TA-CHUNG CHU (朱大中)

Department of Industrial Management and Information Office 201-1 & 886-6-2533131 ext.4120 Gouthern Taiwan University of Science and Technology Technology Technology No. 1, Nan-Tai Street, Yungkang Dist., Tainan City 71005, Taiwan

Education

- * PhD, Department of Industrial Engineering , University of Texas at Arlington, Texas, U.S.A., 1993/6
- * Master, Department of Industrial Engineering, University of Texas at Arlington, Texas, U.S.A., 1990/1

Area of Specialty

- * Operational Research
- * Fuzzy Multiple Criteria Decision Making

Academic Experience

- * Professor, Department of Industrial Management and Information, Southern Taiwan University of Science and Technology, 2016/8 to present
- * Chairperson, Department of Management and Information Technology, Southern Taiwan University of Science and Technology, 2010/8 to 2016/7
- * Professor, Department of Industrial Management, Southern Taiwan University of Science and Technology, 2002/2 to 2016/7
- * Associate Professor, Department of Industrial Management, Southern Taiwan University of Science and Technology, 1993/8 to 2002/1

Publications

Journal Papers

- 1. T.C. Chu and H.T. Le (2020), An extension to fuzzy ELECTRE, Soft Computing 24 (10), 7541-7555. (SCI)
- 2. T.C. Chu and H.T. Nguyen (2019), Ranking alternatives with relative maximizing and minimizing sets in a fuzzy MCDM model, International Journal of Fuzzy Systems 21(4), 1170-1186. (SCI)
- 3. T.C. Chu and W.C. Yeh (2019), Fuzzy multiple criteria decision-making via an inverse functionbased total utility approach, Soft Computing 22(22), 7423-7433. (SCI)
- W.C. Yeh and T.C. Chu (2018), A novel multi-distribution multi-state flow network and its reliability optimization problem, Reliability Engineering and System Safety, Vol. 176, 209-217. (SCI)
- 5. M. Wang, W.C. Yeh, T.C. Chu, X. Zhang, C.L. Huang and J. Yang (2018), Solving Multi-Objective Fuzzy Optimization in Wireless Smart Sensor Networks under Uncertainty Using a Hybrid of IFR and SSO Algorithm, Energies, 11, No.9, 1-23. (SCI)
- T.-C Chu and W.-C Hsu (2016), Evaluating Distribution Centers via a Maximizing Set and Minimizing Set Based Fuzzy MCDM Approach, Journal of Business and Economics, Vol.7, No.1, 73-85.
- 7. T.-C Chu (2015), Solving fuzzy MCDM by subtracting benefit criteria from cost criteria, Universal Journal of Management, Vol.3, No.8, 337-345. (EconLit)
- 8. T.-C Chu and P. Charnsethikul (2013), Ordering Alternatives under Fuzzy Multiple Criteria Decision Making via a Fuzzy Number Dominance Based Ranking Approach, International Journal of Fuzzy Systems, Vol.15, No.3, 263-273. (SCI)
- 9. T.-C. Chu (2013), A Mean of Removals based Fuzzy MCDM Method for the Evaluation and

Selection of Suppliers, International Journal of Management & Enterprise Development, Vol.12, No.4-6, 349-362. (Scopus)

- 10. T.-C. Chu and H.C. Pham (2012), Evaluating e-Commerce Strategies by a Fuzzy TOPSIS Method, International Journal of Commerce and Strategy, Vol.4, No.3, 173-188.
- 11. T.-C. Chu and R. Varma (2012), Evaluating Suppliers via a Multiple Levels Multiple Criteria Decision Making Method under Uncertain Environment, Computers & Industrial Engineering, Vol.62, No.2, 653-660. (SCI)
- 12. T.-C. Chu and D.J.D. Calubad (2012), Evaluating Real Estates Using a Fuzzy MCDM Approach, International Journal of Business and Systems Research, Vol.6, No.4, 395-412.

Conference Papers

- 1. H.T. Nguyen and T.C. Chu (2019), Measuring Personal Perception in a Diversity Workgroup by a MCDM Method under Uncertain Environment, Proceedings of the 15th International Conference on Knowledge-Based Economy and Global Management, pp.477-481, Nov. 7-8, STUST, Tainan, Taiwan.
- 2. T.B.H. Nghiem and T.C. Chu (2019), Selecting Sustainable Products by a ELECTRE Method, Proceedings of the 15th International Conference on Knowledge-Based Economy and Global Management, pp.469-475, Nov. 7-8, STUST, Tainan, Taiwan.
- 3. T.H.P. Le and T.C. Chu (2019), Determining Criteria Weights of Agricultural Insurance Packages by Fuzzy AHP, Proceedings of the 15th International Conference on Knowledge-Based Economy and Global Management, pp.461-467, Nov. 7-8, STUST, Tainan, Taiwan.
- 4. T.C. Chu and Y.T. Lin (2018), Evaluating Countries of New Southbound Policy for Investment by a ELECTRE Method, Proceedings of the 13th Conference on Theory and Practice of Business Internationalization, June 1, Tainan, Taiwan.
- 5. T.C. Chu and W.C. Yeh (2018), Evaluating Weights for Supplier Selection Using an Analytic Hierarchy Process Method, Proceedings of the 2018 Conference of Industrial Management and Information Applications Innovation, pp. 38-44, Nov. 28, STUST, Tainan, Taiwan.
- 6. T.C. Chu, Q.P. Tran and W.C. Yeh (2018), Application of a Fuzzy MCDM Method to the Selection of Low Cost Carriers, Proceedings of the 14th International Conference on Knowledge-Based Economy and Global Management, pp.447-456, Nov. 8-9, STUST, Tainan, Taiwan.
- T.C. Chu, H.D. Ma and W.C. Yeh (2018), Evaluating Performance of Banks Using a Fuzzy TOPSIS Method, Proceedings of the 14th International Conference on Knowledge-Based Economy and Global Management, pp.417-427, Nov. 8-9, STUST, Tainan, Taiwan.
- T.-C. Chu and E. Kusumaningtyas (2017), A Total Relative Value to Rank Alternatives under Fuzzy Multiple Criteria Decision Making Model, The 2017 International Conference in Management Sciences and Decision Making, pp.20, May 13, Tamkang University, New Taipei City, Taiwan.
- 9. T.-C. Chu, C.-H. Chen, Y.-T. Lin and H.T. Nguyen (2016), A Relative Maximizing Set and Minimizing Set Method under Fuzzy Multiple Criteria Decision Making to Selecting Distribution Centers, Proceedings of 2016 Industrial Management and Information Application Innovations Conference, pp.14-20, November 21, Tainan, Taiwan.
- 10. C.-H. Chen and T.-C. Chu (2016), The Determination of Product and Process Parameters Based on Specified Process Capability Index Cpmk Value, Proceedings of 2016 Industrial Management and Information Application Innovations Conference, pp.121-127, November 21, Tainan, Taiwan.
- T.-C Chu (2016), An Inverse Function Based Maximizing Set and Minimizing Set Method to Rank Alternatives under Fuzzy Multiple Criteria Decision Making, 28th European Conference on Operational Research, pp.MA-11, 8, Poznan, Poland.
- 12. T.-C. Chu and E. Kusumaningtyas (2015), Ranking Alternatives by a Relative Maximizing Set and Minimizing Set Method under Fuzzy Multiple Criteria Decision Making Environment, Proceedings of The 3rd Asia-Pacific Conference on Management and Business, pp.126-134, June 29-July 2, Seoul, Korea.
- 13. T.-C Chu (2014), Using a Maximizing Set Method to Rank Alternatives under Fuzzy MCDM,

Proceedings of 20th Conference of the International Federation of Operational Research Societies, pp.HA-38, July 13-18, Barcelona, Spain.

- 14. T.-C. Chu and E. Kusumaningtyas (2014), Ranking Alternatives under Fuzzy Multiple Criteria Environment through a Maximizing Set based Utility Method, Proceedings of 2014 Industrial Management and Information Application Innovations Conference, pp.1-7, November 21, Tainan, Taiwan.
- T.-C. Chu and E.A. Cámara Terrazas (2013), Ordering Alternatives under FWA via an Inverse Function based Ranking Approach, Proceedings of the 9th International Conference on Knowledge-Based Economy and Global Management, pp.489-495, Nov. 7-8, STUST, Tainan, Taiwan.
- 16. T.-C. Chu and E. Kusumaningtyas (2013), Solving Fuzzy MCDM Using a Utility Approach, Proceedings of 2013 Conference of Industrial Management and Information Applications Innovation, pp. 1-7, Nov. 1, STUST, Tainan, Taiwan.
- 17. T.-C. Chu and P.A.H. Nguyen (2013), A Centroid based Fuzzy Weighted Average for Ranking Alternatives, Proceedings of The 4th International Asia Conference on Industrial Engineering and Management Innovation, pp.456-460, July 18, NTU, Taipei, Taiwan.
- T.-C. Chu and S.-H. Wu (2013), A Centroid Ranking Approach Based Fuzzy MCDM Model, Proceedings of the International Conference on Industrial and Information Engineering (ICIIE 2013), pp.1340-1346, July 15-16, Stockholm, Sweden.

Dissertation

• * Some problems in Fuzzy Decision Making

Books Professional Certifications Professional Experience

Grants

- Minstry of Science and Technology, No: MOST 108-2410-H-218-011, "Model Development and Application on Combining Analytical Hierarchy Process and Fuzzy Multiple Criteria Decision Making," 2019/8-2020/7
- Ministry of Science and Technology, No: MOST 105-2410-H-218-002, "Using Inverse Function Based Maximizing Set and Minimizing Set to Solve Fuzzy ELECTRE Based Fuzzy TOPSIS Model," 2016/8 - 2017/7
- 3. Ministry of Science and Technology, No: MOST 103-2410-H-218-008-MY2, "Defuzzifying Fuzzy Numbers by a Relative Total Utility Value and Its Application," 2014/8 2016/7.

Entrusted Practical Projects

- 1. T.-C. Chu, Sheh Ta Dies Co., Ltd., 2018/12-2019/7. #32001070452
- 2. T.-C. Chu, Kai Hung Machinery Co., Ltd., 2018/6-2019/7, #32001070130-GP
- 3. T.-C. Chu, AEON Motor Co., Ltd., 2013/12-2014/6, #311020452
- 4. T.-C. Chu, Genie Co., Ltd. , 2013/10-2014/1, #311020110

Honors and Awards Patents