

Wen-Hung Tseng (曾文宏)

Department of Industrial Management and
Information
Southern Taiwan University of Science and
Technology
No. 1, Nan-Tai Street, Yungkang Dist., Tainan City
71005, Taiwan

Office D201-3
☎ 886-6-2533131 ext.4122
💻
✉ tsengwh@stust.edu.tw



Education

- Ph.D., Department of Industrial Engineering, Auburn University, USA, 1994/08
- Master, Department of Industrial Engineering, Auburn University, USA, 1990/08

Area of Specialty

- Production Scheduling, System Simulation

Academic Experience

- Associate Professor, Department of Management and Information Technology, Southern Taiwan University of Science and Technology, 1994/08 to present

Publications

Journal Papers

1. Tseng, Wen-Hung, C.-L. Chyu and K.-C. Lin (2019), "A study of line balancing problem – a case study of PSA line," *Management Information Computing*, 8 (S2), 73 – 82.
2. Tseng, Wen-Hung, C.-L. Chyu and K.-C. Lin (2019), "Risk management of aircraft avionics equipment fault maintenance – a case study of air force Tainan airport," *Management Information Computing*, 8 (S1), 114 – 125.
3. Lin, K.-C., Wen-Hung Tseng, K.-N. Deng, and H.-S. Hsu (2019), "Solving possibilistic minimum spanning tree problems by using expected value models," *Management Information Computing*, 8 (S2), 37 – 50.
4. Lin, K.-C., Wen-Hung Tseng, H.-Y. Chang, and J.-L. Wang (2019), "Green suppliers selection using data envelopment analysis and clustering analysis," *Management Information Computing*, 8 (S1), 146 – 155.
5. Wen-Hung Tseng, C.-L. Chyu, S.-L. Chen, and K.-C. Lin (2018), "A Simulation Study of CONWIP Supply Chain System," *Management Information Computing*, 7 (S2), 188 – 199.
6. Wen-Hung Tseng, S.-L. Chen, C.-L. Chyu, K.-C. Lin, and S.-W. Shen (2018), "Risk Management of Fighter Radio Fault Maintenance -- A Case Study of an Air Force Airport," *Management Information Computing*, 7 (S1), 204 – 216.
7. Lin, K.-C., Wen-Hung Tseng, and C.-H. Lin (2018), "A Comparative Study on Similarity Measures for Fuzzy Sets," *Management Information Computing*, 7 (S2), 107 – 116.
8. Lin, K.-C., Wen-Hung Tseng, C.-F. Chen, and C.-C. Tsai (2018), "A Hybrid Genetic Algorithm for the Multi-Compartments Vehicle routing problem," *Management Information Computing*, 7 (S1), 126 – 136.
9. Tseng, Wen-Hung, C.-L. Chyu, K.-C. Lin, and Y.-C. Hung (2017), "Risk management of army artillery firing training – a case study of southern field artillery," *Management Information Computing*, 6 (S4), 99 – 113.
10. Lin, K.-C., Wen-Hung Tseng, and W.-L. Chien (2017), "On buffer sizing techniques in critical chain scheduling," *Management Information Computing*, 6 (S3), 164 – 175.
11. Lin, K.-C., Wen-Hung Tseng, C.-L. Chyu, and H.-S. Hsu (2017), "Solving possibilistic minimum spanning tree problems by using chance-constrained models," *Management Information Computing*, 6 (S2), 82 – 95
12. Lin, K.-C., Wen-Hung Tseng, C.-F. Chen, and C.-C. Tsai (2017), "A cluster-first route-second

- heuristic for the multi-compartments vehicle routing problem," *Management Information Computing*, 6 (S1), 149 – 160.
13. Tseng, Wen-Hung, Kao-Cheng Lin, Chin-Lu Chyu, Shu-Ling Chen, and I-Cheng Lin (2016), "A simulation study of raising hit rate for LED chip foundry," *Management Information Computing*, 5 (S4), 46 - 58.
 14. Tseng, Wen-Hung, Shu-Ling Chen, Kao-Cheng Lin, Chin-Lu Chyu, and Jain-Jhih Wang (2016), "A simulation study of multiloop CONWIP pull production systems with bottleneck," *Management Information Computing*, 5 (S4), 32 - 45.
 15. Lin, Kao-Cheng, Shu-Ling Chen, Wen-Hung Tseng, Gou-Ting Huang and Yi-Han Su (2016), "Convex sum and fuzzy decision tree analysis," *Management Information Computing*, 5 (S4), 197 - 210.
 16. Lin, Kao-Cheng, Shu-Ling Chen, Wen-Hung Tseng and Hey-Sin Hsu (2016), "On the single most vital arc of possibilistic minimum spanning tree problems," *Management Information Computing*, 5 (S4), 157 - 170.
 17. Tseng, Wen-Hung, Chin-Lu Chiu, Jeng-Jung Fang, Jia-Hua Jang and Jian-Ting Lin (2008), "A Simulation study of CONWIP and Kanban Systems in a Multiproduct Environment", *Journal of Business Administration*, vol. 4, no. 1, pp. 55-62.

Conference Papers

1. Lin, K.-C., Wen-Hung Tseng, H.-Y. Chang, and J.-L. Wang (2019), "Suppliers selection using data envelopment analysis and clustering analysis," *Proceedings of 2019 Conference on Management Thinking and Practice & Applied Science*, Taipei, Taiwan, R.O.C. (In Chinese).
2. Lin, K.-C., Wen-Hung Tseng, K.-N. Deng, and H.-S. Hsu (2019), "Solving possibilistic minimum spanning tree problems using expected value models," *Proceedings of 2019 Conference on Corporate Culture & Business Development*, Kaohsiung, Taiwan, R.O.C. (In Chinese).
3. Tseng, Wen-Hung, K.-C. Lin and Y.-C. Kao (2019), "Risk management of military aircraft engine maintenance — a case study of Pingtung airport," *Proceedings of 2019 Conference on Corporate Culture & Business Development*, Kaohsiung, Taiwan, R.O.C. (In Chinese).
4. Tseng, Wen-Hung, K.-C. Lin and T.-Y. Hsiao (2019), "Risk management of light weapon transportation — a case study of Tainan airport," *Proceedings of 2019 Conference on Corporate Culture & Business Development*, Kaohsiung, Taiwan, R.O.C. (In Chinese).
5. Tseng, Wen-Hung, K.-C. Lin and S.-Y. Chen (2019), "A case study of line balancing — PSA line," *Proceedings of 2019 Conference on Corporate Culture & Business Development*, Kaohsiung, Taiwan, R.O.C. (In Chinese).
6. Tseng, Wen-Hung, K.-C. Lin and F.-M. Shu (2019), "Risk management of aircraft avionics equipment fault maintenance — a case study of air force Tainan airport," *Proceedings of 2019 Conference on Corporate Culture & Business Development*, Kaohsiung, Taiwan, R.O.C. (In Chinese).
7. Tseng, Wen-Hung, K.-C. Lin and Z.-Y. Wu (2018), "A Simulation Study of CONWIP Supply Chain System," *Proceedings of 2018 Conference on Management Thinking and Practice & Applied Science*, Taipei, Taiwan, R.O.C. (In Chinese)
8. Tseng, Wen-Hung, K.-C. Lin and C.-C. Tsai (2018), "Risk Management of Fighting Aircraft Landing Gear Maintenance -- A Case Study of IDF Fighter in Tainan," *Proceedings of 2018 Conference on Management Thinking and Practice & Applied Science*, Taipei, Taiwan, R.O.C. (In Chinese)
9. Tseng, Wen-Hung, K.-C. Lin and S.-W. Shen (2018), "Fighter Radio Fault Maintenance Risk Management -- A Case Study of an Air Force Airport," *Proceedings of 2018 Conference on Management Thinking and Practice & Applied Science*, Taipei, Taiwan, R.O.C. (In Chinese)
10. Tseng, Wen-Hung, K.-C. Lin and B.-C. Li (2018), "Research on Risk Management of Air Force Ammunition — A Case Study of Tainan Airport," *Proceedings of 2018 Conference on Innovation Management and Information Practice*, Miaoli County, Taiwan, R.O.C. (In Chinese).
11. Lin, Kao-Cheng, Wen-Hung Tseng, and C.-H. Lin (2018), "On the Properties of Similarity

- Measures for Fuzzy Sets," Proceedings of 2018 Conference on Innovation Management and Information Practice, Miaoli County, Taiwan, R.O.C. (In Chinese).
12. Lin, Kao-Cheng, Wen-Hung Tseng, C.-F. Chen, and C.-C. Tsai (2018), "A Hybrid Genetic Algorithm for the Multi-Compartments Vehicle routing problem," Proceedings of 2018 Conference on Innovation Management and Information Practice, Miaoli County, Taiwan, R.O.C. (In Chinese).
 13. Tseng, Wen-Hung, C.-L. Chyu, K.-C. Lin, and Y.-C. Hung (2017), "Risk management of army artillery firing training - a case study of southern field artillery," Proceedings of 2017 Conference on Corporate Culture & Business Development, Kaohsiung, Taiwan, R.O.C. (In Chinese)
 14. Lin, Kao-Cheng, Wen-Hung Tseng, and W.-L. Chien (2017), "On buffer sizing techniques in critical chain scheduling," Proceedings of 2017 Conference on Management Thinking and Practice & Applied Science, Taipei, Taiwan, R.O.C. (In Chinese)
 15. Lin, Kao-Cheng, W.-H. Tseng, C.-F. Chen, and C.-C. Tsai (2017), "A heuristic algorithm for the multi-compartments vehicle routing problem," Proceedings of 2017 Conference on Management Thinking and Practice & Applied Science, Taipei, Taiwan, R.O.C. (In Chinese)
 16. Lin, Kao-Cheng, W.-H. Tseng, C.-L. Chyu, and H.-S. Hsu (2017), "Solving possibilistic minimum spanning tree problems by using chance-constrained models," Proceedings of 2017 Conference on Innovation Management and Information Practice, Miaoli County, Taiwan, R.O.C. (In Chinese)
 17. Tseng, Wen-Hung, K.-C. Lin, and C.-Y. Huang (2017), "Risk management of fighting aircraft canopy maintenance - a case study of IDF fighter," Proceedings of 2017 Conference on Innovation Management and Information Practice, Miaoli County, Taiwan, R.O.C. (In Chinese)
 18. Tseng, Wen-Hung, K.-C. Lin, and C.-H. Huang (2017), "Risk management for military helicopter maintenance - a case study of army helicopter phased maintenance inspection," Proceedings of 2017 Conference on Innovation Management and Information Practice, Miaoli County, Taiwan, R.O.C. (In Chinese)
 19. Lin, Kao-Cheng, Wen-Hung Tseng, Y.-H. Su, and G.-T. Huang (2016), "On the model and analysis of fuzzy decision tree," Proceedings of the 13th Conference of Service Management & Innovation, Tainan, Taiwan, R.O.C. (In Chinese)
 20. Lin, Kao-Cheng, Wen-Hung Tseng, Y.-H. Su, and G.-T. Huang (2016), "A study on fuzzy decision tree," Proceedings of 2016 Symposium on Global Business Operation and Management, Kaohsiung, Taiwan, R.O.C. (In Chinese)
 21. Tseng, Wen-Hung, Kao-Cheng Lin, Jeng-Jung Fang, Shu-Ling Chen, and Chien-Chih Wang (2015), "Risk Management of Crashed Aircraft Rescue Drill — A Case Study of Tainan Airport," In Proceedings of the 2015 Conference on Technology and Practice for Business and Management Teachers & the Seventh South District Masters of Management Symposium, Tainan City, Taiwan, May 29 2015.
 22. Tseng, Wen-Hung, Shu-Ling Chen, Kao-Cheng Lin, Jeng-Jung Fang, and Chun-Hsien Yu (2015), "Risk Management of Military Aircraft Armaments Suspend — A Case Study of Tainan Airport," In Proceedings of the 2015 Conference on Technology and Practice for Business and Management Teachers & the Seventh South District Masters of Management Symposium, Tainan City, Taiwan.
 23. Tseng, Wen-Hung, Jeng-Jung Fang, Kao-Cheng Lin, Shu-Ling Chen, and Yi-Chin Lin (2015), "A Simulation Study of Pull Production Systems," In Proceedings of the 2015 Conference on Technology and Practice for Business and Management Teachers & the Seventh South District Masters of Management Symposium, Tainan City, Taiwan.
 24. Tseng, Wen-Hung, Shu-Ling Chen, WuRong Shih, Kao-Cheng Lin, and Kai-Chien Yang (2014), "Application of Project Management on the Military Vehicle Maintenance Planning," In Proceedings of the 2014 Industrial Management and Application Conference (IMIAI 2014), Tainan City, Taiwan.
 25. Chen, Shu-Ling, Wen-Ren Tsai, Wen-Hung Tseng, and Yu-Chien Chang (2014), "A Study on

Motorcycle Purchasing Behavior—The Case of Southern Taiwan University of Science and Technology," In Proceedings of the 2014 Industrial Management and Application Conference (IMIAI 2014), Tainan City, Taiwan.

26. Tseng, Wen-Hung, Kao-Cheng Lin, Jeng-Jung Fang, Shu-Ling Chen, and Chun-Hsien Li (2014), "Application of Project Management on the Military Aircraft Maintenance Planning," In Proceedings of the 2014 Symposium on Global Business Operation and Management, Kaohsiung, Taiwan.
27. Tseng, Wen-Hung, Wurong Shih, Shu-Ling Chen, Ching-Lu Chiu, and Kun-Dai Kao (2014), "Risk Management of Aircraft Engine Maintenance—A Case Study of Tainan Airport," In Proceedings of the 2014 Symposium on Global Business Operation and Management, Kaohsiung, Taiwan.
28. Lin, Kao-Cheng, Wen-Hung Tseng and C.-H. Lin (2014), "A comparative study on similarity measures," Proceedings of 2014 Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 225 - 231. (In Chinese)
29. Lin, Kao-Cheng, Wen-Hung Tseng and H.-S. Hsu (2014), "Finding a single most vital arc in the possibilistic minimum spanning tree problem when the user's decision-making model is unknown," Proceedings of 2014 Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 460 - 466. (In Chinese)
30. Lin, Kao-Cheng, Wen-Hung Tseng and H.-S. Hsu (2014), "Finding a single most vital arc in the expected value model for the possibilistic minimum spanning tree problem," Proceedings of 2014 Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 453 - 459.
31. Tseng, Wen-Hung, Wurong Shih, Shu-Ling Chen, Kao-Cheng Lin, Chung-Cheng Huang, and Wen-Chuan Tsai (2013), "A Simulation Study of Multi-CONWIP Production Systems," In Proceedings of the 2013 Symposium on Practical Applications of E-Business, Tainan City, Taiwan.
32. Tseng, Wen-Hung, Sheng-I Gan, Sheng-Feng Chen, Ching-Kuei Sun and He-Mu Hsieh (2013), "Aircraft Maintenance Management Guideline," 2013 International Conference on Business Expertise & Ethics, Overseas Chinese University, Taichung, Taiwan, R.O.C.
33. Tseng, Wen-Hung, Ching-Kuei Sun, He-Mu Hsieh, Sheng-Feng Chen and Sheng-I Gan (2013), "Air forces flight safety risk management," 2013 the 2nd Conference on Knowledge management and innovation, Chung Chou University of Science and Technology, Taiwan, R.O.C.
34. Tseng, Wen-Hung, Sheng-Feng Chen, He-Mu Hsieh, Ching-Kuei Sun and Sheng-I Gan (2013), "The Study of Air Force Maintenance Risk Management—A Case Study of Tainan Airport," 2013 the 2nd Conference on Knowledge management and innovation, Chung Chou University of Science and Technology, Taiwan, R.O.C.
35. Lin, Kao-Cheng, Wen-Hung Tseng, Hsin-Yu Chang and Chen-Li Wang (2013), "Selecting green suppliers using possibilistic data envelopment analysis and clustering analysis," Proceedings of 2013 Conference on Industrial Management and Information Applications Innovation, Tainan, Taiwan, R.O.C., 154 - 164.
36. Lin, Kao-Cheng, Kuo-Ting Huang and Wen-Hung Tseng (2013), "A fuzzy weights normalization method with minimal information loss," Proceedings of 2013 Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 700 - 707.
37. Tseng, Wen-Hung, He-Mu Hsieh, Sheng-Feng Chen, Ching-Kuei Sun and Sheng-I Gan (2012), "National Army Flight Safety Risk Management," 2012 The 8th Conference on Theories and Practices in International Business, Chang Jung Christian University, Tainan, Taiwan, R.O.C.
38. Tseng, Wen-Hung, He-Mu Hsieh, Sheng-Feng Chen, Ching-Kuei Sun and Sheng-I Gan (2012), "National Army Flight Safety Risk Management," 2012 The 8th Conference on Theories and Practices in International Business, Chang Jung Christian University, Tainan, Taiwan, R.O.C.
39. Tseng, Wen-Hung, and Fu-Yuan Cheng (2011), "A Simulation Study of Pull Production Systems," Taiwan Conference on Business and Information, National Taipei University, Taipei, Taiwan, R.O.C.
40. Tseng, Wen-Hung, and Sheng-Ying Hsieh (2011), "The Study on Application of 5S Management Practices Combined with QC STORY on Solving Process Adverse Rate," 2011 Taiwan Business

and Management Conference, Far-Eastern University, Tainan, Taiwan, R.O.C.

41. Tseng, Wen-Hung, Jia-Hua Jang, Ching-Lu Chiou and Jeng-Jung Fang (2008), "The Factor Analysis of Parents Choosing Cram Schools-A Case Study of Cram Schools for Junior High Schools in Tainan County", 2008 Taiwan Business and Management Conference, Far-Eastern University, Tainan, Taiwan, R.O.C.
42. Tseng, Wen-Hung, Ching-Lu Chiou, Jeng-Jung Fang, Jia-Hua Jang and Jian-Ting Lin (2008), "A Simulation study of CONWIP and Kanban Systems in a Multiproduct Environment", 2008 Taiwan Business and Management Conference, Far-Eastern University, Tainan, Taiwan, R.O.C.
43. Tseng, Wen-Hung and Runtai Chen (2006) "DBR-based Scheduling for a Dynamic Production System with Random Processing Times," 2006 Management Academic Conference, Taiwan, R.O.C.
44. Tseng, Wen-Hung and Chihwen Tsai (2005) "Dispatching Rules for Single Machine Scheduling with Earliness and Tardiness Costs," The Third Conference on Managerial Thought and Practice, Taiwan, R.O.C.
45. Tseng, Wen-Hung and Yuling Lai (2005) "Genetic Algorithm for Single Machine Scheduling Problem with Due Date Constraints," The Third Conference on Managerial Thought and Practice, Taiwan, R.O.C.
46. Tseng, Wen-Hung and Chihhui Chang (2004) "DBR-based Scheduling for Dual Capacity Constrained Resources," The 5th Conference on Electronic Enterprise Managerial Theory and Practice, Taiwan, R.O.C.
47. Tseng, Wen-Hung and Pingwei Wu (2004) "Scheduling Of PCB Factory Building By Genetic Algorithms," Intelligent Knowledge Economy Conference 2008 and the Second Conference on Evolutionary Computation Applications, Taiwan, R.O.C.
48. Tseng, Wen-Hung and Juichun Hung (2003) "An Object-oriented Simulation in Automated Machine Manufacturing," E-business Managerial Trend Conference, Taiwan, R.O.C., 199-208.
49. Tseng, Wen-Hung and Yihsin Chen (2003) "Scheduling for Capacity Constrained Resources under Condition of Reentry," The 8th Conference on Taiwan Enterprise Case Study, Taiwan, R.O.C.
50. Tseng, Wen-Hung (2002) "Single Machine Scheduling to Minimize Total Tardiness with the Minimum Number of Tardy Jobs," The 17th Technological and Vocational Education Conference of R.O.C.
51. Tseng, Wen-Hung (1998) "Graphical analysis of neighborhood search," The 13th Technological and Vocational Education Conference of R.O.C.
52. Tseng, Wen-Hung (1996) "A Simulated Annealing Algorithm for Scheduling Problems in Plastic Injection Molding Plants," The 11th Technological and Vocational Education Conference of R.O.C.
53. Tseng, Wen-Hung and Robert L. Bulfin (1993) "Scheduling a Plastic Injection Molding Plant," TIMS/ORSA Joint National Meeting.

Dissertation

- Tseng, Wen-Hung (1994) "A Simulated Annealing Algorithm for Scheduling Problems in Plastic Injection Molding Plants," Ph.D. Dissertation, Department of Industrial Engineering, Auburn University, USA.

Books

- Engineering Economy (2014), coauthored with Shu-Ling Chen, Shu-Ling Fan and Jui-Min Hsiao., ISBN 978-986-341-120-8.

Professional Certifications

1. Microsoft Office Master 2010, Microsoft, 2015/07.
2. Microsoft Office Specialist: Microsoft Office Excel 2010 Expert, Microsoft, 2015/07.
3. Microsoft Office Specialist: Microsoft Office Word 2010 Expert, Microsoft, 2015/07.

4. Microsoft Office Specialist: Microsoft Office Access 2010, Microsoft, 2014/07.
5. Microsoft Office Specialist: Microsoft Office PowerPoint 2010, Microsoft, 2014/07.

Professional Experience

Grants

- National Science Council, No: NSC-87-2213-E-218-008, "Solving Scheduling Problems in Plastic Injection Molding Plants," 1997/8 - 1998/7.

Entrusted Practical Projects

1. Shu-Ling Chen and Wen-Hung Tseng (2016). Translation of Engineering Economy Textbook, 2016/07/01 - 2016/11/30, No. 311050318.
2. Wen-Hung Tseng and Shu-Ling Chen, (2016). Translation of Engineering Economy Textbook, 2016/07/01 - 2016/10/31, No. 311050317.
3. Sen-Chou Chen and Wen-Hung Tseng, (2016), Construction of the Inventory Management System, 2016/06/01 - 2016/09/30, No.311050187.
4. Ta-Chung Chu and Wen-Hung Tseng, (2012), Advanced Production Management for Graduate Program, 2012/09/01 - 2013/02/28, No.311010586.
5. Wen-Hung Tseng, Small and Medium Enterprise administration, Ministry of Economic Affairs, "The Process Improvement and Facility Planning Project for Xuejia Woodware Co., LTD.," 2010/7-2010/12.
6. Wen-Hung Tseng, Corning Display Technologies Taiwan, "The Training course for ProModel Simulation Software," 2010/4-2010/6.

Honors and Awards

Patents