

Curriculum Vitae

Contact Information

Prof. Shih-Chia Huang
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Short Biography

Shih-Chia Huang is a Full Professor in the Department of Electronic Engineering at the National Taipei University of Technology, Taipei, and serves as an International Adjunct Professor in the Faculty of Business and Information Technology at the University of Ontario Institute of Technology, Oshawa, ON, Canada. He was recognized as one of the world's top 2% of scientists in 2021 and 2022, achieving rankings of 0.519% and 0.607%, respectively. He has authored and co-authored more than 100 journal and conference papers and holds over 60 patents in the United States, Europe, Taiwan, and China. Professor Huang earned his B.S. degree from National Taiwan Normal University, Taipei, Taiwan, his M.S. degree from National Chiao Tung University, Hsinchu City, Taiwan, and his Doctorate in electrical engineering from National Taiwan University, Taipei, in 2009.

Currently, Dr. Huang is the Chapter Chair of the IEEE Taipei Section Broadcast Technology Society and serves as an Associate Editor for the IEEE Transactions of Intelligent Vehicles, IEEE Sensors Journal, IEEE Open Journal of the Computer Society, and Electronic Commerce Research and Applications. He is also a Topic Editor for the Sensors Journal. He has received numerous awards, including the Kwoh-Ting Li Young Researcher Award in 2011 from the Taipei Chapter of the Association for Computing Machinery, the 5th National Industrial Innovation Award in 2017 from the Ministry of Economic Affairs, Taiwan, and the Dr. Shechtman Young Researcher Award in 2012 from the National Taipei University of Technology. Additionally, he received the Outstanding Research Award from the National Taipei University of Technology in 2014, 2017 and 2020, and from the College of Electrical Engineering and Computer Science at the same institution in 2014, 2015 and 2016. Previously, he served as an Associate Editor of the Journal of Artificial Intelligence and a Guest Editor of the IEEE Transactions on Engineering Management, Engineering Applications of Artificial Intelligence, Information Systems Frontiers, and International Journal of Web Services Research. He was also the Services and Applications Track Chair for the IEEE CloudCom conference in 2016 and 2017, the Applications Track Chair for the IEEE BigData Congress in 2015, the General Chair for the 2015 and 2016 IEEE BigData Taipei Satellite Sessions, and the Minitrack Chair for the Hawaii International Conference on System Sciences from 2017 to 2022.

His research interests include intelligent multimedia systems, deep learning and artificial intelligence, image

processing and video coding, computer vision, cloud computing and big data analytics, and mobile applications and systems.

Awards and Honors

- The World's Top 2% of Scientists in 2021 (Ranking: $0.607\% = 60887/200409 * 2\%$, Scopus Elsevier)
- The World's Top 2% of Scientists in 2022 (Ranking: $0.519\% = 49324/190063 * 2\%$, Scopus Elsevier)
- International Adjunct Professor, Faculty of Business and Information Technology, University of Ontario Institute of Technology (UOIT), Oshawa, ON, Canada. (2014 - now)
- Associate Editor, Elsevier Electronic Commerce Research and Applications (Impact Factor: 3.181) (2019 - now)
- Associate Editor, IEEE Sensors Journal (2019 - now)
- Associate Editor , IEEE Open Journal of the Computer Society (2020 ~ Now)
- Associate Editor , IEEE Transactions for Intelligent Vehicles (2020 ~ Now)
- Topics Editor, Sensors Journal (2020 ~ Now)
- IEEE Senior Member (2014 - now)
- Chapter Chair, IEEE Taipei Section Broadcasting Technology Society (2015 - now)
- Topic Editor, Sensors Journal [Impact Factor: 3.031] (2020 - now)
- Primary Technology Consultant on Artificial Intelligence and Computer vision, oToBrite electronics Inc. (2019-2020)
- Primary Technology Consultant on Advanced Artificial Intelligence, 1111 Human Resource Agency (2019)
- Review Panel Member, Small Business Innovation Research program with the Department of Economic Development of Taipei and New Taipei City (2014-2016)
- The 5th National Industrial Innovation Award, Ministry of Economic Affairs, Taiwan (2017)
- Outstanding Young Researcher Project, Ministry of Science and Technology, Taiwan (2011-2014)
- Outstanding Research Award, National Taipei University of Technology (2014, 2017)
- Outstanding Research Award, College of Electrical Engineering and Computer Science, National Taipei University of Technology (2014-2016)
- Dr. Shechtman Young Researcher Award, National Taipei University of Technology. (2012)
- A recipient of the Kwoh-Ting Li Young Researcher Award Contribution in Embedded Multimedia, Taipei Chapter of the Association for Computing Machinery (2011)
- Guest Editor, Special issue on Service Design, Engineering, and Management of Smart Technologies , IEEE Transactions on Engineering Management (2021)
- Guest Editor, Special issue on Services Computing Management for Artificial Intelligence and Machine Learning , IEEE Transactions on Engineering Management (Impact Factor: 2.05) (2020)
- Guest Editor, Special issue on Internet of Things (IoT) for In-Vehicle Systems, Engineering Applications of Artificial Intelligence (Impact Factor: 2.894) (2019)
- Guest Editor, Special issue on Cloud-Connected Smart Toys, Electronic Commerce Research and Applications (Impact Factor: 3.181) (2019)
- Guest Editor, Special issue on Deep Learning, Ubiquitous, and Toy Computing, Computers in

Entertainment (2019)

- Guest Editor, Special issue on Advanced Visual Analyses for Smart and Autonomous Vehicles, Advances in Multimedia (2018)
- Guest Editor, Special issue on Computing in Smart Toys and Related Internet of Things, Journal of Systems Architecture (Impact Factor: 1.579) (2018)
- Guest Editor, Special issue on Big Data Analytics and Business Intelligence in Industry, Information Systems Frontiers (Impact Factor:2.521) (2017)
- Associate Editor, Journal of Artificial Intelligence ISSN:2229-3965 (2013-2016)
- Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2022)
- Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2021)
- Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2020)
- Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2019)
- Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2018)
- Deep learning, Ubiquitous and Toy Computing Minitrack Chair, Hawaii International Conference on System Sciences (2017)
- Services and Applications Track Chair, IEEE CloudCom conference (2017) (flagship conference) (acceptance rate: 18%)
- Services and Applications Track Chair, IEEE CloudCom conference (2016) (flagship conference) (acceptance rate: 18%)
- Special Session Chair , IEEE International Conference on Systems, Man, and Cybernetics (2020)
- General Chair, IEEE BigData 2016 Taipei Satellite Session (2016)
- Applications Track Chair, IEEE BigData Congress (2015) (flagship conference) (acceptance rate: 17%)
- Program Committee Chair, IEEE BigData 2015 Taipei Satellite Session (2015)
- Program Committee Chair, IEEE BigData 2014 Taipei Satellite Session (2014)
- Speaker, International Conference of Emerging Industry (ICEI 2015)
- Session Chair, IEEE SCC 2013, IEEE SMC 2013, IEEE ISCE 2013, IEEE ICCE 2014, IEEE SMC 2020
- Technical Program Committee, IEEE ISM 2014, IEEE CloudCom 2014, IEEE ICALIP 2014,
- Technical Program Committee, IGBSG 2014, IEEE BigMM 2015
- Technical Program Committee, IEEE ISCE 2013, IEEE ICCE 2014, IEEE ICCE 2015

Professional Activities and Societies

- Invited speech entitled "Deep Learning for Visibility Restoration Approach" at Tatung University (2020)
- Invited speech entitled "Deep Learning for Visibility Restoration Approach" at Massachusetts Institute of Technology, Boston. (2018)
- Invited speech entitled "Deep Learning for Visibility Restoration Approach" at Federal Research Centre

Moscow (2018)

- Invited speech entitled "Deep Learning for Visibility Restoration Approach" at Tula State University (2018)
- Invited speech entitled "Deep Learning for Visibility Restoration Approach" at East China Normal University (2018)
- Invited speech entitled "Deep Learning for Visibility Restoration Approach" at Shanghai University of Engineering Science (2018)
- Invited speech entitled "Smart Car" at Fudan University (2018)
- Invited speech entitled "Smart Car" at National Chiao Tung University (2017)
- Invited speech entitled "Smart Car" at King Mongkut's Institute of Technology Ladkrabang (2017)
- Invited speech entitled "Smart Car" at National Taipei University of Technology (2017)
- Invited speech entitled "Smart Car" at Tatung University (2017)
- Invited speech entitled "Smart Car" at National Taipei University of Technology (2017)
- Invited speech entitled "Smart Car" at National Taiwan Ocean University (2017)
- Invited speech entitled "Automatic Collaborative Face Annotation System for Distributed Online Social Network" at Shanghai University of Engineering Science (2017)
- Invited speech entitled "Smart Car" at East China Normal University (2017)
- Invited speech entitled "Smart Car" at Shanghai University of Engineering Science (2016)
- Invited speech entitled "Mobile Computing" at Wuhan University (2016)
- Invited speech entitled "Mobile Computing " at Beijing University of Posts and Telecommunications (2016)
- Invited speech entitled "Image and Video Quality Improvement Techniques" at Southeast Asia and Taiwan Universities Presidents' Forum (2016)
- Invited speech entitled "Mobile Computing and Social Carpooling App Marketing" at Institute Of Communication Studies, National Chiao Tung University (2016)
- Invited speech entitled "Mobile Computing and Social Carpooling App Marketing" at National Tsing Hua University (2016)
- Invited speech entitled "Mobile service computing and internet marketing experience sharing " at National Taipei University of Technology (2015)
- Invited speech entitled "Mobile service computing and internet marketing experience sharing " at National Taiwan Ocean University (2015)
- Invited speech entitled "Intelligent product innovation design and application " at Economic Development Department, New Taipei City Government (2015)
- Invited speech entitled "Mobile service computing and internet marketing experience sharing " at National Taiwan University of Science and Technology (2015)
- Invited speech entitled "Shared service computing and internet marketing experience sharing " at Chinese Culture University (2015)
- Invited speech entitled "Mobile Computing and Services in a Smart Green City" at International Conference of Emerging Industry (2015)
- Invited speech entitled "Visibility Restoration Algorithm for Single Hazy Images" at Tula State University (2013)

- Invited speech entitled "Visibility Enhancement in Widely Real-World Poor Weather" at Moscow State University (2013)
- Invited speech entitled "Display technology introduction and future development " at Tatung University (2013)
- Invited speech entitled "Digital TV signal processing technology and future development " at Yuan Ze University (2013)
- Invited speech entitled "Introduction to the basic principles and teaching of digital multimedia communication " at National Chung Hsing University (2012)
- Invited speech entitled "Digital Image and Video Analysis for Intelligent Surveillance Systems" at National Taiwan University of Science and Technology (2012)
- Invited speech entitled "Quality of Experience in Video Processing" at Massey University (New Zealand) (2011)
- Invited speech entitled "Technical Challenges of Video Surveillances" at Massey University (New Zealand) (2011)
- Invited speech entitled "The body is your remote control - Kinect's technology and application" at National Taiwan University of Science and Technology (2011)
- Invited speech entitled " Multimedia imaging technology from 2D to 3D " at National Yunlin University of Science & Technology (2011)
- Invited speech entitled "Digital Home and Multimedia Systems" at National Taiwan University of Science and Technology (2011)
- Invited speech entitled "Advanced Motion Detection for Intelligent Video Surveillance Systems" at National Taiwan University of Science and Technology (2009)

International Journal

1. **S. C. Huang**, Q. V. Hoang, and T. H. Le, "SFA-Net: A Selective Features Absorption Network for Object Detection in Rainy Weather Conditions," in *IEEE Transactions on Neural Networks and Learning Systems*. (Early Access) [SCI, Impact factor: 14.2, Rank: 1/54=1.8%, Computer Science, Hardware & Architecture]
2. **S. C. Huang**, D. W. Jaw, Q. V. Hoang, and T. H. Le, "3FL-Net: An Efficient Approach for Improving Performance of Lightweight Detectors in Rainy Weather Conditions," in *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 4, pp. 4293-4305, April 2023. [SCI, Impact factor: 9.551, Rank: 17/601=2.82%, Mechanical Engineering]
3. Y. T. Peng, Y. R. Chen, Z. Chen, J. H. Wang, **S. C. Huang**, " Underwater Image Enhancement Based on Histogram-Equalization Approximation Using Physics-Based Dichromatic Modelling," in *Sensors*, no. 6: 2168, March 2022. [Impact factor: 3.576, rank: 13/128=10.16%]
4. **S. C. Huang**, Q. V. Hoang, D. W. Jaw, "Self-Adaptive Feature Transformation Networks for Object Detection in low luminance Images," in *ACM Transactions on Intelligent Systems and Technology (TIST)*, vol. 13, no. 13, pp. 1-11, Feb. 2022. [SCI, Impact factor: 4.654, rank: 13/120=10.83%]
5. J. F. Low, B. C. M. Fung, F. Iqbal, and **S. C. Huang**, "Distinguishing between fake news and satire with transformers," in *Expert Systems with Applications*, 187(115824):1-13, January 2022. Elsevier. [SCI, Impact factor: 6.954, rank: 24/273=8.79%]

6. **S. C. Huang**, Q. V. Hoang, T. H. Le, Y. T. Peng, C. C. Huang, C. Zhang, B. C. M. Fung, K. H. Cheng, S. W. Huang, "An Advanced Noise Reduction and Edge Enhancement Algorithm," in *Sensors*, no. 16: 5391, Aug. 2021. [Impact factor: 3.576, rank: 13/128=10.16%]
7. **S. C. Huang**, D. W. Jaw, W. Li, Z. Lu, S. Y. Kuo, B. Fung, B. H. Chen, T. Numnonda, "Image Dehazing in Disproportionate Haze Distributions," in *IEEE Access*, vol. 9, pp. 44599-44609, March, 2021. [Impact factor: 3.367, Rank: 39/297=13.13%]
8. S. A. Alkhodair, B. C. M. Fung, S. H. H. Ding, W. K. Cheung, and **S. C. Huang**, " Detecting High-Engaging Breaking News Rumors in Social Media," in *ACM Transactions on Management Information Systems*, vol. 12, issue 1, article number 8, p. 16, Dec 2020. [Impact Score: 6.03, Rank: 32/226=14.16%]
9. D. W. Jaw, **S. C. Huang** and S.Y. Kuo, "DesnowGAN: An Efficient Single Image Snow Removal Framework using Cross-resolution Lateral Connection and GANs," in *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 31, no. 4, pp. 1342-1350, April 2021. [Impact factor: 4.133, rank: 2/61=3.27%]
10. **S. C. Huang**, T. H. Le, and D. W. Jaw, "DSNet: Joint Semantic Learning for Object Detection in Inclement Weather Conditions," in *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 43, no. 8, pp. 2623-2633, Aug. 2021. [SCI, Impact factor: 16.389, rank: 1/548=0.18%]
11. **S. C. Huang**, D. W. Jaw, B. H. Chen and S.Y. Kuo, "An Efficient Single Image Enhancement Approach Using Luminance Perception Transformation," in *IEEE Transactions on Emerging Topics in Computing*, vol. 9, no. 2, pp. 1083-1094, 1 April-June 2021. [Impact factor: 7.691, rank: 2/69 =2.89%]
12. T. H. Le, P. H. Lin and **S. C. Huang**, "LD-Net: An Efficient Lightweight Denoising Model Based on Convolutional Neural Network," in *IEEE Open Journal of the Computer Society*, vol. 1, pp. 173-181, 2020, doi: 10.1109/OJCS.2020.3012757.
13. **S. C. Huang**, Y. T. Peng, C. H. Chang, K. H. Cheng, S. W. Huang and B. H. Chen, "Restoration of Images With High-Density Impulsive Noise Based on Sparse Approximation and Ant-Colony Optimization," in *IEEE Access*, vol. 8, pp. 99180-99189, 2020. [SCI, Impact factor: 3.75, Rank: 35/156=22.44%, Engineering, General Engineering]
14. Y. T. Peng, Z. Lu, F. C. Cheng, Y. Zheng, and **S. C. Huang** "Image Haze Removal Using Airlight White Correction, Local Light Filter, and Aerial Perspective Prior," in *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 30, no. 5, pp. 1385-1395, May 2020 [SSCI, Impact factor: 4.133, rank: 3/70=4.285%, Engineering, Media Technology].
15. **S. C. Huang**, J. J. Lin and M. K. Jiau, "Global and Local Pareto Optimality in Coevolution for Solving Carpool Service Problem With Time Windows," in *IEEE Transactions on Intelligent Transportation Systems*, vol. 21, no. 3, pp. 934-946, March 2020. [SSCI, Impact factor: 6.319, rank: 1/91=1.098%, Engineering, Automotive Engineering]
16. **S. C. Huang**, D. W. Jaw, B. H. Chen and S. Y. Kuo, "Single Image Snow Removal Using Sparse Representation and Particle Swarm Optimizer," in *ACM Transactions on Intelligent Systems and Technology*, vol. 11, no. 2, January 2020. [SSCI, Impact factor: 2.672, rank: 11/119=9.243%, Mathematics, Theoretical Computer Science]
17. J.J. Lin, **S. C. Huang***, and M. K. Jiau, "An Evolutionary Multiobjective Carpool Algorithm Using Set-Based Operator Based on Simulated Binary Crossover," in *IEEE Transactions on Cybernetics*, vol. 49,

- no. 9, pp. 3432-3442, Sept. 2019. [SSCI, Impact factor: 11.079, rank: 1/242=0.413%, Engineering, Control and Systems Engineering]
18. M. Gochoo, T. H. Tan, **S. C. Huang***, T. Batjargal, J. W. Hsieh, F. S. Alnajjar, and Y. F. Chen, "Novel IoT-Based Privacy-Preserving Yoga Posture Recognition System Using Low-Resolution Infrared Sensors and Deep Learning," in *IEEE Internet of Things Journal*, vol. 6, no. 4, pp. 7192-7200, Aug. 2019. [SSCI, Impact factor: 9.94, Rank: 3/156=1.92%, Computer Science, Information Systems]
19. X. Chen, S. Tang, Z. Lu*, J. Wu, Y. Duan, **S. C. Huang**, and Q. Tang, "iDiSC: A New Approach to IoT-Data-Intensive Service Components Deployment in Edge-Cloud-Hybrid System," in *IEEE Access*, vol. 7, pp. 59172-59184, 2019. [SCI, Impact factor: 3.75, Rank: 35/156=22.44%, Engineering, General Engineering]
20. T. H. Le, **S. C. Huang*** and D. W. Jaw, "Cross-Resolution Feature Fusion for Fast Hand Detection in Intelligent Homecare Systems," in *IEEE Sensors Journal*, vol. 19, no. 12, pp. 4696-4704, 15 June 15, 2019. [SCI, Impact factor: 3.1, Rank: 9/129=6.98%, Physics and Astronomy, Instrumentation]
21. M. K. Jiau, and **S. C. Huang***, "Self-Organizing Neuro-evolution for solving Carpool Service Problem with Dynamic Capacity to Alternate Matches," in *IEEE Transactions on Neural Networks and Learning Systems*, vol. 30, no. 4, pp. 1048-1060, April 2019. [SSCI, Impact factor: 8.8, Rank: 7/636=1.1%, Computer Science Applications]
22. M. Gochoo, T. H. Tan, S. H. Liu, F. R. Jean, F. Alnajjar and **S. C. Huang***, "Unobtrusive Activity Recognition of Elderly People Living Alone Using Anonymous Binary Sensors and DCNN," in *IEEE Journal of Biomedical and Health Informatics*, vol. 23, no. 2, pp. 693-702, March 2019. [SSCI, Impact factor: 5.22, Rank: 1/27=3.7%, Computer Science Applications]
23. **S. C. Huang***, M. K. Jiau, and Y. P. Liu, "An Ant Path-Oriented Carpooling Allocation Approach to Optimize the Carpool Service Problem with Time Windows," in *IEEE Systems Journal*, vol. 13, no. 1, pp. 994-1005, March 2019. [SSCI, Impact factor: 3.99, Ranking: 73/636=11.47%, Computer Science Applications]
24. Z. Wu, Z. Lu*, P. C. K. Hung, **S. C. Huang**, Y. Tong, Z. Wang, "QaMeC: A QoS-driven IoVs Application Optimizing deployment scheme in multimedia edge clouds," in *Future Generation Computer Systems*, vol. 92, pp. 17-28, March, 2019. [SCI, Impact factor: 6.12, Rank: 6/155=3.87%, Computer Science, Hardware and Architecture]
25. **S. C. Huang***, H. Liu, B. H. Chen, Z. Fang, T. H. Tan and S.Y. Kuo, "A Gray Relational Analysis-Based Motion Detection Algorithm for Real-World Surveillance Sensor Deployment," in *IEEE Sensors Journal*, vol. 19, no. 3, pp. 1019-1027, 1 Feb.1, 2019. [SCI, Impact factor: 3.1, Rank: 9/129=6.98%, Physics and Astronomy, Instrumentation]
26. Huang, H., Lu, Z.*, Peng, R.*, Feng, Z., Xuan, X., Hung, P.C.K., **S. C. Huang**, "Efficiently querying large process model repositories in smart city cloud workflow systems based on quantitative ordering relations", *Information Sciences* Volume 495, Pages 100-115, August 2019. [SCI, Impact factor: 5.91, Rank: 10/242=4.13%, Engineering, Control and Systems Engineering]
27. T. H. Tan, M. Gochoo, **S. C. Huang**, Y. H. Liu, S. H. Liu and Y. F. Huang, "Multi-Resident Activity Recognition in A Smart Home Using RGB Activity Image and DCNN," in *IEEE Sensors Journal*, vol. 18, no. 23, pp. 9718-9727, 1 Dec.1, 2018. [Impact factor: 2.512, Rank: 8/116=6.8%]

28. P. C. K. Hung, K. Kanev, **S. C. Huang**, F. Iqbal, B. C. M. Fung, "Smart TV Face Monitoring for Children Privacy," *Journal of Internet Technology*, vol. 19, no. 5, pp. 1577-1583, Sep. 2018. [Impact factor: 1.301, Rank: $97/148=65.54\%$]
29. B. H. Chen, L. F. Shi, **S. C. Huang**, A. Larin, O. Seredin, A. Kopylov and S. Y. Kuo, "Removing Haze Particles from Single Image via Exponential Inference With Support Vector Data Description," in *IEEE Transactions on Multimedia*, vol. 20, no. 9, pp. 2503-2512, Sept. 2018. [Impact factor: 3.509, Rank: $2/65=3.07\%$]
30. B. H. Chen, **S. C. Huang**, C. Y. Li, and S.Y. Kuo, "Haze Removal Using Radial Basis Function Networks for Visibility Restoration Applications," in *IEEE Transactions on Neural Networks and Learning Systems*, vol. 29, no. 8, pp. 3828-3838, Aug. 2018. [Impact factor: 6.108, Rank: $7/535=1.3\%$]
31. **S. C. Huang**, M. K. Jiau, and K. H. Chong "A Heuristic Multi-Objective Optimization Algorithm for Solving the Carpool Services Problem Featuring High-Occupancy-Vehicle Itineraries," in *IEEE Transactions on Intelligent Transportation Systems*, vol. 19, no. 8, pp. 2663-2674, Aug. 2018. [Impact factor: 3.724, Rank: $3/75=4\%$]
32. Y. F. Liu, D. W. Jaw, **S. C. Huang** and J. N. Hwang, "DesnowNet: Context-Aware Deep Network for Snow Removal," in *IEEE Transactions on Image Processing*, vol. 27, no. 6, pp. 3064-3073, Feb. 2018. [Impact factor: 4.842, Rank: $1/65=1.5\%$]
33. M. Gochoo, T. H. Tan, V. Velusamy, S. H. Liu, D. Bayanduuren and **S. C. Huang**, "Device-Free Non-Privacy Invasive Classification of Elderly Travel Patterns in A Smart House Using PIR Sensors and DCNN," in *IEEE Sensors Journal*, vol. 18, no. 1, pp. 390-400, Jan. 2018. [Impact factor: 2.512, Rank: $12/58=20.6\%$]
34. B. H. Chen, **S. C. Huang**, and J. Y. Yen, "Counter propagation Artificial Neural Network-based Motion Detection Algorithm for Static-Camera Surveillance Scenarios," in *Neurocomputing*, vol. 273, pp. 481-493, Jan., 2018. [Impact factor: 3.317, Rank: $67/535=12.5\%$]
35. M. C. Chuang, J. N. Hwang, J. H. Ye, **S. C. Huang** and K. Williams, "Underwater Fish Tracking for Moving Cameras Based on Deformable Multiple Kernels," in *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 47, no. 9, pp. 2467-2477, Sept. 2017. [Impact factor: 2.350, Rank: $7/22=31.81\%$]
36. B. H. Chen, **S. C. Huang** and S. Y. Kuo, "Error-Optimized Sparse Representation for Single Image Rain Removal," in *IEEE Transactions on Industrial Electronics*, vol. 64, no. 8, pp. 6573-6581, Aug. 2017. [Impact factor: 7.168, Rank: $1/60=1.66\%$]
37. T. H. Tan, M. Gochoo, F. R. Jean, **S. C. Huang** and S. Y. Kuo, "Front-Door Event Classification Algorithm for Elderly People Living Alone in Smart House Using Wireless Binary Sensors," in *IEEE Access*, vol. 5, no., pp. 10734-10743, June. 2017. [Impact factor: 3.244, Rank: $27/146=18.49\%$]
38. B. H. Chen, **S. C. Huang**, and W.H. Tsai, "Eliminating Driving Distractions: Human-Computer Interaction with Built-In Applications," in *IEEE Vehicular Technology Magazine*, vol. 12, no. 1, pp. 20-29, March 2017. [Impact factor: 4.429, Rank: $3/34=8.82\%$]
39. C. C. Cheng, F. C. Cheng, P. H. Lin, W. T. Huang, and **S. C. Huang**, "A Fastest Patchwise Histogram Construction Algorithm Based on Cloud-Computing Architecture," in *International Journal of Web Services Research*, vol. 14, Issue 1, pp. 1-12, Jan. 2017. [Impact factor: 0.667, Rank: $93/106=87.73\%$]

40. **S. C. Huang**, B. H. Chen, S. K. Chou, J. N. Hwang, and K.H. Lee "Smart Car," in IEEE Computational Intelligence Magazine, vol. 11, no. 4, pp. 46-58, Nov. 2016. [Impact factor: 3.647, Rank: 12/130=9.23%]
41. B. H. Chen and **S. C. Huang**, "Edge Collapse-Based Dehazing Algorithm for Visibility Restoration in Real Scenes," in IEEE/OSA Journal of Display Technology, vol. 12, no. 9, pp. 964-970, Sept. 2016. [Impact factor: 1.925, Rank: 74/255=29.01%]
42. B. H. Chen, A. Kopylov, **S. C. Huang**, O. Seredin, R. Karpov, S. Y. Kuo, K. R. Lai; T. H. Tan; M. Gochoo, D. Bayanduuren; C. S. Gong, and Patrick C. K. Hung, "Improved Global Motion Estimation via Motion Vector Clustering for Video Stabilization," in Engineering Applications of Artificial Intelligence, vol. 54, pp. 39-48, Sept., 2016. [Impact factor: 2.368, Rank: 10/85=11.76%]
43. S. K. Chou, M. K. Jiau, and **S. C. Huang**, "Stochastic Set-Based Particle Swarm Optimization Based on Local Exploration for Solving the Carpool Service Problem," in IEEE Transactions on Cybernetics, vol. 46, no. 8, pp. 1771-1783, Aug. 2016. [Impact factor: 4.943, Ranking: 1/22=4.54%]
44. **S. C. Huang**, M. K. Jiau, and Y. H. Jian, "Optimisation of automatic face annotation system used within a collaborative framework for online social networks," in IET Computer Vision, vol. 10, issue 5, pp. 349-356, Aug. 2016. [Impact factor: 0.573, Rank: 200 /257=77.82%]
45. B. H. Chen, **S. C. Huang** and F. C. Cheng, "A High-Efficiency and High-Speed Gain Intervention Refinement Filter for Haze Removal," in IEEE/OSA Journal of Display Technology , vol. 12, no. 7, pp. 753-759, July 2016. [Impact factor: 1.925, Rank: 74/255=29.01%]
46. P. H. Lin, B. H. Chen, F. C. Cheng and **S. C. Huang**, "A Morphological Mean Filter for Impulse Noise Removal," in IEEE/OSA Journal of Display Technology, vol. 12, no. 4, pp. 344-350, April 2016. [Impact factor: 1.925, Rank: 74/255=29.01%]
47. M. K. Jiau, and **S. C. Huang**, "Services-Oriented Computing Using the Compact Genetic Algorithm for Solving the Carpool Services Problem," in IEEE Transactions on Intelligent Transportation Systems, vol.16, no.5, pp.2711-2722, Oct. 2015 [Impact factor: 2.534, Rank: 8/126=6.34%]
48. F. C. Cheng, B. H. Chen, and **S. C. Huang**, "A Hybrid Background Subtraction Method with Background and Foreground Candidates Detection," in ACM Transactions on Intelligent Systems and Technology, vol. 7, no. 1, Article 7, Oct., 2015. [Impact factor: 2.414, Rank: 20/143=13.98%]
49. **S. C. Huang**, M. K. Jiau, and C. H. Lin, "Optimization of the Carpool Service Problem via a Fuzzy Controlled Genetic Algorithm," in IEEE Transactions on Fuzzy Systems, vol.23, no.5, pp.1698-1712, Oct. 2015. [Impact factor: 6.701 , Rank: 2/255=0.78%]
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