

Wu-Hsun (Roger) Chung

No.2, Beining Rd., Jhongjheng District, Keelung 202, Taiwan

Office: 02-24622192Ext. 7015

Email: wxc218@email.ntou.edu.tw

Research Interests

Design for Sustainability, Sustainable Supply Chain, Green Port, Integration
Design of Product and Supply Chain

Education

- 08/2007~Present **The Pennsylvania State University**, University Park, PA,
USA
Ph. D. in Industrial and Manufacturing Engineering
Dissertation: “A Modular Design Approach to Improve
Product Life Cycle Performance Based on Optimized
Closed-loop Supply Chains”
- 09/2003~01/2006 **National Central University**, Jhongli, Taiwan
M.B.A., Industrial Management
- 08/1993~11/1997 **Chung-Cheng Institute of Technology (CCIT), National
Defense University**, Tashi, Taiwan
B.S., Material Science and Engineering

Professional Experience

- 08/2013~02/2020 **Assistant Professor**, Dept. of Transportation Science,
National Taiwan Ocean University
- 08/2010~Present **Research Assistant**, School of Engineering Design, The
Pennsylvania State University
- 07/2005~07/2007 **Project Manager**, Technical Office, Missile Base Depot
(MBD) of Taiwan Army
- 11/2002~06/2005 **Technical Manager**, Calibration Shop, MBD of Taiwan Army
- 03/2001~12/2001 **Director of Missile Testing & Monitoring Facility**, Hawk
System Shop, MBD of Taiwan Army
- 08/2000~02/2001 **Technical Officer**, TK Missile Shop, MBD of Taiwan Army

11/1997~07/2000 **Commander of Organizational Maintenance and Supply Shop**, 127th Infantry Division of Taiwan Army

Publications (Peer-Reviewed Journal Papers)

1. Wu-Hsun Chung, Sheng-Long Kao, Chun-Min Chang, Chien-Chung Yuan (2019, Nov). Association rule learning to improve deficiency inspection in port state control. *Maritime Policy & Management*, 1-20.
2. Tsai-Chi Kuo, Ming-Chuan Chiu, Wu-Hsun Chung, Tzu-I Yang (2019, Jun). The circular economy of LCD panel shipping in a packaging logistics system. *Resources, Conservation & Recycling*, 149, 435-444.
3. Mengru Tu, Wu-Hsun Chung, Chien-Kai Chiu, Wenpin Chung, Yun Tzeng (2017, Apr). A novel IoT-based dynamic carbon footprint approach to reducing uncertainties in carbon footprint assessment of a solar PV supply chain. *Proceedings of International Conference on Industrial Engineering and Applications (ICIEA)*, 249-254.
4. Wu-Hsun Chung, Gul E. Okudan Kremer, Richard A. Wysk (2016, Jun). A dynamic programming method for product upgrade planning incorporating technology development and end-of-life decisions. *Journal of Industrial and Production Engineering*, 1-12.
5. Wu-Hsun Chung, Mengru Tu (2015, Jun). Dynamics of Carbon Footprints at the Manufacturing Stage. *Journal of Industrial and Production Engineering*, 32(7), 432-441.
6. Wu-Hsun Chung, Gul E. Okudan Kremer, and Richard A. Wysk (2014, Feb). A Modular Design Approach to Improve Product Life Cycle Performance Based on the Optimization of a Closed-Loop Supply Chain. *Journal of Mechanical Design*, 136(2), 021001-021020.
7. Wu-Hsun Chung, Gul E. Okudan Kremer, and Richard A. Wysk (2014, Feb). Life cycle implications of product modular architectures in closed-loop supply chains. *The International Journal of Advanced Manufacturing Technology*, 70(9-12), 2013- 028.

Publications (Conference Papers)

1. Wu-Hsun Chung, Pei-Cheng Wu (2019, Nov). Packaging Evaluation of Consumer Electronics Products from Economic, Logistical, and Environmental Perspectives. 2019 International Symposium on Environmentally Conscious Design and Inverse Manufacturing (2019

- EcoDesign), Yokohama, Japan.
2. Wu-Hsun Chung, Shu-Te Sung, Chien-Chung Yuan, Sheng-Long Kao (2019, May). Ship Risk Classification in Port State Control. International Forum on Shipping, Ports, and Airports (IFSPA), Hong Kong.
 3. Wu-Hsun Chung, Sheng-Long Kao, Chun-Min Chang, Chien-Chung Yuan (2019, Apr). Application of Data Mining on Ship Inspection in PSC. International Conference on Smart Manufacturing, Industrial & Logistics Engineering & International Symposium on Semiconductor Manufacturing Intelligence (SMILE&ISMI), Hangzhou, China.
 4. Tsai Chi Kuo, Ming Chung Chiu, Wu-Hsun Chung, Tzu-I Yang (2018, Nov). Circular Economy for Redesign of Semi Product Shipping Box in Reverse Logistics System - a case study of TFT LCD panel. International Conference on Resource Sustainability-Asia Pacific, Taichung, Taiwan.
 5. Wu-Hsun Chung, Ming-Chuan Chiu, Hsin-Han Lin (2018, Feb). The Economic and Sustainable Influence of Package Sizes in a Packaging System. International Symposium on Semiconductor Manufacturing Intelligence (ISMI), Hsinchu, Taiwan.
 6. Meng-Hui Shyu, Wu-Hsun Chung, Sheng-Long Kao (2017, Dec). AIS Base Station Location Optimization for the Prevention of Maritime Environmental Disasters. EcoDesign, 10th International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Tainan, Taiwan.
 7. Chun-Min Chang, Wu-Hsun Chung, Sheng-Long Kao, Chien-Chung Yuan (2017, May). Association Analysis on Inspection Deficiencies of Ships in Port State Control. International Forum on Shipping, Ports and Airports (IFSPA), Hong Kong.
 8. Mengru Tu, Wu-Hsun Chung, Chien-Kai Chiu, Wenpin Chung, Yun Tzeng (2017, Apr). A novel IoT-based dynamic carbon footprint approach to reducing uncertainties in carbon footprint assessment of a solar PV supply chain. International Conference on Industrial Engineering and Applications (ICIEA), Nagoya, Japan.
 9. Shin-Han Lin, Wu-Hsun Chung and Ming-Chuan Chiu (2016, Oct). Product Packaging System Optimization in a 3C Product Supply Chain Considering Assemblability and Disassemblability. the 18th International Conference on Industrial Engineering (IJIE2106), Seoul, Korea.
 10. Wu-Hsun Chung, Sheng-Long Kao, Chao-Wei Chen, Hsiao-Cheng Chang (2016, Oct). Monitoring the Environmental Impact from Ship Emissions

Using AIS, GIS, and Fuzzy Logic. 2016 Symposium of the International Association of Geoinformatics (IAG'2016), Tokyo, Japan.

Honors and Awards

2018 Journal of Industrial and Production Engineering (JIPE) 2017 Best Paper Award (2018/10/19)

2018 ISMI & IEEE SMILE Best Paper Award (2018/2/9)

2017 Symposium on Sustainable Products and Industrial Management Best Paper Award (2017/3/18)

Membership on Boards, Panels, and in Professional Societies

2016 ISMI (International Symposium on Semiconductor Manufacturing Intelligence) Program Committee Member (2016/8/7~10)

2017 EcoDesign (10th International Symposium on Environmentally Conscious Design and Inverse Manufacturing) Program Domestic Members (2017/11/29~12/1)

2018 ISMI (International Symposium on Semiconductor Manufacturing Intelligence) Program Committee Member (2018/2/7~9)

2019 EcoDesign (11th International Symposium on Environmentally Conscious Design and Inverse Manufacturing) International Executive Committee Members (2019/11/25~27)

Member, the Chinese Institute of Industrial Engineers (CIIE)

Member, the Operations Research Society of Taiwan (ORSTW)

Member, the Chinese Institute of Transportation