Yu-Chun Wang, Amir Sapkota , “El Nino Southern Oscillation, monsoon anomaly, and childhood diarrheal disease morbidity in Nepal”, 2022 , PNAS Nexus , vol.1 , p.1-7.
16. Jin-Wei Zhang, Afifah Diyah Nur’aini, Yu-Chun Wang, Nguyen Duy Hai, Dang Van Minh, Huan-Ping Chao. 2022 . Multiple pollutants removal by carbon sphere and layered double hydroxide composites: Adsorption behavior and mechanisms . Journal of Environmental Chemical Engineering, vol.10, p.108014.
17. Yu-Kai Lin; Yasmin Zafirah; Meng-Ting Ke; Gerry Andhikaputra; Yu-Chun Wang , “The effects of extreme temperatures on emergency room visits—a population-based analysis by age, sex, and comorbidity” , 2021 , International Journal of Biometeorology , vol.65 , p.2057-2098.
18. Yasmin Zafirah, Yu-Kai Lin, Gerry Andhikaputra, Li-Wen Deng, Fung- Chang Sung, Yu-Chun Wang , “Mortality and morbidity of asthma and chronic obstructive pulmonary disease associated with ambient environment in metropolitans in Taiwan” , 2021 , PLoS One , p.1-16.
19. Yu-Chun Wang; Fung-Chang Sung; Yi-Jhih Chen; Chia-Pei Cheng; Yu-Kai Lin\* , “Effects of Extreme Temperatures, Fine Particles and Ozone on Hourly Ambulance Dispatches” , 2021 , Science of the Total Environment , vol.765 , p.142706. MOST 108-2625-M-033-002.
20. Chu-Chih Chen\*, Yin-Ru Wang, Yu-Chun Wang\*, Shiou-Li Lin, Cheng-Ta Chen, Mong-Ming Lu, Yue-Liang L. Guo\*\* , “Projection of future temperature extremes, related mortality, and adaptation due to climate and population changes in Taiwan” , 2021 , Science of the Total Environment , p.760.
21. Yu-Kai Lin; Chia-Pei Cheng; Ho Kim; Yu-Chun Wang\* , “Risk of ambulance services associated with ambient temperature, fine particulate and its constituents” , 2021 , Scientific Reports , vol.11 , p.1651
22. Yu-Kai Lin, Fung-Chang Sung, Yasushi Honda, Yi-Jhih Chen, Yu-Chun Wang\* , “Comparative Assessments of Mortality from and Morbidity of Circulatory Diseases in Association with Extreme Temperatures ” , 2020 , Science of the Total Environment , vol.723 , p.138012.
23. Marsha Savira Agatha Putri, Jr-Lin Lin, Lin-Han Chiang Hsieh, Yasmin Zafirah, Gerry Andhikaputra, Yu-Chun Wang\* , “ Influencing factors analysis of Taiwan eutrophicated reservoirs” , 2020 , Water , p.1325.
24. Chien Cheng Jung, Ying Fang Hsia, Nai Yun Hsu, Yu Chun Wang, Huey Jen Su\* , “Cumulative effect of indoor temperature on cardiovascular disease-related emergency department visits among older adults in Taiwan” , 2020 , Science of the Total Environment , vol.731 , p.138958. MOST 106-2621-M-006-002-MY2.
25. Yu-Kai Lin, Fung-Chang Sung, Yasushi Honda, Yi-Jhih Chen, Yu-Chun Wang\* , “Comparative Assessments of Mortality from and Morbidity of Circulatory Diseases in Association with Extreme Temperatures ” , 2020 , Science of the Total Environment , vol.723 , p.138012-. MOST 106-2621-M-033-001.
26. Yu-Chun Wang; Yu-Kai Lin; Yi-Jhih Chen; Shih-Chan Hung; Yasmin Zafirah; Fung-Chang Sung\*, “Ambulance Services Associated with Extreme Temperatures and Fine Particles in a Subtropical Island” , 2020 , Scientific Reports , vol.10 , p.2855.

Please see other publications at <https://itouch.cycu.edu.tw/active_project/cycu2500h_01/paperv3/list/NSCstyle.jsp?idcode=11937>

#### d. Synergistic Activities

Municipal Consultan in Taoyuan City, 2023-Now

Review Board member, Department of Engineering and Technologies, Ministry of Science and Technology, 2021-Now.

Expert Advisory Committee, Executive Yuan National Science and Technology Center for Disaster Reduction, 2020-2022.

Review Panel member, Environmental Impact Assessment Council, Taoyuan Environmental Protection Bureau, 2012-Now.

Review Panel member, Environmental Impact Assessment Follow-up Program, Environmental Protection Administration, 2009-Now.

Review Board member, Environmental education review board and the fund management in Taoyuan City and Hsinchu County, 2020-Now

Chung Yuan Christian University College of Engineering Faculty Evaluation Committee, 2017-Now.

Chung Yuan Christian University Faculty Evaluation Committee, 2017-Now.

The Chinese Institute of Environmental Engineering Annual Meeting, 2012 and 2015, Vice Organizer

**Members of academic association**

• International Society for Environmental Epidemiology

• Taiwan Public Health Association

• Taiwan Epidemiology Association

• The Chinese Institute of Environmental Engineering

• Taiwan Association for Aerosol Research

### **e. Collaborators & Other Affiliations**

#### (i)Collaborators

**Amir Sapkota**, School of Public Health, University of Maryland; **Arie Dipareza Syafei**, Department of Environmental Engineering, Institut Teknologi Sepuluh Nopember, Indonesia; **Chuansi Gao**, Faculty of Engineering, Lund University; **Hao He**, Department of Atmospheric and Oceanic Science, University of Maryland; **Ho Kim**, Department of Epidemiology and Biostatistics, School of Public Health, Seoul National University; **Huey-Jen Su**, National Cheng Kung University; **Raul Cruz-Cano**, School of Public Health, University of Maryland; **Veena Iyer,** Indian Institute of Public Health Gandhinagar; **Yasushi Honda**, Faculty of Health and Sport Sciences, University of Tsukuba; **Yu-Kai Lin**, Department of Health and Welfare, University of Taipei College of City Management; **Yue-Leon Guo**, Department of Environment and Occupational Medicine, National Taiwan University.

#### (ii) Graduate and Postdoctoral Advisors

Graduate advisor: Dr. Chih-Shan Li – Institute od Environmental Health, National Taiwan University

Ph.D advisor : Dr. Fung-Chang Sung – College of Medicine and Department of Health Services Administration, China Medical University, Taichung, Taiwan

**(iii) Thesis Advisor and Postgraduate Sponsor**

Total thesis supervision (2016 – 2022): 30 students

**f. Research Impacts**

* Succesfully developed a weather-based predicting model for dengue fever outbreaks in Solomon Islands and assisted the country to improve its capabilities in disaster prevention, public health, forecasting and data collection management, and finally establishing a complete SoSAFE platform for the government of Solomon Islands to use, store data, and automate the linking and early warning.
* Identify temperature-health risk associations for susceptible sub-popilations and provide scientific evidence and data to Ministry of Health and Welfare, Taiwan Environmental Protection Administration, and Ministry of Labor to make adaptive plans.
* Establish a seasonal to sub-seasonal early warning system and community-ased education program for weather associated diarrhea risk in Asia Pacific Countries.