

JIANG Huimin



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Academic Qualification

2010 - 2014 Ph.D.: The Hong Kong Polytechnic University, Industrial and Systems Engineering
2006 - 2009 Master: Nankai University, Systems Engineering
2002 - 2006 BA: Xiangtan University, Automation

Working Experience

2020 - Present Assistant Professor / Macau University of Science and Technology
2018 - 2020 Assistant Professor / Shenzhen University
2018 Research Fellow / The Hong Kong Polytechnic University
2017 - 2018 Postdoctoral Fellow / The Hong Kong Polytechnic University
2013 - 2017 Research Associate / The Hong Kong Polytechnic University

Teaching Activities

Applied statistics; Business statistics; Electronic commerce; Information technology service management

Research Areas

Computational modelling and optimization; Artificial intelligence; New product design and development; Opinion mining; Analysis of dynamic customer preference

Selected Publications

Journal papers

Huimin Jiang, Farzad Sabetzadeh, and Chen Zhang (2024). An intelligent adaptive neuro-fuzzy inference system for modeling time-series customer satisfaction in product design. *Systems*, 12(6), 224.

Huimin Jiang, and Farzad Sabetzadeh (2023). A Multi-Objective Optimization-Algorithm-Based ANFIS Approach for Modeling Dynamic Customer Preferences with Explicit Nonlinearity. *Mathematics*, 11(21), 4559.

Huimin Jiang, Xianhui Wu, Farzad Sabetzadeh, and Kit Yan Chan (2023). Developing explicit customer preference models using fuzzy regression with nonlinear structure. *Complex & Intelligent Systems*, 9, 4899-4909.

Huimin Jiang, Farzad Sabetzadeh, and Kit Yan Chan (2023). Developing Nonlinear Customer Preferences Models for Product Design Using Opinion Mining and Multiobjective PSO-Based ANFIS Approach. *Computational Intelligence and Neuroscience*, 2023, 6880172.

Huimin Jiang, Farzad Sabetzadeh, Zhijun Lin, and Huajun Tang (2022). Nonlinear time series fuzzy regression for developing explainable consumer preferences models based on online comments. *IEEE Transactions on Fuzzy Systems*, 30(10), 4460-4470.

Huimin Jiang, Gaicong Guo, Farzad Sabetzadeh, Kit Yan Chan (2022). Model variational consumer preferences based on online reviews using sentiment analysis and PSO-based DENFIS approaches. *Journal of Intelligent & Fuzzy Systems*, 43(3), 2407-2418.

Huimin Jiang, C.K. Kwong, G.E. Okudan Kremerc, and W.Y. Park (2019). Dynamic modelling of customer preferences for product design using DENFIS and opinion mining. *Advanced Engineering Informatics*, 42, 100969.

Huimin Jiang, C. K. Kwong, C.Y. Chan and K. L. Yung (2019). A Multi-Objective Evolutionary Approach for Fuzzy Regression Analysis. *Expert Systems with Applications*, 130(2019), 225-235.

Huimin Jiang, C.K. Kwong, W.Y. Park and K.M. Yu (2018). A multi-objective PSO approach of mining association rules for affective design based on online customer reviews. *Journal of Engineering Design*, 29(7), 381-403.

Huimin Jiang, C. K. Kwong and K. L. Yung (2017). Predicting future importance of product features based on online customer reviews. *Journal of Mechanical Design*, 139(11), 111413-1-10.

Huimin Jiang, C. K. Kwong and Woo-Yong Park (2017). Probabilistic fuzzy regression approach for preference modeling. *Engineering Applications of Artificial Intelligence*, 64(2017), 286-294.

C. K. Kwong, **Huimin Jiang** and X. G. Luo (2016). AI-based methodology of integrating affective design, engineering, and marketing for defining design specifications of new products. *Engineering Applications of Artificial Intelligence*, 47(2016), 49-60.

Huimin Jiang, C. K. Kwong, K. W. M. Siu and Y. Liu (2015). Rough set and PSO-based ANFIS approaches to modeling customer satisfaction for affective product design. *Advanced Engineering Informatics*, 29(3), 727-738.

Huimin Jiang, C. K. Kwong, Y. Liu and W. H. Ip (2015). A methodology of integrating affective design with defining engineering specifications for product design. *International*

Journal of Production Research, 53(8), 2472-2488.

Huimin Jiang, C. K. Kwong, W. H. Ip and Zengqiang Chen (2013). Chaos-based fuzzy regression approach to modeling customer satisfaction for product design. *IEEE Transactions on Fuzzy Systems*, 21(5), 926-936.

Huimin Jiang, C. K. Kwong, Zengqiang Chen and Y. C. Ysim (2012). Chaos particle swarm optimization and T–S fuzzy modeling approaches to constrained predictive control. *Expert Systems with Applications*, 39(1), 194-201.

H. M. Jiang, C. K. Kwong, W. H. Ip and T. C. Wong. (2012). Modeling customer satisfaction for new product development using a PSO-based ANFIS approach. *Applied Soft Computing*, 12(2), 726-734.

Book chapter

Huimin Jiang, C. K. Kwong, and X. G. Luo (2016). Intelligent Quality Function Deployment. Title of book: Intelligent Decision Making in Quality Management, vol. 97, 327-362. Switzerland: Springer.

Conference papers

Huimin Jiang, and Farzad Sabetzadeh (2022). Defining the Settings of Product Attributes for Product Design Using an Innovative NSGA-II. *2022 International Conference on Frontiers of Artificial Intelligence and Machine Learning (FAIML 2022)*, Hangzhou, 1-8.

Huimin Jiang, Chunsheng Li, and Farzad Sabetzadeh (2021). Modelling Time Series Customer Preference Based on E-commerce Website. *Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021)*, Xi'an, 3222-3227.

Huimin Jiang, Farzad Sabetzadeh, and C.K.Kwong (2021). Dynamic analysis of customer needs using opinion mining and fuzzy time series approaches. *2021 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)*, Luxembourg, 1-6.

Huimin Jiang, Gaicong Guo, and Farzad Sabetzadeh (2021). Opinion mining and DENFIS approaches for modelling variational consumer preferences based on online comments. *Proceedings of 2nd International Conference on Advanced Intelligent Technologies (ICAIT 2021)*, Xi'an. In the book *Advanced Intelligent Technologies for Industry*, 285, 229-238.

Other Professional Activities

Research project

2020-2022 Dynamic modelling of customer preferences and optimization for product design using online customer reviews/Principal

Investigator/Funded by National Natural Science Foundation of
China (NSFC) (71901149)

2023-2024 Modelling dynamic customer preferences using a chaos optimization
algorithm based ANFIS with explicit nonlinearity/Principal
Investigator/Funded by the Faculty Research Grants (FRG) from
Macau University of Science and Technology (FRG-23-045-MSB)