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## EDUCATION

<b>Ph.D. 2010</b>	Industrial & Manufacturing Engineering The Pennsylvania State University (PSU), USA
<b>M.S. 1999</b>	Industrial Engineering and Engineering Management National Tsing-Hua University, Hsinchu, Taiwan
<b>B.S. 1997</b>	Industrial Engineering and Engineering Management National Tsing-Hua University, Hsinchu, Taiwan

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## PROFESSIONAL EXPERIENCE

08/2020 – Present	<b>Professor</b> Department of Industrial Engineering and Engineering Management National Tsing-Hua University
08/2016 – 07/2020	<b>Associate Professor</b> Department of Industrial Engineering and Engineering Management National Tsing-Hua University
08/2011 - 07/2016	<b>Assistant Professor</b> Department of Industrial Engineering and Engineering Management National Tsing-Hua University
03/2013 - 12/2013	<b>Consultant</b> Service Systems Technology Center Industrial Technology Research Institute (ITRI)
01/2011 - 07/2011	<b>Postdoctoral Fellow &amp; Instructor</b> School of Engineering Design The Pennsylvania State University
08/2010 - 12/2010	<b>Instructor</b> School of Engineering Design The Pennsylvania State University
08/2007 - 07/2010	<b>Graduate Student Research &amp; Teaching Assistant</b> Dept. of Industrial and Manufacturing Engineering The Pennsylvania State University

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## RESEARCH INTERESTS

**Product Service System, Sustainable Design, Service Innovation, Smart Manufacturing, Medical Informatics**

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## PUBLICATIONS

**Published Journal Papers (Total: 65) \* is the corresponding author and # refers to advised student**

**J65. Chiu, M-C.**, Tsai, S-C-S., Bai, Z-R.#, Lin, A., Chang, C-C., Wang, G-Z. & Lin, C-F. (2024)"Radiographic chest wall abnormalities in primary spontaneous pneumothorax identified by artificial intelligence", *Heliyon*, 10(9), e30023 (SCI) doi.org/10.1016/j.heliyon.2024.e30023 (2022 IF:4, 34/134, 25.3% Q2 in Multidisciplinary Sciences)

**J64. Chiu, M-C.\*** & Yang, L-S.# (2024)" Integrating Explainable AI and Depth Cameras to Achieve Automation in Grasping Operations: A Case Study of Shoe Company" *Advanced Engineering Informatics* (Accepted). (SCI) (2021 IF:7.862, 26/145, 17.93% Q1 in Computer Science, Artificial Intelligence)

**J63. Chiu, M-C.\***, Tai P-Y.# & Chu, C-Y. (2024) " Developing a Smart Green Supplier Risk Assessment System Integrating Natural Language Processing and Life Cycle Assessment based on AHP Framework: An Empirical Study", *Resources, Conservation and Recycling*, 207, 107671 (SCI) (2022 IF: 13.2, 12/275=4.8%, Q1 in ENVIRONMENTAL SCIENCES)

**J62. Chiu, M-C.\***, Wei, C-J.# & Li, J-J.# (2024)"Interpretable Deep Learning Analysis on Correction of Motion Blur X-ray Images to Ensure the Efficiency and Reliability of Clinical Decision", *Radiation Effects and Defects in Solids*, (Accepted), (SCI)

**J61. Chiu, M-C.\***, Tsai, C-Z.# & Huang, Y-C. (2024)" Integrating Object Detection and Natural Language Processing Models to Build a Personalized Attraction Recommendation Agent in A Smart Product Service System" *Advanced Engineering Informatics* (Accepted). (SCI) (2021 IF:7.862, 26/145, 17.93% Q1 in Computer Science, Artificial Intelligence)

**J60.**Chen, C-C., Wei, C-J.#, Tseng, T-Y.#, Chiu, M-C.\* & Chang, C-C. (2024) "Applying Object Detection and Large Language Model to Establish a Smart Telemedicine Diagnosis System with Chatbot: A Case Study of Pressure Injuries Diagnosis System" , *Telemedicine and e-Health*, (Accepted). (SCI), (2021 IF: 5.033, SCI, 8/168=10.48%, Q1 in HEALTH CARE SCIENCES & SERVICES)

**J59.**Akman, G.\* , Yorur, B., Boyaci, A. I. & Chiu, M-C. (2023) "Assessing innovation capabilities of manufacturing

companies by combination of unsupervised and supervised machine learning approaches", *Applied Soft Computing*, 147, 110735., (SCI) doi:10.1016/j.asoc.2023.110735 (2022 IF:8.7, 12/110, 10.5% Q1 in Computer Science, Interdisciplinary Applications)

**J58.**Chiu, M-C.\* & Wei, C-J.# (2023) "Integrating DeblurGAN and CNN to improve the accuracy of motion blur X-Ray image classification", *Journal of Nuclear Science and Technology*, 61(3), 403-416 (SCI) ( NSTC 112-2221-E-007 -091 -MY2) doi:10.1080/00223131.2023.2236106

**J57.**Chiu, M-C., Hsu, H-W.\*, Chen, K-S.# and Wen, C-Y.# (2023) " A hybrid CNN-GRU based probabilistic model for load forecasting from individual household to commercial building," *Energy Reports*, 9(10), 94-105. (SCI) (2021 IF:4.937, 58/119, 48.32% Q2 in Energy & Fuels)

**J56.**Chiu, M-C., Chiang, Y-H.# and Chiu, J-E.\*(2023) " Developing an explainable hybrid deep learning model in digital transformation: An empirical study," *Journal of Intelligent Manufacturing*, 35, 1793-1810. (SCI) (2021 IF:7.136, 31/145, 21.03% Q1 in Computer Science, Artificial Intelligence)

**J55.**Chiu, M-C., Wei C-J.#, Wang Y-C.#, and Kao M-C.\*(2023) "Applying unsupervised learning method to develop a regional risk model based on TCFD: A case study in the United States," *Journal of Cleaner Production*, 400, 136669 (SCI) (2021 IF:11.072, 24/279, 8.42% Q1 in Environmental Science)

**J54.**Lee, Y-C., Hsu, H-W.\*, Chang, Y-C., Chen, Y-L.# and Chiu, M-C. (2023) "Constructing a (fair) load-reduction emergency demand response program: A fee-and-rebate pricing mechanism," *International Journal of Electrical Power & Energy Systems*, 147, 108831. (SCI) (2021 IF:5.659, 47/344, 13.52% Q1 in Engineering, Electrical & Electronic)

**J53.**Chiu, M-C.\*, Lee, Y-H.#, and Chen, T-M.# (2022) "Integrating content-based image retrieval and deep learning to improve wafer bin map defect patterns classification," *Journal of Industrial and Production Engineering*, 39(8), 614-628. (TSSCI)

**J52.**Chiu, M-C., Wen, C-Y.#, Hsu, H-W.\* and Wang, W-C.(2022) "Key wastes selection and prediction improvement for biogas production through hybrid machine learning methods," *Sustainable Energy Technologies and Assessments*, 52, 102223. (SCI) (2021 IF:7.632, 32/119, 26.89% Q2 in Energy & Fuels)

**J51.** Chiu, M-C., Tu, Y-L.# and Kao, M-C.\*(2022) "Applying Deep Learning Image Recognition Technology to Promote Environmentally Sustainable Eating Behavior," *Sustainable Production and Consumption*, 31, 736-749. (SCI) (2021 IF:8.921 , 10/128 , 7.81% Q1 in Environmental Studies)

**J50.** Binyet, E., Chiu, M-C., Hsu, H-W.\*, Lee, M-Y. and Wen, C-Y.# (2022) "Potential of Demand Response for Power Reallocation, a Literature Review," *Energies* 15(3), 863. (SCI) (2021 IF:3.252 , 80/119, 67.22% Q3 in Energy & Fuels)

**J49.**Chiu, M-C., Tsai, H-Y.# and Chiu, J-E.\*(2022) "A Novel Directional Object Detection Method for Piled

Objects Using a Hybrid Region-Based Convolutional Neural Network," *Advanced Engineering Informatics* 51, 101448. (SCI) (2021 IF:7.862, 26/145, 17.93% Q1 in Computer Science, Artificial Intelligence)

**J48.**Kuo, T-C., **Chiu, M-C.\***, Huang, J-H. #, Chang, C-Y. #, Gupta, S. and Akman, G. (2021) "Development of a Data-driven Smart Product Service System Framework Utilizing Unsupervised Learning Model," *International Journal of Industrial Engineering: Theory, Applications, and Practice*, 28(1), 130-147. (SCI) (2020 IF: 0.441, 48/49, 97.95% Q4 in Engineering, Industrial)

**J47.****Chiu, M-C.\***and Chen, T-M.# (2021) "Applying Data Augmentation and Mask R-CNN-based Instance Segmentation Method for Mixed-Type Wafer Maps Defect Patterns Classification," *IEEE Transactions on Semiconductor Manufacturing*, 34(4), 455-463. (SCI) (2020 IF: 2.874, 114/273, 41.75% Q2 in Engineering, Electrical & Electronic)

**J46.****Chiu, M-C.\***, Huang, J-H.#, Gupta, S., and Akman, G. (2021) "Developing A Personalized Recommendation System in A Smart Product Service System Based on Unsupervised Learning Model," *Computers in Industry* 128, 103421(SCI) (2019 IF: 3.954, 21/109, 19.26% Q1 in Computer Science & Interdisciplinary Applications)

**J45.****Chiu, M-C.**, Chung, W-H.\*, Lin, H-H.# (2021) "Applying DFA and Goal Programming to Improve Economic Efficiency, Material Handling Convenience, and Sustainability of a Product Packaging System," *Research in Engineering Design*, 32, 157-173 (SCI) (2019 IF: 2.224, 31/79, 40.66% Q2 in Engineering, Multidisciplinary)

**J44.****Chiu, M-C.\***, Chuang, K-H.# (2021) "Applying Transfer Learning to Precision Marketing in an Omni-Channel System – A Case Study of a Shared Kitchen Platform," *International Journal of Production Research*, 59(24), 7594-7609 (SCI) (2019 IF: 4.577, 11/83, 13.25% Q1 in Operations Research & Management Science)

**J43.**Kuo, T-C.\*, Chen, K-J., Shiang, W-J., Huang, P-B., Otieno, W., and **Chiu, M-C.** (2020) "A collaborative data-driven analytics of material resource management in smart supply chain by using a hybrid Industry 3.5 strategy," *Resources, Conservation and Recycling* 164, 105160(SCI) (2019 IF: 8.086, 13/265, 5% Q1 in Environmental Science)

**J42.****Chiu, M-C.**, Hsu H-W.\*, Wu, M-C.#, and Lee, M-Y. (2020) "Future Thinking on Power Planning: A Balanced Model of Regions, Seasons and Environment with a Case of Taiwan," *Futures* 122, 102599(SSCI) (2019 IF: 2.769, 68/371, 18.3% Q1 in Economics)

**J41.**Sheu, D.D., **Chiu, M-C.\*** & Cayard, D.# (2020) "The 7 Pillars of TRIZ Philosophies," *Computers & Industrial Engineering* 146, 106572 (SCI) (2019 IF: 4.135, 10/48, 20% Q1 in ENGINEERING, INDUSTRIAL)

**J40.****Chiu, M-C.\*** and Wu, J-J.# (2020) "An information model-based interface design method: A case study of cross-channel platform interfaces," *Human Factors and Ergonomics in Manufacturing & Service Industries* 30(6): 385-401 (SCI) (2019 IF: 1.271)

- J39.**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, 13.63% Q1 in engineering, multidisciplinary)
- J38.**Chiu, M-C. Chu, C-Y.# and Kuo, T-C.\* (2019) “Product Service System Transition Method: Building firm’s Core Competence,” *International Journal of Production Research* 57(20), 6452-6472 (SCI) (2018 IF: 3.199, 19/84, 22.61% Q1 in Operations Research & Management Science)
- J37.**Chiu, M-C., 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, 7.17% Q1 in Engineering, Environmental)
- J36.**Kuo, T-C., Chiu, M-C.\*, 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, 11.53% Q1 in Engineering, Environmental)
- J35.**Chiu, M-C.\*, 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)
- J34.**Chiu, M-C.\*, 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)
- J33.**Kuo, T-C., Chiu, M-C., 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, 11.53% Q1 in Engineering, Environmental)
- J32.**Hurtado, C.##, Chiu, M-C., 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, 18% Q1 in Engineering, Civil)
- J31.**Chiu, M-C.\* and Lin, K-Z.# (2018) “Utilizing Text Mining and Kansei Engineering to Support Data-driven Design Automation at Conceptual Design Stage,” *Advanced Engineering Informatics* 38, 826-839. (2018 IF: 3.772, 12/88, 13.63% Q1 in engineering, multidisciplinary)
- J30.**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, 22.61% Q1 in Operations Research & Management Science)

- J29.**Chiu, M-C.\* and Chen, Y-W.<sup>#</sup> (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)
- J28.**Chiu, M-C.\* and Chang, Y-J.<sup>#</sup> (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) (2017-2018 Top Download Paper Award)
- J27.**Chiu, M-C.\* and Chen, Y-W.<sup>#</sup> (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)
- J26.** Kuo, T-C., Chen, Y-H., Dang, H.T. H., Chiu, M-C., 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, 12% Q1 in Development Studies)
- J25.**Chiu, M-C.\* and Ko, L-W.<sup>#</sup> (2017) “Develop a Personalized Intelligent Music Selection System Based on Heart Rate Variability and Machine Learning,” *Multimedia Tools and Applications*, 76(14), 15607-1563 (SCI) (2018 IF: 2.101, 37/105, 35.23% Q2 in Computer Science, Theory, and Methods)
- J24.**Chiu, M-C.\* and Chiou, J-Y.<sup>#</sup> (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, 25.58% Q2 in ENGINEERING, INDUSTRIAL)
- J23.**Chiu, M-C.\* and Lin, Y-H.<sup>#</sup> (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, 48.83% Q2 in ENGINEERING, INDUSTRIAL)
- J22.**Chiu, M-C.\* and Hsieh, M-C.<sup>#</sup> (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, 18.60% Q1 in ENGINEERING, INDUSTRIAL)
- J21.**Huang, P-H.<sup>#</sup> and Chiu, M-C.\* (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, 18.6% Q1 in ENGINEERING, INDUSTRIAL)

- 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**)
- J19.**Hsiao, W-P.#, Chiu, M-C.\*, 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**)
- J18.**Chen, Y-T.# and Chiu, M-C.\* (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, 21.18% Q1 in ENGINEERING, MULTIDISCIPLINARY**)
- J17.**Kuo, M-Y.#, Chiu, M-C.\* 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**)
- J16.**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, 41.17% Q2 in NUCLEAR SCIENCE & TECHNOLOGY**)
- J15.**Huang, P-H.#, 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**)
- J14.**Chang, Y-J.#, Huang, P-H.#, and Chiu, M-C.\* (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**)
- J13.**Cheng, W-Y.#, Huang, P-H.#, and Chiu, M-C.\* (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**)
- J12.**Chiou, J-Y.# and Chiu, M-C.\* (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**)
- J11.**Lo, H-P.# and Chiu, M-C.\* (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**)

- J10.** Hsieh, M-C.<sup>#</sup>, **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, 41.17 Q2 in NUCLEAR SCIENCE & TECHNOLOGY)
- J9.** **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)
- J8.** **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, 25% Q1 in ENGINEERING, MANUFACTURING)
- J7.** Okudan, G.E.\* , Ma, J-F., **Chiu, M-C.**, and Lin, T-K. (2013) "Product Modularity and Implications for the Reverse Supply Chain," *Supply Chain Forum: an International Journal*, 14(2), 54-69.
- J6.** **Chiu, M-C.\*** and Teng, L-W.<sup>#</sup> (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, 39.53% Q2 in ENGINEERING, MECHANICAL)
- J5.** Okudan, G.E., **Chiu, M-C.\*** 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, 25% Q1 in ENGINEERING, MANUFACTURING)
- J4.** **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, 39.53% Q2 in ENGINEERING, MECHANICAL)
- J3.** Okudan, G. E.\* , **Chiu, M-C.**, 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, 40.25% Q2 in ENGINEERING, MANUFACTURING)
- J2.** **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, 37.93% Q2 in ENGINEERING, MECHANICAL)
- J1.** **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)



#### (4). Selected Conference Publications (Total: 53)

- C53. Chen, Y-H. & **Chiu, M-C.** (2024) “Establishing a Case-Based Reasoning System for Carbon Reduction Recommending System” . Symposium on Sustainable Products and Industrial Management 2024, Mar 23, CNU, Taiwan (*Best paper Award*) 2024 永續性產品與產業管理研討會
- C52. Huang, H., & **Chiu, M-C.**, (2024) " Incorporating Physiological and Psychological Data with AI Model in 3E Smart User Journey Map for Enhancing User Emotional Experience: A Case Study on APP Usage, Mar 9, TTU, Taiwan (*Honorable Mention*) 2024 Ergonomics Society of Taiwan Annual Meeting and International Conference 2024 (EST 2024) 中華民國人因工程學會年會暨國際學術研討會
- C51. Huang, T-H, & **Chiu, M-C.**, & Kao, M-C. (2023) “Enhancing Emergency First AID Education Effectiveness With An Intelligent Instructional System Integrating Body Movement Classification And Feedback Mechanism: A Case Study On Cardiopulmonary Resuscitation”. Chinese Institute of Industrial Engineers Conference 2023, Dec 09, FCU, Taiwan (*Best paper Award*) 2023 中國工業工程學會暨學術研討會
- C50. Tseng, T-Y., **Chiu, M-C.**, Chang, C-C., Chen, C-C. & Yang, S-F. (2023) “Using Deep Learning to Establish a Medical Assistance System for Pressure Injuries Images” . International Conference on Medical and Health Informatics 2023 (ICMHI 2023), May 12, Kyoto, Japan (*1st place award in Master Group*) 2023 國際醫學與健康資訊研討會
- C49. Bai, Z-R., **Chiu, M-C.**, Chang, C-C. & Lin, F-C-F. (2023) “Medical Decision Support System of Using Deep Learning to Identify CT Images of Spontaneous Pneumothorax ” . International Conference on Medical and Health Informatics 2023 (ICMHI 2023), May 12, Kyoto, Japan (*2nd place award in Master Group*) 2023 國際醫學與健康資訊研討會
- C48. Wei, C-J., **Chiu, M-C.**, Chang, C-C. & Lee, H-L. (2023) “Utilizing Data Augmentation and Deep Learning to Recognize the Recurrence of HCC Treated with Radical Therapy” . International Conference on Medical and Health Informatics 2023 (ICMHI 2023), May 12, Kyoto, Japan (*1st place award in PhD Group*) 2023 國際醫學與健康資訊研討會
- C47. Hong, S-P., **Chiu, M-C.**, & Wang, H-F. (2023) “Integrating Multi-Objective Decision Analysis and Multi-Criteria Decision Analysis to Improve Decision-Making Performance of Decision Making: A TCFD Case Study of A Company ” . Symposium on Sustainable Products and Industrial Management 2022, Apr 22, NTUT, Taiwan (*Best paper Award*) 2023 永續性產品與產業管理研討會

- C46. Tai P-Y., **Chiu, M-C.**, & Zhong W-B. (2023) “Apply Deep Learning Models to Build A Personalized Attraction Recommendation System in A Smart Product Service System” . Symposium on Sustainable Products and Industrial Management 2023, Apr 22, NTUT, Taiwan (***Best paper Award***) 2023 永續性產品與產業管理研討會
- C45. Yang, L-S., & **Chiu, M-C.**, (2023)"Integrating Human Motion Recognition and Virtual Voice Assistant to Improve Assembly Learning Effect: A Case Study of Mobile Phone Assembly (EST 2023), Mar 3, THU, Taiwan (***Honorable Mention***) 2023 Ergonomics Society of Taiwan Annual Meeting and Conference 2023 人因年會
- C44. **Chiu, M-C.**, Hsu, H-W., Chen, K-S. & Wen, C-Y. (2023)"A Hybrid CNN-GRU based Probabilistic Model for Load Forecasting from Individual Household to Commercial Building" The 3rd International Conference on Power and Electrical Engineering (ICPEE 2022), Dec 29-31, Singapore (***Excellent Presentation Award***) 2022 ICPEE 國際研討會
- C43. Tai P-Y., & **Chiu, M-C.**, (2022) “A Green Supplier Evaluation System Based on Natural Language Processing” . Chinese Institute of Industrial Engineers Conference 2022, Nov 12, NQU, Taiwan (***Best paper Award***) 2022 中國工業工程學會暨學術研討會
- C42. Wei C-J., **Chiu, M-C.**, Chang C-C. & Lee H-L. (2022) “Medical Clinical Decision Support System Using Deep Learning to Recognize the Early Recurrence of Eradicative Hepatocellular Carcinoma After Treatment” . Chinese Institute of Industrial Engineers Conference 2022, Nov 12, NQU, Taiwan (***Best paper Award***) 2022 中國工業工程學會暨學術研討會
- C41. Huang Y-J., **Chiu, M-C.**, Lo Kenny. & Wang Alex. (2022) “Using Hybrid Machine Learning Models to Predict Product Quality and Achieve Self Optimization: A Case Study of the Injection Molding Industry” . Chinese Institute of Industrial Engineers Conference 2022, Nov 12, NQU, Taiwan (***Best paper Award***) 2022 中國工業工程學會暨學術研討會
- C40. Wei C-J., **Chiu, M-C.**, Li J-J. ,Huang J-H ,Wei Y-F & Tsai H-E. (2022) “Applying Enhanced Super-Resolution Generative Adversarial Network on the Correction of Motion Artifact X-ray Image” . Asia Pacific Industrial Engineering and Management System Conference 2022, Nov 9, Evergreen Hotels(Taichung), Taiwan (***Best paper Award***) 2022 APIEMS 研討會
- C39. Tsai C-Z., **Chiu, M-C.**, (2022) “Apply Deep Learning Models to Build A Personalized Attraction Recommendation System in A Smart Product Service System” . Symposium on Sustainable Products and Industrial Management 2022, Mar 26, NTHU, Taiwan (***Best paper Award***) 2022 永續性產品與產業管理研討會
- C38. Hsiao Y-J., **Chiu, M-C.** & Wang H-F. (2022) “A Multi-Objective Mathematical Model for Organization Sustainable Management Project Selection: A Case Study of A Company in Taiwan” .

Symposium on Sustainable Products and Industrial Management 2022, Mar 26, NTHU, Taiwan (*Best paper Award*) 2022 永續性產品與產業管理研討會

- C37. Feng, P-Z., & **Chiu, M-C.**, (2022)"Using deep vision recognition to detect unsafe driving behavior". The 29th Ergonomics Society of Taiwan Annual Meeting and Conference(EST 2022) , Mar 12, STUST, Taiwan (*Third Place Award*) 2022 中華民國人因工程學會年會暨學術研討會
- C36. Hsiao Y-J., **Chiu, M-C.** & Wang H-F. (2021) "A Multi-Objective Mathematical Model for Organization Sustainable Management Project Selection: A Case Study of A Company in Taiwan" . Chinese Institute of Industrial Engineers Conference 2021, Nov 20, NCKU, Taiwan (Best paper Award) 2021 中國工業工程學會暨學術研討會
- C35. Chiang Y-H., **Chiu, M-C.** & Chiu J-E. (2021) "Integrating Deep Learning and Clustering Algorithms to Automate Inspection Process in Digital Transformation" . Chinese Institute of Industrial Engineers Conference 2021, Nov 20, NCKU, Taiwan (*Best paper Award*) 2021 中國工業工程學會暨學術研討會
- C34. Wang Y-C., **Chiu M-C.**, Zhong W-B. ,Gao M-J. (2021) "Apply Text Mining to Establish a Regional Model of TCFD: A Case Study of USA" . Symposium on Sustainable Products and Industrial Management 2021, Mar 20, NCKU, Taiwan (*Best Paper Award*) 2021 永續性產品與產業管理研討會
- C33. Liang, Y-J., Sheu D. D. , Wang Y-C. & **Chiu M-C.** (2021) "Opportunity Identification of Business Strategy Innovation Based on TRIZ Trends" . 2021 International Conference on Systematic Innovation 2021 Jan 23, CYUT, Taiwan (*First Place Award*) 2021 中華系統性創新研討會
- C32. Chen, T-M. & **Chiu M-C.** (2020) "Mask R-CNN for Wafer Maps Defect Patterns Classification" . Chinese Institute of Industrial Engineers Conference 2020, Nov 21, NYUST, Taiwan (*Best Paper Award*) 2020 中國工業工程學會暨學術研討會
- C31. Chen, Z-Y., Sheu, D. D. & **Chiu M-C.** (2020) "Patent Expansion Based on Function Hierarchy" . International Conference on Systematic Innovation 2020, Oct 23, NTUT, Taiwan (*Third Place Award*) 2020 系統性創新國際研討會
- C30. Tu, Y-H., Lu, W-Y. & **Chiu M-C.** (2020) " 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
- C29. Lee, Y-H, & **Chiu M-C** (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

- C28. Chen, K-S., WU, M-C., & **Chiu M-C** (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
- C27. Sheu, D.D., Cayard, D. & **Chiu M-C** (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
- C26. Hong, J., Sheu, D.D. & **Chiu M-C.** (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
- C25. Chen Y-L., **Chiu M-C.**, 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
- C24. Wu M-C., **Chiu M-C.**, 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
- C23. Chuang W-H., **Chiu M-C**, 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
- C22. Chuang K-H., and **Chiu M-C.** (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
- C21. Chuang K-H., and **Chiu M-C.**,(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
- C20. Lin S-H., Chung W-H., and **Chiu M-C.**, (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
- C19. Wu C-Y., Han Y-T., Lin Y-C., Li Y-C., and **Chiu M-C.**, (2017) "Develop a Community Social Media to Enhance Environmental and Social 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
- C18. Wu J-J., Lin K-Z., Chen M-D., and **Chiu M-C.**, (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
- C17. Chen, L-C., and **Chiu M-C.**, (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
- C16. Chen, Y-W., Wang, H-L., and **Chiu M-C.**, (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
- C15. Lin, W-J., Liao, S-H., Tsai, C-Y., Wei, Y-C., and **Chiu M-C.**, (2016) " Design a Personalized 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
- C14. Tsai, C-S., Chu, C-Y., and **Chiu M-C.**, (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
- C13. Weng, M-F., Tsao, S-H., and **Chiu M-C.**, (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
- C12. Tsai, M-Y., and **Chiu M-C.**, (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
- C11. Lin, I-H., Weng, M-F., and **Chiu, M-C.\***, (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
- C10. Lee, J-Y., Lin, K-Z., Chuang C-C., **Chiu, M-C.\***, 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
- C9. Hsu, Y-W. and **Chiu, M-C.\***, (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
- C8. Ko, L-W. and **Chiu, M-C.\***, (2015) "The Research of Music and Emotion Interaction with a Case Study of Intelligent Music Selection System," 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
- C7. Chen, C-C., Chiou, J-Y., Chu, C-Y., and **Chiu, M-C.\***, (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*) 2015 永續性產品與產業管理國際研討會
- C6. Chang, Y-J., Huang, P-H., and **Chiu, M-C.\***, 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
- C5. Chiou, J-Y., Lin, Y-H., **Chiu, M-C.\***, 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*)
- C4. Cheng, W-Y., Huang, T-H., Liu, S-T., Wu, K-J., Huang, P-H., and **Chiu, M-C.\*** (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
- C3. Kuo, M-Y., **Chiu, M-C.\*** 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

- C2. Cheng, W-Y., Huang, P-H., and **Chiu, M-C.\*** (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*)
- C1. Lo, H-P., **Chiu, M-C.\*** 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*)

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## PATENTS

Dr. Chiu’s research team obtained **3** patents in 2018. There are **3** patents (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. Chiu, M-C.\* & Wu, G-G. # (2019) Method For Adaptively Adjusting Amount Of Information In User Interface Design And Electronic Device, **Taiwan Invention Patent #I718429** 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
- P4. 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)。
- P5. 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 2018-0130124-A1 號(已公開)。
- 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

Project Title	Funding Agency	Period	Funds (NT)	Description
Develop a personalized recommendation system in a smart product service system with machine learning (PI)	MOST	2023/8-2025/07	2,664K	NSTC 112-2221-E-007-091-MY2: <b>Research Funding</b>
Artificial intelligence innovation research center on intelligent manufacturing (4/5) (Co-PI)	MOST	2021/03-2022/02	10,600K	MOST 110-2634-F-007-008: <b>Research Funding</b>
Develop a personalized recommendation system in a smart product service system with machine learning (PI)	MOST	2020/8-2023/07	2,664K	MOST 109-2628-E-007-002-MY3: <b>Research Funding</b>
Artificial intelligence innovation research center on intelligent manufacturing (3/5) (Co-PI)	MOST	2020/03-2021/02	18,950K	MOST 109-2634-F-007-021: <b>Research Funding</b>
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: <b>Research Funding</b>
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: <b>Research Funding</b>
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
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
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-: <b>Research Funding</b>
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-: <b>Research Funding</b>
Advanced Service Quality Improvement Technology Alliance for Healthcare Industry(1/3)(Co-PI)	MOST	2017/02-2018/01	1,900K	MOST 106-2622-8-029-003-TM1: University-Industry Collaborative Research Project
IRB Experiment Data Analytics (PI)	ITRI	2018/07-2018/10	200K	University-Industry Collaborative Research Project
Study on opportunities and applications of foresight research accomplishment (PI)	ITRI	2017/11-2017/12	200K	University-Industry Collaborative Research Project
Utilizing VLC technology in Innovative Service Validation (PI)	ITRI	2017/07-2017/12	250K	University-Industry Collaborative Research Project
Study of beauty salons service system and platform planning(PI)	GW	2017/06-2017/11	150K	University-Industry Collaborative Research Project
Study of business model and service design for future smart retailing (PI)	ITRI	2017/03-2017/09	425K (75K)	University-Industry Collaborative Research Project
Investigation of Application Opportunity for Foresight Research Project(PI)	ITRI	2016/11-2016/12	230K	University-Industry Collaborative Research Project
e-Commerce Logistics Service Analysis and Planning for Foreign Traveler(PI)	AVECTEC	2016/08-2016/11	200K	University-Industry Collaborative Research Project



A Teaching Case Study of Business Services Productivity 4.0(PI)	TCA	2016/06-2016/11	200K	University-Industry Collaborative Research Project
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( ) **Technology Transfer Funds 技術移轉金**

## 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 3 times (See Appendix I for detail).

### (1) Courses Taught:

★ Offer in English and ◆ Excellent Teaching Reward

IEEM540100 Innovation and R&D Management★	Spring 2016◆, 2017, 2018◆, 2019◆, 2020◆, 2021◆, 2022◆ & 2023◆
IEEM 535200 e-Enterprise Integration★	Fall 2016 & 2017
IEEM 535300 Intelligent Integration of Enterprise★	Fall 2018, 2019, 2020, 2021, 2022, 2023 & 2024
IEEM 561100 Innovation and R&D Management	Fall 2016, 2018, 2020, 2022 & 2024
IEEM 539000 Design for X Perspectives	Spring 2018
IEEM 207000 Introduction to Engineering Design	Spring 2017, 2019, 2020 & 2021

### (2) Curriculum Development

IEEM443300 **Sustainable Engineering and Management** (Developed in Fall 2023):

Carbon neutrality and sustainability have become a global trend and had a great impact on design, manufacturing, service, supply chains, corporate governance, etc. This course provides students the basic knowledge about these issues and enables them to develop preliminary skills of applications for industries.

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

### (1) Research Team Achievements

- **Best Paper Award**, 2024 Symposium on Sustainable Products and Industrial Management (SSPIM 2024) 永續性產品與產業管理研討會

- **Honorable Mention**, 2024 Ergonomics Society of Taiwan Annual Meeting and International Conference 人因年會暨國際學術研討會
- **Excellent Award**, 2023 Annual Research Results Presentation Conference of the Industrial Engineering and Management Department of the Engineering Office of the National Science Council 國科會工工學門專題計劃成果發表會
- **First Place Award in PhD Group**, 2023 International Conference on Medical and Health Informatics (ICMHI 2023) 國際醫學與健康資訊研討會
- **First Place Award in Master Group**, 2023 International Conference on Medical and Health Informatics (ICMHI 2023) 國際醫學與健康資訊研討會
- **Second Place Award in Master Group**, 2023 International Conference on Medical and Health Informatics (ICMHI 2023) 國際醫學與健康資訊研討會
- **Best Paper Award\*2**, 2023 Symposium on Sustainable Products and Industrial Management (SSPIM 2023) 永續性產品與產業管理研討會
- **Honorable Mention**, 2023 Ergonomics Society of Taiwan Annual Meeting and Conference 人因年會
- **Excellent Presentation Award**, 2022 ICPEE 國際研討會
- **Best Paper Award**, 2022 Asia Pacific Industrial Engineering and Management System Conference APIEMS 研討會
- **Best Paper Award\*3**, 2022 Chinese Institute of Industrial Engineers Conference (CIIE 2022) 中國工業工程學會暨學術研討會
- **Honorable Mention\*3**, 2022 Industrial Engineering and Engineering Management Master Thesis Competition 全國工業工程與管理碩士論文競賽
- **Best Paper Award\*2**, 2022 Symposium on Sustainable Products and Industrial Management (SSPIM 2022) 永續性產品與產業管理研討會
- **Third Place Award**, 2022 Ergonomics Society of Taiwan Annual Meeting and Conference 人因年會
- **Best Paper Award\*2**, 2021 Chinese Institute of Industrial Engineers Conference (CIIE 2021) 中國工業工程學會暨學術研討會
- **Honorable Mention**, 2021 Industrial Engineering and Engineering Management Master Thesis Competition 全國工業工程與管理碩士論文競賽
- **Honorary Member**, 2021 The Phi Tau Phi Scholastic Honor Society of the Republic of China 中華民國斐陶斐榮譽學會

- **Best Paper Award**, 2021 Symposium on Sustainable Products and Industrial Management  
2021 永續性產品與產業管理研討會
- **First Place Award**, 2021 Conference of Systematic Innovation
- **Best Paper Award**, 2020 Chinese Institute of Industrial Engineers Conference (CIIE 2020)  
2020 工工年會
- **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
- **Nominee**, 2009 PSU Alumni Association Dissertation Award
- **Finalist**, 2009 Juran Fellowship

## (2) Advised Students

- **Third Place Award**, 2020 International Conference on Systematic Innovation (2020 ICSI)
- **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)

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## 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 ~ 2022/12

**Planning Committee**, IEM Program, MOST (科技部工業工程與管理學門規劃委員) 2017/1~2022/12

**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~ 2022/12

**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

**Editorial board**, Advanced Engineering Informatics (ADVEI), **SCI**, 2020/09~ Present.

**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 (IJETAP) **SCI**, 2016 ~ Present.

**Guest Editor**, Special Issue on Innovative Design and Manufacturing, 2013, Journal of Industrial and Production Engineering (originally **JCIIE**) **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 (**IJETAP**) **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 (**IJM**) 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

- c1. **Organizing Committee**, 2024 Symposium on Sustainable Products and Industrial Management, (SSPIM 2024), Tainan, Taiwan, Mar 21 2023
- c2. **Organizing Committee**, 2023 ISPE **International** Conference on Transdisciplinary Engineering, (TE 2023), Hua Hin Cha Am, Thailand, Jul 10-15, 2023
- c3. **Organizing Committee**, 2023 Symposium on Sustainable Products and Industrial Management, (SSPIM 2023), Taipei, Taiwan, Mar 21 2023
- c4. **Conference Chair**, 2022 Symposium on Sustainable Products and Industrial Management, (SSPIM 2022), Hsinchu, Taiwan, Mar 19 2022
- c5. **Scientific Committee**, 4th **International** Symposium On Engineering Natural Sciences And Architecture (ISENSA 2021), Kocaeli, Turkey May 20-21 2021
- c6. **Technical Committee**, 2020 2nd **International** Conference on Management Science and Industrial Engineering, (MSIE 2020), Osaka, Japan, Apr 7-9 2020



- c7. **Organizing Committee**, 2020 Symposium on Sustainable Products and Industrial Management, (SSPIM 2020), Taipei, Taiwan, Mar 21 2020
- c8. **Organizing Committee**, The 22nd Decision Analysis Symposium (DAS 2020)  
ChungLi, Taiwan, Jan 4 2020
- c9. **Organizing Committee Chair**, 2019 **International** Symposium on Industry3.5 and Intelligent Manufacturing, (Industry 3.5), Hsinchu, Taiwan, Sept 2019
- c10. **Organizing Committee**, 2019 Symposium on Sustainable Products and Industrial Management, (SSPIM 2019), Yunlin, Taiwan, Mar 30 2019
- c11. **Organizing Committee**, 2018 Symposium on Sustainable Products and Industrial Management, (SSPIM 2018), ChungLi, Taiwan, Mar 24 2018
- c12. **Executive Chair**, 2018 **International** Ergonomics Society of Taiwan and Annual Meeting, (EST 2018), Hsinchu, Taiwan, Mar 16-18 2018
- c13. **Organization Committee Chair**, 2018 The **International** Symposium on Semiconductor Manufacturing Intelligence (ISMI 2018), Hsinchu, Taiwan, Feb 7-19, 2018
- c14. **Organizing Committee**, 2017 10th **International** Symposium on Environmentally Conscious Design and Inverse Manufacturing , (Eco Design 2017), Tainan, Taiwan, Nov 29-Dec 1 2017
- c15. **Organizing Committee**, 2017 ISPE **International** Conference on Transdisciplinary Engineering, (TE 2017), Singapore, Jul 10-13, 2017
- c16. **Conference Chair**, 2017 Symposium on Sustainable Products and Industrial Management, (SSPIM 2017), Hsinchu, Taiwan, Mar 18 2017
- c17. **Organizing Committee**, 2016 The **International** Symposium on Semiconductor Manufacturing Intelligence (ISMI 2016), Taipei, Taiwan, Aug 7-10 2016
- c18. **Organizing Committee**, 2015 The **International** Conference on Kansei Engineering: Sensibility and Rationality (ICKE 2015), Taipei, Taiwan, Dec 2015
- c19. **Organizing Committee**, 2015 The **International** Symposium on Semiconductor Manufacturing Intelligence (ISMI 2015), Daejeon, South Korea, Oct 2015
- c20. **Organizing Committee**, 22th **International** Conference on Concurrent Engineering (CE 2015), Delft, Netherlands, Jul 2015
- c21. **Scientific Committee**, 20th **International** Conference on Engineering Design (ICED 2015), Milan, Italy, Jul 2015

- c22. **Organizing Committee**, 2015 **International** Symposium on Sustainable Products and Industrial Management, (ISSPIM 2015), Yunlin, Taiwan, Mar 2015
- c23. **Organizing Chair**, 2014 **International** Design Engineering Workshop (DEWS 2014), Taipei, Taiwan, Nov 2014
- c24. **Organizing Committee**, 21th **International** Conference on Concurrent Engineering (CE 2014), Beijing, China, Sep 2014
- c25. **Organizing Committee**, 2014 The **International** Symposium on Semiconductor Manufacturing Intelligence (ISMI 2014), Taipei, Taiwan, Aug 2014
- c26. **Organizing Committee**, 18<sup>th</sup> **International** Conference on Computer Supported Cooperative Work in Design (CSCWD 2014), Hsinchu, Taiwan, May 2014
- c27. **Organizing Committee**, 2014 Symposium on Sustainable Products and Industrial Management (SSPIM 2014), Taipei, Taiwan, Mar 2014
- c28. **Organizing Committee**, 2012 **International** Conference on Innovative Design and Manufacturing (ICIDM 2012), Taipei, Taiwan, Dec 2012
- c29. **Organizing Committee**, 2012 **International** Senior Project Conference (ISPC 2012), Hsinchu, Taiwan, Mar 2012
- c30. **Organizing Committee**, **International** Interdisciplinary Design Forum, Hsinchu, Taiwan, Sept 2012.

## (5) Conference Session Chair

- Symposium on Sustainable Products and Industrial Management (**SSPIM 2024**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2023**)
- The International Conference of Transdisciplinary Engineering (**TE 2023**)
- Symposium on Sustainable Products and Industrial Management (**SSPIM 2023**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2022**)
- Symposium on Sustainable Products and Industrial Management (**SSPIM 2022**)
- Symposium on Sustainable Products and Industrial Management (**SSPIM 2021**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2020**)

- Symposium on Sustainable Products and Industrial Management (**SSPIM 2020**)
- 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**

- Symposium on Sustainable Products and Industrial Management, (**SSPIM 2024**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2023**)
- The International Conference of Transdisciplinary Engineering (**TE 2023**)
- Symposium on Sustainable Products and Industrial Management, (**SSPIM 2023**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2022**)
- Symposium on Sustainable Products and Industrial Management, (**SSPIM 2022**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2021**)
- Symposium on Sustainable Products and Industrial Management, (**SSPIM 2021**)
- Chinese Institute of Industrial Engineers Conference (**CIIE 2020**)
- Symposium on Sustainable Products and Industrial Management, (**SSPIM 2020**)
- 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. **How to Implement Artificial Intelligence in Sustainability Research**, Dept. of Management Science, National Yang Ming Chiao Tung University, Hsinchu, Taiwan 2023/12/07
- T2. **Artificial Intelligence on Sustainability**, Dept. of Industrial Engineering and Management, National Yang Ming Chiao Tung University, Hsinchu, Taiwan 2023/12/04
- T3. **The Role of Artificial Intelligence in Digital Transformation**, Dept. of Business Administration, Yuanpei University of Medical Technology, Hsinchu, Taiwan, 2023/11/22
- T4. **Introduction to Machine Learning**, Dept. of Management Science, National Yang Ming Chiao Tung University, Hsinchu, Taiwan 2023/10/19
- T5. **Artificial Intelligence in Digital Transformation**, Dept. of Business Administration, Yuanpei University of Medical Technology, Hsinchu, Taiwan, 2023/04/27
- T6. **Convolutional Neural Network**, Dept. of Management Science, National Yang Ming Chiao

Tung University, Hsinchu, Taiwan 2022/11/24

- T7. **Artificial Intelligence in Clinical Decision Support System**, Dept. of Medical Informatics, Chung Shan Medical University, Taichung, Taiwan 2022/11/22
- T8. **Introduction to Machine Learning**, Dept. of Management Science, National Yang Ming Chiao Tung University, Hsinchu, Taiwan 2022/11/03
- T9. **Product Service System: Now and Future**, Dept. of Industrial Engineering and Management, National Yang Ming Chiao Tung University, Hsinchu, Taiwan 2022/10/17
- T10. **Research Method Overview**, Dept. of Industrial Engineering and Enterprise Information, Tunghai University, Taichung, Taiwan 2022/05/19
- T11. **Introduction to Artificial Intelligence**, Dept. of Industrial Engineering and Management, Minhsin University of Science and Technology, Hsinchu, Taiwan, 2021/11/26
- T12. **Product Service System under Circular Economy**, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2021/11/15
- T13. **How to Conduct Research**, Dept. of Industrial Engineering and Management, Minhsin University of Science and Technology, Hsinchu, Taiwan, 2020/11/27
- T14. **System Thinking v.s. Creative Thinking**, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2019/10/08
- T15. **Artificial Intelligence: Past, Now and Future**, Fortune Inc 2018/11/20
- T16. **Decision Making Methods at Product Design Stage**, Dept. of Industrial Engineering and Engineering Management, Yun-Ze University, ChungLi, Taiwan 2018/09/18
- T17. **Integrate Artificial Intelligence and Design Thinking in Education**, Pervasive AI Research Labs (PAIR), National Chiao Tung University, Hsinchu, Taiwan 2018/08/15
- T18. **Product Service System and Circular Economy**, Chung Yuan Christian University, Taoyuan, Taiwan 2017/11/22
- T19. **My Academic Journey**, PhD Seminar in Dept. of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan 2017/02/16
- T20. **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
- T21. **Recent Development in Personalized Service Design**, Dept. of Industrial Engineering and Engineering Management, National Tsing Hua University, Hsinchu, Taiwan 2015/10/7

- T22. **New Generation of IE: Innovation Engineering**, Dept. of Industrial Engineering and Management, Minhsin University of Science and Technology, Hsinchu, Taiwan, 2015/5/20
- T23. **Methods in Product, Service and System Design**, Graduate School of Design, National Yunlin University of Science and Technology, Yunlin, Taiwan, 2015/3/11
- T24. **Integrating Psychological and Physiological Techniques to Measure and Improve Usability**, Dept. of Industrial Engineering, Pusan National University, Busan, Korea 2014/6/27
- T25. **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
- T26. **A Systematic Method for Service Family Design and Optimization**, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2014/3/24
- T27. **Green Modularization Using Mutative Particle Swarm Optimization Method**, Dept. of Mechanical Engineering, Chung Yuan Christian University, Taoyuan, Taiwan 2012/12/26
- T28. **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
- T29. **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
- T30. **There is Always a Better Way from Design Perspectives**, Dept. of Industrial Engineering and Management, National Chiao Tung University, Hsinchu, Taiwan 2011/12/12
- T31. **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