

# I-Lin Wang

Department of Industrial & Information Management  
National Cheng Kung University (NCKU)  
No.1 University Rd., Tainan, 704  
Taiwan

Tel: (+886) 6-2757575-53123  
Fax: (+886) 6-2362162  
Email: [ilinwang@mail.ncku.edu.tw](mailto:ilinwang@mail.ncku.edu.tw)  
URL: <http://ilin.iim.ncku.edu.tw/>

---

## EDUCATION

2003 Ph.D. in Industrial Engineering, ISyE, GA Tech, U.S.A.  
1996 M.S. in Operations Research, OR Center, M.I.T., U.S.A.  
1991 B.S. in Aeronautical & Astronautical Engineering, NCKU, Taiwan

## EMPLOYMENT

2014.8 - Professor, Department of Industrial & Information Management, NCKU, Taiwan  
2007.8- 2014.7 Associate Professor, Department of Industrial & Information Management, NCKU, Taiwan  
2003.8- 2007.7 Assistant Professor, Department of Industrial & Information Management, NCKU, Taiwan  
1996.4- 1997.3 Foreign Researcher, Fujitsu Research Lab. L.T.D., Kawasaki, Japan

## RESEARCH INTERESTS

Network Optimization, Integer Programming, Algorithm Design, Scheduling, Logistics, Shared Mobility

## PUBLICATIONS

### A. Journal Papers

- 20 papers published in 2005-2020 on the following journals and topics:  
*Applied Mathematics and Computation* (2011): bioinformatics, haplotype inference  
*Asia-Pacific Journal of Operational Research* (2008): new shortest path algorithm  
*Computers & Industrial Engineering* (2011): asset management optimization, pavement project  
*Flexible Services and Manufacturing* (2013): semiconductor manufacturing, scheduling  
*IEEE Transactions on Electronics Packaging Manufacturing* (2006): reverse logistics, network design  
*International Journal of Integrated Supply Management* (2008): motorcycle courier system, city logistics  
*International Journal of Operations Research* (2018, 2018, 2020): multicommodity network flow; UAV routing  
*International Journal of Reliability and Quality Performance* (2009): manufacturing network optimization  
*Journal of Industrial and Management Optimization* (2006, 2009, 2016): manufacturing network optimization  
*Journal of Intelligent Manufacturing* (2012): semiconductor manufacturing, scheduling  
*Mathematical Biosciences* (2011): bioinformatics, haplotype inference  
*Numerical Algebra, Control, and Optimization* (2021): shared mobility, bicycle sharing, repositioning  
*Operations Research* (2013): shared mobility, bicycle sharing, repositioning  
*Pacific Journal of Optimization* (2014): manufacturing network optimization  
*Transportation Research Part C* (2016): electric vehicle logistics system  
*Transportation Science* (2005): new shortest path algorithms

### B. Conference Papers

- 29 International Conference papers outside T.W. (APIEMS, APMC, C.I.E., INFORMS, MLOG, TLOG)
- 30 International Conference papers inside T.W. (APIEMS, Automation, EAWIE, ICLS, ICTPA, I.P.O.)
- 43 Domestic Conference papers inside T.W. (CIIE, C.I.T., ORSTW)

## HONORS AND AWARDS

### A. Personal Awards

- 7 awards in INFORMS Railway Application Section Problem Solving Competition:  
1<sup>st</sup> Place (2017); 2<sup>nd</sup> Place (2014, 2016, 2019); 3<sup>rd</sup> Place (2011); Honorable Mentions (2010, 2013)
- Lu Feng-Chang Medal in Management, 2013, by the Chinese Management Association
- Young Researcher Innovated Research Competition, 2013, the honorable mentions (top 3 in Social Science), by the Taiwan Comprehensive University System
- 3 Best Research Project Poster Awards by National Science Council (NSC/MOST) in 2009, 2016, 2018,

### B. Thesis or Paper Awards with Students

- 22 Thesis or Paper Awards by the Chinese Industrial Engineering Society
- 16 Thesis or Paper Awards by the Operations Research Society of Taiwan
- 19 Thesis or Paper Awards by other organizations

## PROJECT GRANTS

### A. Grants by the National Science Council (NSC/MOST) of Taiwan & NCKU

- 2003-04: NTD 362,800, Multiple Pairs Shortest Paths Algorithms, N.S.C. 92-2213-E-006-094
- 2004-05: NTD 509,900, New column generation and partitioning methods for multicommodity network flow problems, N.S.C. 93-2213-E-006-096
- 2005-06: NTD 150,000, New nonnegative least squares primal-dual methods for network optimization problems
- 2006-07: NTD 651,000, On solving the minimum distribution cost flow and maximum distribution flow problems, N.S.C. 95-2221-E-006-268
- 2007-08: NTD 590,000, Haplotyping population by optimization theorems and algorithms (I), N.S.C. 96-2221-E-006-015
- 2008-09: NTD 585,000, Haplotyping population by optimization theorems and algorithms (II), N.S.C. 97-2221-E-006-173
- 2009-11: NTD 1,279,000, A Study on Reliability for Distribution Networks with Multi-state Capacitated Arcs, N.S.C. 98-2410-H-006-115-MY2
- 2011-13: NTD 984,000, A Study on the Network Design and Bike Repositioning for Urban Bike Sharing Systems, NSC 100-2410-H-006-006-MY2
- 2013-16: NTD 2,124,000, Design and Repositioning Strategies for the Public Bike and E-scooter Sharing, NSC 102-2221-E-006-141-MY3
- 2016-19: NTD 2,326,000, On scheduling multi-mode restoration tasks for networks of broken nodes or arcs in humanitarian logistics, MOST 105-2221-E-006-182-MY3
- 2019-20: NTD 807,000, Optimal Coordinated Deployment and Route Planning for Searching and Patrolling by Multiple Unmanned Vehicles (I), MOST 108-2221-E-006-058
- 2020-21: NTD 883,000, Optimal Coordinated Deployment and Route Planning for Searching and Patrolling by Multiple Unmanned Vehicles (II), MOST 109-2221-E-006-150

### B. Grants by Other Organizations

- 2008: NTD 500,000, Flexible Scheduling Algorithms for Semiconductor Manufacturing, by TSMC
- 2012: NTD 500,000, Strategic Design of Bicycle Sharing Systems in Tainan City, by Tainan City Government
- 2015: NTD 500,000, Chicken Slaughterhouse Demand Forecasting and Inventory Planning, by DaChan Co.
- 2016: NTD 310,000, Evaluation of the Introduction of Industry 4.0 to the Textile Industry, by Everest Textile
- 2016: NTD 200,000, Design of Mathematical Optimization Models for Demand Response, by ITRI
- 2017-19: NTD 1,200,000, Strategic Design of E-car Sharing Systems, by Kaison Green Energy Technology Co.
- 2019-20: NTD 2,500,000, Optimal W.I.P. Allocation and Scheduling for Smart Manufacturing, by Innolux Co.
- 2020-21: NTD 1,000,000, Smart Energy Storage System Management, by Far Eas Ton Co.

## COURSES TAUGHT

### Undergraduate courses

- Data Structure, Discrete Mathematics, Computer Programming and Application

### Graduate courses

- Supply Chain Management, Network Optimization, Optimization Models and Applications

## PROFESSIONAL SERVICES

**Area Editor** *Computers and Industrial Engineering*, 2013 - now

**Associate Editor** *Journal of Industrial and Production Engineering*, 2011 - now

**Associate Editor** *International Journal of Operations Research*, 2012 - now

## PROFESSIONAL AFFILIATIONS

*INFORMS* (Institute for Operations Research and the Management Sciences)

*CIIE* (Chinese Institute of Industrial Engineering)

*ORSTW* (Operations Research Society of Taiwan)

*C.I.T.* (Chinese Institute of Transportation)

*C.M.A.* (Chinese Management Association)