Curriculum Vitae

Personal Information

Name	Wei-Yen Hsu (許巍嚴)	Tel.	(05) 2720411 ext.34621	
E-mail		shenswy@gmail.com; shenswy@mis.ccu.edu.tw		
Address	No.168, Sec. 1, University Rd., Minhsiung, Chiayi 621, Taiwan			

Experience

Professor	Department of Information Management, National Chung Cheng University, Taiwan	Aug. 2019 - Present
Associate Professor	Department of Information Management, National Chung Cheng University, Taiwan	Aug. 2015 - July 2019
Assistant Professor	Department of Information Management, National Chung Cheng University, Taiwan	Aug. 2012 - July 2015
Assistant Professor	Graduate Institute of Biomedical Informatics, Taipei Medical University, Taiwan	Aug. 2011 - July 2012
Postdoctoral Fellow	Institute of Statistical Science, Academia Sinica, Taiwan (Instructor:劉長萱 Ph.D.)	Apr. 2010 - July 2011
R&D Engineer	R&D Department, Phison Electronics, Taiwan (群聯電子)	Oct. 2008 - Apr. 2010

Other Experience

Class Teacher	Industrial Talent Pilot Program, Ministry of Labor (勞動部 產業新尖兵)	Oct. 2021 - Present
Class Teacher	Extension Education & e-Learning Center, National Chung Cheng University, Taiwan	Aug. 2019 - Present
Consultant & Technical Guidance	Innolux Corporation, Tainan Science Park, Taiwan (南科群創光電)	Apr. 2018 - Present
AI and Data Innovation Expert Advisory Group	Bureau of Industry, Ministry of Economic Affairs, Taiwan (經濟部工業局)	June 2018 - Present
Visiting Scholar	Institute of Information Science, Academia Sinica, Taiwan (Inviter:廖弘源 Director)	Nov. 2011 - Apr. 2012
Consultant	Viswell Technology Co.,Ltd, Taiwan (宇創視覺科技)	June 2010 - Present

Academic Achievement

◎ **Founding Member** in **Brain-Computer Interface (BCI) Society** (12/24/2015 - Present)

◎ Academic Editor in **Medicine** (SCI, IF: 2.028, Rank 56/155 Q2) (4/24/2017 - Present)

◎ Associate Editor in **BMC Medical Informatics and Decision Making** (SCI, IF: 2.134, Rank 12/25 Q2) (12/21/2017 - Present)

◎ Academic Editor in **PLoS One** (SCI, IF: 3.240, Rank 26/73 Q2) (12/11/2020 - Present)

◎ Associate Editor in **IEEE Access** (SCI, IF: 4.098, Rank 23/155 Q1) (3/9/2021 - Present)

◎ Promoting to **IEEE Senior Member** (**approved by three top experts in the same field after careful review**, where two are IEEE Fellows, and one is IEEE Life Fellow) (1/22/2022-)

◎ **Founding Member** of the Editorial Board in **BMC Digital Health** (3/16/2022-)

◎ **Founding Member** of the Editorial Board in **Frontiers in Imaging** (5/17/2022-)

◎ Member of **American Psychological Association (APA)** (7/8/2022-)

Honors

◎ **Young Scholar Award** of Taipei Medical University, Taiwan in 2011. (100 學年度北醫全校教師與三院(北醫附醫、萬芳、雙和)醫師 研究品質與數量 總評比全校院第五名)。

◎ **Young Scholar Award** of National Chung Cheng University, Taiwan in 2013 (任職第二年即獲得)

◎ Teaching Excellence of National Chung Cheng University, Taiwan in 2015 & 2016.

◎ **Departmental Research Awards** of Department of Information Management, National Chung Cheng University, Taiwan in 2012-2023.

◎ **Faculty Research Awards** of College of Management, National Chung Cheng University, Taiwan in 2014-2023.

◎ 「中正大學南科創新育成基地」推廣許巍嚴教授之影像處理技術，促成「陳欣偉」產學合作與新創意願，許教授並輔導其進駐南科育成中心成立「晉銳」公司。

◎ 2018 台灣創新技術博覽會，我的技術『影像增強方法 (IMAGE ENHANCEMENT METHOD)』入選為線上展示。

◎ **Outstanding Research Award** of National Chung Cheng University, Taiwan in 2018 (副教授時即獲得)

◎ **Excellent Teaching Award** of College of Management, National Chung Cheng University, Taiwan in 2019.

◎ 2022 MOST for 2030 Cross-Generation Young Scholars Program：**Excellent Young Scholars** (Aug. 2021 – July 2024).

◎ I won the honor of "**World's Top 2% Scientists 2020**", and **I was included in both lists** "**Lifetime Scientific Impact Ranking (1960-2020)**" and "**2020 Annual Scientific Impact Ranking**".

◎ 中國電機工程師學會高雄市分會 111 年『傑出電機工程教授獎』(08/10/2022)

◎ I won the honor of "**World's Top 2% Scientists 2021**", and **I was included in both lists** "**Lifetime Scientific Impact Ranking (1960-2021)**" and "**2021 Annual Scientific Impact**

Ranking".

◎ I won the honor of "**World's Top 2% Scientists 2022**", and **I was included in both lists** "**Lifetime Scientific Impact Ranking (1960-2022**)" and "**2022 Annual Scientific Impact Ranking**".

◎ 中國電機工程師學會 112 年『傑出電機工程教授獎』(10/31/2023)

Research Interests

◎ Image Processing, Pattern Recognition, and Computer Vision

◎ Machine Learning (Deep Learning), Artificial Intelligence, and Big Data Analysis (Data Mining)

◎ Brain-Computer Interface, Neuroscience Methods, and Biomedical Signal Processing

Publications

SCI/SSCI Journal Paper

[1] <u>Wei-Yen Hsu</u>* and Hsien-Wen Lin "Context-Detail-Aware United Network for Single Image Deraining," *ACM Transactions on Multimedia Computing Communications and Applications*, vol. 20, no. 5, article 144, pp. 1-18, Jan. 2024. (SCI) (**IF=5.1, Rank (16/108)=14.8% Top** in COMPUTER SCIENCE, SOFTWARE ENGINEERING)

[2] <u>Wei-Yen Hsu</u>* and Wei-Chi Chang, "Wavelet Approximation-Aware Residual Network for Single Image Deraining," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 45, no. 12, pp. 15979-15995, Dec. 2023. (SCI) (**IF=24.314, Rank (2/276)=0.7% Top** in ENGINEERING, ELECTRICAL & ELECTRONIC)

[3] <u>Wei-Yen Hsu</u>* and Wei-Hsuan Tsai, "Color Constancy and Color Consistency Using Dynamic Gamut Adjustment," *IEEE Transactions on Instrumentation and Measurement*, vol. 72, 5022712, Aug. 2023. (SCI) (**IF=5.6, Rank (9/63)=14.2% Top** in INSTRUMENTS & INSTRUMENTATION)

[4] <u>Wei-Yen Hsu</u>* and Pei-Wen Jian, "Wavelet Pyramid Recurrent Structure-Preserving Attention Network for Single Image Super-Resolution," accepted for publication in *IEEE Transactions on Neural Networks and Learning Systems*. (DOI: 10.1109/TNNLS.2023.3289958) (SCI) (**IF=14.255, Rank (1/54)=1.8% Top** in COMPUTER SCIENCE, HARDWARE & ARCHITECTURE)

[5] <u>Wei-Yen Hsu</u>* and Pei-Yu Yang, "Pedestrian Detection Using Multi-scale Structure-Enhanced Super-Resolution," *IEEE Transactions on Intelligent Transportation Systems*, vol. 24, no. 11, pp. 12312-12322, Nov. 2023. (SCI) (**IF=9.551, Rank (4/138)=2.8% Top** in ENGINEERING, CIVIL)

[6] <u>Wei-Yen Hsu</u>* and Pei-Wen Jian, "Recurrent Multi-scale Approximation-Guided Network for Single Image Super-Resolution," *ACM Transactions on Multimedia Computing Communications and Applications*, vol. 19, no. 6, article 194, pp. 1-21, July 2023. (SCI) (**IF=5.1, Rank (16/108)=14.8% Top** in COMPUTER SCIENCE, SOFTWARE ENGINEERING)

[7] <u>Wei-Yen Hsu</u>* and Ya-Wen Cheng, "EEG-Channel-Temporal-Spectral-Attention Correlation for Motor Imagery EEG Classification," *IEEE Transactions on Neural Systems & Rehabilitation Engineering*, vol. 31, pp. 1659-1669, March 2023. (SCI) (**IF=4.9, Rank (4/68)=5.8% Top** in REHABILITATION)

[8] <u>Wei-Yen Hsu</u>* and Wei-Chi Chang, "Recurrent Wavelet Structure-Preserving Residual Network for Single Image Deraining," *Pattern Recognition*, vol. 137, 109294, May 2023. (SCI) (**IF=8.518, Rank (24/276)=8.6% Top** in ENGINEERING, ELECTRICAL & ELECTRONIC)

[9] <u>Wei-Yen Hsu</u>* and Pei-Wen Jian, "Wavelet Detail Perception Network for Single Image Super-Resolution," *Pattern Recognition Letters*, vol. 166, pp. 16-23, Feb. 2023. (SCI) (**IF=5.1, Rank (52/145)** in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE)

[10] <u>Wei-Yen Hsu</u>* and Yu-Hsiang Wang, "Structure-Transferring Edge-Enhanced Grid Dehazing Network," *Optics Express*, vol. 31, no. 3, pp. 3606-3618, Jan. 2023. (SCI) (**IF=3.894, (20/99)=20.2% Top** in OPTICS)

[11] <u>Wei-Yen Hsu</u>* and Pei-Ci Chen, "Pedestrian Detection Using Translation-invariant Wavelet Residual Dense Super-Resolution," *Optics Express*, vol. 30, no. 23, pp. 41279-42195, Nov. 2022. (SCI) (**IF=3.894, (20/99)=20.2% Top** in OPTICS)

[12] <u>Wei-Yen Hsu</u>* and Wan-Jia Wu, "Object Detection Using Structure-Preserving Wavelet Pyramid Reflection Removal Network," *IEEE Transactions on Instrumentation and Measurement*, vol. 71, 2517811, Sep. 2022. (SCI) (**IF=5.6, Rank (9/63)=14.2% Top** in

INSTRUMENTS & INSTRUMENTATION)

[13] Wei-Yen Hsu* and Wan-Jia Wu, "Translation-invariant Context-retentive Wavelet Reflection Removal Network," *Optics Express*, vol. 30, no. 17, pp. 31029-31043, Aug. 2022. (SCI) (IF=3.894, (20/99)=20.2% Top in OPTICS)

[14] Wei-Yen Hsu, Ya-Wen Cheng and Chong-Bin Tsai*, "An Effective Algorithm to Analyze the Optokinetic Nystagmus Waveforms from a Low-Cost Eye Tracker," *Healthcare*, vol. 10, no. 7, 1281, July 2022. (SCI & SSCI)

[15] Wei-Yen Hsu* and Pei-Wen Jian, "Detail-Enhanced Wavelet Residual Network for Single Image Super-Resolution," *IEEE Transactions on Instrumentation and Measurement*, vol. 71, 5016913, July 2022. (SCI) (IF=5.6, Rank (9/63)=14.2% Top in INSTRUMENTS & INSTRUMENTATION)

[16] Wei-Yen Hsu* and Pei-Ci Chen, "Pedestrian Detection Using Stationary Wavelet Dilated Residual Super-Resolution," *IEEE Transactions on Instrumentation and Measurement*, vol. 71, 5001411, Jan. 2022. (SCI) (IF=5.6, Rank (9/63)=14.2% Top in INSTRUMENTS & INSTRUMENTATION)

[17] Wei-Yen Hsu* and Chi-Jui Chung, "A Novel Eye Center Localization Method for Multiview Faces," *Pattern Recognition*, vol. 119, 108078, Nov. 2021. (SCI) (IF=8.518, Rank (24/276)=8.6% Top in ENGINEERING, ELECTRICAL & ELECTRONIC)

[18] Wei-Yen Hsu* and Wen-Yen Lin, "Ratio-and-Scale-Aware YOLO for Pedestrian Detection," *IEEE Transactions on Image Processing*, vol. 30, pp. 934-947, 2021. (SCI) (IF=11.041, Rank (12/276)=4.3% Top in ENGINEERING, ELECTRICAL & ELECTRONIC)

[19] Wei-Yen Hsu* and Chi-Jui Chung, "A Novel Eye Center Localization Method for Head Poses with Large Rotations," *IEEE Transactions on Image Processing*, vol. 30, pp. 1369-1381, 2021. (SCI) (IF=11.041, Rank (12/276)=4.3% Top in ENGINEERING, ELECTRICAL & ELECTRONIC)

[20] Wei-Yen Hsu* and Han-Chang Cheng, "A Fast and Effective System for Detection of Neonatal Jaundice with a Dynamic Threshold White Balance Algorithm," *Healthcare*, vol. 9, 1052, 2021. (SCI & SSCI)

[21] Wei-Yen Hsu* and Han-Chang Cheng, "A Novel Automatic White Balance Method for Color Constancy Under Different Color Temperatures," *IEEE Access*, vol. 9, pp. 111925-111937, Aug. 2021. (IF=3.9, Rank (100/275) in COMPUTER SCIENCE, INFORMATION SYSTEMS)

[22] Wei-Yen Hsu* and Wen-Yen Lin, "Adaptive Fusion of Multi-Scale YOLO for Pedestrian Detection," *IEEE Access*, vol. 9, pp. 110063-110073, Aug. 2021. (IF=3.9, Rank (100/275) in COMPUTER SCIENCE, INFORMATION SYSTEMS)

[23] Wei-Yen Hsu* and Yi-Sin Chen, "Single Image Dehazing Using Wavelet-based Haze-Lines and Denoising," *IEEE Access*, vol. 9, pp. 104547-104559, July 2021. (IF=3.9, Rank (100/275) in COMPUTER SCIENCE, INFORMATION SYSTEMS)

[24] Chong-Bin Tsai, Wei-Yu Hung and Wei-Yen Hsu*, "A Fast and Effective System for Analysis of Optokinetic Waveforms with a Low-Cost Eye Tracking Device," *Healthcare*, vol. 9, no. 1, 10, 2021. (SCI & SSCI)

[25] Wei-Yen Hsu*, Chih-Cheng Lu, and Yuan-Yu Hsu, "Improving Segmentation Accuracy of CT Kidney Cancer Images Using Adaptive Active Contour Model," *Medicine*, vol. 99, no. 47, pp. 1-5, Nov. 2020. (SCI)

[26] Wei-Yen Hsu*, "Automatic Compensation for Defects of Laser Reflective Patterns in Optics-Based Auto-Focusing Microscopes," *IEEE Sensors Journal*, vol. 20, no. 4, pp. 2034-2044, Feb. 2020. (SCI) (IF=4.325, Rank (14/64) in INSTRUMENTS &

INSTRUMENTATION)

[27] Wei-Yen Hsu*, "A customer-oriented skin detection and care system in telemedicine applications," *Electronic Library*, vol. 37, no. 6, pp. 1007-1021, Dec. 2019. (SSCI)

[28] Hsueh-Lin Wang, Wei-Yen Hsu, Ming-Hsueh Lee, Hsu-Huei Weng, Sheng-Wei Chang, Jen-Tsung Yang, and Yuan-Hsiung Tsai*, "Automatic Machine-Learning-Based Outcome Prediction in Patients with Primary Intracerebral Hemorrhage," *Frontiers in Neurology (section Stroke)*, vol. 10, article 910, Aug. 2019. **(Stroke Editor's Pick 2021)** (SCI)

[29] Wei-Yen Hsu*, "Automatic left ventricle recognition, segmentation and tracking in cardiac ultrasound image sequences," *IEEE Access*, vol. 7, no. 1, pp. 140524-140533, Dec. 2019. (SCI) **(IF=3.9, Rank (100/275)** in COMPUTER SCIENCE, INFORMATION SYSTEMS)

[30] Wei-Yen Hsu*, "A decision-making mechanism for assessing risk factor significance in cardiovascular diseases," *Decision Support Systems*, vol. 115, pp. 64-77, Nov. 2018. (SCI) **(IF=7.5, Rank (10/86)=11.6% Top** in OPERATIONS RESEARCH & MANAGEMENT SCIENCE) (科技部資管排名與推薦期刊) (中正資管 **A list** 期刊)

[31] Wei-Yen Hsu*, "Interaction, Extraction and Analyses of Consumer Reviews: A novel e-Billboard System," *Telematics and Informatics*, vol. 35, no. 7, pp. 2099-2106, Oct. 2018. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) **(**中正資管 **A list** 期刊)

[32] Wei-Yen Hsu*, "Automatic pedestrian detection in partially occluded single image," *Integrated Computer-Aided Engineering*, vol. 25, no. 4, pp. 369-379, Sep. 2018. (SCI) **(IF=6.5, Rank (12/90)=13.3% Top** in ENGINEERING, MULTIDISCIPLINARY)

[33] Shari S.C. Shang, Wei-Yen Hsu*, Hsiao-Ting Tseng, Jen Jen Jiang, and Chieh-Jen Chiang, "An Empirical Study on the Effects of an Enterprise Fan Page," *Journal of Organizational Computing and Electronic Commerce*, vol. 28, no. 3, pp. 252-268, July 2018. (SCI) (科技部資管排名與推薦期刊) (中正資管 **A list** 期刊)

[34] Wei-Yen Hsu*, "A Wireless Brainwave-Driven System for Daily-Life Analyses and Applications," *Telematics and Informatics*, vol. 34, no. 8, pp. 1793-1801, Dec. 2017. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) (中正資管 **A list** 期刊)

[35] Jyun-Cheng Huang, Chien-Sheng Liu*, Pei-Ju Chiang, Wei-Yen Hsu, Jian-Liang Liu, Bai-Hao Huang, Shao-Ru Lin, "Design and experimental validation of novel 3D optical scanner with zoom lens unit," *Measurement Science and Technology*, vol. 28, no. 10, 105904, Sep. 2017. (SCI)

[36] Hsiao-Ting Tseng, Hsin-Ginn Hwang, Wei-Yen Hsu*, Pei-Chin Chou, and I-Chiu Chang, "IoT-Based Image Recognition System for Smart Home-Delivered Meal Services," *Symmetry*, vol. 9, no. 125, pp. 1-12, July 2017. (SCI)

[37] Wei-Yen Hsu*, "Interactive e-Billboard Combined with Guide System Using Kinect," *Telematics and Informatics*, vol. 34, no. 8, pp. 1408-1418, Dec. 2017. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) (中正資管 **A list** 期刊)

[38] Ya-Ping Hu, I-Chiu Chang, and Wei-Yen Hsu*, "Mediating Effects of Business Process for International Trade Industry on the relationship between Information Capital and Company Performance" *International Journal of Information Management*, vol. 37, no. 5, pp. 473-483, Oct. 2017. (SSCI) **(IF=21.0, Rank (1/84)=1.1% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) (科技部資管排名與推薦期刊) (中正資管 **A list** 期刊)

[39] Wei-Yen Hsu*, "An integrated-mental brainwave system for analyses and judgments of consumer preference," *Telematics and Informatics*, vol. 34, no. 5, pp. 518-526, Aug. 2017. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE &

LIBRARY SCIENCE) **(中正資管 A list 期刊)**

[40] <u>Wei-Yen Hsu</u>*, "A hybrid approach for brain image registration with local constraints," *Integrated Computer-Aided Engineering*, vol. 24, no. 1, pp. 73-85, Jan. 2017. (SCI) **(IF=6.5, Rank (12/90)=13.3% Top** in ENGINEERING, MULTIDISCIPLINARY)

[41] <u>Wei-Yen Hsu</u>* and Yan-Chieh Lee, "Rat Brain Registration Using Improved Speeded Up Robust Features," *Journal of Medical and Biological Engineering*, vol. 37, no. 1, pp. 45-52, Feb. 2017. (SCI)

[42] <u>Wei-Yen Hsu</u>*, "Clustering-based compression connected to cloud databases in telemedicine and long-term care applications," *Telematics and Informatics*, vol. 34, no. 1, pp. 299-310, Feb. 2017. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) **(中正資管 A list 期刊)**

[43] <u>Wei-Yen Hsu</u>*, "Automatic Atrium Contour Tracking in Ultrasound Imaging," *Integrated Computer-Aided Engineering*, vol. 23, no. 4, pp. 401-411, Oct. 2016. (SCI) **(IF=6.5, Rank (12/90)=13.3% Top** in ENGINEERING, MULTIDISCIPLINARY)

[44] <u>Wei-Yen Hsu</u>*, "Brain-computer interface connected to telemedicine and telecommunication in virtual reality applications," *Telematics and Informatics*, vol. 34, no. 4, pp. 224-238, July 2017. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) **(中正資管 A list 期刊)**

[45] <u>Wei-Yen Hsu</u>*, "Single-Trial EEG Analysis Using Similarity Measure," *Bio-Medical Materials and Engineering*, vol. 26, no. 3-4, pp. 161-168, Dec. 2015. (SCI)

[46] <u>Wei-Yen Hsu</u>*, "Assembling a Multi-feature EEG Classifier for Left-Right Motor Data Using Wavelet-based Fuzzy Approximate Entropy for Improved Accuracy," *International Journal of Neural Systems*, vol. 25, no. 8, 1550037, Dec. 2015. (SCI) **(IF=8.0, Rank (25/145)=17.2% Top** in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE)

[47] <u>Wei-Yen Hsu</u>*, "A Novel Image Registration Algorithm for Indoor and Built Environment Applications," *Computer-Aided Civil and Infrastructure Engineering*, vol. 30, no. 10, pp. 802-814, Oct. 2015. (SCI) **(IF=11.775, Rank (1/137)=0.7% Top** in ENGINEERING, CIVIL)

[48] <u>Wei-Yen Hsu</u>* and Ching-Yao Chou, "Medical Image Enhancement Using Modified Color Histogram Equalization," *Journal of Medical and Biological Engineering*, vol. 35, no. 5, pp. 580-584, Oct. 2015. (SCI)

[49] <u>Wei-Yen Hsu</u>*, "Segmentation-based compression: New frontiers of telemedicine in telecommunication," *Telematics and Informatics*, vol. 32, no. 3, pp. 475-485, Aug. 2015. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) **(中正資管 A list 期刊)**

[50] <u>Wei-Yen Hsu</u>*, "Enhancing the Performance of Motor Imagery EEG Classification Using Phase Features," *Clinical EEG and Neuroscience*, vol. 46, no. 2, pp. 113-118, Apr. 2015. (SCI)

[51] <u>Wei-Yen Hsu</u>*, "Brain-computer interface: The next frontier of telemedicine in human-computer interaction," *Telematics and Informatics*, vol. 32, no. 1, pp. 180-192, Feb. 2015. (SSCI) **(IF=9.140, Rank (4/84)=4.7% Top** in INFORMATION SCIENCE & LIBRARY SCIENCE) **(中正資管 A list 期刊)**

[52] <u>Wei-Yen Hsu</u>* and Ya-Ping Hu, "Artificial Bee Colony Algorithm for Single-Trial Electroencephalogram Analysis," *Clinical EEG and Neuroscience*, vol. 46, no. 2, pp. 119-125, Apr. 2015. (SCI)

[53] <u>Wei-Yen Hsu</u>* and Kuei-Wan Chen, "Segmentation-based Image Compression Using Modified Competitive Network," *Journal of Medical and Biological Engineering*, vol. 34, no. 6, pp. 542-546, Dec. 2014. (SCI)

[54] <u>Wei-Yen Hsu</u>*, "Motor Imagery EEG Discrimination Using the Correlation of Wavelet Features," *Clinical EEG and Neuroscience*, vol. 46, no. 2, pp. 94-99, Apr. 2015. (SCI)

[55] Wei-Yen Hsu*, "Motor Imagery Electroencephalogram Analysis Using Adaptive Neural-Fuzzy Classification," *International Journal of Fuzzy Systems*, vol. 16, no. 1, pp. 111-120, Mar. 2014. (SCI) (**IF=4.673, Rank (35/162)** in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE)

[56] Wei-Yen Hsu*, "Application of Quantum-behaved Particle Swarm Optimization to Motor Imagery EEG Classification," *International Journal of Neural Systems*, vol. 23, no. 6, 1350026, Dec. 2013. (SCI) (**IF=8.0, Rank (25/145)=17.2% Top** in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE)

[57] Wei-Yen Hsu*, "A practical approach based on analytic deformable algorithm for scenic image registration," *PLoS ONE*, vol. 8, no. 6, e66656, June 2013. (SCI)

[58] Wei-Yen Hsu*, "Improving the Classification Accuracy of Motor Imagery EEG Using a Genetic Feature Selection Method," *Clinical EEG and Neuroscience*, vol. 45, no. 3, pp. 163-168, July 2014. (SCI)

[59] Wei-Yen Hsu*, "Embedded Grey Relation Theory in Hopfield Neural Network: Application to Motor Imagery EEG Recognition," *Clinical EEG and Neuroscience*, vol. 44, no. 4, pp. 257-264, Oct. 2013. (SCI)

[60] Wei-Yen Hsu*, "Single-trial motor imagery classification using asymmetry ratio, phase relation, wavelet-based fractal, and their selected combination," *International Journal of Neural Systems*, vol. 23, no. 2, 1350007, Apr. 2013. (SCI) (**IF=8.0, Rank (25/145)=17.2% Top** in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE)

[61] Wei-Yen Hsu*, "Application of Prediction and Multiscale Synchronization to Brain-Computer Interface," *Journal of Medical and Biological Engineering*, vol. 34, no. 2, pp.137-143, Apr. 2014. (SCI)

[62] Wei-Yen Hsu*, "Independent Component Analysis and Multiresolution Asymmetry Ratio for Brain Computer Interface," *Clinical EEG and Neuroscience*, vol. 44, no. 2, pp. 105-111, Apr. 2013. (SCI)

[63] Wei-Yen Hsu*, "Registration Accuracy and Quality of Real-Life Images," *PLoS ONE*, vol. 7, no. 7, e40558, July 2012. (SCI)

[64] Wei-Yen Hsu*, "Embedded Prediction in Feature Extraction: Application to Single-Trial EEG Discrimination," *Clinical EEG and Neuroscience*, vol. 44, no. 1, pp. 31-38, Jan. 2013. (SCI)

[65] Wei-Yen Hsu*, "Application of Competitive Hopfield Neural Network to Brain-Computer Interface Systems," *International Journal of Neural Systems*, vol. 22, no. 1, pp. 51-62, Feb. 2012. (SCI) (**IF=8.0, Rank (25/145)=17.2% Top** in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE)

[66] Wei-Yen Hsu*, "Improved Watershed Transform for Tumor Segmentation: Application to Mammogram Image Compression," *Expert Systems with Applications*, vol. 39, no. 4, pp. 3950-3955, Mar. 2012. (SCI) (**IF=8.665, Rank (23/276)=8.3% Top** in OPERATIONS RESEARCH & MANAGEMENT SCIENCE)

[67] Wei-Yen Hsu*, Chao-Hung Lin, Hsien-Jen Hsu, Po-Hsun Chen, I-Ru Chen, "Wavelet-based Envelope Features with Automatic EOG Artifact Removal: Application to Single-Trial EEG Data," *Expert Systems with Applications*, vol. 39, no. 3, pp. 2743-2749, Feb. 2012. (SCI) (**IF=8.665, Rank (23/276)=8.3% Top** in OPERATIONS RESEARCH & MANAGEMENT SCIENCE)

[68] Wei-Yen Hsu*, "Enhanced active segment selection for single-trial EEG classification," *Clinical EEG and Neuroscience*, vol. 43, no. 2, pp. 87-96, Apr. 2012. (SCI)

[69] Wei-Yen Hsu*, "Fuzzy Hopfield Neural Network Clustering for Single-Trial Motor Imagery EEG Classification," *Expert Systems with Applications*, vol. 39, no. 1, pp. 1055-1061, Jan. 2012. (SCI) (**IF=8.665, Rank (23/276)=8.3% Top** in OPERATIONS RESEARCH & MANAGEMENT SCIENCE)

[70] Wei-Yen Hsu*, Yu-Chuan Li, Chien-Yeh Hsu, Chien-Tsai Liu, and Hung-Wen Chiu,

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Competition

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[3]　榮獲 ITSA 教育部智慧創新跨域人才培育計畫-學習服務推動分項『2021 年 ITSA 全國大專校院程式設計極客挑戰賽』第二名與獎金 3 萬元 (擔任指導老師)。

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