Chih-Yi Chang (張之怡)

Research Center for Environmental Changes (RCEC), Academia Sinica No. 128, Sec. 2, Academia Rd., Nankang, Taipei, Taiwan 115 Office Tel: +886-2-2787-2539 Email: <u>chihyi117@gate.sinica.edu.tw</u> Lab website link: <u>www.rcec.edu.tw</u>

EDUCATION

2007/09 – 2015/06 Ph.D. Ph.D. Program in Civil and Hydraulic Engineering, Feng Chia University, Taiwan

1998/08 – 2000/05 M.F.A. Department of Interior Architecture, The School of the Art Institute of Chicago, USA

EMPLOYMENT

2023/08 - present Postdoctoral Research Fellow RCEC, Academia Sinica, Taiwan

- 2020/08 2023/07 Contract-based Assistant Professor Depart. of Creative Design, National Yunlin University of Science and Technology, Taiwan
- 2015/08 2020/07 Contract-based Assistant Professor Depart. of Spatial Design, Chienkuo Technology University, Taiwan
- 2009/09 2015/07 Part-time Lecturer Depart. of Spatial Design, Chienkuo Technology University, Taiwan
- 2004/02 2007/07 Project Manager TMA Architects & Associates, Taiwan
- 2002/02 2004/01 Designer Avocado Design Studio, Taiwan
- 2000/10 2001/12 Designer I Perkins & Will, Chicago, USA

HONORS & AWARDS

- 2022 Outstanding Teaching Award, YunTech, Taiwan
- 2015 Best Paper at UPHEC 2015
- 1996 Academic Excellence in Interior Design, The KvB College of Visual Communication, Australia

RESEARCH INTEREST

My research interests include indoor air quality, post-occupancy evaluation, and spatial design for seniors. At the beginning of my research journey, I explored these theories and applications individually, viewing them as separate research areas. However, with accumulated research experience and prior practical experience in the design industry before my PhD studies, I began to recognize the interconnections among these topics and started pursuing interdisciplinary research. From 2023 to 2024, I applied knowledge and methods from these three areas to a practical interior design project, completing a smart, health-oriented, senior-friendly studio apartment in Douliu. This

project integrated indoor air quality measurements and analysis both pre- and post-construction, post-occupancy evaluation, and age-friendly design, marking an initial step toward the goal of "From Knowledge to Action."

RESEARCH HIGHLIGHTS

1. Behavioral Observations along the Yunlin River Trail:

For middle-aged and senior residents, exercise is also a social activity. The flexible and creative use of facilities in public spaces—for example, using handrails as exercise equipment for stretching, bollards as seats, lamp posts and trees as massage tools, and picking wild vegetables in the green space along the trail—shows that residents are comfortable with the trail space as an extension of their homes. Reference: Chang et al., 2023.

REPRESENTATIVE PUBLICATIONS

- <u>Chang, C. Y.</u>, Li, Y. Z., Zhu, H. R., & Liang, F. Y. (2023, June 20-23). A Preliminary Study On The Use Of The Yunlin River Trail By Middle-Aged And Elderly [Conference Presentation]. EDRA 54, Mexico City, Mexico.
- <u>Chang, C. Y.</u>, Tseng, L., & Yang, L. S. (2015). Microbial Air Contamination in an Intensive Care Unit. *International Journal of Public Health Science*, 4 (3), 145~151.
- <u>Chang, C. Y.</u>, Yang, L. S., Tseng, L., Cheng, T. J., & Sung, W. P. (2015). CO2 Distributions in an ICU with Modified Nightingale Type Layout. *Advanced Materials Research*, 1079-1080, 498-501.
- Cheng, T. J., <u>Chang, C. Y.</u>, Tsou, P. N., Wu, M. J., & Feng, Y. S. (2011). The Determinants of Mass Concentration of Indoor Particulate Matter in a Nursing Home. *Applied Mechanics and Materials*, 44-47, 3026-3030.