

Ding-Chau Wang (王鼎超)

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

Office T1232-1
☎ 886-6-2533131 ext. 8482
💻
✉ dcwang@stust.edu.tw



Education

- PhD, Department of Computer Science and Information Engineering, National Cheng Kung University, 2003/7

Area of Specialty

- Database System
- Internet of Things
- Mobile Computing
- Wireless Sensor Network

Academic Experience

- Professor, Department of Information Management, Southern Taiwan University of Science and Technology, 2021/2 to present
- Associate Professor, Department of Information Management, Southern Taiwan University of Science and Technology, 2012/2 to 2021/1
- Assistant Professor, Department of Information Management, Southern Taiwan University of Science and Technology, 2003/8 to 2012/1
- Adjunct Instructor, Department of Information Management, Southern Taiwan University of Science and Technology, 2002/2 to 2003/7

Journal Papers

1. Ding-Chau Wang, Yu-Lin Jeng, Chih-Ming Chiang, Yong-Ming Huang, 2021, April, "Exploring the cohesion of classroom community from the perspectives of social presence and social capital, " Journal of Computing in Higher Education, online, pp.1-22.
2. Ding-Chau Wang, Ray Chen, Hamid Al-Hamadi, 2021, April, "Reliability of Autonomous Internet of Things Systems With Intrusion Detection Attack-Defense Game Design, " IEEE Transactions on Reliability, Vol.70, No.1, pp.188-199.[SCI]
3. 王鼎超、李坪鑫、蔡芷菁、陳朝鈞，2021，三月，"基於深度學習圖像識別技術之智慧型危險駕駛分析平台開發，" 南臺學報，第六卷，第一期，pp.1-16.
4. Hamid Al-Hamadi, Ing-Ray Chen, Ding-Chau Wang, Meshal Almarshan, 2020, September, "Attack and Defense Strategies for Intrusion Detection in Autonomous Distributed IoT Systems, " IEEE Access, Vol.8, pp.168994-169009.[SCI]
5. Chun-Hao Chen, Bing-Yang Chiang, Tzung-Pei Hong, Ding-Chau Wang, Jerry Chun-Wei Lin, Munkhjargal Gankhuyag, 2019, December, "A fuzzy GGA-based approach to speed up the evolutionary process for diverse group stock portfolio optimization," Journal of Intelligent & Fuzzy Systems, Vol.37, No.6, pp.7465-7479.[SCIE]
6. Mao-Yuan Pai, Ding-Chau Wang, Tz-Heng Hsu, Guan-Yu Lin, Chao-Chun Chen, 2019, November, "On Ontology-Based Tourist Knowledge Representation and Recommendation," Applied Sciences, Vol.9, Issue.23, Article 5097, pp.1-27. [SCI]
7. Jia Guo, Ing-Ray Chen, Ding-Chau Wang, Jeffrey J.P. Tsai, and Hamid Al-Hamadi, 2019, April, "Trust-based IoT Cloud Participatory Sensing of Air Quality," Wireless Personal Communications, vol. 105, no.4, pp.1461-1474.[SCI]
8. Ing-Ray Chen, Jia Guo, Ding-Chau Wang, Jeffrey J.p. Tsai, Hamid Al-Hamadi, IIsun you, 2019,

- March, "Trust-based Service Management for Mobile Cloud IoT Systems," IEEE Transactions on Network and Service Management, vol. 16, no 1, pp 246-263. [SCI]
9. Ji Wang, Ing-Ray Chen, Jeffrey J.P. Tsai, Ding-Chau Wang, 2018, January, "Trust-based mechanism design for cooperative spectrum sensing in cognitive radio networks," Computer Communications, vol. 116, pp 90-100. [SCI]
 10. Y. Wang, I.R. Chen, and D.C. Wang, 2015, February, "A Survey of Mobile Cloud Computing Applications: Perspectives and Challenges," Wireless Personal Communications, vol.80, no.4, pp.1607-1623. [SCI]
 11. I.R. Chen, Y. Li, R. Mitchell and D.C Wang, 2014, December, "Scalable and Efficient Dual-Region based Mobility Management for Ad Hoc Networks," Ad Hoc Networks, vol.23, pp.52-64. [SCI]
 12. D.C. Wang, W. He, and I.R. Chen*, 2013, March, "Smart Routers for Cross-Layer Integrated Mobility and Service Management in Mobile IPv6 Systems," Wireless Personal Communications, vol.69, no.1, pp.449-469. [SCI]
 13. Ding-Chau Wang, Chao-Chun Chen, and Chien-Han Liao, 2013, March, "Communication-efficient Tracking Model Selection Methods for Multi-Model based Object Tracking Sensor Networks," International Journal of Innovative Computing, Information and Control, Vol.9, No.3, pp.1337-1355. [SCI]
 14. Ding-Chau Wang*, Chao-Chun Chen, 2012, May, " Design and Analysis of Location Control for Mobile Agent in Mobile Information Systems," International Journal of Innovative Computing, Information and Control, Vol.8, No.5(A), pp.3029-3047. [SCI]
 15. Ing-Ray Chen, Ding-Chau Wang, 2010, September, "Regional Registration-Based Mobile Multicast Service Management in Mobile IP Networks," Wireless Personal Communications, vol.54, no.4, pp.635-649. [SCI]
 16. Ing-Ray Chen, Yating Wang, Ding-Chau Wang, 2010, August, "Reliability of Wireless Sensors with Code Attestation for Intrusion Detection," Information Processing Letters, vol.110, no.17, pp.778-786. [SCI]
 17. Chao-Chun Chen, Ding-Chau Wang, Yong-Ming Huang, 2010, July, "VBLM: High-Accuracy Localization Method with Verification Mechanism for Unstable-Signal Sensor Networks," Journal of Information Science and Engineering, vol.26, no.4, pp.1459-1478. [SCI]
 18. Jin-Hee Cho, Ing-Ray Chen, Ding-Chau Wang, 2008, May, "Performance optimization of region-based group key management in mobile ad hoc networks," Performance Evaluation, vol. 65, no.5, pp. 319-344. [SCI]

Conference Papers

1. Pin-Xin Lee, Ding-Chau Wang, Zhi-Jing Tsai, Chao-Chun Chen, "Develop a Hybrid Human Face Recognition System Based on a Dual Deep Neural Network by Interactive Correction Training, " online, 2021 Asian Conference on Intelligent Information and Database Systems, April, 2021.
2. Cheng-Ju Kuo, Ding-Chau Wang, Tzu-Ting Chen, Yung-Chien Chou, Mao-Yuan Pai, Gwo-Jiun Horng, Min-Hsiung Hung, Yu-Chuan Lin, Tz-Heng Hsu, Chao-Chun Chen, "Improving Defect Inspection Quality of Deep-Learning Network in Dense Beans by Using Hough Circle Transform for Coffee Industry, " Bari, 2019 IEEE International Conference on Systems, Man and Cybernetics, Italy, October, 2019.
3. Cheng-Ju Kuo, Chao-Chun Chen, Tzu-Ting Chen, ZhiJing Tsai, Min-Hsiung Hung, Yu-Chuan Lin, Yi-Chung Chen, Ding-Chau Wang, Gwo-Jiun Horng, Wei-Tsung Su, " A Labor-Efficient GAN-based Model Generation Scheme for Deep-Learning Defect Inspection among Dense Beans in Coffee Industry, " Vancouver, 2019 IEEE 15th International Conference on Automation Science and Engineering, Canada, Aug, 2019.
4. Chen-Ju Kuo, Ding-Chau Wang, Pin-Xin Lee, Tzu-Ting Chen, Gwo-Jiun Horng, Tz-Heng Hsu, Zhi-Jing Tsai, Mao-Yuan Pai, Gen-Ming Guo, Yu-Chuan Lin, Min-Hsiung Hung, and Chao-Chun Chen, "Quad-Partitioning-Based Robotic Arm Guidance Based on Image Data Processing with Single Inexpensive Camera for Precisely Picking Bean Defects in Coffee Industry, " Yogyakarta, 2019 Asian Conference on Intelligent Information and Database Systems, Indonesia, April, 2019.

5. Chun-Hao Chen, Bing-Yang Chiang, Tzung-Pei Hong, Ding-Chau Wang, Jerry Chun-Wei Lin, "An Approach for Diverse Group Stock Portfolio Optimization Using the Fuzzy Grouping Genetic Algorithm," Dong Hoi, 2018 Asian Conference on Intelligent Information and Database Systems, Vietnam, March, 2018.
6. Jia Guo, Ing-Ray Chen, Ding-Chao Wang, Jeffrey J.P. Tsai, Hamid Al-Hamadi, "A Case Study of IoT Participatory Sensing of Hazardous Ozone using Traces," Hualien, The 7th International Conference on Electronics, Communications and Networks, Taiwan, November, 2017.
7. J. Wang, I.R. Chen, J.J.P. Tsai, and D.C. Wang, "Trust-based Cooperative Spectrum Sensing Against SSDF Attacks in Distributed Cognitive Radio Networks," Washington, IEEE Communications Quality and Reliability International Workshop (CQR 2016), U.S.A, May, 2016.
8. Y. Li, I.R. Chen and D.C. Wang, "Dual-Region Location Management for Mobile Ad Hoc Networks," Seoul, 19th IEEE International Conference on Parallel and Distributed Systems (ICPADS 2013), Korea, Dec., 2013.
9. Hsiang-Jen Meng and Ding-Chau Wang, "Robust Design for Game-Based Instruction Using Interactive Whiteboards," Takamatsu, 2012 Fourth IEEE International Conference On Digital Game And Intelligent Toy Enhanced Learning (DIGTEL 2012), Japan, Mar, 2012.
10. W. He, I.R. Chen and D.C. Wang, "Cross-Layer Integrated Mobility and Service Management Utilizing Smart Routers in Mobile IPv6 Systems", Paris, The 8th International Conference on Advances in Mobile Computing and Multimedia, France, Nov., 2010.
11. Ing-Ray Chen, Ding-Chau Wang, "On the Reliability of Wireless Sensors with Software-based Attestation for Intrusion Detection ", 2009 10th International Symposium on Pervasive Systems, Algorithms and Networks, Kaohsiung, Taiwan, Dec, 2009.

Dissertation

- 1. Wang, Ding-Chau (2003) "Dependability and performance analysis of distributed algorithms for managing replicated data," Ph.D. Dissertation, National Cheng Kung University

Books

- Wang, D. C., & Huang, Y. M.* "Cloud Services in Collaborative Learning: Applications and Implications." In Huang, Ronghuai; Kinshuk; Spector, J. Michael(Eds.), Reshaping Learning (pp.195-210). New York: Springer-Verlag Berlin Heidelberg.

Patents

1. A Voice Recorder System with immediate recall and editing functions, LICENSE ID: I604377, 2017/11/01
2. A Recommendation System for Lectures, LICENSE ID: I536305, 2016/06/01
3. An Interactive Landmine removal Game-based E-Learning System, LICENSE ID: I529672, 2016/04/11
4. A System for Preventing Cheating in Exercise Testing, LICENSE ID: I518623, 2016/01/21
5. E-commerce Matchmaking Strategy for Mobile users and delivery orders, LICENSE ID: I515680, 2016/01/01