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EDUCATION

Doctor of Philosophy (Ph.D.) <i>University of Portsmouth, Portsmouth, U.K.</i>	2008
M.Sc. Communication Systems Engineering <i>University of Portsmouth, Portsmouth, U.K.</i>	2005
B.Eng. (Hons) Electronics Engineering <i>Multimedia University, Malaysia</i>	2003

PROFESSIONAL EXPERIENCE

Setiausaha Bahagian (Data Strategik & Foresight Teknologi) <i>Ministry of Science, Technology and Innovation (MOSTI), Malaysia.</i>	2020 - Present
Associate Professor <i>University of Malaya, Malaysia.</i>	2017 - Present
Deputy Dean (Research & Development) <i>Faculty of Comp. Sci., & Info, Tech. University of Malaya, Malaysia.</i>	2019 - 2020
Head of Department (Artificial Intelligence) <i>Faculty of Comp. Sci., & Info, Tech. University of Malaya, Malaysia.</i>	2017 - 2019
Senior Lecturer <i>University of Malaya, Malaysia.</i>	2010 - 2017

PUBLICATIONS (SELECTED)

Journal Articles

1. Fan, L., Ng, K.W., Chan, C.S. and Yang, Q. (in Press) "DeepIP: Deep Neural Network Intellectual Property with Passports", *IEEE Transactions on Pattern Analysis and Machine Intelligence*.

2. Japar, N., Kok, V.J. and Chan, C.S. (in Press) “Collectiveness Analysis with Visual Attributes”, *Neurocomputing*.
3. Lim, Y.Q., Chan, C.S. and Loo, F.Y. (2021) “ClaviNet: Generate Music with Different Musical Styles”, *IEEE MultiMedia*, vol. 28(1), pp. 83-93.
4. Japar, N., Kok, V.J. and Chan, C.S. (2021) “Coherent Group Detection in Still Image”, *Multimedia Tools and Applications*, vol. 80, pp. 22007-22026.
5. Chang, Y.L., Chan, C.S. and Remagnino, P. (2021) “Action Recognition on Continuous Video”, *Neural Computing and Applications*, vol. 33(4), pp. 1233-1243.
6. Pang, T., Wong, J.H.D., Ng, W.L. and Chan, C.S. (2021) “Semi-supervised GAN-based Radiomics Model for Data Augmentation in Breast Ultrasound Mass Classification”, *Computer Methods and Programs in Biomedicine*, vol. 203, pp. 106018.
7. Chng C.K., Chan, C.S. and Liu, C-L. (2020) “Total-Text: Towards Orientation Robustness in Scene Text Detection”, *International Journal on Document Analysis and Recognition*, vol. 23, pp. 31-52.
8. Tan, J.H., Chan, C.S. and Chuah, J.H. (2019) “COMIC: Compact Image Captioning with Attention”, *IEEE Transactions on Multimedia*, vol. 21(10), pp. 2668-2696.
9. Loh, Y.P., X. Liang and Chan, C.S. (2019) “Low-light image enhancement using Gaussian Process for features retrieval”, *Signal Processing: Image Communication*, vol. 74, pp. 175-190.
10. Tan, Y.H. and Chan, C.S. (2019) “Phrase-based Image Caption Generator with Hierarchical LSTM Network” *Neurocomputing*, vol. 333, pp. 86-100.
11. Loh, Y.P. and Chan, C.S. (2019) “Getting to Know Low-light Images with The Exclusively Dark Dataset”, *Computer Vision and Image Understanding*, vol. 178, pp. 30-42.
12. Tan, W.R., Chan, C.S., Aguirre, H. and Tanaka, K. (2019) “Improved ArtGan for Conditional Synthesis of Natural Image and Artwork”, *IEEE Transactions on Image Processing*, vol. 28(1), pp. 394-409.
13. Kok, V.J. and Chan, C.S. (2018) “Granular-based Dense Crowd Density Estimation”, *Multimedia Tools and Applications*, vol. 77(15), pp. 20227-20246.
14. Lee, S.H., Chan, C.S. and Remagnino, P. (2018) “Multi-Organ Plant Classification based on Convolutional and Recurrent Neural Network”, *IEEE Transactions on Image Processing*, vol. 27(9), pp. 4287-4301.

15. Ahmadian, A., Salahshour, S., Chan, C.S. and Baleanu, D. (2018) “Numerical Solutions of Fuzzy Differential Equations by an Efficient Runge-Kutta Method with Generalized Differentiability”, *Fuzzy Sets and Systems*, vol. 331, pp. 47-67.
16. Lee, S.H., Chan, C.S., Mayo, S. and Remagnino, P. (2017) “How Deep Learning Extracts and Learns Leaf Features for Plant Classification”, *Pattern Recognition*, vol. 71, pp. 1-13.
17. Tan, W.R., Chan, C.S., Aguirre, H.E. and Tanaka, K. (2017) “Fuzzy Qualitative Deep Compression Network”, *Neurocomputing*, vol. 251, pp. 1-15.
18. Kok, V.J. and Chan, C.S. (2017) “GrCS: Granular Computing based Crowd Segmentation”, *IEEE Transactions on Cybernetics*, vol. 47(5), pp. 1157-1168.
19. Ahmadian, A., Salahshour, S. and Chan, C.S. (2017) “Fractional Differential Systems: A Fuzzy Solution based on Operational Matrix of Shifted Chebyshev Polynomials and its Applications”, *IEEE Transactions on Fuzzy Systems*, vol. 25(1), pp. 218-236.
20. Lim, C.H. and Chan, C.S. (2016) “Fuzzy Qualitative Human Model for Viewpoint Identification”, *Neural Computing and Applications*, vol. 27(4), pp. 845-856.
21. Vats, E. and Chan, C.S. (2016). “Early Detection of Human Actions – A Hybrid Approach”, *Applied Soft Computing*, vol. 46, pp. 953-966.
22. Kok, V.J., Lim, M.K. and Chan, C.S. (2016) “Crowd Behaviour Analysis: A Review where Physics meets Biology”, *Neurocomputing*, vol. 177, pp. 342-362.
23. Tang, S. and Chan, C.S. (2016) “Orthogonal Planar Search (OPS) for Coronary Artery Centerline Extraction”, *Signal, Image and Video Processing*, vol. 10(2), pp. 335-342.
24. Vats, E., Lim, C.K. and Chan, C.S. (2015) “An Improved BK Sub-Triangle Product Approach for Scene Classification”, *Journal of Intelligent & Fuzzy Systems*, vol. 29 (5), pp. 1923-1931.
25. Hoo, W.L. and Chan, C.S. (2015) “Recognizing Unknown Objects with Attributes Relationship Model”, *Expert Systems with Application*, vol. 42 (23), pp. 9279-9283.
26. Hoo, W.L. and Chan, C.S. (2015) “Zero-shot Object Recognition System based on Topic Model”, *IEEE Transactions on Human-Machine Systems*, vol. 45(4), pp. 518-525
27. Tang, D., Yusuf, B., Botzheim, J., Kubota, N. and Chan, C.S. (2015) “A Novel Multimodal Communication Framework using Robot Partner for Aging Population”, *Expert Systems with Application*, vol. 42 (9), pp. 4540-4555.

28. Lim, C.H., Vats, E. and Chan, C.S. (2015) “Fuzzy Human Motion Analysis: A Review”, *Pattern Recognition*, vol. 48 (5), pp. 1773-1796.
29. Ahmadian, A., Salahshour, S. and Chan, C.S. (2015) “A Runge-Kutta Method with Reduced Number of Functional Evaluations to Solve Hybrid Fuzzy Differential Equations”, *Soft Computing*, vol. 19(4), pp. 1051-1062.
30. Hoo, W.L. and Chan, C.S. (2015) “Keybook: Unbias Object Recognition using Keywords”, *Expert Systems with Application*, vol. 42 (8), pp. 3991-3999.
31. Salahshour, S., Ahmadian, A. and Chan, C.S. (2015) “Successive Approximation Method for Caputo q-fractional IVPs”, *Communications in Nonlinear Science and Numerical Simulations*, vol. 24 (1-3), pp. 153-158.
32. Lim, C.K. and Chan, C.S. (2015) “A Weighted Inference Engine based on Interval-valued Fuzzy Relational Theory”, *Expert Systems with Application*, vol. 42 (7), pp. 3410-3419.
33. Lee, H.Y., Hoo, W.L. and Chan, C.S. (2015) “Color Video Denoising using Epitome and Sparse Coding”, *Expert Systems with Application*, vol. 42 (2), pp. 751-759.
34. Risnumawan, A., Palaiahnakote, S., Chan, C.S. and Tan, C.L. (2014) “A Robust Arbitrary Text Detection System for Natural Scene Images”, *Expert Systems with Application*, vol. 41 (18), pp. 8027-8048.
35. Lim, C.H.; A. Risnumawan and Chan, C.S. (2014) “Scene Image is Non-Mutually Exclusive – A Fuzzy Qualitative Scene Understanding” *IEEE Transactions on Fuzzy Systems*, vol. 22 (6), pp. 1541-1556.
36. Vembarasan, V., Balasubramaniam, P. and Chan, C.S. (2014) “Robust Synchronization of Uncertain Chaotic Neural Networks with Randomly Occurring Uncertainties and Non-fragile Output Coupling Delayed Feedback Controllers”, *Nonlinear Dynamics*, vol. 78 (3), pp. 2031-2047.
37. Vembarasan, V., Balasubramaniam, P. and Chan, C.S. (2014) “Non-fragile State Observer Design for Neural Networks with Markovian Jumping Parameters and Time-delays”, *Nonlinear Analysis: Hybrid Systems*, vol. 14, pp. 61-73.
38. Lim, M.K., Chan, C.S., Monekosso, D. and Remagnino, P. (2014) “Detection of Salient Regions in Crowded Scenes”, *IET Electronics Letters*, vol. 50 (5), pp. 363-365.
39. Lim, M.K., Tang, S. and Chan, C.S. (2014) “iSurveillance: Intelligent framework for Multiple Events Detection in Surveillance Videos”, *Expert Systems with Applications*, vol. 41 (10), pp. 4704-4715.

40. Lim, M.K., Chan, C.S., Monekosso, D. and Remagnino, P. (2014) “Refined Particle Swarm Intelligence Method for Abrupt Motion Tracking” *Information Sciences*, vol. 283, pp. 267-287.
41. Tan, W.R.; Chan, C.S.; Yogarajah, P. and Condell, J. (2012) “A Fusion Approach for Efficient Human Skin Detection” *IEEE Transactions on Industrial Informatics*, vol. 8(1), pp. 138-147.
42. Lim, C.K. and Chan, C.S. (2011) “Logical Connectives and Operativeness of BK Sub-triangle Product in Fuzzy Inferencing” *International Journal of Fuzzy Systems*, vol. 13(4), pp. 237-245.
43. Chan, C.S. and Liu, H. (2009) “Fuzzy Qualitative Human Motion Analysis” *IEEE Transactions on Fuzzy Systems*, vol. 17(4), pp. 851-862.
44. Chan, C.S., Liu, H. and Brown, D.J. (2007) “Adapting Robot Kinematics for Human-arm Motion Recognition” *International Journal of Knowledge-Based & Intelligent Engineering Systems*, vol. 11(4), 2007, pp.207-217.
45. Chan, C.S., Liu, H. and Brown, D.J. (2007) “Recognition of Human Motion from Qualitative Normalised Templates” *Journal of Intelligent and Robotic Systems*, vol. 48(1), Springer, pp.79-95.

Refereed Conference Papers

46. Ong, D.S., Chan, C.S., Ng, K.W., Fan, L. and Yang, Q. “Protecting Intellectual Property of Generative Adversarial Networks from Ambiguity Attack”, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, June, 2021
47. Lim, J.H., Tan, C.S., Chan, C.S. Welikala, R.A., Remagnino, P., Rajendran, S., Kallarakkal, T.G., et. al. “D’OraCa: Deep Learning-based classification of Oral Lesions with Mouth Landmark Guidance for Early Detection of Oral Cancer”, *25th UK Conference on Medical Image Understanding and Analysis (MIUA)*, Oxford, U.K, 2021.
(Best Student Paper Award)
48. Fan, L., Ng, K.W., Ju, C., Zhang T. and Chan, C.S. “Deep Polarized Network for Supervised Learning of Accurate Binary Hashing Codes”, *International Joint Conference on Artificial Intelligence (IJCAI)*, Yokohama, Japan, 2020.
49. Lim, Y.Q., Chan, C.S. and Loo, F.Y. “Style-conditioned Music Generation” *IEEE International Conference on Multimedia and Expo (ICME)*, London, U.K., July 2020. (Top 10% papers)

50. Wang, X., Liu, Y., Shen, C., Ng, C.C., Luo, C., Jin, L., Chan, C.S., Hengel, A.v. and Wang, L. “On the General Value of Evidence, and Bilingual Scene-Text Visual Question Answering”, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), Washington, USA, June, 2020*.
51. Fan, L., Ng, K.W. and Chan, C.S. “Rethinking Deep Neural Network Ownership Verification: Embedding Passports to Defeat Ambiguity Attacks”, *Thirty-third Conference on Neural Information Processing Systems (NeurIPS), Vancouver, Canada, Dec., 2019*.
52. Lim, J.H. and Chan, C.S. “Mask Captioning Network”, *IEEE International Conference on Image Captioning (ICIP), Taipei, Taiwan, Sept. 2019*.
53. Ng, K.W., Fan, L. and Chan, C.S. “A Universal Logic Operator for Interpretable Deep Convolution Networks” *AAAI Workshop on Network Interpretability for Deep Learning, Hawaii, USA, Jan. 2019*.
54. Hoo, W.L. and Chan, C.S. “Anisotropic Partial Differential Equation based Video Saliency Detection”, *IEEE International Conference on Image Processing (ICIP), Athens, Greece, Oct., 2018*.
55. Chng, C.K. and Chan, C.S. “Total-Text: A Comprehensive Dataset for Scene Text Detection and Recognition”, *14th IAPR International Conference on Document Analysis and Recognition (ICDAR), Kyoto, Japan, Nov., 2017*.
56. Tan, W.R., Chan, C.S., Aguirre, H. and Tanaka, K. “ArtGAN: Artwork Synthesis with Conditional Categorical GANs”, *IEEE International Conference on Image Processing (ICIP), Beijing, PR China, Sept., 2017*.
57. Lee, S.H., Chang, Y.L., Chan, C.S. and Remagnino, P. “HGO-CNN: Hybrid Generic-Organ Convolutional Neural Network for Multi-Organ Plant Classification”, *IEEE International Conference on Image Processing (ICIP), Beijing, PR China, Sept., 2017*.
58. Khare, V., Palaiahnakote, S., Ahlad, K., Chan, C.S., Lu, T. and Blumenstien, M. “A Quad Tree based Method for Blurred and Non-blurred Video Text Frames Classification”, *IAPR International Conference on Pattern Recognition (ICPR), Cancun, Mexico, Dec., 2016*.
59. Tan, Y.H. and Chan, C.S. “phi-LSTM: A Phrase-based Hierarchical LSTM Model for Image Captioning”, *Asian Conference on Computer Vision (ACCV), Taipei, Taiwan, Nov., 2016*.
60. Tan, W.R., Chan, C.S., Aguirre, H. and Tanaka, K. “A Deep Convolution Network for Fine-art Paintings Classification”, *Proceedings of the IEEE International Conference on Image Processing (ICIP), Phoenix, USA, Sept., 2016*.

61. Jhavar A., Chan, C.S., Monekosso, D. and Remagnino, P. “Fuzzy-Rough based Decision System for Gait Adopting Instance Selection”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Vancouver, Canada, July, 2016.*
62. Loh, Y.P., and Chan, C.S. “Unveiling Contrast in Darkness”, *3rd Asian Conference on Pattern Recognition (ACPR), Kuala Lumpur, Malaysia, Nov., 2015.*
63. Lee, S.H., Chan, C.S., Wilkin, P. and Remagnino, P. “Deep-Plant: Plant Identification with Convolutional Neural Networks”, *Proceedings of the IEEE International Conference on Image Processing (ICIP), Quebec City, Canada, Sept., 2015.*
64. Salahshour, S., Ahmadian, A., Chan, C.S. and Baleanu, D. “Toward the Existence of Solutions of Fractional Sequential Differential Equations with Uncertainty”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Istanbul, Turkey, Aug., 2015.*
65. Vats, E., Lim, C.K. and Chan, C.S. “Early Human Actions Detection using BK Sub-triangle Product”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Istanbul, Turkey, Aug., 2015.*
(Best Student Paper Nomination)
66. Risnumawan, A. and Chan, C.S. “Text Detection via Edgeless Stroke Width Transform”, *International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS), Kuching, Malaysia, Dec., 2014.*
67. Lim, M.K., Kok, V.J., Loy, C.C. and Chan, C.S. “Crowd Saliency Detection via Global Similarity Structure”, *IAPR International Conference on Pattern Recognition (ICPR), Stockholm, Sweden, Aug., 2014.*
68. Hoo, W.L., Kim, T-K., Pei, Y. and Chan, C.S. “Enhanced Random Forest with Image/Patch Level Learning for Image Understanding”, *IAPR International Conference on Pattern Recognition (ICPR), Stockholm, Sweden, Aug., 2014.*
69. Ahmadian, A., Chan, C.S., Salahshour, S. and Vembarasan, V. “FTFBE: A Numerical Approximation for Fuzzy Time-Fractional Bloch Equation”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Beijing, China, July, 2014.*
70. Hoo, W.L. and Chan, C.S. “Plsa-based Zero Shot Learning”, *Proceedings of the IEEE International Conference on Image Processing (ICIP), Melbourne, Australia, Sept., 2013.*
71. Lim, C.H. and Chan, C.S. “Fuzzy Action Recognition for Multiple Views within Single Camera”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Hyderabad, India, July, 2013.*

72. Vats, E., Jhavar, A., Tripathy, B.K., and Chan, C.S. “Generalised Approximate Equalities based on Rough Fuzzy Sets and Rough Measure of Fuzzy Sets”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Hyderabad, India, July, 2013.*
73. Lim, C.K. and Chan, C.S. “Inference Engine based on Interval Type-2 Fuzzy BK Subproduct”, *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Hyderabad, India, July, 2013.*
74. Tang, S.L. and Chan, C.S. “A Neighbourhood Search and Feedback for Coronary Artery Centerline Tracking”, *Proceedings of the IAPR Conference on Machine Vision Applications (MVA), Kyoto, Japan, May, 2013.*
75. Lim, M.K., Chan, C.S., Monekosso, D. and Remagnino, P. “SwATrack: A Swarm Intelligence-based Abrupt Motion Tracker”, *Proceedings of the IAPR Conference on Machine Vision Applications (MVA), Kyoto, Japan, May, 2013.*
76. Lim, C.K. and Chan, C.S. “Fuzzy Set and Multi Description Property” *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Brisbane, Australia, June, 2012, pp. 1-8.*
77. Lim, C.H. and Chan, C.S. “A Fuzzy Qualitative Approach for Scene Classification” *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Brisbane, Australia, June, 2012, pp. 1-8.*
78. Lam, M.C., Prabuwo, A.S., Arshad, H. and Chan, C.S. “A Real-Time Vision Based Framework for Human-Robot Interaction”, *Lecture Notes in Computer Science (LNCS), vol. 4066, Springer 2011, pp. 257-267.*
(Best Paper Award in IVIC-2011)
79. Chan, C.S., Liu, H., and Lai, W.K. “Fuzzy Qualitative Complex Actions Recognition” *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Barcelona, Spain, June, 2011, pp. 1-8.*
80. Kiran, M., Teng, S.L., Chan, C.S. and Lai, W.K. “Human Posture Classification using Hybrid Particle Swarm Optimisation” *Proceedings of the 10th International Conference on Information Sciences, Signal Processing and their applications (ISSPA), Kuala Lumpur, Malaysia, 2010, pp. 778-781.*
(Best Paper Award)
81. Hanapiah, F., Al-Obaidi, A. and Chan, C.S. “Anomaly Detection over Spatiotemporal Object Using Adaptive Piecewise Model” *Lecture Notes in Computer Science (LNCS), vol. 6230, Springer 2010, pp. 421-432.*
82. Shin, H. Reyes, N.H., Barczak, A. and Chan, C.S. “Colour Object Classification Using the Fusion of Visible and Near-Infrared Spectra” *Lecture Notes in Computer Science (LNCS), vol. 6230, Springer 2010, pp. 498-509.*
83. Chan, C.S. and Liu, H. “GMM-QNT Hybrid Framework for Vision based Human Motion Analysis” *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Jeju Island, Korea, 2009, pp. 1820-1825.*

84. Chan, C.S., Liu, H., Brown, D.J. and Kubota, N. “A Fuzzy Qualitative Approach to Human Motion Recognition” *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Hong Kong, June, 2008, pp. 1242-1249.*
85. Chan, C.S., Liu, H. and Brown, D.J. “An Effective Human Motion Classification Approach using Knowledge Representation in Qualitative Normalised Templates” *Proceedings of the IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), London, U.K., July 2007, pp. 1-6.*
86. Chan, C.S., Liu, H. and Brown, D.J. “Human Motion Classification using Qualitative Normalised Templates” *Proceedings of the 2006 UK Workshop on Computational Intelligence (UKCI), Leeds, U.K., 2006, pp. 127-134.*
87. Chan, C.S., Liu, H. and Brown, D.J. “Human Arm-Motion Classification using Qualitative Normalised Templates” *Lecture Notes in Computer Science (LNCS), vol. 4251 (Part I), Springer 2006, pp. 639-646.*
(Best Student Paper Award)

PROFESSIONAL SERVICES

- 2021 **Competition organizer**, RRC-Integrated Circuit Text Spotting and Aesthetic Assessment, 16th International Conference on Document Analysis and Recognition (ICDAR), Lausanne, Switzerland
Workshop organizer, IEEE International Joint Conference on Artificial Intelligence (IJCAI), Montreal, Canada
Brain New Ideas Chair, ACM Multimedia Asia (ACMMM-Asia), Gold Coast, Australia
- 2020 **General chair**, 13th International Conference on Intelligent Robotics and Applications (ICIRA), Kuala Lumpur, Malaysia
- 2019 **General chair**, IEEE 21st International Workshop on Multimedia Signal Processing (MMSP), Kuala Lumpur, Malaysia
- 2018 **Workshop organizer**, IEEE International Joint Conference on Artificial Intelligence (IJCAI), Stockholm, Sweden
Guest Editor, special issue on The Deep Learning in Computational Photography, Signal Processing: Image Communication (Elsevier)
- 2017 **Finance co-chair**, 9th Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA), Malaysia
Co-Chair, special session on Fuzzy Set Theory in Computer Vision, (FUZZ-IEEE), Italy
Guest Editor, special issue on Feature and Deep Learning in Remote Sensing Applications, Journal of Applied Remote Sensing (JARS, SPIE)

- 2016 **Chapter Chair**, IEEE Computational Intelligence Society (IEEE-CIS), Malaysia
Honorary Treasurer, Institute of Engineering and Technology, IET (Malaysia)
Regional Chair, 7th International Conference on Imaging for Crime Detection and Prevention (ICDP), Spain
Publication Chair, 8th Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA), Korea
Co-Chair, special session on Fuzzy Set Theory in Computer Vision, (FUZZ-IEEE), Canada
- 2015 **Organizing Chair**, IAPR 3rd Asian Conference on Pattern Recognition, (ACPR), Malaysia
Honorary Treasurer, Institute of Engineering and Technology, IET (Malaysia)
Chapter Chair, IEEE Computational Intelligence Society (IEEE-CIS), Malaysia
Publicity Co-Chairs, 19th Asia Pacific Symposium on Intelligent and Evolutionary Systems (IES), Thailand
Regional Chair, 6th International Conference on Imaging for Crime Detection and Prevention (ICDP), UK
Co-Chair, special session on Fuzzy Set Theory in Computer Vision, (FUZZ-IEEE), Turkey
- 2014 **Chapter Chair**, IEEE Computational Intelligence Society (IEEE-CIS), Malaysia
Symposium Chair, INNS Symposium on Vision and Image Processing (SoVIP), Brunei
Publication Chair, 22nd International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS), Malaysia
Co-Chair, special session on Cognitive Science and Computational Intelligence (APSIPA), Cambodia
Co-Chair, special session on Fuzzy Set Theory in Computer Vision, (FUZZ-IEEE), China
Guest Editor, special issue on Visual Communication and Image Processing, Signal, Image and Video Processing (SIViP, Springer)
- 2013 **General Chair**, IEEE Conference on Visual Communication and Image Processing (VCIP), Malaysia
Guest Editor, special issue on New Trend of Computational Intelligence in Human-Robot Interaction, Information Sciences (INS, Elsevier)
Co-Chair, special session on Computational Intelligence for Cognitive Robotics (FUZZ-IEEE), India
Regional Chair, 5th International Conference on Imaging for Crime Detection and Prevention (ICDP), UK
- 2012 **Symposium Chair**, INNS (Thailand)
- 2011 **Co-Chair**, special session on Fuzzy Robotics (FUZZ-IEEE), Taiwan

2010 **Guest Editor**, special issue on Recent Advances in Fuzzy Qualitative Reasoning, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems (IJUFKS, World Scientific)

- Associate Editor, IEEE/CAA Journal of Automatica Sinica since 2018
- Chartered Engineer, CEng U.K. since 2015.
- Board of Governors (Malaysia representative), International Association on Pattern Recognition (IAPR) since 2014.
- IEEE Senior Member, SMIEEE since 2013.

HONORS AND AWARDS

- 2017 **Excellence Service Award**, University of Malaya, Malaysia
- 2016 **Silver Medal (Invention & Innovation Awards)**, Malaysia Technology Expo, Kuala Lumpur, Malaysia
- 2015 **Member**, Young Scientist Network – Academy of Sciences Malaysia
Chartered Engineer, Institute of Engineering and Technology, U.K.
Best Student Paper Nomination Award, FUZZ-IEEE 2015, Istanbul, Turkey
- 2014 **Visiting Associate Professor**, Tokyo Metropolitan University, Japan
Visiting Researcher, University of Reading, U.K.
- 2013 **Hitachi Fellowship**, Hitachi, Japan
- 2011 **Best Paper Award**, IVIC2011, Kuala Lumpur, Malaysia
- 2010 **IET Young Engineer Award**, Malaysia
Best Paper Award, ISSPA2010, Kuala Lumpur, Malaysia
- 2006 **Best Student Paper Award**, KES2006, Bournemouth, U.K.
British Top 100's Early Stage Research Engineer, U.K.

TEACHING EXPERIENCE

- University of Malaya – Faculty of Comp. Sci. and Info. Tech.
 - **Computer System and Organisation**, Sem I 2016, 2017 [graduate course]
 - **Computer Vision and Pattern Recognition**, Sem II 2015, 2016, 2017, 2018 [postgraduate]
 - **Data Structure**, Sem II 2019 [graduate course]
 - **Fuzzy Logic**, Sem I 2011, 2012, 2013, 2014, 2015, 2016, 2017 [graduate course]
 - **Image Processing**, Sem II 2012, 2013, 2014, 2019, 2020 [graduate course]
 - **Machine Learning**, Sem I, 2012 [graduate course]
 - **Neural Network**, Sem II 2011, 2020 [graduate course]

ADVISING

- Current graduate students
 - Jia Huei Tan – Ph.D.
 - Ying Hua Tan - Ph.D.
 - Yang Loong Chang – Ph.D.
 - Jian Han Lim – Ph.D.
 - Chun Chet Ng - Ph.D.
 - Nurul Japar – Ph.D.
 - Hamizah Miswan - Ph.D.
- Former students
 - Jessica Wong - Ph.D. (2021)
 - Chee Kheng Chng – Masters (2019)
 - Yuen Peng Loh - Ph.D. (2019)
 - Sue Han Lee - Ph.D. (2018)
 - Ven Jyn Kok - Ph.D. (2016)
 - Ekta Vats - Ph.D. (2016)
 - Anhar Risnumawan – Masters (2015)
 - Sze Ling Tan - Ph.D. (2015)
 - Mei Kuan Lim - Ph.D. (2015)
 - Chern Hong Lim - Ph.D. (2015)
 - Wai Lam Hoo - Ph.D. (2015)
 - Chee Kau Lim - Ph.D. (2015)
 - Ishan Abeywardena – Ph.D. (2015)
 - Wei Ren Tan – Masters (2012)

REFERENCE UPON REQUEST