

TAN Ah Hwee

School of Computing and Information Systems
Singapore Management University (SMU)
80 Stamford Road
Singapore 178902

Email: ahtan@smu.edu.sg

Office Phone: 6828 0022



Education

PhD, Boston University, United States of America, 1994

Master of Science, National University of Singapore, Singapore, 1991

Bachelor of Science, National University of Singapore, Singapore, 1989

Academic Appointments

Professor of Computer Science, School of Computing and Information Systems, SMU, Apr 2021 - Present

Professor of Information Systems, School of Computing and Information Systems, SMU, Mar 2020 - Mar 2021

Professor of Computer Science, School of Computer Science and Engineering, NTU, Singapore, Sep 2016 - Mar 2020

Associate Professor of Computer Science, School of Computer Science and Engineering, NTU (Tenured in April 2008), Singapore, Feb 2003 - Aug 2016

Academic Administrative Positions

Jubilee Technology Fellow, School of Computing and Information Systems, SMU, Jul 2021 - Present

Associate Dean (Research), School of Computing and Information Systems, SMU, Jul 2020 - Present

Member, NTU Research Integrity Committee, Singapore, Sep 2017 - Feb 2020

Associate Chair (Research), School of Computer Science and Engineering, NTU, Singapore, Jan 2017 - Feb 2020

Member, NTU Teaching Council, Singapore, Aug 2016 - Feb 2020

Head of Division, Division of Software & Information Systems, School of Computer Engineering, NTU, Singapore, Jun 2011 - Jan 2014

Head of Division, Division of Information Systems, School of Computer Engineering, NTU, Singapore, Jun 2008 - May 2011

Director, Emerging Research Laboratories, School of Computer Engineering, NTU, Singapore, Dec 2004 - Aug 2008

Other Positions and Affiliations

Technical Consultant, DSO National Laboratories, Singapore, Jan 2010 - Mar 2013

Faculty Associate, AStar Institute for Infocomm Research (concurrent appointment), Singapore, Mar 2006 - Feb 2008

Technical Consultant, AStar Institute for Infocomm Research (concurrent appointment), Singapore, Sep 2006 - Mar 2007

Visiting Professor, University of Melbourne (concurrent appointment), Australia, Dec 2004 - Jan 2005

Research Manager, Institute for Infocomm Research, Singapore, Nov 2002 - Feb 2003

Research Manager, Laboratories for Information Technology, Singapore, Jan 2002 - Nov 2002

Senior Member Research Staff, Kent Ridge Digital Laboratories, Singapore, Apr 1999 - Dec 2001

Member Research Staff, Kent Ridge Digital Laboratories, Singapore, Apr 1998 - Mar 1999

Associate Research Staff, Institute of Systems Science, Singapore, May 1994 - Mar 1998

Software Engineer, Institute of Systems Science, Singapore, Apr 1989 - May 1994

Awards and Honors

Best Paper Award, The 4th IEEE International Conference on Agents, Jinan, China, 2019

Incoming Visiting Fellowship, Cardiff University, 2018

Best Paper Award, International Conference on Ageless Ageing, 2017

Divisional Innovation Award, DSO, 2016

Recognition of Service Award, ACM, 2015

Outstanding Service Award, Web Intelligence Consortium (WIC), 2015

Best Paper Award, 18th International Conference on MultiMedia Modelling, 2012

Exchange Fellowship in Engineering, Tan Chin Tuan, 2014, 2005

Gold Award, Optimal 2003 Exhibition of Innovations and Inventions, 2003

High Achiever Award, KRDL, 1999

Overseas Graduate Fellowship, National University of Singapore, 1990, 1991, 1992, 1993, 1994

Young Inventor Award (Silver), Tan Kah Kee, 1991

Professional Memberships

Member, Web Intelligence (WI) Conference Steering Committee, 2016 - 2020

Member, Web Intelligence (WI) Technical Committee, 2016 - 2020

Member, IEEE Computational Intelligence Society, 2008 - 2020

Senior Member, IEEE, 2004 - 2020

RESEARCH

Research and Project Areas

Cognitive and neural systems, brain-inspired computing, machine learning, knowledge discovery, text mining

Publications

Journal Articles [Refereed]

Vision-based topological mapping and Navigation with self-organizing neural networks, by HU, Yue; SUBAGDJA, Budhitama; TAN, Ah Hwee; YIN, Quanjun. (2021). *IEEE Transactions on Neural Networks and Learning Systems*, 1-13. (Published)

Hierarchical reinforcement learning: A comprehensive survey, by PATERIA, Shubham; SUBAGDJA, Budhitama; TAN, Ah Hwee; QUEK, Chai. (2021). *ACM Computing Surveys*, 54 (5), 1-35. (Published)

End-to-End Hierarchical Reinforcement Learning with Integrated Subgoal Discovery, by PATERIA, S.; SUBAGDJA, B.; TAN, Ah H.; QUEK, C.. (2021). *IEEE Transactions on Neural Networks and Learning Systems*, 54 (5), 1-39. (Accepted)

Learning ADL daily routines with spatiotemporal neural networks, by GAO, Shan; TAN, Ah-Hwee; SETCHI, Rossi. (2021). *IEEE Transactions on Knowledge and Data Engineering*, 33 (1), 143-153. <https://doi.org/10.1109/TKDE.2019.2924623> (Published)

A systematic density-based clustering method using anchor points, by WANG, Yizhang; WANG, Di; MIAO, Chunyan; TAN, Ah-Hwee; ZHOU, You. (2020). *Neurocomputing*, 400 352-370. <https://doi.org/10.1016/j.neucom.2020.02.119> (Published)

Goods consumed during transit in split delivery vehicle routing problems: Modeling and solution, by YANG, Wenzhe; WANG, Di; PANG, Wei; TAN, Ah-Hwee; ZHOU, You. (2020). *IEEE Access*, 8 110336-110350. <https://doi.org/10.1109/ACCESS.2020.3001590> (Published)

McDPC: Multicenter density peak clustering, by WANG, Yizhang; WANG, Di; ZHANG, Xiaofeng; PANG, Wei; MIAO, Chunyan; TAN, Ah-Hwee; ZHOU, You. (2020). *Neural Computing and Applications*, 32 (17), 1-19. <https://doi.org/10.1007/s00521-020-04754-5> (Published)

CoRRN: Cooperative Reflection Removal Network, by WAN, Renjie; SHI, Boxin; LI, Haoliang; DUAN, Ling-Yu; TAN, Ah-Hwee; KOT, Alex C.. (2020). *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 42 (12), 2969-2982. <https://doi.org/10.1109/TPAMI.2019.2921574> (Published)

Saliency-aware adaptive resonance theory for large-scale sparse data clustering, by MENG, Lei; TAN, Ah-Hwee; MIAO, Chunyan. (2019). *Neural Networks*, 120 143-157. <https://doi.org/10.1016/j.neunet.2019.09.014> (Published)

Self-organizing neural networks for universal learning and multimodal memory encoding, by TAN, Ah-Hwee; SUBAGDJA, Budhitama; WANG, Di; MENG, Lei. (2019). *Neural Networks*, 120 58-73. <https://doi.org/10.1016/j.neunet.2019.08.020> (Published)

REDPC: A residual error-based density peak clustering algorithm, by PARMAR, Milan; WANG, Di; ZHANG, Xiaofeng; TAN, Ah-Hwee; MIAO, Chunyan; JIANG, Jianhua; ZHOU, You. (2019). *Neurocomputing*, 348 82-96. <https://doi.org/10.1016/j.neucom.2018.06.087> (Published)

Perception coordination network: A neuro framework for multimodal concept acquisition and binding, by XING, You-Lu; SHI, Xiao-Feng; SHEN, Fu-Rao; ZHAO, Jin-Xi; PAN, Jing-Xin; TAN, Ah-Hwee. (2019). *IEEE Transactions on Neural Networks and Learning Systems*, 30 (4), 1104-1118. <https://doi.org/10.1109/TNNLS.2018.2861680> (Published)

A coordination framework for multi-agent persuasion and adviser systems, by SUBAGDJA, Budhitama; TAN, Ah-Hwee; KANG, Yilin. (2019). *Expert Systems with Applications*, 116 31-51. <https://doi.org/10.1016/j.eswa.2018.08.030> (Published)

An interpretable neural fuzzy inference system for predictions of underpricing in initial public offerings, by WANG, Di; QIAN, Xiaolin; QUEK, Chai; TAN, Ah-Hwee; MIAO, Chunyan; ZHANG, Xiaofeng; NG, Geok See; ZHOU, You. (2018). *Neurocomputing*, 319 102-117. <https://doi.org/10.1016/j.neucom.2018.07.036> (Published)

Region-aware reflection removal with unified content and gradient priors, by WAN, Renjie; SHI, Boxin; DUAN, Ling-Yu; TAN, Ah-Hwee; GAO, Wen; KOT, Alex C.. (2018). *IEEE Transactions on Image Processing*, 27 (6), 2927-2941. <https://doi.org/10.1109/TIP.2018.2808768> (Published)

Summarization of egocentric videos: A comprehensive survey, by GARCIA DEL MOLINO, Ana; TAN, Cheston; LIM, Joo-Hwee; TAN, Ah-Hwee. (2016). *IEEE Transactions on Human-Machine Systems*, 47 (1), 65-76. <https://doi.org/10.1109/THMS.2016.2623480> (Published)

Towards autonomous behavior learning of non-player characters in games, by FENG, Shu; TAN, Ah-Hwee. (2016). *Expert Systems with Applications*, 56 (1), 89-99. <https://doi.org/10.1016/j.eswa.2016.02.043> (Published)

Social context cognition crowd-sourcing and semi-automatic parametrization, by KOCHANOWICZ, Jaroslaw; TAN, Ah-Hwee; THALMANN, Daniel. (2016). *Computer Animation and Virtual Worlds*, 27 (3-4), 330-339. <https://doi.org/10.1002/cav.1718> (Published)

Interactive teachable cognitive agents: Smart building blocks for multiagent systems, by SUBAGDJA, Budhitama; TAN, Ah-Hwee. (2016). *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 46 (12), 1724-1735. <https://doi.org/10.1109/TSMC.2016.2531656> (Published)

Semantic memory modeling and memory interaction in learning agents, by WANG, Wenwen; TAN, Ah-Hwee; TEOW, Loo-Nin. (2016). *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 47 (11), 47-11. <https://doi.org/10.1109/TSMC.2016.2531683> (Published)

Adaptive scaling of cluster boundaries for large-scale social media data clustering, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.. (2015). *IEEE Transactions on Neural Networks and Learning Systems*, 27 (12), 2656-2669. <https://doi.org/10.1109/TNNLS.2015.2498625> (Published)

Neural modeling of sequential inferences and learning over episodic memory, by SUBAGDJA, Budhitama; TAN, Ah-Hwee. (2015). *Neurocomputing*, 161 229-242. <https://doi.org/10.1016/j.neucom.2015.02.038> (Published)

Memes as building blocks: a case study on evolutionary optimization + transfer learning for routing problems, by FENG, Liang; ONG, Yew-Soon; TAN, Ah-Hwee; TSANG, Ivor W.. (2015). *Memetic Computing*, 7 (3), 159-180. <https://doi.org/10.1007/s12293-015-0166-x> (Published)

Dramaturgical and dissonance theories in explicit social context modeling for complex agents, by KOCHANOWICZ, Jaroslaw; TAN, Ah-Hwee; THALMANN, Daniel. (2015). *Computer Animation and Virtual Worlds*, 26 (3-4), 247-257. <https://doi.org/10.1002/cav.1639> (Published)

Band selection for hyperspectral images using probabilistic memetic algorithm, by FENG, Liang; TAN, Ah-Hwee; LIM, Meng-Hiot; JIANG, Si Wei. (2014). *Soft Computing*, 20 (12), 4685-4693. <https://doi.org/10.1007/s00500-014-1508-1> (Published)

Creating autonomous adaptive agents in a real-time first-person shooter computer game, by WANG, Di; TAN, Ah-Hwee. (2014). *IEEE Transactions on Computational Intelligence and AI in Games*, 7 (2), 123-138. <https://doi.org/10.1109/TCIAIG.2014.2336702> (Published)

Self-organizing neural networks integrating domain knowledge and reinforcement learning, by TENG, Teck-Hou; TAN, Ah-Hwee; ZURADA, Jacek M.. (2014). *IEEE Transactions on Neural Networks and Learning Systems*, 26 (5), 889-902. <https://doi.org/10.1109/TNNLS.2014.2327636> (Published)

Adaptive computergenerated forces for simulatorbased training, *Expert Systems with Applications*, by TENG, Teck-Hou; TAN, Ah-Hwee; TEOW, Loo-Nin. (2013). *Expert Systems with Applications*, 40 (18), 7341-7353. <https://doi.org/10.1016/j.eswa.2013.07.004> (Published)

Semi-supervised heterogeneous fusion for multimedia data co-clustering, by MENG, Lei; TAN, Ah-Hwee; XU, Dong. (2013). *IEEE Transactions on Knowledge and Data Engineering*, 26 (9), 2293-2306. <https://doi.org/10.1109/TKDE.2013.47> (Published)

Cognitive architectures and autonomy: Commentary and response, by DUCH, Wodzisaw; TAN, Ah-Hwee; FRANKLIN, Stan. (2012). *Journal of Artificial General Intelligence*, 3 (2), 31-63.

<https://doi.org/10.2478/v10229-011-0016-2> (Published)

Neural modeling of episodic memory: Encoding, retrieval, and forgetting, by WANG, Wenwen; SUBAGDJA, Budhitama; TAN, Ah-Hwee; STARZYK, Janusz A.. (2012). *IEEE Transactions on Neural Networks and Learning Systems*, 23 (10), 1574-1586. <https://doi.org/10.1109/TNNLS.2012.2208477> (Published)

A non-parametric visual-sense model of images: Extending the cluster hypothesis beyond text, by WAN, Kong-Wah; TAN, Ah-Hwee; LIM, Joo-Hwee; CHIA, Liang-Tien. (2012). *Multimedia Tools and Applications*, 56 (3), 509-534. <https://doi.org/10.1007/s11042-010-0615-y> (Published)

iFALCON: A neural architecture for hierarchical planning, by SUBAGDJA, Budhitama; TAN, Ah-Hwee. (2012). *Neurocomputing*, 86 124-139. <https://doi.org/10.1016/j.neucom.2012.01.008> (Published)

Motivated learning for the development of autonomous agents, by STARZYK, Janusz A.; GRAHAM, James T.; RAI, Pawel; TAN, Ah-Hwee. (2012). *Cognitive Systems Research*, 14 (1), 10-25. <https://doi.org/10.1016/j.cogsys.2010.12.009> (Published)

Extreme learning machine terrain-based navigation for unmanned aerial vehicles, by KAN, Ee May; LIM, Meng Hiot; ONG, Yew Soon; TAN, Ah-Hwee; YEO, Swee Ping. (2012). *Neural Computing and Applications*, 22 (3-4), 469-477. <https://doi.org/10.1007/s00521-012-0866-9> (Published)

Preface: Trends in natural and machine intelligence, by CHAN, Jonathan H.; TAN, Ah-Hwee. (2012). *Procedia Computer Science*, 13 1-6. <https://doi.org/10.1016/j.procs.2012.09.108> (Published)

Selfregulating action exploration in reinforcement learning, by TENG, Teck-Hou; TAN, Ah-Hwee; TAN, Yuan-Sin. (2012). *Procedia Computer Science*, 13 18-30. <https://doi.org/10.1016/j.procs.2012.09.110> (Published)

Cooperative reinforcement learning in topology-based multi-agent systems, by XIAO, Dan; TAN, Ah-Hwee. (2011). *Autonomous Agents and Multi-Agent Systems*, 26 (1), 86-119. <https://doi.org/10.1007/s10458-011-9183-4> (Published)

A hybrid agent architecture integrating desire, intention and reinforcement learning, by TAN, Ah-Hwee; ONG, Yew-Soon; TAPANUJ, Akejariyawong. (2011). *Expert Systems with Applications*, 38 (7), 8477-8487. <https://doi.org/10.1016/j.eswa.2011.01.045> (Published)

Creating an immersive game world with evolutionary fuzzy cognitive maps, by CAI, Yundong; TAN, Ah-Hwee; SHEN, Zhiqi; LI, Boyang. (2010). *IEEE Computer Graphics and Applications*, 30 (2), 58-70. <https://doi.org/10.1109/MCG.2009.80> (Published)

A self-organizing neural architecture integrating desire, intention and reinforcement learning, by TAN, Ah-Hwee; FENG, Yu-Hong; ONG, Yew-Soon. (2010). *Neurocomputing*, 73 (7-9), 1465-1477. <https://doi.org/10.1016/j.neucom.2009.11.012> (Published)

CRCTOL: A semantic based domain ontology learning system, by JIANG, Xing; TAN, Ah-Hwee. (2010). *Journal of the American Society for Information Science and Technology*, 61 (1), 150-168. <https://doi.org/10.1002/asi.21231> (Published)

Wikipedia2Onto: Building concept ontology automatically, experimenting with web image retrieval, by WANG, Huan; JIANG, Xing; CHIA, Liang-Tien; TAN, Ah-Hwee. (2010). *Informatica*, 3 297-306. (Published)

Coherent phrase model for efficient image near-duplicate retrieval, by HU, Yiqun; CHENG, Xiangang; CHIA, Liang-Tien; XIE, Xing; RAJAN, Deepu; TAN, Ah-Hwee. (2009). *IEEE Transactions on Multimedia*, 11 (8), 1434-1445. <https://doi.org/10.1109/TMM.2009.2032676> (Published)

Mining globally distributed frequent subgraphs in a single labeled graph, by JIANG, Xing; XIONG, Hui; WANG, Chen; TAN, Ah-Hwee. (2009). *Data and Knowledge Engineering*, 68 (10), 1034-1058. <https://doi.org/10.1016/j.datak.2009.04.008> (Published)

Learning and inferencing in user ontology for personalized Semantic Web search, by JIANG, Xing; TAN, Ah-Hwee. (2009). *Information Sciences*, 179 (6), 2794-2808. <https://doi.org/10.1016/j.ins.2009.04.005> (Published)

Integrated cognitive architectures: A survey, by CHONG, Hui-Qing; TAN, Ah-Hwee; NG, Gee-Wah. (2009). *Artificial Intelligence Review*, 28 (2), 103-130. <https://doi.org/10.1007/s10462-009-9094-9> (Published)

Learning imagetext associations, by JIANG, Tao; TAN, Ah-Hwee. (2009). *IEEE Transactions on Knowledge*

- and Data Engineering*, 21 (2), 161-177. <https://doi.org/10.1109/TKDE.2008.150> (Published)
- Modelling situation awareness for contextaware decision support, by FENG, Yu-Hong; TENG, Teck-Hou; TAN, Ah-Hwee. (2009). *Expert Systems with Applications*, 36 (1), 455-463. <https://doi.org/10.1016/j.eswa.2007.09.061> (Published)
- A fast prunedextreme learning machine for classification problem, by RONG, Hai-Jun; ONG, Yew-Soon; TAN, Ah-Hwee; ZHU, Zexuan. (2008). *Neurocomputing*, 72 (1-3), 359-366. <https://doi.org/10.1016/j.neucom.2008.01.005> (Published)
- Explaining inferences in Bayesian networks, by YAP, Ghim-Eng; TAN, Ah-Hwee; PANG, Hwee Hwa. (2008). *Applied Intelligence*, 29 (3), 263-278. <https://doi.org/10.1007/s10489-007-0093-8> (Published)
- Integrating temporal difference methods and selforganizing neural networks for reinforcement learning with delayed evaluative feedback, by TAN, Ah-Hwee; LU, Ning; XIAO, Dan. (2008). *IEEE Transactions on Neural Networks*, 9 (2), 230-244. <https://doi.org/10.1109/TNN.2007.905839> (Published)
- Self-organizing neural architectures and cooperative learning in a multiagent environment, by XIAO, Dan; TAN, Ah-Hwee. (2007). *IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics*, 37 (6), 1567-1580. <https://doi.org/10.1109/TSMCB.2007.907040> (Published)
- Discovering and exploiting causal dependencies for robust mobile context-aware recommenders, by YAP, Ghim-Eng; TAN, Ah-Hwee; PANG, Hwee Hwa. (2007). *IEEE Transactions on Knowledge and Data Engineering*, 19 (7), 977-992. <https://doi.ieeecomputersociety.org/10.1109/TKDE.2007.1065> (Published)
- Mining generalized associations of semantic relations from textual web content, by JIANG, Tao; TAN, Ah-Hwee; WANG, We. (2007). *IEEE Transactions on Knowledge and Data Engineering*, 19 (2), 164-179. <https://doi.org/10.1109/TKDE.2007.36> (Published)
- Predictive neural networks for gene expression data analysis, by TAN, Ah-Hwee; PAN, Hong. (2005). *Neural Networks*, 18 (3), 297-306. <https://doi.org/10.1016/j.neunet.2005.01.003> (Published)
- Towards personalised web intelligence, by TAN, Ah-Hwee; ONG, Hwee-Leng; PAN, Hong; NG, Jamie; LI, Qiu-Xiang. (2004). *Knowledge and Information Systems*, 6 (5), 595-616. <https://doi.org/10.1007/s10115-003-0130-9> (Published)
- Modified ART 2A growing network capable of generating a fixed number of nodes, by HE, Ji; TAN, Ah-Hwee; TAN, Chew-Lim. (2004). *IEEE Transactions on Neural Networks*, 15 (3), 728-737. <https://doi.org/10.1109/TNN.2004.826220> (Published)
- On machine learning methods for Chinese document classification, by HE, Ji; TAN, Ah-Hwee; TAN, Chew-Lim. (2003). *Applied Intelligence*, 18 (3), 311-322. <https://doi.org/10.1023%A:1023219803219> (Published)
- Guest editorial: Text and web mining, by TAN, Ah-Hwee; YU, Philip S.. (2003). *Applied Intelligence*, 18 (3), 239-241. <https://doi.org/10.1023/A:1023219803219> (Published)
- Organizing and personalizing intelligence gathering from the web, by ONG, Hwee-Leng; TAN, Ah-Hwee; NG, Jamie; HONG, Pan; LI, Qiu-Xiang. (2002). *Intelligent Systems in Accounting, Finance and Management*, 11 (1), 9-21. <https://doi.org/10.1002/isaf.208> (Published)
- Cascade ARTMAP: Integrating neural computation and symbolic knowledge processing, by TAN, Ah-Hwee. (1997). *IEEE Transactions on Neural Networks*, 8 (2), 237-250. <https://doi.org/10.1109/72.557661> (Published)
- Inductive neural logic network and the SCM algorithm, by TAN, Ah-Hwee; TEOW, Loo-Nin. (1997). *Neurocomputing*, 14 (2), 157-176. [https://doi.org/10.1016/S0925-2312\(96\)00032-X](https://doi.org/10.1016/S0925-2312(96)00032-X) (Published)
- Concept hierarchy memory model: A neural architecture for conceptual knowledge representation, learning, and commonsense reasoning, by TAN, Ah-Hwee; SOON, Hui-Shin Vivien. (1996). *International Journal of Neural Systems*, 7 (3), 305-319. <https://doi.org/10.1142/S0129065796000270> (Published)
- Adaptive resonance associative map, by TAN, Ah-Hwee. (1995). *Neural Networks*, 8 (3), 437-446. [https://doi.org/10.1016/0893-6080\(94\)00092-Z](https://doi.org/10.1016/0893-6080(94)00092-Z) (Published)
- Connectionist expert system with adaptive learning capability, by LOW, B. T.; LUI, Hochung; TAN, Ah-Hwee; TEH, Hoonheng. (1991). *IEEE Transactions on Knowledge and Data Engineering*, 3 (2),

200-207. <https://doi.org/10.1109/69.88000> (Published)

Books (Refereed)

Adaptive resonance theory in social media data clustering: Roles, methodologies, and applications by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.. (2019). Advanced Information and Knowledge Processing, Cham: Springer. <https://doi.org/10.1007/978-3-030-02985-2> (Published)

Book Chapters

Concluding remarks, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.. (2019). In MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C. (Ed.), *Adaptive Resonance Theory in Social Media Data Clustering* (pp. 175-179) SpringerLink. (Published)

Adaptive Resonance Theory (ART) for social media analytics, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.II. (2019). In MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C. II (Ed.), *Adaptive Resonance Theory in social media data clustering* (pp. 45-89) Cham: Springer. https://doi.org/10.1007/978-3-030-02985-2_3 (Published)

Clustering and its extensions in the social media domain, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.. (2019). In MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C. (Ed.), *Adaptive Resonance Theory in Social Media Data Clustering* (pp. 15-44) SpringerLink. (Published)

Community discovery in heterogeneous social networks, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.. (2019). In MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C. (Ed.), *Adaptive Resonance Theory in Social Media Data Clustering* (pp. 137-154) SpringerLink. (Published)

Ontology-assisted mining of RDF documents, by JIANG, Tao; TAN, Ah-Hwee. (2005). In BANDYOPADHYAY, Sanghamitra; MAULIK, Ujjwal; HOLDER, Lawrence B. (Ed.), *Advanced methods for knowledge discovery from complex data* (pp. 231-252) London: Springer. (Published)

Web structure analysis for information mining, by VIJJAPPU, Lakshmi; TAN, Ah-Hwee; TAN, Chew-Lim. (2003). In ANTONACOPOULOS, Apostolos; HU, Jianying (Ed.), *Web document analysis: Challenges and opportunities* (pp. 39-57) World Scientific. https://doi.org/10.1142/9789812775375_0003 (Published)

On quantitative evaluation of clustering systems, by HE, Ji; TAN, Ah-Hwee; TAN, Chew-Lim; SUNG, Sam-Yuan. (2003). In WU, Weili; XONG, Hui; SHASHI, Shekhar (Ed.), *Clustering and Information Retrieval* (pp. 105-133) Springer. https://doi.org/10.1007/978-1-4613-0227-8_4 (Published)

Supervised adaptive resonance theory and rules, by TAN, Ah-Hwee. (2000). In JAIN, Lakhmi C.; LAZZERINI, Beatrice; HALICI, Ugur (Ed.), *Innovations in ART Neural Networks* (pp. 55-86) Springer Link. https://doi.org/10.1007/978-3-7908-1857-4_4 (Published)

Practical application of a connectionist expert system: The INSIDE story, by LUI, HoChung; LIM, JooHwee; TAN, Ah-Hwee. (1991). In LEE, Jae K (Ed.), *Operational Expert Systems in Far East Asia* Pergamon Press. (Published)

Conference Proceedings

Learning generalized video memory for automatic video captioning, by CHANG, Poo-Hee; TAN, Ah-Hwee. (2018). *Proceedings of the 12th International Conference: MIWAI 2018, Hanoi, Vietnam, November 1820*, (pp. 187-201) Hanoi, Vietnam: SpringerLink. (Published)

Predicting visual context for unsupervised event segmentation in continuous photo-streams, by DEL MOLINO, Ana Garca; LIM, Joo-Hwee; TAN, Ah-Hwee. (2018). *Proceedings of the 26th ACM Multimedia conference, MM 2018, Seoul, South Korea, October 22-26*, (pp. 10-17) Seoul, South Korea,: IEEE. <https://doi.org/10.1145/3240508.3240624> (Published)

Autonomous agents in snake game via deep reinforcement learning, by WEI, Zhepei; WANG, Di; ZHANG, Ming; TAN, Ah-Hwee; MIAO, Chunyan; ZHOU, You. (2018). *Proceedings of 2018 IEEE International Conference on Agents (ICA), Singapore, July 28-31*, (pp. 1-6) New York: IEEE. (Published)

Analysis of public transportation patterns in a densely populated city with station-based shared bikes, by WANG, Di; WU, Evan; TAN, Ah-Hwee. (2018). *Proceedings of the 3rd International Conference on Crowd*

Science and Engineering: ICCSE'18, Singapore, 2018 July 28-31, (pp. 1-8) Singapore: ACM. (Published)

Probabilistic guided exploration for reinforcement learning in self-organizing neural networks, by WANG, Peng; ZHOU, Weigui; JIA, Di; TAN, Ah-Hwee. (2018). *Proceedings of 2018 IEEE International Conference on Agents, ICA, Singapore, July 28-31*, (pp. 109-112) Singapore: IEEE. <https://doi.org/10.1109/AGENTS.2018.8460067> (Published)

CRRN: Multi-scale guided concurrent reflection removal network, by WAN, Renjie; SHI, Boxin; DUAN, Ling-Yu; TAN, Ah-Hwee; KOT, Alex C.. (2018). *Proceedings of 2018 IEEE/CVF Conference on Computer Vision and Pattern Recognition, Salt Lake City, USA, June 18-23*, (pp. 4777-4785) New York: IEEE. (Published)

Robust human activity recognition using lesser number of wearable sensors, by WANG, Di; CANDINEGARA, Edwin; HOU, Junhui; TAN, Ah-Hwee; MIAO, Chunyan. (2018). *Proceedings of 2017 International Conference on Security, Pattern Analysis, and Cybernetics, SPAC, Shenzhen, China, December 15-17*, (pp. 290-295) Shenzhen, China: IEEE. <https://doi.org/10.1109/SPAC.2017.8304292> (Published)

Leveraging the trade-off between accuracy and interpretability in a hybrid intelligent system, by WANG, Di; QUEK, Chai; TAN, Ah-Hwee; MIAO, Chunyan; NG, Geok See; ZHOU, You. (2018). *Proceedings of 2017 International Conference on Security, Pattern Analysis, and Cybernetics (SPAC), Shenzhen, China, December 15-17*, (pp. 1-6) New York: IEEE. (Published)

EEG-based emotion recognition via fast and robust feature smoothing, by TANG, Cheng; WANG, Di; TAN, Ah-Hwee; MIAO, Chunyan. (2017). *Proceedings of International Conference on Brain Informatics, BI 2017, Beijing, China, November 16-18*, (pp. 83-92) Beijing, China: SpringerLink. (Published)

Benchmarking single-image reflection removal algorithms, by WAN, Renjie; SHI, Boxin; DUAN, Ling-Yu; TAN, Ah-Hwee; KOT, Alex C.. (2017). *Proceedings of 2017 IEEE International Conference on Computer Vision (ICCV), Venice, Italy, October 22-29*, (pp. 3922-3930) New York: IEEE. (Published)

Encoding and recall of spatio-temporal episodic memory in real time, by CHANG, Poo-Hee; TAN, Ah-Hwee. (2017). *Proceedings of the 26th International Joint Conference on Artificial Intelligence: IJCAI'17, Melbourne, Australia, 2017 August 19-25*, (pp. 1490-1496) Melbourne, Australia: ACM. (Published)

Sparsity based reflection removal using external patch search, by WAN, Renjie; SHI, Boxin; TAN, Ah-Hwee; KOT, Alex C.. (2017). *Proceedings of 2017 IEEE International Conference on Multimedia and Expo (ICME), Hong Kong, China, July 10-14*, (pp. 1500-1505) New York: IEEE. <https://doi.org/10.1109/ICME.2017.8019527> (Published)

EHealthPortal: A social support hub for the active living of the elderly, by WANG, Di; TAN, Ah-Hwee. (2017). *Proceedings of the 2nd International Conference on Crowd Science and Engineering: ICCSE'17, Beijing China, 2017 July 6-9*, (pp. 19-25) New York: ACM. (Published)

Elderly friendliness evaluation of mobile assistants, by WANG, Di; YU, Xinjia; FAUVEL, Simon; TAN, Ah-Hwee; MIAO, Chunyan. (2017). *Proceedings of 2017 IEEE International Conference on Agents (ICA), Beijing, China, July 6-9*, (pp. 1-6) New York: IEEE. (Published)

Active video summarization: Customized summaries via on-line interaction with the user, by DEL MOLINO, Ana Garcia; BOIX, Xavier; LIM, Joo-Hwee; TAN, Ah-Hwee. (2017). *Proceedings of the 31st AAAI Conference on Artificial Intelligence, AAAI-17, San Francisco, California, 2017 February 4-9*, (pp. 4046-4052) San Francisco, California: AAAI. (Published)

Human-centred design for silver assistants, by ZHENG, Zhiwei; WANG, Di; BORJIGIN, Ailiya; MIAO, Chunyan; TAN, Ah-Hwee; LEUNG, Cyril. (2016). *Proceedings of 2016 IEEE International Conference on Agents (ICA), Matsue, Japan, September 28-30*, (pp. 1-2) Matsue, Japan: IEEE. (Published)

Self-regulated incremental clustering with focused preferences, by WANG, Di; TAN, Ah-Hwee. (2016). *Proceedings of 2016 International Joint Conference on Neural Networks, IJCNN, Vancouver, Canada, July 24-29*, (pp. 1297-1304) Vancouver, Canada: IEEE. <https://doi.org/10.1109/IJCNN.2016.7727347> (Published)

Modeling human-like non-rationality for social agents, by KOCHANOWICZ, Jaroslaw; TAN, Ah-Hwee; THALMANN, Daniel. (2016). *Proceedings of the 29th International Conference on Computer Animation and Social Agents, CASA 2016, Geneva, Switzerland, May 23-25*, (pp. 11-20) Geneva, Switzerland: ACM. (Published)

- An autonomous agent for learning spatiotemporal models of human daily activities, by GAO, Shan; TAN, Ah-Hwee. (2016). *Proceedings of the 15th International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2016, Singapore, May 9-13*, (pp. 1453-1454) Singapore: IFAAMAS. (Published)
- Preface to WI-IAT 2015 workshops and demo/posters, by TAN, Ah-Hwee; LI, Yuefeng. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.248> (Published)
- Silver assistants for aging-in-place, by WANG, Di; SUBAGDJA, Budhitama; KANG, Yilin; TAN, Ah-Hwee. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, (pp. 1-2) Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.183> (Published)
- Preface IAT 2015, by TAN, Ah-Hwee; LI, Yuefeng; LIM, Ee-Peng; BO, An; RAJA, Anita; RAMCHURN, Sarvapali. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, (pp. 10-11) Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.244> (Published)
- Progressive sequence matching for ADL plan recommendation, by GAO, Shan; WANG, Di; TAN, Ah-Hwee; MIAO, Chunyan. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, (pp. 360-367) Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.171> (Published)
- Preface: WI 2015, by TAN, Ah-Hwee; LI, Yuefeng; LIM, Ee-Peng; ZHANG, Jie; ZHANG, Dell; VASSILEVA, Julita. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, (pp. 12-13) Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.3> (Published)
- Non-intrusive robust human activity recognition for diverse age groups, by WANG, Di; TAN, Ah-Hwee; ZHANG, Daqing. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, (pp. 368-375) Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.152> (Published)
- MyLife: An online personal memory album, by WANG, Di; TAN, Ah-Hwee. (2015). *Proceedings of 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), Singapore, December 6-9*, (pp. 243-244) Singapore: IEEE. <https://doi.org/10.1109/WI-IAT.2015.148> (Published)
- An adaptive computational model for personalized persuasion, by KANG, Yilin; TAN, Ah-Hwee; MIAO, Chunyan. (2015). *Proceedings of the 24th International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31*, (pp. 61-67) Buenos Aires, Argentina: AAAI. (Published)
- A comparative study between motivated learning and reinforcement learning, by GRAHAM, James T.; STARZYK, Janusz A.; NI, Zhen; HE, Haibo; TENG, T.-H.; TAN, Ah-Hwee. (2015). *Proceedings of 2015 International Joint Conference on Neural Networks, Killarney, Ireland, July 12-17*, (pp. 1-8) New York: IEEE. <https://doi.org/10.1109/IJCNN.2015.7280723> (Published)
- Online multimodal co-indexing and retrieval of weakly labeled web image collections, by MENG, Lei; TAN, Ah-Hwee; LEUNG, Cyril; NIE, Liqiang; CHUA, Tan-Seng; MIAO, Chunyan. (2015). *Proceedings of the 5th ACM International Conference on Multimedia Retrieval, ICMR, Shanghai, China, June 23-26*, (pp. 219-226) Shanghai, China: ACM. <https://doi.org/10.1145/2671188.2749362> (Published)
- Beyond traits: Social context based personality model, by KOCHANOWICZ, Jaroslaw; TAN, Ah-Hwee; THALMANN, Daniel. (2015). *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2015), Istanbul, Turkey, May 48*, (pp. 1529-1538) ACM: (Published)
- MAP: A computational model for adaptive persuasion, by KANG, Yilin; TAN, Ah-Hwee. (2015). *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems, AAMAS 2015, Istanbul Congress Center Istanbul, Turkey, May 4-8*, (pp. 1871-1872) Istanbul, Turkey: International Foundation for Autonomous Agents and Multiagent Systems. (Published)
- Towards intelligent caring agents for Aging-In-Place: Issues and challenges, by WANG, Di; SUBAGDJA, Budhitama; KANG, Yilin; TAN, Ah-Hwee. (2015). *Proceedings of 2014 IEEE Symposium on Computational Intelligence for Human-like Intelligence*, (pp. 1-9) New York: IEEE. <https://doi.org/10.1109/CIHLI.2014.7013393> (Published)

Vigilance adaptation in adaptive resonance theory, by MENG, Lei; TAN, Ah-Hwee; WINSCH, Donald C.. (2013). *2013 International Joint Conference on Neural Networks IJCNN: August, 4-9, Dallas, TX: Proceedings*, (pp. 1-7) Piscataway, NJ: IEEE. <https://doi.org/10.1109/IJCNN.2013.6706857> (Published)

Predictive adaptive resonance theory and knowledge discovery in databases, by TAN, Ah-Hwee; SOON, Hui-Shin Vivien. (2000). *PAKDD 2000: Knowledge Discovery and Data Mining: Current Issues and New Applications, 11-14 May, Singapore: Proceedings pp 173-176 | Cite as*, (pp. 173-176) Cham: Springer. https://doi.org/10.1007/3-540-45571-X_21 (Published)

Conference Papers

A novel density peak clustering algorithm based on squared residual error, by PARMAR, Milan; WANG, Di; TAN, Ah-Hwee; MIAO, Chunyan; JIANG, Jianhua; ZHOU, You. (2018). *2017 International Conference on Security, Pattern Analysis, and Cybernetics (SPAC), Shenzhen, China, December 15-18, Shenzhen, China*. <https://doi.org/10.1109/SPAC.2017.8304248> (Published)

Other Outputs and Contributions

Others

Personalized web image organization, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C.. (2019). In (93-110). (Published)

Online multimodal co-indexing and retrieval of social media data, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C. II. (2019). In *Adaptive resonance theory in social media data clustering* (155-174). (Published)

Socially-enriched multimedia data co-clustering, by MENG, Lei; TAN, Ah-Hwee; WUNSCH, Donald C. II. (2019). In *Adaptive resonance theory in social media data clustering: Roles, methodologies, and applications* (111-135). (Published)

Research Grants

Singapore Management University

K-EMERGE: Knowledge Extraction, Modelling, and Explainable Reasoning for General Expertise, AME Programmatic Funds, Agency for Science, Technology and Research (A*STAR) , PI (Project Level): TAN Ah Hwee, 2020, S\$5,997,000

Cognitive Information Systems, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): TAN Ah Hwee, 2020, S\$100,000

Other Institutions

Artificial Intelligence Programme for University Educators in Asia, NTU, Temasek Foundation International PI (Project Level): TAN Ah Hwee, 2019

AI@NTU, NTU, NTU/COE Tech Primer Grant PI (Project Level): TAN Ah Hwee, 2019

An end-to-end Adaptive AI-Assisted 3H Care (A3C) system, AI Singapore Grand Challenge, NTU, AI Singapore Co-PI (Project Level): TAN Ah Hwee, 2019, SGD4,609,920

Joint Situation Awareness and Collaborative Learning, NTU, STE-NTU Corp Lab PI (Project Level): TAN Ah Hwee, 2016

Boosting Learning and Memory for Cognitive Agility, NTU, DSO National Laboratories PI (Project Level): TAN Ah Hwee, 2016, SGD597,540

Towards Design and Implementation of Brain-Inspired Cognitive Systems, NTU, MOE AcRF Tier-1 PI

(Project Level): TAN Ah Hwee, 2015

Computational Models for Human Multi-Memory Systems and Learning, NTU, DSO National Laboratories PI (Project Level): TAN Ah Hwee, 2015

Aging in Place, NTU, Joint NTU-UBC Research Center of Excellence in Active Living for the Elderly (LILY) PI (Project Level): TAN Ah Hwee, 2012

Constrained Flocking Animation & Modeling Research, NTU, MDA-GAMBIT R&D Programme Ong Yew Soon, Co-PI (Project Level): TAN Ah Hwee, 2010

A Co-Evolution Theory for Episodic and Semantic Memory, NTU, DSO National Laboratories PI (Project Level): TAN Ah Hwee, 2009

Agent-Augmented Co-Space: Growing Cognitive Autonomous Agents for Context-Aware Personalized Experience in Co-Space, NTU, Singapore National Research Foundation-Interactive Digital Media (NRF/MDA-IDM) R&D Programme PI (Project Level): TAN Ah Hwee, 2008

Next Generation Annotation Techniques for Consumer Photos and Videos, NTU, Singapore National Research Foundation-Interactive Digital Media (NRF/MDA-IDM) R&D Programme Xu Dong, Co-PI (Project Level): TAN Ah Hwee, 2008

Intelligent Agent-Augmented Multi-User Virtual Environments: Research into Designs for Learning Environments of the Future, NTU, Singapore National Research Foundation-Interactive Digital Media (NRF/MOE-IDM) R&D Programme Miao Chun Yan, Co-PI (Project Level): TAN Ah Hwee, 2008

Towards Integrated Neural Architectures for Memory Representation and Cognitive Information Processing, NTU, DSO National Laboratories PI (Project Level): TAN Ah Hwee, 2007

Cognitive Information Systems for Situation Awareness Modelling, Context-Aware Presentation and Knowledge Discovery, NTU, ST Dynamics and Intelligent Systems Centre's Programme on Intelligent Sensor Networks PI (Project Level): TAN Ah Hwee, 2005

Intelligent Technologies for Multimedia Information Fusion and Analysis, NTU, ASTAR I2R-SCE Joint Lab on Intelligent Media PI (Project Level): TAN Ah Hwee, 2005

Smart-Places: UWB-Enabled Context-Aware Service Environment, NTU, ASTAR SERC Thematic Pilot Programme on UWB and Pervasive Computing PI (Project Level): TAN Ah Hwee, 2004

TEACHING

Teaching Areas

Artificial Intelligence, Neural Networks, Machine Learning, Data Mining and Analytics, Algorithms

Courses Taught

Singapore Management University

Postgraduate Professional Programmes :

Empirical Research Project 1

Text Analytics and Applications

THESES AND DISSERTATIONS

Theses and Dissertations Supervised

Other Institutions

- Supervisor, "Neural Network Models for Human Activity Modeling and Analysis", Thesis by Gao Shan, Doctor of Philosophy, Nanyang Technological University, IGS, 2020
- Supervisor, "Modeling Human-like Non-rationality in Social Agents", Thesis by Jarek Kochanowicz, Doctor of Philosophy, Nanyang Technological University, IMI, 2018
- Supervisor, "Computational Methods for Modeling Human-Like Agents in Virtual Environment", Thesis by Kang Yilin, Doctor of Philosophy, Nanyang Technological University, 2015
- Supervisor, "Computational Techniques for Modeling Non-Player Characters in Games", Thesis by Feng Shu, Doctor of Philosophy, Nanyang Technological University, 2015
- Supervisor, "Self-Organizing Modeling of Multi-Memory System and Learning", Thesis by Wang Wenwen, Doctor of Philosophy, Nanyang Technological University, 2015
- Supervisor, "Clustering and Heterogeneous Information Fusion for Social Media Theme Discovery and Associative Mining", Thesis by Meng Lei, Doctor of Philosophy, Nanyang Technological University, 2014
- Supervisor, "Cognitive Information Systems for Context-Aware Decision Support", Thesis by Teng Teck Hou, Doctor of Philosophy, Nanyang Technological University, 2013
- Supervisor, "Search Disambiguation Techniques in Multimedia Collections", Thesis by Wong Kong Wah, Doctor of Philosophy, Nanyang Technological University, 2012
- Supervisor, "Methods and Systems for Ontology Learning, Exploitation, and Analysis", Thesis by Jiang Xing, Doctor of Philosophy, Nanyang Technological University, 2010
- Supervisor, "Self-Organizing Neural Architectures and Multi-Agent Cooperative Reinforcement Learning", Thesis by Xiao Dan, Doctor of Philosophy, Nanyang Technological University, 2010
- Supervisor, "Learning and Exploiting Context for Robust Recommendation", Thesis by Yap Ghim Eng, Doctor of Philosophy, Nanyang Technological University, 2009
- Supervisor, "Web Multimedia Information Fusion and Analysis", Thesis by Jiang Tao, Doctor of Philosophy, Nanyang Technological University, 2008

Theses and Dissertations Assessed

Other Institutions

- Co Supervisor, "Visual Understanding and Personalization for an Optimal Recollection Experience", Thesis by Ana Garcia Del Molino, Doctor of Philosophy, Nanyang Technological University, 2020
- External Examiner, "Modular Neural Networks", Thesis by Andrey Sakryukin, Doctor of Philosophy, National University of Singapore, 2020
- Co Supervisor, "Single-Image Reflection Removal: From Computational Imaging to Deep Learning", Thesis by Wan Renjie, Doctor of Philosophy, Nanyang Technological University, IGS, 2019
- Co Supervisor, "Agent Mediated Interactive Storytelling in Virtual Environment", Thesis by Cai Yundong, Doctor of Philosophy, Nanyang Technological University, 2011

Co Supervisor, "Machine Learning Methods for Pattern Analysis and Clustering", Thesis by He Ji, Doctor of Philosophy, National University of Singapore, 2004

UNIVERSITY SERVICE

Singapore Management University

Committee Member, Reading and Recommendation Committee, Oct 2020 - Present

Committee Chair, Dean's Evaluation Committee, Jul 2020 - Jun 2021

Committee Member, School Evaluation Committee, May 2020 - Present

EXTERNAL SERVICE PROFESSIONAL

Area Chair, Program Committee, 30th International Joint Conference on Artificial Intelligence (IJCAI 2021), 2021

Conference Chair, 2022 IEEE Conference Committee, 2022 IEEE Symposium Series on Computational Intelligence, 2020 - Present

Reviewer Book, Review Panel for SCS AI Ethics and Governance Book of Knowledge (BoK), Singapore Computer Society, 2020

Member Board of Advisors, International Scientific Board, Cardiff Centre for Artificial Intelligence, Robotics and Human-Machine Systems (IROHMS), 2020 - Present

Reviewer Grant Proposal, Review Panel for Discovery Grant Proposals, Natural Sciences and Engineering Research Council of Canada (NSERC), 2019 - 2020

Editor Associate Editor, Editorial Board, IEEE Access, 2019 - Present

Editor Associate Editor, Frontiers in Big Data: Data Mining and Management, Frontiers, 2018 - Present

Editor Associate Editor, Editorial Board, IEEE Transactions on Neural Networks and Learning Systems, 2016 - Present

Editorial Review Board Member, Web Intelligence, IOS Press, 2015 - Present

Editorial Review Board Member, IEEE ACCESS, 2013 - 2018

Editor Associate Editor, IEEE Transactions on Systems, Man and Cybernetics: Systems, 2013 - 2018

Editorial Review Board Member, Applied Soft Computing, Elsevier, 2013 - 2019

Reviewer Grant Proposal, External Review Committee, Hong Kong Research Grants Council, 2011 - Present

Editorial Review Board Member, Journal of Ambient Intelligence and Smart Environment, IOS Press, 2011 - Present

Editorial Review Board Member, Journal of Database Management, IGI Publishing, 2009 - Present

Editorial Review Board Member, Applied Intelligence, Springer, 1998 - Present

EXTERNAL SERVICE PUBLIC SECTOR AND COMMUNITY SERVICE

Judge, Judge Panel, 2020 DIGIX Global AI Challenge, 2020 - Present