

Felix T. S. CHAN



Academic Qualification

1982-1986	Ph.D.: Imperial College of Science and Technology, University of London, UK; Flexible Manufacturing Systems;
1981-1982	Master: Imperial College of Science and Technology, University of London, UK; Advanced Applied Mechanics;
1979-1981	BS: Brighton University, UK; Mechanical Engineering.

Working Experience

2022-present	Vice Dean and Professor / Macau University of Science and Technology
2009-2022	Associate Professor/Professor/Associate Dean (Research)/ Associate Head / The Hong Kong Polytechnic University
1996-2009	Lecturer/Associate Professor / University of Hong Kong
1988-1996	Lecturer/Senior Lecturer / University of South Australia
1986-1988	Research Fellow / University of Strathclyde

Teaching Activities

Project Management
Operations Research
Production and Operations Management
Supply Chain Management

Research Areas

Optimisation

Scheduling
Decision Sciences
Logistics and Supply Chain Management

Journal Paper Publications in the Past 3 years (1/9/2020 – 31/8/2023)

- (1) Wang, T., Wang, X.P., Ma, R., Li, X., Hu, X., Chan, F.T.S. and Ruan, J.H. (2020), Random Forest-Bayesian Optimization for Product Quality Prediction with Large Scale Dimensions in Process Industrial Cyber-Physical Systems, *IEEE Internet of Things*, Sept., Vol. 7, No. 9, pp. 8641-8653.
- (2) Chan, F.T.S., *Wang, Z.X., Goswami, A., Singhania, A. and Tiwari, M.K. (2020), Multi-objective Particle Swarm Optimisation based Integrated Production Inventory Routing Planning for Efficient Perishable Food Logistics Operations, *International Journal of Production Research*, September, Vol. 58, No. 17, pp. 5155-5174.
- (3) Yuan, X.Y, Shi, J.H., Wang, Y., Hu, T.T, Wang, X.P., Chan, F.T.S. and Ruan, J.H. (2020), An extended Bass Model on consumer quantity of B2C commerce platforms, *Electronic Commerce Research*, September, Vol. 20, No. 3, pp. 609-628 or Production BT10595.32841.92 reW* n

- (7) Qian, Xiaohu, Chan, F.T.S., *Yin, Mingqiang, Zhang, Q., Huang, M. and Fu, X. (2020), A two-stage stochastic winner determination model integrating a hybrid mitigation strategy for transportation service procurement auctions, *Computers and Industrial Engineering*, Nov., Vol. 149. 106703.
- (8) Shang, K., Chan, F.T.S., Karungaru, S., Terada, K., Feng, Z. and Ke, L.-J. (2020), Two-stage robust optimization for the orienteering problem with stochastic weights, *Complexity*, Vol. 2020, Article ID 5649821, pp. 1-15.
- (9) Zhang, C., *Wang, Z.X., Ding, K., Chan, F.T.S. and Ji, W. (2020), An energy-aware Cyber Physical System for energy Big Data analysis and recessive production anomalies detection in discrete manufacturing workshops, *International Journal of Production Research*, December, Vol. 58, No. 23, pp. 7059-7077.
- (10) Huo, J.G., *Zhang, J.H. and Chan, F.T.S. (2020), A fuzzy control system for assembly line balancing with a three-state degradation process in the era of industry 4.0, *International Journal of Production Research*, Dec., Vol. 58, No. 23, pp. 7112-7129.
- (11) Eltoukhy, A.E.E., *Wang, Z.X., Chan, F.T.S., Chung, S.H., Ma, H.M. and Wang, X.P. (2020), Robust aircraft maintenance routing problem using a turn-around time reduction approach, *IEEE SCM-Systems*, Dec., Vol. 50, No. 12, pp. 4919-4932.
- (12) Zhan, S.L., Liu, S., Ignatius, J., Chen, D. and *Chan, F.T.S. (2021), Disaster relief logistics under demand-supply incongruence environment: A sequential approach, *Applied Mathematical Modelling*, January, Vol. 89, part 1, pp.592-609.
- (13) Liu, S., Yu, W., Chan, F.T.S. and Niu, B*. (2021), A variable weight based hybrid approach for multi-attribute group decision making under interval-valued intuitionistic fuzzy sets, *International Journal of Intelligent Systems*, Vol. 36, pp. 1015 1052.
- (14) Ruan, J.H., *Wang, Z.X., Chan, F.T.S., Patnaik, S. and Tiwari, M.K. (2021), A reinforcement learning based algorithm for the aircraft maintenance routing

problem, *Expert Systems With Application*, May, Vol. 169, 114399.

- (15) Li, S.M., Chan, F.T.S., *Tsang, Y.P. and Lam, H.Y. (2021), New Product Idea Selection in the Fuzzy Front End of Innovation: A Fuzzy Best-Worst Method and Group Decision-Making Process, *Mathematics*, Feb., Vol. 9, 337, pp. 1-18.
- (16) Ding, K., Zhang, Y., Chan, F.T.S., Zhang, C., Lv, J., Liu, Q., Leng L. and Fu, H. (2021), A cyber-physical production monitoring service system for energy-aware collaborative production monitoring in a smart shop floor, *Journal of Cleaner Production*, Vol. 297, May, pp. 1-14.
- (17) Zheng, S., Wang, K., Li, Z., Fu, X. and Chan, F.T.S. (2021), Subsidy or Minimum Requirement? Regulation on Port Adaptation Investment under Disaster Ambiguity, *Transportation Research Part B: Methodological*, Vol. 150, August, pp. 457-481.
- (18) Shaban, I.A., Chan, F.T.S., Chung, S.H. and Qu, T. (2021), A mixed wholesale-option-contract to fix the demand imbalance between substitutable air cargo routes: a cooperative game approach, *Expert Systems With Applications*, Vol. 182, November, 2021, 115300.
- (19) Shaban, I.A., Chan, F.T.S. and Chung, S.H. (2021), A novel model to manage air cargo disruptions caused by global catastrophes such as Covid-19, *Journal of Air Transport Management*, Vol. 95, August, 102086.
- (20) Qin, Y., Ng, K.K.H., Hu, H., Chan, F.T.S. and Xiao, S.H. (2021), Post disaster management an airport: a coordination and optimisation of runwnd oph[9 , -5(r)-] TJETQq0.0000

using the DEMATEL approach: A case study, *Measuring Business Excellence*, May, DOI 10.1108/MBE-07-2020-0104.

- (23) Qian, Xiaohu , Yin, Mingqiang , Chan, F.T.S., Zhang, J. and Huang, M. (2021), Sustainable-responsive winner determination for transportation service procurement auctions under accidental disruptions, *Journal of Cleaner Production*. October, Vol. 320, No. 20, 128833.
- (24) *Orisaremi, K. K., Chan, F. T. S., & Chung, N. S. H. (2021). Potential reductions in global gas flaring for determining the optimal sizing of gas-to-wire (GTW) process: An inverse DEA approach. *Journal of Natural Gas Science and Engineering*, September, Vol. 93, [103995].
- (25) Hui, J.H., Yan, Z., Lv, J., Liu, Y., Ding, K. and Chan, F.T.S. (2022), An Investigation on Energy Consumption and part Quality of Stereolithography Apparatus Manufactured Parts, *Rapid Prototyping Journal*, January, Vol. 28, No. 1, pp. 52 67.
- (26) Wu, S.M., *Chan, F.T.S. and Chung, S.H. (2022), A Study on Green Supply Chain Under Capital Constraint Considering Time-Varying Salvage Value, *International Journal of Production Research*, Feb., Vol. 60, No. 1, pp. 8-24.
- (27) Huang, C., *Chan, F.T.S. and Chung, S.H. (2022), Recent contributions on supply chain finance: Towards a theoretic and practical research agenda, *International Journal of Production Research*, Vol. 60, No. 2, pp. 493-516. Published online: 30 Aug 2021. DOI: 10.1080/00207543.2021.1964706.
- (28) *Zhou, F., He, Y., Chan, F.T.S. (2022), Joint Distribution Promotion by Interactive Factor Analysis using an Interpretive Structural Modeling Approach, *SAGE Open*, January-March 2022, pp. 1 16.
- (29) Zhu, B., Zhang, Y., *Ding, K., *Chan, F.T.S., Hui, J. and Zhang, F. (2022), Lot-sizing Decisions for Material Requirements Planning with Hybrid Uncertainties in a Smart Factory, *Advanced Engineering Informatics*, January, Vol. 51, 101527.
- (30) Yang, D., Yin, W., *Liu, S. and *Chan, F.T.S. (2022), Understanding the Effect of Multi-Agent Collaboration on the performance of Logistics Park Projects: Evidence from China, *Sustainability*, March, Vol. 14, Issue 7, 4179.

- (31) Zhou, J., Rao, S., Gao, L., Lu, C., *Zheng, J. and *Chan, F.T.S. (2022), Self-regulated bi-partitioning evolution for many-objective optimization, *Information Sciences*, April, Vol. 589, pp. 827-848.
- (32) Prajapati, D., *Chan, F.T.S., Chelladurai, H., Lakshay, L. and Pratap, S. (2022), An IoT embedded Sustainable Supply Chain management of B2B E-commerce. *Sustainability*. April, Vol. 14, No.9, 5066.
- (33) Zhang, X., *Chan, F.T.S. and *Mahadevan, S. (2022), Explainable Machine Learning in Image Classification Models: An Uncertainty Quantification Perspective, *Knowledge-Based Systems-SI*, May, Vol. 243, 108418.
- (34) Wu, S.M., *Chan, F.T.S. and Chung, S.H. (2022), The impact of buyback support on financing strategies for a capital-constrained supplier, *International Journal of Production Economics*, June, Vol. 248, 108457.
- (35) Irfan, I.A., Sumbal, M.S.U.K., Khurshid, F. and *Chan, F.T.S. (2022), Towards a Resilient Supply Chain Model: Critical Role of Knowledge Management and Dynamic Capabilities, *Industrial Management and Data Systems*, May, Vol. 122, No. 5, pp. 1153-1182.
- (36) *Zhang, X., Chan, F.T.S., Yan, C. and Bose, I. (2022), Towards risk-aware artificial intelligence and machine learning systems: An overview, *Decision Support Systems*, Vol. 159, August, 113800.
- (37) Zheng, S., *Wang, K., Chan, F.T.S., Fu, X. and Li, Z.C. (2022), Subsidy on transport adaptation investment-Modeling decisions under incomplete information and Ambiguity, *Transportation Research Part B: Methodological*, Vol. 162, August, pp. 103-129
- (38) Xu, X., Ji, P. and *Chan, F.T.S. (2022), Loss-procurement decision in a multi-sourcing under e-commerce surroundings, *Industrial Management and Data Systems*, Aug. Vol. 122, No. 8, pp. 1787-1815.
- (39) Liu, S., He, X.J., *Chan, F.T.S. and *Wang, Z. (2022), An Extended Multi-Criteria Group Decision-Making Method with Psychological Factors and Bidirectional Influence Relation for Emergency Medical Supplier Selection, *Expert Systems With Applications*, September, Vol. 202, 117414.

- (40) Wu, S.M., *Chan, F.T.S. and Chung, S.H. (2022), The Influence of Positive and Negative Salvage Values on Supply Chain Financing Strategies, *Annals of Operations Research*, Vol. 315, pp. 535-563.
- (41) Prajapati, D., *Chan, F.T.S., Daultani, Y. and Pratap, S. (2022), Sustainable Vehicle Routing of Agro-Food grains in the E-commerce industry, *International Journal of Production research*, Vol. 60, Issue 24, Dec., pp. 7319-7344.
- (42) Huang, C., *Chan, F.T.S. and Chung, S.H. (2022), The Impact of Payment Term Extensions on the Working Capital Management of an Automotive Supply Chain, *International Journal of Production research*, Vol. 60, Issue 24, Dec., pp. 7360-7383.
- (43) Kushwaha, S., *Chan, F.T.S., Chakraborty, K. and Pratap, S. (2022), Collection and Remanufacturing Channels Selection under a Product Take-Back Regulation with Remanufacturing Target, *International Journal of Production research*, Vol. 60, Issue 24, Dec., pp. 7384-7410.
- (44) Goswami, M., Daultani, Y., *Chan, F.T.S. and Pratap, S. (2022), Assessing the Impact of Supplier Benchmarking in Manufacturing Value Chains: An Intelligent Decision Support System for Original Equipment Manufacturers, *International Journal of Production research*, Vol. 60, Issue 24, Dec., pp. 7411-7435.
- (45) Eltoukhy, A.E.E., *Wang, Z.X., Shaban, I.A. and *Chan, F.T.S. (2022), Coordinating aircraft maintenance routing and integrated maintenance staffing

- (47) Orisaremi, K.K., *Chan, F.T.S., Chung, S.H. and Fu, X. (2022), A sustainable lean production framework based on inverse DEA for mitigating gas flaring,

- (56) Zhang, J.H., *Chan, F.T.S. and *Xu, X. (2023), Data-driven analysis on optimal purchasing decisions in combined procurement, *International Journal of Production research*, July, Vol. 61, No. 13, pp. 4265-4278.
- (57) Ng, K.K.H., *Chan, F.T.S., Qin, Y. and Xu, G. (2023), The Impacts of longitudinal separation, efficiency loss and cruise speed adjustment in robust terminal traffic flow problem under uncertainty, *International Journal of Transportation Research*, Vol. 15, No. 6, pp. 584-607.
- (58) Zhou, T., Zhang, L., Han, T., Droguett, E.L., Mosleh, A. and *Chan, F.T.S. (2023), An Uncertainty-Informed Framework for Trustworthy Fault Diagnosis in Safety-Critical Applications, *Reliability Engineering and System Safety*, January, Vol. 229, 108865.
- (59) Irfan, I., Au, A.K.M., Khurshid, F. and *Chan, F.T.S. (2023), Learning by
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to-C, *Supply Chain Management: An International Journal*, April, Vol. 28,
N0. 4, pp. 641-665.
- (60) Kehinde, T.O., *Chan, F.T.S. and Chung, S.H. (2023), Scientometric review and analysis of recent approaches to stock market forecasting: Two decades survey, *Expert Systems With Applications*, March, Vol. 213, Part C, 119299.
- (61) Goswami, M., *Chan, F.T.S., Ramkumar, M., Daultani, Y., Pratap, S. and Chhabra, A. (2023), A joint modeling and exploratory framework for intra-firm collaboration within construction and mining equipment industry, *Industrial Management and Data Systems*, February, Vol. 123, No. 2, pp. 451-491.
- (62) Orisaremi, K.K., *Chan, F.T.S., Chung, S.H. and Fu, X. (2023), Maximizing flare gas power generation for the design of an optimal energy mix, *Journal of Cleaner Production*, March, Vol. 391, 136164.
- (63) Xu, X., Ji, P. and *Chan, F.T.S. ", *, - &
a dual-sourcing procurement, *Industrial Management and Data Systems*, March,
Vol. 123, No. 3, pp. 1052-1072.
- (64) Zhang, Y., Zhang, D., *Zhang, X., Qiu, L., Chan, F.T.S., Wang, Z. and Zhang, S. (2023), Guided Probabilistic Reinforcement Learning for Sampling-Efficient

Other Professional Activities

Chief Editor/Senior Associate Editor/Associate Editor for international journals:

- (1) Editor-in-Chief, Transportation Management.
- (2) Senior Associate Editor, OPSEARCH.
- (3) Associate Editor, International Journal of Modelling in Operations Management.
- (4) Associate Editor, Modern Supply Chain Research and Applications.
- (5) Associate Editor, Operations and Supply Chain Management: An International Journal.

Guest Editor for international journals including:

International Journal of Production Research; Mathematics; Journal of Manufacturing Technology Management; International Journal of Business Performance Management; International Journal of Intelligent Systems Technologies and Applications; International Journal of Computer Applications in Technology; International Journal of Value Chain Management; Mathematical Problems in Engineering; Proceedings of Institute of Mechanical Engineering- Part O: Journal of Risk and Reliability.

Member of Editorial Board of international journals including:

International Journal of Production Research; Supply Chain Management: An International Journal; Journal of Intelligent Manufacturing; Journal of Manufacturing Technology Management; International Journal of Computer Integrated Manufacturing; Robotics and Computer Integrated Manufacturing; International Journal of Advanced Manufacturing Technology; International Journal of Business Performance Management; International Journal of Computer Applications in Technology; International Journal of Agile Systems and Management; International Journal of Services, Economics and Management; International Journal of Supply Chain and Operations Resilience; Advances in Industrial Engineering and Management.

Keynote Speech/ Chairman/Member of International Conferences:

- Prof. Chan has been frequently invited to give keynote speech in various international conferences, about 20 times.
- He is also very active in organizing international conferences and taking key roles including Conference Chairman; Program Chairman, about 16 times.
- He has been involved in organizing conferences as a member, more than 60 times.

Invited Reviewer for Research Funding Bodies:

- (1) Member of the Engineering Panel (Joint Research Schemes) of the Research Grants Council (RGC), Hong Kong (1 March 2018 – present).
- (2) Member of Assessment Panel of NSFC/RGC Joint Research Scheme (1 March 2018 – present).
- (3) Member (Engineering) on the Assessment Panel for Competitive Research Funding Schemes for the Local Self-financing Degree Sector of the Research Grants Council (RGC), Hong Kong (14/3/2017 – present).
- (4) Member of Assessment Panel of ITF Entrepreneurs Fund.

Honors/Awards**Top 2% Scientists**

Based on the recent compilations from a research group of Stanford about the impact of scientists, Prof. Felix Chan is categorized as **Top 2% Scientists** for THREE consecutive years (2020-2022).

OPERATIONS RESEARCH

Based on the recent compilation (2020) from a research group of Stanford about the impact of scientists (top 2% listed). The work is published in <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918>.

Prof. Felix Chan is categorized in the field of Operations Research, ranked 10 out of 23455 researchers worldwide, i.e. Top 0.04% worldwide.

Furthermore, b

Prof. Felix Chan ranked among the Top 25 based on total publication score:

- Top 25 SCM authors of Asia by publication score over the 15-year period of 2001-2015. (Prof. Felix Chan Ranks **No. 16**)
- Top 25 SCM authors of Asia by total degree centrality over the 15-year period of 2001-2015. (Prof. Felix Chan Ranks **No. 5**)
- Top 25 SCM authors of Asia by Bonacich power centrality over the 15-year period of 2001-2015. (Prof. Felix Chan Ranks **No. 6**)

***<https://doi.org/10.1016/j.ijpe.2018.07.005>

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