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Education

- Ph.D., Department of Industrial Engineering, National Tsing Hua University, Taiwan, R.O.C., 1993/05
- M.S., Department of Industrial Engineering, National Tsing Hua University, Taiwan, R.O.C., 1986/05

Area of Specialty

Fuzzy Sets and Systems, Combinatorial Optimization, Mathematical Programming

Academic Experience

- Associate Professor, Department of Industrial Management and Information, Southern Taiwan University of Science and Technology, 2016/08 to present
- Associate Professor, Department of Management and Information Technology, Southern Taiwan University of Science and Technology, 2002/02 to 2016/07
- Associate Professor, Department of Industrial Management, Southern Taiwan University of Science and Technology, 1994/08 to 2002/01

Publications

Journal Papers:

1. **Lin, K.-C.**, S.-L. Chen, W.-H. Tseng, G.-T. Huang and Y.-H. Su (2016), "Convex sum and fuzzy decision tree analysis," *Management Information Computing*, 5 (S4), 197 – 210.
2. **Lin, K.-C.**, S.-L. Chen, W.-H. Tseng, and H.-S. Hsu (2016), "On the single most vital arc of possibilistic minimum spanning tree problems," *Management Information Computing*, 5 (S4), 157 – 170.
3. Tseng, W.-H., **K.-C. Lin**, C.-L. Chyu, S.-L. Chen, and I.-C. Lin (2016), "A simulation study of raising hit rate for LED chip foundry," *Management Information Computing*, 5 (S4), 46 – 58.
4. Tseng, W.-H., S.-L. Chen, **K.-C. Lin**, C.-L. Chyu, and J.-J. Wang (2016), "A simulation study of multiloop CONWIP pull production systems with bottleneck," *Management Information Computing*, 5 (S4), 32 – 45.
5. Chern, M.-S. and **K.-C. Lin** (1995), "Interdicting the activities of a linear program – a parametric analysis," *European Journal of Operational Research*, 86 (3), 580 – 591. **[SCI]**

6. **Lin, K.-C.** and M.-S. Chern (1994), "The single most vital arc in the most economical path problem – a parametric analysis," *Computers & Operations Research*, 21 (3), 353 – 358. [**SCI**]
7. **Lin, K.-C.** and M.-S. Chern (1993), "The most vital edges in the minimum spanning tree problem," *Information Processing Letters*, 45 (1), 25 – 31. [**SCI**]
8. **Lin, K.-C.** and M.-S. Chern (1993), "The fuzzy shortest path problem and its most vital arcs," *Fuzzy Sets and Systems*, 58 (3), 343 – 353. [**SCI**]
9. **Lin, K.-C.** and M.-S. Chern (1993), "Increasing the minimum value of a linear program – a parametric analysis," *Journal of Management*, 10 (2), 245 – 259. [**TSSCI**]
10. Chern, M.-S., **K.-C. Lin** and C.-C. Chern (1991), "A heuristic algorithm for the deterministic multi-product inventory system with capacity constraint," *Journal of the Operations Research Society of Japan*, 34 (1), 1 – 12. [**SCI**]

Conference Papers:

1. **Lin, K.-C.** and C.-C. Lai (2016), "Using fuzzy mathematical programming for project portfolio selection," Proceedings of the 17th Conference of Sustainable development management, Pingtung, Taiwan, R.O.C. (In Chinese)
2. **Lin, K.-C.**, W.-H. 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)
3. **Lin, K.-C.**, W.-H. 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)
4. **Lin, K.-C.**, C.-C. Tsai, C.-F. Chen, and C.-H. Chiu (2014), "Designing a vehicle routes planning system for an animal feed plant," Proceedings of the Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 174 – 180. (In Chinese)
5. **Lin, K.-C.**, W.-H. Tseng and C.-H. Lin (2014), "A comparative study on similarity measures," Proceedings of the Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 225 – 231. (In Chinese)
6. **Lin, K.-C.**, W.-H. 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 the Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 460 – 466. (In Chinese)
7. **Lin, K.-C.**, W.-H. 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 the Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 453 – 459. (In Chinese)
8. **Lin, K.-C.**, G.-T. Huang and W.-H. Tseng (2013), "A fuzzy weights normalization method with minimal information loss," Proceedings of the Conference on Industrial Management and Information Application Innovation, Tainan, Taiwan, R.O.C., 700 – 707. (In Chinese)
9. **Lin, K.-C.**, W.-H. Tseng, S.-Y. Chang, and T.-L. Wang (2013), "Selecting green suppliers using possibilistic data envelopment analysis and clustering analysis," Proceedings of the Conference on Industrial Management and Information Applications Innovation, Tainan, Taiwan, R.O.C., 154 – 164. (In Chinese)
10. **Lin, K.-C.** and others (2013), "Selecting suppliers using data envelopment analysis,"

- Proceedings of the 3rd Conference on Management and Business, Tainan, Taiwan, R.O.C. (In Chinese)
11. **Lin, K.-C.** and others (2013), "Selecting green suppliers using data envelopment analysis," Proceedings of the 5rd Conference on Management and Decision-Making, Chia-yi City, Taiwan, R.O.C. (In Chinese)
 12. **Lin, K.-C.**, G.-T. Huang and C.-C. Lai (2012), "Finding fuzzy weights in fuzzy analytic hierarchy process by using logarithm least squares method," Proceedings of the CIIE Annual Conference, Taiwan, R.O.C. (In Chinese)
 13. **Lin, K.-C.**, C.-C. Lai and G.-T. Huang (2012), "Finding fuzzy weights in fuzzy analytic hierarchy process by using goal programming method," Proceedings of the 20th National Conference on Fuzzy Theory and Its Applications, 82 – 87. (In Chinese)
 14. **Lin, K.-C.** and C.-C. Lai (2010), "Using AHP/ANP and fuzzy mathematical programming for project portfolio selection," Proceedings of the CIIE Annual Conference, Taiwan, R.O.C. (In Chinese)
 15. **Lin, K.-C.**, H.-R. Liao and H.-H. Jheng (2010), "Theoretical and experimental comparisons on AHP judgment matrix analysis methods," Proceedings of the CIIE Annual Conference, Taiwan, R.O.C. (In Chinese)
 16. **Lin, K.-C.**, H.-H. Jheng and C.-C. Lai (2009), "Analyzing AHP judgment matrices using fuzzy relations and statistical regression," Proceedings of the 17th National Conference on Fuzzy Theory and Its Applications, 443 – 450. (In Chinese)
 17. **Lin, K.-C.** and H.-S. Hsu (2009), "Possibilistic chance-constrained models for the minimum spanning tree problem with fuzzy edge-weights," Proceedings of the 17th National Conference on Fuzzy Theory and Its Applications, 1187 – 1194. (In Chinese)
 18. **Lin, K.-C.**, K.-N. Deng and H.-S. Hsu (2008), "Expected value models for the minimum spanning tree problem with fuzzy edge-weights," Proceedings of the 16th National Conference on Fuzzy Theory and Its Applications, 1 – 6. (In Chinese)
 19. **Lin, K.-C.** and J.-Y. Lee (2007), "Time analysis of project networks with fuzzy durations in the setting of possibility theory," Proceedings of APIEMS & CIIE 2007 Conference, Kaohsiung, Taiwan, R.O.C., Paper No: 352.
 20. **Lin, K.-C.**, C.-F. Chen and C.-C. Tsai (2006), "Solving multi-compartments vehicle routing problems by genetic search," Proceedings of the 4th Conference on Industrial Management and Innovation, 151 – 160. (In Chinese)
 21. **Lin, K.-C.** (2006), "Finding a single most augmenting arc in a planar flow network with ill-known arc capacities," Proceedings of the 14th National Conference on Fuzzy Theory and Its Applications.
 22. **Lin, K.-C.** and K.-N. Deng (2006), "Finding the possibilistic distribution of the minimum spanning tree in a network with fuzzy weights," Proceedings of the 14th National Conference on Fuzzy Theory and Its Applications. (In Chinese)
 23. **Lin, K.-C.** and Y.-T. Yung (2006), "Using the network simplex method in the time analysis of a project with fuzzy durations," Proceedings of the 14th National Conference on Fuzzy Theory and Its Applications. (In Chinese)
 24. **Lin, K.-C.**, C.-C. Tsai, C.-F. Chen, and C.-H. Chiu (2006), "Designing a multi-compartments vehicle routes planning system," Proceedings of the 21st Annual Conference of the Chinese Institute of Transportation. (In Chinese)
 25. **Lin, K.-C.**, C.-F. Chen and C.-C. Tsai (2006), "A cluster-first route-second heuristic for the multi-compartments vehicle routing problem," Proceedings of the CIIE Annual Conference, Taiwan, R.O.C. (In Chinese)

26. **Lin, K.-C.**, C.-F. Chen and C.-C. Tsai (2006), "A hybrid genetic algorithm for the multi-compartments vehicle routing problem," Proceedings of the CIIE Annual Conference, Taiwan, R.O.C. (In Chinese)
27. **Lin, K.-C.** and C.-H. Lin (2004), "A comparative study on similarity measures (I)," Proceedings of the 5th Conference on the Theory and Practices of E-Businesses Management. (In Chinese)
28. **Lin, K.-C.** and C.-H. Lin (2004), "A comparative study on similarity measures (II)," Proceedings of the 5th Conference on the Theory and Practices of E-Businesses Management. (In Chinese)
29. **Lin, K.-C.** and J.-Y. Lee (2004), "Activity criticality of project networks with fuzzy durations," Proceedings of the CIIE Annual Conference, Taiwan, R.O.C. (In Chinese)
30. **Lin, K.-C.** (2001), "Solving parametric linear programs by ε -augmenting approach," Proceedings of the 16th National Conference on Technology and Vocational Education, Industrial Engineering, 269 – 278.
31. **Lin, K.-C.** (1998), "Finding a single most augmenting arc in a fuzzy flow network," Proceedings of the 13th National Conference on Technology and Vocational Education, Industry VI, 201 – 210.
32. **Lin, K.-C.** and M.-S. Chern (1993), "Fuzzy network problems and the most vital arcs," Proceedings of CIIE National Conference, Taiwan, R.O.C., 366 – 372.
33. **Lin, K.-C.** and M.-S. Chern (1992), "Finding the most vital arc in the shortest path problem with fuzzy arc lengths," Proceedings of the Tenth International Conference on Multiple Criteria Decision Making, Vol. 2, 1 – 10.
34. **Lin, K.-C.** and M.-S. Chern (1992), "Interdicting the activities of a linear program – a parametric analysis," Proceedings of CIIE National Conference, Taiwan, R.O.C., 52 – 57.
35. **Lin, K.-C.** and M.-S. Chern (1991), "The single most vital arc in the most economical path problem – a parametric analysis," Proceedings of CIIE National Conference, Taiwan, R.O.C., 61 – 68.
36. Chen, C.-C., M.-S. Chern and **K.-C. Lin** (1987), "Capacitated multiple products inventory system," Proceedings of CIIE National Conference, Taiwan, R.O.C., 347 – 361.

Books

1. Chen, C.-C., M.-S. Chern and **K.-C. Lin** (1988), "Capacitated multiple products inventory system," *Recent Development in Production Research* (Editor: Anil Mital), 194 – 199, Elsevier Science Publishers B.V., Amsterdam.
2. **Lin, K.-C.** and M.-S. Chern (1993), "Finding the most vital arc in the shortest path problem with fuzzy arc lengths," *Multiple Criteria Decision Making: Expand and Enrich the Domains of Thinking and Application* (Editors: G.-H. Tzeng, H.-F. Wang, U.-P. Wen and P.L. Yu), 159 – 168, Springer-Verlag, Berlin.

Doctorate Dissertation

Lin, K.-C. (1993), "*Most Vital Edges and Interdiction Problems of Network Systems*," Ph.D. Dissertation, Department of Industrial Engineering, National Tsing-Hua University, Hsinchu, Taiwan, R.O.C.

Master Thesis

Lin, K.-C. (1986), "*Capacitated Multiple Products Inventory Systems*," M.S. Thesis, Department of Industrial Engineering, National Tsing-Hua University, Hsinchu, Taiwan, R.O.C.

Entrusted Practical Researches

1. **Lin, K.-C.** and C.-L. Chyu (2016), "Process and Quality Improvement for Lumber Core Plywood Production," Contract No: 311050301. (Hsuehchia Wood Co., Ltd., 2016/07/01~2016/12/31)
2. Chyu, C.-L. and **K.-C. Lin** (2013), "The Order Quantities Decision with Uncertain Demand," Contract No: 311020458. (Da-Li Company, 2013/12/10~2014/4/10)
3. **Lin, K.-C.** (2011), "Constructing the Supplier Selection System and the Inventory Control System," Contract No: 311000110. (Feng-Chan Company, 2011/12/01~2012/05/31)

Grants

1. National Science Council, No: NSC-94-2213-E-218-011, "Models and Algorithms for Project Networks with Fuzzy Activity Durations," 2005/8 – 2006/7.
2. "Designing a Multi-Compartments Vehicle Routes Planning System," funded by the Uni-President Enterprise Cooperation, 2004/8 – 2005/7.
3. National Science Council, No: NSC-93-2213-E-218-029, "A Comparative Study on Similarity Measures for Fuzzy Sets," 2004/8 – 2005/7.
4. National Science Council, No: NSC-92-2213-E-218-015, "A Study on Dual Flow Network Models with Applications (II)," 2003/8 – 2004/7.
5. National Science Council, No: NSC-91-2213-E-218-028, "A Study on Dual Flow Network Models with Applications (I)," 2002/8 – 2003/7.
6. National Science Council, No: NSC-90-2218-E-218-007, "Network Programming in a Fuzzy Environment," 2001/8 – 2002/7.
7. National Science Council, No: NSC-90-2213-E-218-031, "A Study on Fuzzy Linear Programming and its Applications," 2000/8 – 2001/7.
8. National Science Council, No: NSC-89-2213-E-218-009, "A Study on the Stock-Cutting Problem and its Applications," 1999/8 – 2000/7.
9. National Science Council, No: NSC-86-2213-E-218-002, "Solving Bilinear Programs with Network Structure," 1996/8 – 1997/7.
10. National Science Council, No: NSC-85-2213-E-218-002, "Solving Large-Scale Parametric Linear Programs by ε -Augmenting Approach," 1995/8 – 1996/7.

Honors and Awards

- *Superior Teaching Award of College of Business, 2010, Southern Taiwan University.*
- *Superior Teaching Award of College of Business, 2009, Southern Taiwan University.*
- *Excellent Project Award, 2006, Uni-President Enterprise Cooperation.*
- *First Kind Research Award, 1996, National Science Council.*
- *First Kind Research Award, 1995, National Science Council.*