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#### **EDUCATION**

Ph.D. 2010 Industrial & Manufacturing Engineering

The Pennsylvania State University (PSU), USA

M.S. 1999 Industrial Engineering and Engineering Management

National Tsing-Hua University, Hsinchu, Taiwan

**B.S. 1997** Industrial Engineering and Engineering Management

National Tsing-Hua University, Hsinchu, Taiwan

#### PROFESSIONAL EXPERIENCE

08/2016 — Present	Associate Professor
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Department of Industrial Engineering and Engineering Management

National Tsing-Hua University

08/2011 - 07/2016 **Assistant Professor** 

Department of Industrial Engineering and Engineering Management

National Tsing-Hua University

03/2013 - 12/2013 **Consultant** 

Service Systems Technology Center

Industrial Technology Research Institute (ITRI)

01/2011 - 07/2011 Postdoctoral Fellow & Instructor

School of Engineering Design The Pennsylvania State University

08/2010 - 12/2010 **Instructor** 

School of Engineering Design The Pennsylvania State University

08/2007 - 07/2010 Graduate Student Research & Teaching Assistant

Dept. of Industrial and Manufacturing Engineering

The Pennsylvania State University

08/1999 - 07/2005 Chief Engineer & Deputy leader of KM Project

Manufacturing (MFG) Head Division III, Chi Mei Innolux Corporation

#### RESEARCH INTERESTS

Product Service System, Sustainable Design, Service Innovation, Smart Manufacturing

#### REPRESENTATIVE PUBLICATION

\* is the corresponding author and #refers to advised student

Chiu, M-C.\* and Tsai, C-H.\* (2020) "Design a Personalised Product Service System Utilising a Multi-Agent System," Advanced Engineering Informatics 43, 101036, (SCI) (2018 IF: 3.772, 12/88, Q1 in engineering, multidisciplinary) (13.63% Q1 優良期刊) (Accepted on 1/13/2020) (First and Corresponding author with master student)(Best Paper Award in SSPIM 2016)

Abstract: To help achieve sustainability, reduce the risk of uncertainty, and fulfil a variety of customer needs, the concept of a Product Service System has evolved for use as a business model. While previous studies have addressed PSS development, there is yet no dynamic methodology enabling a PSS to adjust quickly to external changes and customer response. With that gap in mind, this paper presents a Multi-Agent-based Personalised Product Service System (MAPPSS) system. MAPPSS provides a reliable method for analysis which is applicable in various per-vasive environments. With this proposed system, users are able to select expected service characteristics, after which service composition is conducted by selecting related products and services from a database. In a comparison of existing systems using different scenarios, we show that customer acceptance, energy utilization, and product utilization generate a two-digit improvement with the proposed system, while profit and costs may increase slightly. When using the proposed method, the competence of an enterprise can be enhanced as a result of these user-oriented features. The performance monitoring and iterating elements of the system allow an almost immediate improvement in the generated PSS.

#### REREARCH SUMMARY

Dr. Chiu's research interests mainly focus on **Product Service System** (**PSS**)[J1, J3, J4, J6] Design to achieve sustainability of our planet. PSS contains **sustainable design** [J5], **service innovation** [J12, J13], and system optimization [J1, J9, J10, J14]. Dr. Chiu utilized cutting age industrial engineering techniques such as multi-agent [J1], persuasive technology [J5], text mining and kansei engineering [J2], machine learning [J15] to address issues in PSS field. In 2018, Dr. Chiu joined Artificial Intelligence for Intelligent Manufacturing Systems Research Center (AIMS) as Co-PI. He sharpened these AI techniques include random forest and LSTM [J7], and CNN [C1] to solve problems and accomplish **smart manufacturing**. With the support of AI methodologies, the next step of research focus will be **Smart PSS**.

Since 2013, Dr. Chiu's research team has been rewarded **29 conference awards** (**10** International and **19** Domestic). **39** journal papers have been published within **9** years of which **31** are **SCI indexed journals**. In terms of academic impact, <u>Google scholar</u> statistics show that my works are cited **716** times and h-index is **14** as shown in **Fig 1**. Dr. Chiu's publications are cited **267** times in <u>Web of Science</u> in **Fig 2**.

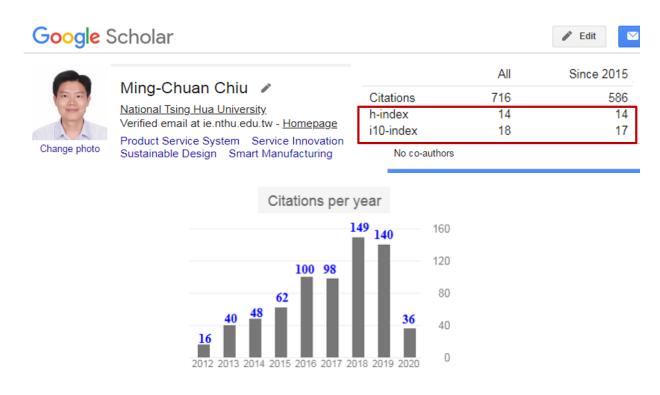


Fig 1. Citations on Google Scholar (updated on 2/20/2020)

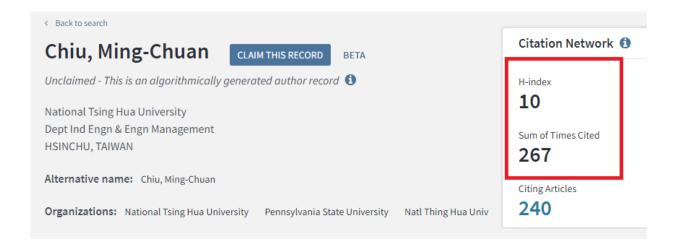


Fig 2. Citations on Web of Science (updated on 2/20/2020)

# **Research Impacts and Contributions to Industry:**

Dr. Chiu's research expertise has high impact and contributions to industry because PSS is known as a new business model and service innovation nowadays becomes competitive advantage of a company. Since 2016, Dr. Chiu have received **16** project grants and **12 of them (75%) are university-industry collaborative project. Two start-up companies were established** based on these projects: "Design a new business model for car rental industry and development of integrative information platform (MOST 107-2622-E-007-009-CC3)" and "User Interface Design and Usability Testing of an IoT Manufacturing Information Platform (MOST 105-2622-E-007-015-CC3)". In addition, Dr. Chiu's research team have **obtained 2 Patents and 4 Patents are under review**.

# The International Visibility of Research:

Dr. Chiu's research expertise has high international visibility because of the global awareness on scarcity of resource and sustainability. Among 15 journal publications in associate professorship. 13 of them are published in SCI indexed journals. Among them, 9 were published in Q1 and 1 Q2 top ranking SCI journals. In addition, Dr. Chiu's research team are the receipt of 29 conference awards (10 International and 19 Domestic) since 2013 conferences (See p.11 for detail). Further, Dr. Chiu is well recognized among international scholars and he actively served as conference committee members or chairs in 25 conferences which consists of 19 International (76%) and 6 Domestic conferences (See p.23 for detail).

#### **PUBLICATIONS**

**Published Journal Papers (Total: 39)** \* is the corresponding author and # refers to advised student

(1). Recent Journal Papers in Associate Professorship since 2017 (Total: 15)

Among 15 journal publications, 13 of them are published in SCI indexed journals (9 Q1, 1 Q2, and 3 others) and 2 of them are published in TSSCI indexed journals.

- J1. Chiu, M-C.\* and Tsai, C-H.\* (2020) "Design a Personalised Product Service System Utilising a Multi-Agent System," Advanced Engineering Informatics 43, 101036, (SCI) (2018 IF: 3.772, 12/88, Q1 in engineering, multidisciplinary) (13.63% Q1 優良期刊) (Representative Publications 代表 著作#1)(First and Corresponding Author with master student) (Best Paper Award in SSPIM 2016)
- **J2.** <u>Chiu, M-C.\*</u> and Lin, K-Z.\* (2018) "Utilizing Text Mining and Kansei Engineering to Support Datadriven Design Automation at Conceptual Design Stage," *Advanced Engineering Informatics* 38, 826-

- 839. (2018 IF: 3.772, 12/88, Q1 in engineering, multidisciplinary) (13.63% Q1 優良期刊) Cited in Google scholar: 5 Cited in WOS: 2) (Reference Publications#2 参考著作#2) (First and Corresponding Author with master student)
- J3. Chiu, M-C.\* Chu, C-Y. and Chen, C-C. (2018) "An Integrated Product Service System Modelling Methodology with a Case Study of Clothing Industry," International Journal of Production Research, 58(6), 2388-240 (SCI) (2018 IF: 3.199, 19/84, Q1 in Operations Research & Management Science) (22.61% Q1 優良期刊) Cited in Google scholar: 11 Cited in WOS: 5) (Reference Publications#3 季考作#3) (First and Corresponding Author with master students) (Best Paper Award in SSPIM 2015)
- J4. <u>Chiu, M-C.</u> Chu, C-Y. and Kuo, T-C.\* (2019) "Product Service System Transition Method: Building firm's Core Competence," International Journal of Production Research," *International Journal of Production Research* 57(20), 6452-6472 (SCI) (2018 IF: 3.199, 19/84, Q1 in Operations Research & Management Science) (22.61% Q1 優良期刊) Cited in Google scholar: 3 Cited in WOS: 2(Reference Publications#4 季考作#4) (First Author with master student and co-author)
- J5. <u>Chiu, M-C.</u>., Kuo, T-C.\* and Liao, H-T. (2019) "Design for Sustainable Behavior Strategies: Impact of Persuasive Technology on Energy Usage, Design for Sustainable Behavior Strategies: Impact of Persuasive Technology on Energy Usage" Journal of Cleaner Production 248, 119214 (SCI) (2018 IF: 6.395, 18/251, Q1 in Engineering, Environmental) (7.17% Q1 優良期刊) (Reference Publications 李孝著作#5) (First Author)
- J6. Kuo, T-C., <u>Chiu, M-C.\*</u>, Hsu, C-W. & Tseng, M-L. (2019) Supporting sustainable product service systems: a product selling and leasing design model, *Resources, Conservation & Recycling* 146, 384-394 (SCI) (2018 IF: 7.044, 6/52, Q1 in Engineering, Environmental) (11.53% Q1 優良期刊) Cited in Google scholar: 1 Cited in WOS: 1) (*Reference Publications#6 季考著作#6*) (*Corresponding Author*)
- J7. <u>Chiu, M-C.\*</u>, Tsai, C-D. and Lee, D-L. (2019) "An Integrative Machine Learning Method to Improve Fault Detection and Productivity Performance in a Cyber Physical System" Journal of Computing and Information Science in Engineering 20(2): 021009 (SCI) (2018 IF: 1.717) (First and Corresponding Author with master students)
- J8. <u>Chiu, M-C.\*</u>, Huang, P-H. and Tzao, S-H. (2019) "Redesigning the User Interface of a Healthcare Management System for the Elderly with a Systematic Usability Testing" Journal of Industrial and Production Engineering 36, 324-334 (TSSCI, EI) (First and Corresponding Author with graduate students) (University-Industry Collaborative Project)
- **J9.** Kuo, T-C., <u>Chiu, M-C.</u>, Chung, W-H\*, and Yang, Z-I. (2019) "The Circular Economy of LCD Panel Shipping in a Packaging Logistics System" Resources, Conservation & Recycling 149, 435-444 (SCI)

#### (2018 IF: 7.044, 6/52, Q1 in Engineering, Environmental) (11.53% Q1 優良期刊)

- J10.Hurtado, C.#\*, <u>Chiu, M-C.</u>, Ferras, X., Arimany-Serrat, N. and Vidal, D. M. (2018) "Identifying Sustainability-Value Creation Drivers for a Company in the Water Industry Sector: An Empirical Study," *Water Resources Management* 32(12), 3961–3978) (2018 IF: 2.987, 24/132, Q1 in Engineering, Civil) (18% Q1 優良期刊) Cited in Google scholar: 1 Cited in WOS: 1
- J11. <u>Chiu, M-C.\*</u> and Chen, Y-W. (2018) "The Analysis Incomplete Dataset Using Fuzzy C-Medoids Algorithm with a Case Study of Physical Examination Dataset," *International Journal of Industrial Engineering: Theory, Applications and Practice* 25(1), 67-76 (SCI) (First and Corresponding Author with master student)
- J12. Chiu, M-C.\* and Chang, Y-J.\* (2017) "A Service Recovery Method to Enhance Customer Satisfaction with a Case Study of Motion Sport Game," Human Factors and Ergonomics in Manufacturing & Service Industries, 27(5), 233–242 (SCI) (2018 IF: 1.000) Cited in Google scholar: 1 Cited in WOS: 1(First and Corresponding Author with master student)(2017-2018 Top Download Paper Award)
- J13. <u>Chiu, M-C.\*</u> and Chen, Y-W. (2017) "Using Fuzzy C-Means Clustering Based on Integration of Psychological and Physiological Data for Therapeutic Music Design," *Journal of Industrial and Production Engineering* 34(5), 382-397 (TSSCI, EI) Cited in Google scholar: 1 (First and Corresponding Author with master student)
- J14.Kuo, T-C., Chen, Y-H., Dang, H.T. H., <u>Chiu, M-C.</u>., Hsu, C-W., Hsiao, Y-L. (2017) "Investigating the Influential Factors of Sustainable Supply Chain Management Using Two Asian Countries as the Examples," *Sustainable Development*, 25(6), 559–579 (SCI) (2018 IF: 3.821, 5/41, Q1 in Development Studies) (12% 優良期刊) Cited in Google scholar: 9 Cited in WOS: 3
- Based on Heart Rate Variability and Machine Learning," *Multimedia Tools and Applications*, 76(14), 15607-1563 (SCI) (2018 IF: 2.101, 37/105, Q2 in Computer Science, Theory, and Methods) (35.23% 優良期刊) Cited in Google scholar: 7 Cited in WOS: 3(First and Corresponding Author with master student)
- (2). Journal Papers in Assistant Professorship between 2011 and 2016 (Total: 22)
- J16.<u>Chiu, M-C.\*</u> and Chiou, J-Y.\* (2016) "Technical Service Platform Planning Based on Company Competitive Advantage and Future Market Trend: A Case Study of IC Foundry," *Computers & Industrial Engineering* 99, 503-517(SCI) (2014 IF: 1.783, 11/43, Q2 in ENGINEERING,

# INDUSTRIAL) (25.58% 優良期刊) Cited in Google scholar: 9 Cited in WOS: 4

- J17. <u>Chiu, M-C.\*</u> and Lin, Y-H.\* (2016) "Simulation Based Method Considering Design for Additive Manufacturing and Supply Chain—An Empirical Study of Lamp Industry," *Industrial Management and Data Systems* 116(2), 322-348 (SCI) (2014 IF: 1.226, 21/43, Q2 in ENGINEERING, INDUSTRIAL) (48.83% 優良期刊) Cited in Google scholar: 36 Cited in WOS: 16
- J18. <u>Chiu, M-C.\*</u> and Hsieh, M-C.\* (2016) "Latent Human Error Analysis and Efficient Improvement Strategies by Fuzzy TOPSIS in Aviation Maintenance Tasks," *Applied Ergonomics* 54, 136-147. (SCI) (2014 IF: 2.023, 8/43, Q1 in ENGINEERING, INDUSTRIAL) (18.60% 優良期刊) Cited in Google scholar: 35 Cited in WOS: 17
- J19.Huang, P-H.# and <u>Chiu, M-C.\*</u> (2016) "Integrating User Centered Design, Universal Design and Goal, Operation, Method and Selection Rules to Improve the Usability of DAISY Player for Persons with Visual Impairments," *Applied Ergonomics* 52, 29-42. (SCI) (2014 IF: 2.023, 8/43, Q1 in ENGINEERING, INDUSTRIAL) (18.60% 優良期刊) Cited in Google scholar: 13 Cited in WOS: 5
- **J20.** Chiu, M-C.\*, Chang, C-H.\*, Chen, Y-T.\*, Chiou, J-Y.\*, and Chang, Y-J.\* (2016) "Redesign for Sustainability and Assemblability Using Particle Swarm Optimization Method," *Journal of Industrial and Production Engineering* 33(2), 103-113(TSSCI, EI) Cited in Google scholar: 7
- **J21.**Hsiao, W-P.\*, <u>Chiu, M-C.\*</u>, Chen W-F., and Chu, C-Y. (2016) "A systematic service design methodology to achieve mass personalisation," *International Journal of Agile Systems and Management* 8(3/4), 243-263 (EI) Cited in Google scholar: 11 Cited in WOS: 4
- J22.Chen, Y-T.\* and <u>Chiu, M-C.\*</u> (2015) "A Case-Based Method for Service-Oriented Value Chain and Sustainable Network Design," *Advanced Engineering Informatics* 29(3), 269-294. (SCI) (2014 IF: 1.627, 18/85, Q1 in ENGINEERING, MULTIDISCIPLINARY) (21.18% 優良期刊) Cited in Google scholar: 21 Cited in WOS: 14
- J23. Kuo, M-Y.\*, <u>Chiu, M-C.\*</u> and Kuo, T-C. (2015) "A New Methodology to Develop Business Model of Product Service System," *International Journal of Industrial Engineering: Theory, Applications and Practice* 22(3), 369-381. (SCI) Cited in Google scholar: 0 Cited in WOS: 0
- J24.Hsieh, M-C\*, Chiu, M-C.\*, and Hwang, S-L. (2015) "An Optimal Range of Information Quantity on Computer-Based Procedure Interface Design in the Advanced Main Control Room," *Journal of Nuclear Science and Technology* 52(5), 687-694. (SCI) (2014 IF: 1.118, 14/34, Q2 in NUCLEAR SCIENCE & TECHNOLOGY) (41.17% 優良期刊) Cited in Google scholar: 2 Cited in WOS: 2
- J25.Huang, P-H<sup>#</sup>, Chiu, M-C.\*, Hwang, S-L., and Wang, J-L. (2015) "Investigating E-Learning

- Accessibility for Visually-impaired Students: An Experimental Study," *International Journal of Engineering Education* 31(2), 495-504 (SCI) Cited in Google scholar: 2 Cited in WOS: 1
- J26.Chang, Y-J.\*, Huang, P-H.\*, and <u>Chiu, M-C.\*</u> (2014) "Service Dissatisfaction Detection and Service Recovery Analysis Using a Logistic Regression Model: an Empirical Study of Health Management Motion Sport Game," *Journal of Industrial and Production Engineering*, 31(8), 504-512 (TSSCI, EI) Cited in Google scholar: 2
- J27.Cheng, W-Y.\*, Huang, P-H.\*, and <u>Chiu, M-C.\*</u> (2014) "Integrating Physiological and Psychological Techniques to Measure and Improve Usability: an Empirical Study on Kinect Applying of Health Management Sport," *International Journal of Industrial Engineering: Theory, Applications and Practice*, 21(6), 304-316 (SCI) Cited in Google scholar: 5 Cited in WOS: 4
- **J28.**Chiou, J-Y. \* and <u>Chiu, M-C.\*</u> (2014) "Technical Service Platform Based on Company Competitive Advantage and Future Market Trend: A case study of Foundry," *International Journal of Industrial Engineering: Theory, Applications and Practice*, 21(6), 327-336 (SCI)
- **J29.**Lo, H-P. \* and <u>Chiu</u>, <u>M-C.\*</u> (2014) "A Service Family Design and Business Development Methodology with a Home Service Case Study," *Journal of Industrial and Production Engineering*, 31(7), 458-470 (**TSSCI**, **EI**) Cited in Google scholar: 2
- J30.Hsieh, M-C.\*, Chiu, M-C.\*, and Hwang, S-L. (2014) "An Interface Redesign for the Feedwater System of the Advanced Boiling Water Reactor in a Nuclear Power Plant in Taiwan," Journal of Nuclear Science and Technology, 51(5), 720-729. (SCI). (2014 IF: 1.118, 14/34, Q2 in NUCLEAR SCIENCE & TECHNOLOGY) (41.17% 優良期刊) Cited in Google scholar: 4
- J31. Chiu, M-C.\* and Okudan, G.E. (2014) "An Investigation on Centralized and Decentralized Supply Chain Scenarios at the Product Design Stage to Increase Supply Chain Performance," *IEEE Transactions on Engineering Management*, 61(1), 114-128. (SCI) (2014 IF: 1.103) Cited in Google scholar: 20 Cited in WOS: 7
- J32. Chiu, M-C.\* and Okudan, G.E. (2014) "An Investigation on the Impact of Product Modularity Level on Supply Chain Performance Metrics: An Industrial Case Study," Journal of Intelligent Manufacturing, 25(1), 129-145 (SCI) (2014 IF: 1.731, 10/40, Q1 in ENGINEERING, MANUFACTURING) (25% 優良期刊) Cited in Google scholar: 62 Cited in WOS: 21
- **J33.**Okudan, G.E.\*, Ma, J-F., <u>Chiu, M-C.</u>, and Lin, T-K. (2013) "Product Modularity and Implications for the Reverse Supply Chain," *Supply Chain Forum: an International Journal*, 14(2), 54-69 Cited in Google scholar: 18
- **J34.** Chiu, M-C.\* and Teng, L-W.\* (2013) "Sustainable Product and Supply Chain Design Decisions under

- Uncertainties," *International Journal of Precision Engineering and Manufacturing*, 14(11), 1953-1960 (SCI) (2014 IF: 1.205, 51/129, Q2 in ENGINEERING, MECHANICAL) (39.53% 優良期刊) Cited in Google scholar: 19 Cited in WOS: 14
- J35.Okudan, G.E., <u>Chiu, M-C.\*</u> and Kim, T. (2013) "Perceived Feature Utility-Based Product Family Design: a Mobile Phone Case Study," *Journal of Intelligent Manufacturing*, 24(5),935-949. (SCI) (2014 IF: 1.731, 10/40, Q1 in ENGINEERING, MANUFACTURING) (25% 優良期刊) Cited in Google scholar: 18 Cited in WOS: 14
- J36. Chiu, M-C. and Chu, C-H.\* (2012) "Review of Sustainable Product Design from Life Cycle Perspectives," *International Journal of Precision Engineering and Manufacturing*, 13(7), 1259-1272. (SCI) (2014 IF: 1.205, 51/129, Q2 in ENGINEERING, MECHANICAL) (39.53% 優良期刊) Cited in Google scholar: 96 Cited in WOS: 52
- J37.Okudan, G. E.\*, <u>Chiu, M-C.</u>, Lin, C-Y., Gupta, S., Claudio, D., and Thevenot, H. (2012) "Applying Axiomatic Design, TRIZ and Mixed Integer Programming to Develop Innovative Design for Locomotive Ballast Arrangement," *International Journal of Advanced Manufacturing Technology*, 61(5-8), 827-842. (SCI) (2014 IF: 1.458, 17/40, Q2 in ENGINEERING, MANUFACTURING) Cited in Google scholar: 41 Cited in WOS: 17

#### (3). Early Journal Papers before Joining NTHU (Total: 2)

- J38.Chiu, M-C.\* and Okudan, G.E. (2011) "An Integrative Methodology for Product and Supply Chain Design Decisions at the Product Design Stage", *Journal of Mechanical Design*, 133(2), 021008:1-15. (SCI) (2014 IF: 1.250, 49/129, Q2 in ENGINEERING, MECHANICAL) (37.98% 優良期刊) Cited in Google scholar: 60 Cited in WOS: 27
- **J39.Chiu, M-C.\*** and Okudan, G. E. (2011) "Investigation of the Applicability of DfX Tools during Design Concept Evolution: A literature Review," *Journal of Product Development*, 13(2), 132-167. (EI) Cited in Google scholar: 76 Cited in WOS: 27

#### (4). Selected Conference Publications (Total: 30)

- Dr. Chiu's research team are the receipt of **30 conference awards** (**10** International and **20** Domestic) since **2013**
- C1. Tu, Y-H., Lu, W-Y. & <u>Chiu M-C</u>. (2018) " Apply Deep Learning Image Recognition Technique to Promote Green Consumer Behavior " 2020 Symposium on Sustainable Products and Industrial

- Management(SSPIM 2020), Mar 21, NTU, Taiwan (Best Paper Award) 2020 永續性產品與產業管理研討會
- C2. Lee, Y-H, & & <u>Chiu M-C</u> (2019) "Combining Content-Based Image Retrieval with Deep Learning on Wafer Map Defect Patterns Classification". Chinese Institute of Industrial Engineering Conference 2019(CIIE 2019), Nov 23-24, NTUT, Taiwan (*Best Paper Award*) 2019 中國工業工程年會暨學術研討會
- C3. Chen, K-S., WU, M-C., & <u>Chiu M-C</u> (2019) "Cross-Regional and Seasonal Power Planning Model under Air Pollution Reduction: A Case Study of Taiwan" Industry 3.5 International Symposium for Intelligent Manufacturing, Sept 25-27, NTHU, TW (*Best Presentation Award*) 2019 工業 3.5 國際學術研討會
- C4. Sheu, D.D., Cayard, D. & <u>Chiu M-C</u> (2019) "The 7 Pillars of TRIZ++ Philosophies" The 2019 International Conference on Systematic Innovation (ICSI 2019), Jul 8-11, Liverpool, UK (*Excellent Presentation Award*) 2019 ICSI 國際研討會
- C5. Hong, J., Sheu, D.D. & <u>Chiu M-C.</u> (2019) "Prioritized Effect Identification for Problem Solving Based on Fuzzy Identification" The 2019 International Conference on Systematic Innovation (ICSI 2019), Jul 8-11, Liverpool, UK (*Third Place Award*) 2019 ICSI 國際研討會
- C6. Chen Y-L., <u>Chiu M-C.</u>, Hsu H-W., and Lee Y-C.,(2018) "The Equilibrium Contract for Power Buyback in Peak Hour Based on Demand Response Concept" 2018 Symposium on Sustainable Products and Industrial Management(SSPIM 2018),Mar 24, Taoyuan, Taiwan (*Best Paper Award*) 2018 永續性產品與產業管理研討會
- C7. Wu M-C., <u>Chiu M-C.</u>, Hsu H-W., and Lee M-Y.,(2018) "An Optimal Power Mix and Dispatch Model Considering Climate and Environmental Impacts: A Case Study in Taiwan" 2018 Symposium on Sustainable Products and Industrial Management(SSPIM 2018),Mar 24, Taoyuan, Taiwan (*Best Paper Award*) 2018 永續性產品與產業管理研討會
- C8. Chuang W-H., <u>Chiu M-C</u>, and Lin H-H.,(2018) "The Economic and Sustainable Influence of Package Sizes in a Packaging System" 2018 International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2018),Feb 7-9, Hsinchu, Taiwan (*Certificate of Best Paper Finalist*) 2018 ISMI 國際研討會
- C9. Chuang K-H., and <u>Chiu M-C.</u> (2018) "Integrating Omni Channel and Artificial Intelligence to Achieve Precision Marketing A Case Study of Sharing Economy Platform" 2018 International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2018),Feb 7-9, Hsinchu, Taiwan (*Outstanding Presentation Award*) 2018 ISMI 國際研討會

- C10. Chuang K-H., and <u>Chiu M-C.</u>,(2017) "Integrating Omni Channel and Artificial Intelligence to Achieve Precision Marketing A Case Study of Sharing Economy Platform" 2017 Asia Pacific Industrial Engineering and Management Systems (APIEMS 2017), Dec 3-6, Yogyakarta, Indonesia (*Best Industrial Application Award*) 2018 APIEMS 國際研討會
- C11. Lin S-H., Chung W-H., and <u>Chiu M-C.</u>,(2017) "Product Packaging System in a Supply Chain Considering Sustainability" 2017 Symposium on Sustainable Products and Industrial Management(SSPIM 2017),March18, Hsinchu, Taiwan (*Best Paper Award*) 2017 永續性產品與產業管理研討會
- C12. Wu C-Y., Han Y-T., Lin Y-C., Li Y-C., and <u>Chiu M-C.</u>,(2017) "Develop a Community Social Media to Enhance Environmental and Social Sustainablility" 2017 Symposium on Sustainable Products and Industrial Management(SSPIM 2017),March18, Hsinchu, Taiwan (*Best Paper Award*) 2017 永續性產品與產業管理研討會
- C13. Wu J-J., Lin K-Z., Chen M-D., and <u>Chiu M-C.</u>, (2017)"An innovative interface design and customized usability testing method: Case study of Internet of Things integration platform interface" The 24rd Annual Meeting of the Ergonomics Society of Taiwan(EST 2017), March 11-12, Kinmen, Taiwan (*Excellent Paper Award*) 2017 人因年會
- C14. Chen, L-C., and <u>Chiu M-C.</u>, (2016) " Healthcare Quality Measurement and Service Innovation for Type 2 Diabetic Patients " The 23rd Annual Meeting of the Ergonomics Society of Taiwan(EST 2016), March 25, Kaohsiung, Taiwan (*Excellent Paper Award*) 2016 人因年會
- C15. Chen, Y-W., Wang, H-L., and <u>Chiu M-C.</u>, (2016) " The Analysis and Prediction of Incomplete Dataset Using Fuzzy C-Medoids Algorithm with a Case Study of Physical Examination Dataset " The 23rd Annual Meeting of the Ergonomics Society of Taiwan(EST 2016), March 25, Kaohsiung, Taiwan (*Excellent Paper Award*) 2016 人因年會
- C16. Lin, W-J., Liao, S-H., Tsai, C-Y., Wei, Y-C., and <u>Chiu M-C.</u>, (2016) "Design a Personalizd Brain Computer Interface" The 23rd Annual Meeting of the Ergonomics Society of Taiwan(EST 2016), March 25, Kaohsiung, Taiwan (*Excellent Paper Award*) 2016 人因年會
- C17. Tsai, C-S., Chu, C-Y., and <u>Chiu M-C.</u>, (2016) " Design of Personalized Product Service System Utilizing Multi-Agent System " 2016 Symposium on Sustainable Products and Industrial Management(SSPIM 2016), March 19, Tainan, Taiwan (*Best Paper Award*) 2016 永續性產品與產業管理研討會
- C18. Weng, M-F., Tsao, S-H., and <u>Chiu M-C.</u>, (2016) "Applying TRIZ and Multi-Attribute Utility Theory to Develop Innovative Designs: A case of Carbohydrate Detecting Device," 2016 Conference of Systematic Innovation, Jan. 23, Taoyuan, Taiwan (*Excellent Paper Award*) 2016 系統性創新研討

#### 會暨論文競賽

- C19. Tsai, M-Y., and <u>Chiu M-C.</u>, (2016) "Applying TRIZ And Multi-Criteria Decision-Making to Improve Manufacturing Yield Rate and Inventory of Cell Test," 2016 Conference of Systematic Innovation, Jan. 23, Taoyuan, Taiwan (*Excellent Paper Award*) 2016 系統性創新研討會暨論文競賽
- C20. Lin, I-H., Weng, M-F., and <u>Chiu, M-C.\*</u>, (2015) " Simulation Based Supply Chain Planning Method Considering Design for Additive Manufacturing and Supply Chain: An Empirical Study of Lamp Industry," 2015 Chinese Institute of Industrial Engineers Conference (CIIE 2015), Dec. 9, Taichung, Taiwan (*Best Paper Award*) 2015 中國工業工程年會暨學術研討會
- C21. Lee, J-Y., Lin, K-Z., Chuang C-C., <u>Chiu, M-C.\*</u>, Trappey, A-J-C., Chang, L-G. and Chou, H-Y. (2015) "Screen code standard development and innovative applications," 2015 Chinese Institute of Industrial Engineers Conference (CIIE 2015), Dec. 9, Taichung, Taiwan (*Best Paper Award*) 2015 中國工業工程年會暨學術研討會
- C22. Hsu, Y-W. and <u>Chiu, M-C.\*</u>, (2015) "An Investigation on Therapeutic Music Design Utilizing Fuzzy C-Means Clustering and HRV to Enhance User Experience," The 22nd Annual Meeting of the Ergonomics Society of Taiwan (EST 2015), March 27-28, 2015, Taoyuan, Taiwan (*Best Student Paper Award*) 2015 人因年會
- C24. Chen, C-C., Chiou, J-Y., Chu, C-Y., and <u>Chiu, M-C.\*</u>, (2015) "A Systematic Product Service System Design Methodology Based on Dissatisfied Customers A Case Study of Clothes Industry", 2015 International Symposium on Sustainable Products and Industrial Management (ISSPIM 2014), Mar 21, 2015, Changhua, Taiwan(*Best Paper Award*) 2017 永續性產品與產業管理國際研討會
- C25. Chang, Y-J., Huang, P-H., and <u>Chiu, M-C.\*</u>, Hsu, Y-W., Chen, Y-L., Pan, Y-C., Tzao, S-H. (2014) "Service recovery design by using logistic regression model An empirical study to measure effective exercise of motion sport game," 2014 Chinese Institute of Industrial Engineers Conference (CIIE 2014), Dec. 6, Taipei, Taiwan. (*Best Paper Award*) 2014 中國工業工程年會暨學術研討會
- C26. Chiou, J-Y., Lin, Y-H., <u>Chiu, M-C.\*</u>., and Chung, W-H, (2014) "A Robust Technical Platform Planning Method to Assure Competitive Advantage under Uncertainties," 2014 International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2014), Aug. 16-18, Taipei, Taiwan. (*Best Student Paper Award*)

- C27. Cheng, W-Y., Huang, T-H., Liu, S-T., Wu, K-J., Huang, P-H., and <u>Chiu, M-C.\*</u> (2014) "Usability Evaluation Methodology of Health Management Product: an Empirical Study on Motion Sport Product," The 21st Annual Meeting of the Ergonomics Society of Taiwan (EST 2014) Mar 28-29, 2014, Taichung, Taiwan. (*Best Paper Award*) ) 2014 人因年會
- C28. Kuo, M-Y., <u>Chiu, M-C.\*</u> and Kuo,T-C. (2014) "A New Methodology to Develop Business Model of Product Service System," 2014 Symposium on Sustainable Products and Industrial Management (SSPIM 2014) Mar 15, 2014, Taipei, Taiwan (*Best Paper Award*) 2014 永續性產品與產業管理研 討會
  - C29. Cheng, W-Y., Huang, P-H., and <u>Chiu, M-C.\*</u> (2013) "Integrating Physiological Techniques and Questionnaire to Measure and Improve Usability: an Empirical Study on Health management Motion Sport Game," International Conference on Industrial Engineering (IJIE 2013) Oct 6-9, 2013, Busan, South Korea. (*Best Student Paper Award*)
  - C30. Lo, H-P., <u>Chiu, M-C.\*</u> and Chiou, J-Y (2013) "Service Innovation and Performance optimization Using Inter-relationship Digraph and Data Envelopment Analysis," The 9th International Conference on Intelligent Manufacturing & Logistics Systems (IML 2013) Feb 27-Mar 2, 2013, Shanghai, PRC. (*Best Student Paper Award*)

#### **PATENTS**

Dr. Chiu's research team obtained **2** patents in 2018. There are **4** patents (1 Taiwan and 3 USA) are under review.

- P1. Liang S-H. & Chiu, M-C.\* (2018) Production Management Method And System Of Utilizing Power Consumption Feature, **Taiwan Invention Patent #I618018** (MOST 105-2622-E-007-015-CC3) 梁書豪、邱銘傳(2018),應用電力用量特徵之製造管理方法及其系統,中華民國發明專利第 I618018 號。
- P2. Chiu, M-C.\* & Chu, C-Y.\*(2018) Method For Product Service System Classification And Service Transformation, **Taiwan Invention Patent #I612485** (MOST 103-2221-E-051-MY3) 邱銘傳、朱治垣(2018),產品服務系統分類與服務轉型方法,中華民國發明專利第 I612485 號。
- P3. Liang S-H. & Chiu, M-C.\* (2018) Production Management Method And System Of Utilizing Power Consumption Feature, **US Invention Patent** #2018-0299944-A1(Public) (MOST 105-2622-E-007-015-CC3) 梁書豪、邱銘傳(2018),應用電力用量特徵之製造管理方法及其系統,美國發明專利第2018-0299944-A1 號(已公開)。
- P4. Chiu, M-C.\* & Chu, C-Y.\* (2018) Method For Product Service System Classification And Service Transformation, **US Invention Patent** #2018-0130124-A1 (Public) (MOST 103-2221-E-051-MY3 邱銘傳、朱治垣(2018),產品服務系統分類與服務轉型方法,美國發明專利第 2018-

- P5. Chiu, M-C.\* & Wu, G-G. \* (2019) Method For Adaptively Adjusting Amount Of Information In User Interface Design And Electronic Device, **Taiwan Invention Patent (Under Review)** 邱銘傳、吳家 駒(2019),適應性調整使用者介面中資訊量的方法及其電子裝置
- P6. Chiu, M-C.\* & Wu, G-G. \* (2019) Method For Adaptively Adjusting Amount Of Information In User Interface Design And Electronic Device, **US Invention Patent (Under Review)** 邱銘傳、吳家駒 (2019),適應性調整使用者介面中資訊量的方法及其電子裝置

### **PROJECT GRANTS**

Since 2016, Dr. Chiu's research team received 16 projects grants with **40,821K** NT dollars in total. **4** of them are **pure research funding** from Ministry of Science and Technology (MOST) and the total amount is **35,644K** NT dollars. The rest **12** are **industry collaborative research projects** from research institutions such as Industrial Technology Research Institute (ITRI) and industries and the total amount is **5,177K** NT dollars with **249K** technology transfer funds.

# () Technology Transfer Funds 技術移轉金

Project Title	Funding Agency	Period	Funds (NT)	Description
Personalized Product Service System Design Method under Dynamic Environment(1/3, 2/3, 3/3)(PI)	MOST	2017/8- 2020/07	2,014K	MOST 106-2221-E-007-073-MY3: Research Funding(Best Paper Award in SSPIM 2018)
A Systematic Methodology to Design a Personalized Product Service System(3/3) (PI)	MOST	2016/08- 2017/07	600K	MOST 103-2221-E-007-051-MY3: Research Funding (Patent 2 &4)(Best Paper Award in SSPIM 2016)
Intelligent motion planning technology based on depth sensing for multi-axis glue dispensing in the mixed production of shoe soles. (PI)	MOST	2018/07- 2019/06	192K	MOST 107-2622-8-007-022: University-Industry Collaborative Research Project
Design a new business model for car rental industry and development of integrative information platform (PI)	MOST	2018/06- 2019/05	850K (131.5K)	MOST 107-2622-E-007-009-CC3: University-Industry Collaborative Research Project (Patent 5 & 6)(MOST the High Distinction Award)(A Startup company)
User Interface Design and Usability Testing of an IoT Manufacturing Information Platform (PI)	MOST	2017/06- 2018/05	380K (42.5K)	MOST 105-2622-E-007-015-CC3: University-Industry Collaborative Research Project (Patent 1 & 3)(Excellent Pape Award EST 2017) (A Startup company)
Artificial intelligence innovation research center on intelligent manufacturing (2/5) (Co-PI)	MOST	2019/03- 2020/02	15,800K	MOST 108-2634-F-007-008-: Research Funding
Artificial intelligence innovation research center on intelligent manufacturing (1/5) (Co-PI)	MOST	2018/03- 2019/02	17,230K	MOST 107-2634-F-007-009-: Research Funding

Advanced Service Quality Improvement		2017/02-	1,900K	MOST 106-2622-8-029-003-TM1:
Technology Alliance for Healthcare	MOST	2018/01	Í	University-Industry Collaborative
Industry(1/3)(Co-PI)				Research Project
IRB Experiment Data Analytics (PI)	ITRI	2018/07-	200K	University-Industry Collaborative
TRB Experiment Data Analytics (F1)		2018/10	200K	Research Project
Study on opportunities and applications of	ITRI	2017/11-	200K	University-Industry Collaborative
foresight research accomplishment (PI)	11K1	2017/12	200K	Research Project
Utilizing VLC technology in Innovative	ITRI	2017/07-	250K	University-Industry Collaborative
Service Validation (PI)	11K1	2017/12	230K	Research Project
Study of beauty salons service system and	GW	2017/06-	150K	University-Industry Collaborative
platform planning(PI)		2017/11	130K	Research Project
Study of business model and service design	ITRI	2017/03-	425K	University-Industry Collaborative
for future smart retailing (PI)	111X1	2017/09	(75K)	Research Project
Investigation of Application Opportunity for	ITRI	2016/11-	230K	University-Industry Collaborative
Foresight Research Project(PI)	111X1	2016/12	230K	Research Project
e-Commerce Logistics Service Analysis and	AVECTEC	2016/08-	200K	University-Industry Collaborative
Planning for Foreign Traveler(PI)	AVECTEC	2016/11	200K	Research Project
A Teaching Case Study of Business Services	TCA	2016/06-	200K	University-Industry Collaborative
Productivity 4.0(PI)	ICA	2016/11	200K	Research Project

# TEACHING AND CURRICULUM DEVELOPMENT

Below are the courses I have taught in NTHU since Fall 2016. Among them, **1** courses are initialized and developed by me and some courses are offered in English. In addition, I received excellent teaching rewards 4 times (See Appendix I for detail).

# (1) Courses Taught:

★ Offer in English and ◆ Excellent Teaching Reward

IEEM540100 Innovation and R&D Management★	Spring 2016 <sup>•</sup> , 2017, 2018 <sup>•</sup> , & 2019
IEEM 535200 e-Enterprise Integration★	Fall 2016 & 2017
IEEM 535300 Intelligent Integration of Enterprise★	Fall 2018 & 2019
IEM 561100 Innovation and R&D Management	Fall 2016, 2018 **
IEEM 539000 Design for X Perspectives	Spring 2018
IEEM 207000 Introduction to Engineering Design	Spring 2017, 2019 & 2020

# (2) Curriculum Development

IEEM 535300 Intelligent Integration of Enterprise (Developed in Fall 2018): Introduce artificial intelligence concepts and techniques such as Deep Learning, Tensorflow, RNN, CNN, LSTM, NLP, RF...etc along with practical applications

#### HONORS AND AWARDS

The certificates of these Honors and Awards could be found in **Appendix II**.

# (1) Research Team Achievements

- **Best Paper Award**, 2020 Symposium on Sustainable Products and Industrial Management 2020 永續性產品與產業管理研討會
- MOST The High Distinction Award (2019), Rank#1 in University-Industry Collaborative Research Award by MOST 特優獎,科技部工程司 108年度產學合作計畫成果發表暨績效 考評會
- Best Paper Award, 2019 Chinese Institute of Industrial Engineers Conference (CIIE 2019) 2019 工工年會
- Excellent Presentation Award, 2019 International Conference on Systematic Innovation (ICSI 2019)
- Receipt, 2019 NTHU Excellent Research Reward
- Top downloaded article (2019), 2017-2018 Human Factors and Ergonomics in Manufacturing & Service Industries
- **Best Paper Award\*2**, 2018 Symposium on Sustainable Products and Industrial Management 2018 永續性產品與產業管理研討會
- Best Paper Finalist, 2018 International Symposium on Semiconductor Manufacturing Intelligence (2018 ISMI)
- Receipt, 2018 NTHU Excellent Research Reward
- Best Industrial Application Award, 2017 Asia Pacific Industrial Engineering and Management Systems (APIEMS2017)
- **Best Paper Award\*2**, 2017 Symposium on Sustainable Products and Industrial Management (SSPIM 2017) 永續性產品與產業管理國際研討會
- Excellent Paper Award, 2017 Annual Meeting of the Ergonomics Society of Taiwan (EST 2017) 2017 人因年會
- Receipt, 2017 NTHU Excellent Research Reward
- Excellent Paper Award\*3, 2016 Annual Meeting of the Ergonomics Society of Taiwan (EST 2016) 2016 人因年會

- **Best Paper Award**, 2016 Symposium on Sustainable Products and Industrial Management (SSPIM 2016) 永續性產品與產業管理國際研討會
- Excellent Paper Award\*2, 2016 Conference of Systematic Innovation
- Receipt, 2016 NTHU Excellent Research Reward
- Best Paper Award\*2, 2015 Chinese Institute of Industrial Engineers Conference (CIIE 2015)
- MOST Best Research Project Poster Award, 2015
- Best Paper Award, 2015 International Symposium on Sustainable Products and Industrial Management (ISSPIM 2015)
- Receipt, 2015 NTHU Excellent Research Reward
- MOST Outstanding Young Scholar Grant, 2014~2017
- Best Paper Award, 2014 Chinese Institute of Industrial Engineers Conference (CIIE 2014)
- Best Paper Award, 2014 Annual Meeting of the Ergonomics Society of Taiwan (EST 2014)
- Best Paper Award, 2014 Symposium on Sustainable Products and Industrial Management (SSPIM 2014)
- Receipt, 2014 NTHU Excellent Research Reward
- Sayling Wen's Award for Young Outstanding Researcher in Service Science (2013)
- Receipt, 2012-2014 NTHU Excellent Assistant Professor Reward
- Receipt, 2010 Doctoral Colloquium in Industrial Engineering Research Conference
- Nominatee, 2009 PSU Alumni Association Dissertation Award
- Finalist, 2009 Juran Fellowship

# (2) Advised Students

- Third Place Award, 2019 International Conference on Systematic Innovation (2019 ICSI)
- Best Presentation Award, 2019 Industry 3.5 International Symposium for Intelligent Manufacturing
- Outstanding Presentation Award, 2018 International Symposium on Semiconductor

Manufacturing Intelligence (2018 ISMI)

- Excellent Conference Paper Award, 2018 National Tsing Hua University
- Honorable Mention, 2018 NTHU IE Capstone Project Competition
- First Place, 2015 Multi-Discipline Design Competition (Nationwide)
- First Place, 2015 e-Systematic Innovation & Application Competition (Nationwide)
- Best Student Paper Award \*2, 2015 Annual Meeting of the Ergonomics Society of Taiwan (EST 2015)
- First Place, 2014 NTHU IE Capstone Project Competition
- Honorable Mention, 2014 NTHU IE Capstone Project Competition
- Best Student Paper Award, 2014 International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2014)
- Member, 2014 Phi Tau Phi Scholastic Honor Society
- Third Place, 2014 NTHU School of Engineering Student Research Poster Competition
- Honorable Mention, 2014 NTHU College of Engineering Student Design Competition
- Best Student Paper Award, International Conference on Industrial Engineering (IJIE 2013)
- Honorable Mention, 2013 Industrial Engineering and Engineering Management Master Thesis Competition
- Best Student Paper Award, The 9th International Conference on Intelligent Manufacturing & Logistics Systems (IML 2013)

### SERVICES AND SCIENTIFIC ACTIVITIES

#### (1) Professional Services

#### **External:**

Research Proposal Review Committee, IEM Program, MOST (科技部工業工程與管理學門複審委員) 2020/1 ~ Present

Planning Committee, IEM Program, MOST (科技部工業工程與管理學門規劃委員)

Planning Committee, IEM Program 2032 Outlook Committee, MOST (科技部工業工程與管理學門 2032 展望規劃委員) 2017/1~2019/12

Committee Member, NCTU Business Incubator (交大創業育成中心進駐廠商審查委員) 2016/2~Present

# **University Level:**

Board Member, NTHU Institutional Review Board (國立清華大學研究倫理審查委員會委員) 2014/8 ~ Present

Committee Member, NTHU Faculty Dormitory Committee (國立清華大學教職員宿舍借住管理委員會會委員) 2012/8~Present

#### **College/Department Level:**

- COE Graduate Student Paper Advisory Committee (工學院研究生論文發表競賽指導委員會委員, 2019 工程論文發表技巧研習會主辦人) 2015/8 present
- COE High School Promoting Representative (高中宣傳委員) 2014/8 ~ Present
- COE Creative Design Competition Committee (院創意設計競賽委員) 2011/8-2015/7
- IEEM Alumni Cultural & Educational Foundation (華清工管基金會執行長) 2011/8-2015/7
- IEEM Staff Hiring Committee (職聘小組委員會委員) 2011/8-2012/7
- IEEM Library Committee (圖書館委員會委員) 2011/8-2014/7
- IEEM Undergraduate Student Caring Advisor (系大學部系學會暨學生就業生涯規劃輔導) 2011/8-2015/7
- IEEM Alumni Committee chair (系友事務委員會召集人) 2011/8 ~ Present
- IEEM Ph.D. Admission Committee (博士班入學審查委員) 2011/8 ~ Present
- IEEM M.S. Admission Committee (碩士班入學審查委員) 2011/8 ~ Present
- IEEM Undergraduate Admission Committee (大學部入學審查委員) 2011/8 ~ Present
- IEEM Admission Committee (招生委員會) 2011/8 ~ Present
- IEEM IEET Accreditation Committee (IEET 認證工作委員會委員) 2012/8 ~ Present

• IEEM Advisor Workshop committee (導師工作委員會) 2015/8 ~ Present

# (2) Editorship

Executive Editor, 2019 Strategic Plan of Industrial Engineering and Management Program for Ministry of Science and Technology, Taiwan, ROC (2019 科技部工業工程與管理學門規劃報告執行編輯)

**Associate Editor**, International Journal of Industrial Engineering: Theory, Applications and Practice (IJIETAP) **SCI**, 2016 ~ Present.

**Guest Editor**, Special Issue on Innovative Design and Manufacturing, 2013, Journal of Industrial and Production Engineering (originally **JCHE**) **TSSCI**, **EI** 

# (3) Journal Referees

- Advanced Engineering Informatics (ADVEI) SCI
- Applied Ergonomics (AE) SCI
- Applied Mathematical Modelling (APM) SCI
- IEEE Transactions on Automation Science and Engineering (TASE) SCI
- Industrial Management and Data Systems (IMDS) SCI
- International Journal of Advanced Manufacturing Technology (IJAMT) SCI
- International Journal of Industrial Engineering: Theory, Applications and Practice (IJIETAP)
   SCI
- International Journal of Precision Engineering and Manufacturing (IJPEM) SCI
- International Journal of Production Economics (IJPE) SCI
- International Journal of Production Research (IJPR) SCI
- Journal of Cleaner Production (JCP) SCI
- Journal of Engineering Design (JED) SCI
- Journal of Intelligent Manufacturing (IJIM) SCI

- Journal of Manufacturing Systems (JMS) SCI
- Journal of Mechanical Design (JMD) SCI
- Journal of Systems Science and Systems Engineering (JSSSE) SCI
- Resources, Conservation & Recycling (RCR) SCI
- Service Industries Journal (SIJ) SCI
- Sustainability Journal (SJ) SCI
- Journal of Industrial Production Engineering (JIPE) TSSCI, EI
- Journal of the Chinese Institute of Industrial Engineers (JCIIE) TSSCI, EI
- Journal of Advanced Material Research (AMR) EI
- International Journal of Design Creativity and Innovation (DCI)
- International Journal of Agile Systems and Management (IJASM)

# (4) Conference Committee

Dr. Chiu served as conference committee members in **25** conferences (**19** International & **6** Domestic)

- c1. **Technical Committee**, 2020 2nd **International** Conference on Management Science and Industrial Engineering, (MSIE 2020), Osaka, Japan, Apr 7-9 2020
- c2. **Organizing Committee**, 2020 Symposium on Sustainable Products and Industrial Management, (SSPIM 2020), Taipei, Taiwan, Mar 21 2020
- c3. Organizing Committee, The 22nd Decision Analysis Symposium (DAS 2020)
  ChungLi, Taiwan, Jan 4 2020
- c4. **Organizing Committee Chair**, 2019 **International** Symposium on Industry 3.5 and Intelligent Manufacturing, (Industry 3.5), Hsinchu, Taiwan, Sept 2019
- c5. **Organizing Committee**, 2019 Symposium on Sustainable Products and Industrial Management, (SSPIM 2019), Yunlin, Taiwan, Mar 30 2019
- Organizing Committee, 2018 Symposium on Sustainable Products and Industrial Management, (SSPIM 2018), ChungLi, Taiwan, Mar 24 2018

- c7. **Executive Chair,** 2018 **International** Ergonomics Society of Taiwan and Annual Meeting, (EST 2018), Hsinchu, Taiwan, Mar 16-18 2018
- c8. **Organization Committee Chair**, 2018 The **International** Symposium on Semiconductor Manufacturing Intelligence (ISMI 2018), Hsinchu, Taiwan, Feb 7-19, 2018
- c9. **Organizing Committee**, 2017 10th **International** Symposium on Environmentally Conscious Design and Inverse Manufacturing, (Eco Design 2017), Tainan, Taiwan, Mov 29-Dec 1 2017
- c10. Organizing Committee, 2017 ISPE International Conference on Transdisciplinary Engineering, (TE 2017), Singapore, Jul 10-13, 2017
- c11. **Conference Chair,** 2017 Symposium on Sustainable Products and Industrial Management, (SSPIM 2017), Hsinchu, Taiwan, Mar 18 2017
- c12. Organizing Committee, 2016 The International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2016), Taipei, Taiwan, Aug 7-10 2016
- c13. **Organizing Committee,** 2015 The **International** Conference on Kansei Engineering: Sensibility and Rationality (ICKE 2015), Taipei, Taiwan, Dec 2015
- c14. Organizing Committee, 2015 The International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2015), Daejeon, South Korea, Oct 2015
- c15. **Organizing Committee**, 22th **International** Conference on Concurrent Engineering (CE 2015), Delft, Netherlands, Jul 2015
- c16. Scientific Committee, 20th International Conference on Engineering Design (ICED 2015), Milan, Italy, Jul 2015
- c17. **Organizing Committee**, 2015 **International** Symposium on Sustainable Products and Industrial Management, (ISSPIM 2015), Yunlin, Taiwan, Mar 2015
- c18. Organizing Chair, 2014 International Design Engineering Workshop (DEWS 2014), Taipei, Taiwan, Nov 2014
- c19. **Organizing Committee**, 21th **International** Conference on Concurrent Engineering (CE 2014), Beijing, China, Sep 2014
- c20. **Organizing Committee**, 2014 The **International** Symposium on Semiconductor Manufacturing Intelligence (ISMI 2014), Taipei, Taiwan, Aug 2014
- c21. **Organizing Committee**, 18<sup>th</sup> **International** Conference on Computer Supported Cooperative Work in Design (CSCWD 2014), Hsinchu, Taiwan, May 2014

- c22. **Organizing Committee**, 2014 Symposium on Sustainable Products and Industrial Management (SSPIM 2014), Taipei, Taiwan, Mar 2014
- c23. **Organizing Committee**, 2012 **International** Conference on Innovative Design and Manufacturing (ICIDM 2012), Taipei, Taiwan, Dec 2012
- c24. Organizing Committee, 2012 International Senior Project Conference (ISPC 2012), Hsinchu, Taiwan, Mar 2012
- c25. **Organizing Committee**, **International** Interdisciplinary Design Forum, Hsinchu, Taiwan, Sept 2012.

### (5) Conference Session Chair

- The 22nd Decision Analysis Symposium (**DAS 2020**)
- Symposium on Sustainable Products and Industrial Management (SSPIM 2019)
- The 19th Asia Pacific Industrial Engineering And Management Systems (APIEMS 2018)
- 2018 International Conference Advances in Production Management Systems (APMS 2018)
- Symposium on Sustainable Products and Industrial Management, (SSPIM 2018)
- International Symposium on Environmentally Conscious Design and Inverse Manufacturing, (Eco Design 2017)
- ISPE International Conference on Transdisciplinary Engineering, (TE 2017)
- International Conference on Concurrent Engineering (IJIE 2016)
- The International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2016)
- Chinese Institute of Industrial Engineers Conference (CIIE 2015)
- International Conference on Concurrent Engineering (CE 2015)
- International Symposium on Green Manufacturing and Applications (ISGMA 2015)
- Chinese Institute of Industrial Engineers Conference (CIIE 2014)
- Asia Design Engineering Workshop (ADEWS 2014)
- International Conference on Concurrent Engineering (CE 2014)

- International Conference on Computer Supported Cooperative Work in Design (CSCWD 2014)
- International Symposium on Green Manufacturing and Applications (ISGMA 2014)
- Chinese Institute of Industrial Engineers Conference (CIIE 2014)
- International Conference on Concurrent Engineering (IJIE 2013)
- International Conference on Intelligent Manufacturing and Logistics Systems (IML 2013)
- International Conference on Innovative Design and Manufacturing (ICIDM 2012)
- International Design Engineering Technical Conference (**IDETC 2010-2011**)
- Industrial Engineering and Research Conference (IERC 2009)

# (6) Conference Referee

- 2020 Ergonomics Society of Taiwan, (EST 2020)
- 2nd International Conference on Management Science and Industrial Engineering, (MSIE 2020)
- ISPE International Conference on Transdisciplinary Engineering, (TE 2019)
- Symposium on Sustainable Products and Industrial Management, (SSPIM 2019)
- 2018 Ergonomics Society of Taiwan, (EST 2019)
- The 19th Asia Pacific Industrial Engineering And Management Systems (APIEMS 2018)
- 2018 International Conference Advances in Production Management Systems (APMS 2018)
- Symposium on Sustainable Products and Industrial Management, (SSPIM 2018)
- 2018 Ergonomics Society of Taiwan, (EST 2018)
- International Symposium on Environmentally Conscious Design and Inverse Manufacturing (Eco Design 2017)
- ISPE International Conference on Transdisciplinary Engineering, (TE 2017)
- International Conference on Concurrent Engineering (IJIE 2016)

- International Design Engineering Technical Conference (**IDETC 2016**)
- Industrial Engineering and Research Conference (IERC 2016)
- Chinese Institute of Industrial Engineers Conference (CIIE 2015)
- International Conference on Concurrent Engineering (CE 2015)
- Asia Design Engineering Workshop (ADEWS 2014)
- International Conference on Concurrent Engineering (CE 2014)
- International Conference on Computer Supported Cooperative Work in Design (CSCWD 2014)
- Chinese Institute of Industrial Engineers Conference (CIIE 2014)
- Symposium on Sustainable Products and Industrial Management (SSPIM 2014)
- International Design Engineering Technical Conference (**IDETC 2008-15**')
- Industrial Engineering and Research Conference (IERC2008-11')

#### (7) Invited Talks

- T1. **System Thinking v.s. Creative Thinking**, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2019/10/08
- T2. Artificial Intelligence: Past, Now and Future, Fortune Inc 2018/11/20
- T3. **Decision Making Methods at Product Design Stage**, Dept. of Industrial Engineering and Engineering Management, Yun-Ze University, ChungLi, Taiwan 2018/09/18
- T4. **Integrate Artificial Intelligence and Design Thinking in Education**, Pervasive AI Research Labs (PAIR), National Chiao Tung University, Hsinchu, Taiwan 2018/08/15
- T5. **Product Service System and Circular Economy**, Chung Yuan Christian University, Taoyuan, Taiwan 2017/11/22
- T6. **My Academic Journey,** PhD Seminar in Dept. of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan 2017/02/16
- T7. New Perspective of IE: Implement the System from Design, Dept. of Industrial Engineering, Pohang University of Science and Technology (POSTECH), Pohang, Korea, 2016/10/14

- T8. **Recent Development in Personalized Service Design**, Dept. of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan 2015/10/7
- T9. **New Generation of IE: Innovation Engineering,** Dept. of Industrial Engineering and Management, Minhsin University of Science and Technology, Hsinchu, Taiwan, 2015/5/20
- T10. **Methods in Product, Service and System Design,** Graduate School of Design, National Yunlin University of Science and Technology, Yunlin, Taiwan, 2015/3/11
- T11. Integrating Psychological and Physiological Techniques to Measure and Improve Usability,
  Dept. of Industrial Engineering, Pusan National University, Busan, Korea 2014/6/27
- T12. A Systematic Method to Develop a Business Model of a Product Service System, Dept. of Industrial and Systems Engineering, Chung Yuan Christian University, Taoyuan, Taiwan 2014/4/9
- T13. A Systematic Method for Service Family Design and Optimization, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2014/3/24
- T14. **Green Modularization Using Mutative Particle Swarm Optimization Method,** Dept. of Mechanical Engineering, Chung Yuan Christian University, Taoyuan, Taiwan 2012/12/26
- T15. Sustainable Product Design and Closed Loop Supply Chain Integration, Dept. of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan 2012/11/7
- T16. An Integral Methodology for Sustainable Product and Supply Chain Design Decisions under Uncertainties, Graduate Institute of Logistics Management, National Dong Hwa University, Hualien, Taiwan 2012/11/30
- T17. **There is Always a Better Way from Design Perspectives,** Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2011/12/12
- T18. **Design for X: Methods and Applications,** Dept. of Industrial Management, Cheng-Shiu University, Kaohsiung, Taiwan 2011/12/28

#### (8) Professional Society Memberships

- Lifetime Member, Chinese Institute of Industrial Engineers (CIIE)
- Lifetime Member, Ergonomics Society of Taiwan(EST)

- Lifetime Member, Service Science Society of Taiwan (SSST)
- Member, IEEE Society, 2014
- Student Member, Institute of Industrial Engineers (IIE), 2007 ~ 2011
- Student Member, American Society of Mechanical Engineers (ASME), 2008 ~ 2011

# **APPENDIX I: Certificates of Excellent Teaching Reward**



National Tsing Hua University Office of Academic Affairs

30013新针市光復路二段101號 Hsinchu 30013, Taiwan, R.O.C. Tel:+886-3-5719134 Fax:+886-3-5722713

#### 邱銘傳教授鈞鑒:

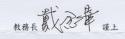
依據本校「教學獎勵補助辦法」,評選前一(105)學年度之教學工作與 績效,您符合獎勵補助細項如下表,獎勵金將於106年12月中前入帳。

符合 條文	條文內容	科號	課程名稱	獎勵 點數	金額(元)
第二條第四款	符合英語授課獎勵標 準,且教學意見分數平 均達4.30以上	10520IEEM540100	創新研發管理	2	10000

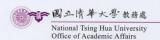
感謝您在教學上之辛勞付出,由於您的努力,使清華學子獲益良多。 在此謹代表學校向您致謝。

耑此 敬祝

教安



**Excellent Teaching Reward (Spring 2016)** 



30013新竹市光復路二段101號 Hsinchu 30013, Taiwan, R.O.C. Tel:+886-3-5719134 Fax:+886-3-5722713

# 邱銘傳教授鈞鑒:

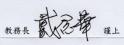
依據本校「教學獎勵補助辦法」,評選前一(107)學年度之教學工作與 績效,您符合獎勵補助細項如下表,獎勵金於108年11月底入帳。

符合 條文	條文內容	科號	課程名稱	獎勵 點數	金額(元)
第二條第四款	符合英語授課獎勵標	10720IEEM540100	創新研發管理	2	10000
	準,且教學意見分數平				
	均達 4.30 以上				

感謝您在教學上之辛勞付出,由於您的努力,使清華學子獲益良多。 在此謹代表學校向您致謝。

耑此 敬祝

教安



Excellent Teaching Reward (Spring 2018)



#### 國立情華大學

National Tsing Hua University

No. 101, Sec. 2, Kuang Fu Road Republic Of China

# 邱銘傳老師惠鑑:

107學期度第1學期教學意見調查,您所教授的課程〈10710IEM 561100 創新研發管理〉,問卷中「整體綜合意見:我覺得這位教師 教學表現優異」選項排名達〈工工在職專班〉課程的前30%(修課人 數 5 人以上且填卷率達 50%以上始入排名。),顯示您教學的效果獲 得同學高度認同。因為您的付出,清華學子獲益良多,在此謹代表學

爲鼓勵全校教師致力於教學精進,誠摯邀請您開放教學意見調查 結果供校內師生查詢,您在教學上優異成效將作為同仁們努力的目

開放方式為 登入 『校務資訊系統』,將【教學意見調查—整體 綜合意見調查第一題開放設定】設定為「開放」,或聯繫教務處課務 組協助處理,謝謝!

散祝.

教安



Excellent Teaching Reward (Fall 2018)

#### 國立清華大學工學院

新竹市光復路二段一〇一號



TEL: 886-35-710521 FAX: 886-35-712670

#### 邱銘傳教授道鑒:

107 學年度第1 學期教學意見調查已由校方統計完畢,您的教學 《創新研發管理》極獲學生肯定。謹此向您致上由衷的敬意與謝忱。 工學院的教學,實有幸於您的辛勤付出,嘉惠清華學子。

本院提供每門課 1,500 元之獎勵金以感謝您辛勤付出,並採直接 分配等值T類經常費予各系,再由各系分配行政費予授課教授,以提 高經費運用之彈性。本期之行政補助費將於108年度分配單位經費時 核撥至系上。謝謝您!

敬頌

粉字

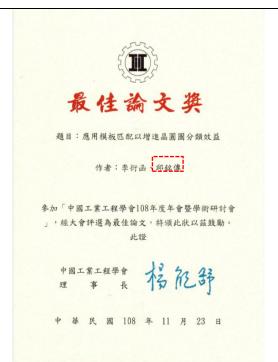
賴志煌版

Excellent Teaching Reward (Fall 2018)

#### **APPENDIX II: Award Certificates**



科技部工程技術研究發展司 108 年度產學合作計畫成 果發表產學成果海報展示特優獎(MOST 2019)



中國工業工程學會 108 年度年會暨學術研討會 Best Paper Award 2019 Chinese Institute of Industrial Engineers Conference (CIIE 2019)







Top downloaded article 2017-2018 Human Factors and Ergonomics in Manufacturing & Service Industries (2019)



#### 國際研討會傑出報告獎

Industry 3.5 International Symposium for Intelligent Manufacturing (I3.5 2019)



國際會議傑出報告獎

The 10th International Conference on Systematic Innovation (ICSI 2019)



國際會議獲獎論文獎第三名

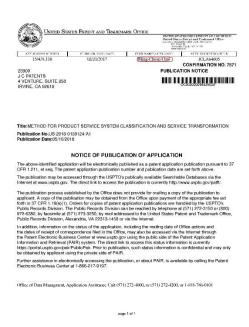
The 10th International Conference on Systematic Innovation (ICSI 2019)



國立清華大學國際會議獲獎論文獎勵優等獎(2018)



2018 ISMI 研討會
Outstanding Presentation Award
International Symposium on Semiconductor
Manufacturing Intelligence (ISMI 2018)



美國公開專利 #2018-0130124-A1

Method For Product Service System Classification And Service Transformation(2018)



美國公開專利

#2018-0299944-A1

Production Management Method and System Using Power Consumption Features (2018)



2018 永續性產品與產業管理研討會 Best Paper Award Symposium on Sustainable Products and Industrial Management (SSPIM 2018)



2018 永續性產品與產業管理研討會 Best Paper Award Symposium on Sustainable Products and Industrial Management (SSPIM 2018)



中華民國專利 產品服務系統分類與服務轉型方法(2018)



中華民國專利 應用電力用量特徵之製造管理方法及其系統(2018)



2018 ISMI 研討會 Best Paper Finalist International Symposium on Semiconductor Manufacturing Intelligence (ISMI 2018)



2017 APIEMS 研討會 Best Industrial Application Paper Award Asia Pacific Industrial Engineering and Management Society (APIEMS 2017)



Best Paper Award
Symposium on Sustainable Products and Industrial
Management (SSPIM 2017)



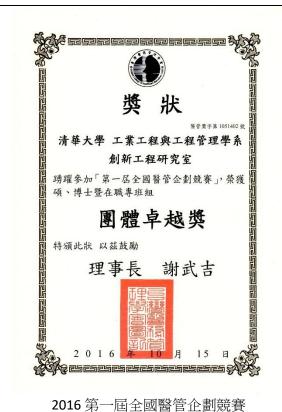
Best Paper Award
Symposium on Sustainable Products and Industrial
Management (SSPIM 2017)



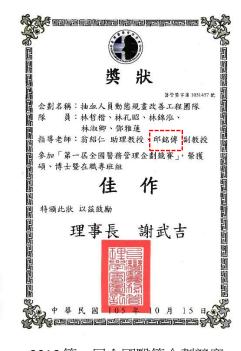
2017 人因年會 Excellent Paper Award The 23rd Annual Meeting of the Ergonomics Society of Taiwan (EST 2017)



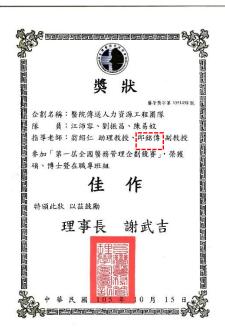
Excellent Paper Award
The 23rd Annual Meeting of the Ergonomics Society of
Taiwan (EST 2017)



團體卓越獎(2016)



2016 第一屆全國醫管企劃競賽 佳作(2016)





2016 第一屆全國醫管企劃競賽 第三名(2016)



2016 人因年會 Excellent Paper Award The 23rd Annual Meeting of the Ergonomics Society of Taiwan (EST 2016)



2016 人因年會 Excellent Paper Award The 23rd Annual Meeting of the Ergonomics Society of Taiwan (EST 2016)



2016 人因年會 Excellent Paper Award The 23rd Annual Meeting of the Ergonomics Society of Taiwan (2016)



2016 永續性產品與產業管理研討會 Best Paper Award Symposium on Sustainable Products and Industrial Management (2016)



2016 系統性創新研討會暨論文競賽 Excellent Paper Award Conference of Systematic Innovation (2016)



2016 系統性創新研討會暨論文競賽 Excellent Paper Award Conference of Systematic Innovation (2016)



104 年度中國工業工程學會暨學術研討會 Best Paper Award Chinese Institute of Industrial Engineers Conference (CIIE 2015)



104 年度中國工業工程學會暨學術研討會 Best Paper Award Chinese Institute of Industrial Engineers Conference (CIIE 2015)



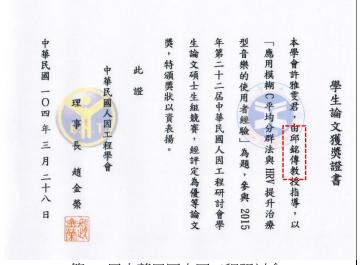
2015 科技部工程研究發展司工業工程與管理學門 Best Research Project Poster Award Ministry of Science and Technology (2015)



2015 永續性產品與產業管理國際研討會 Best Paper Award International Symposium on Sustainable Products and Industrial Management (ISSPIM 2015)



第 22 屆中華民國人因工程研討會
Best Student Paper Award
The 22nd Annual Meeting of the Ergonomics Society of
Taiwan
(EST 2015)



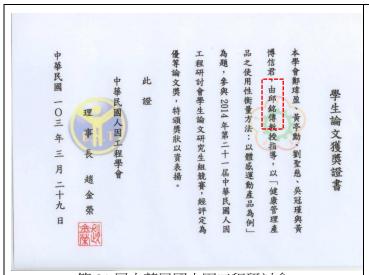
第 22 屆中華民國人因工程研討會
Best Student Paper Award
The 22nd Annual Meeting of the Ergonomics Society of
Taiwan
(EST 2015)



2015 全國跨域創新設計展演競賽 First Place National Cross Discipline Performance/Exhibition Competition (2015)

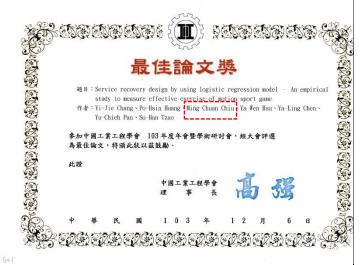


第 22 屆中華民國人因工程研討會
Best Student Paper Award
The 22nd Annual Meeting of the Ergonomics Society of
Taiwan
(EST 2015)



第 21 屆中華民國人因工程研討會 Best Student Paper Award

Annual Meeting of the Ergonomics Society of Taiwan
(EST 2014)



103 年度中國工業工程學會暨學術研討會 Best Paper Award Chinese Institute of Industrial Engineers Conference (CIIE 2014)



2014 半導體智能製造國際研討會

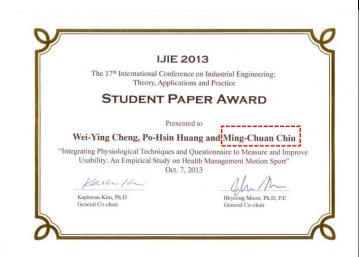
Best Student Paper Award
International Symposium on Semiconductor
Manufacturing Intelligence
(ISMI 2014)



2014 永續性產品與產業管理國際研討會 Best Paper Award Symposium on Sustainable Products and Industrial Management (SSPIM 2014)



第 21 屆中華民國人因工程研討會 Best Student Paper Award The 21nd Annual Meeting of the Ergonomics Society of Taiwan (EST 2014)



2013 工業工程國際研討會 Best Student Paper Award International Conference on Industrial Engineering (IJIE 2013)



2013 智能製造與物流系統國際研討會 Best Student Paper Award The 9th International Conference on Intelligent Manufacturing & Logistics Systems (IML 2013)



2013 第六屆溫世仁服務科學新苗獎 Sayling Wen's Award for Young Outstanding Researcher in Service Science (2013)