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Long Live the IEEE Transactions on Artificial Intelligence!



It is my great pleasure to announce that the IEEE Computational Intelligence Society is leading the creation of the first comprehensive IEEE journal dedicated to all aspects of Artificial Intelligence. The *IEEE Transactions on Artificial Intelligence* (TAI) has just been launched and is already accepting submissions.

I am very grateful to the three key persons who contributed to this historical moment in IEEE CIS. The IEEE CIS Past President, Nikhil Pal, established a strong partnership with the IEEE Computer Society and the IEEE Systems, Man and Cybernetics Society in 2019, laying out the foundations for TAI. The current CIS Vice-President for Publications, James Keller, and the former CIS Vice-President for Technical Activities, Hussein Abbass, actively and efficiently prepared the case for publication with the CIS partners to obtain approvals of the IEEE TAB Periodicals Committee. This success would not have been possible without their dedication and effort. The IEEE Signal Processing Society and IEEE Robotics and Automation Society joined the group in 2020.

The TAI responds to the needs of IEEE and the wider AI community to have a comprehensive publication to cover the growing field of Artificial Intelligence. Papers dealing with Artificial Intelligence have already been published in several IEEE publications, in particular in the various transactions of the IEEE CIS and its *IEEE Computational Intelligence Magazine*. While Computational Intelligence sits at the heart of all trendy methods in Artificial Intelligence, it does not include other aspects of Artificial Intelligence such as logic and natural language processing. The main quality of TAI will be to encompass classical as well as contemporary methods in Artificial Intelligence, and to create a home for the work of all researchers and practitioners in the field. Given the increasing number of papers submitted to conferences on Artificial Intelligence around the world, there was an obvious expectation that IEEE leads the way with a new journal devoted solely to Artificial Intelligence.

It will be the role of the IEEE CIS to attract papers highlighting Computational Intelligence methods and paradigms involved in all developments of Artificial Intelligence, be they theoretical, experimental or applied to various fields such as smart world, healthcare, data science, financial engineering, business intelligence, bioinformatics, and games. It is equally important that TAI appeals to other Symbolic and Non-Symbolic Artificial Intelligence, and Artificial General Intelligence researchers, and that it has a policy encouraging multidisciplinary research. Deep learning methods are obvious frontrunners. But beyond these techniques, the societal expectations for Explainable Artificial Intelligence should be addressed by multidisciplinary research that leverage methods such as fuzzy systems present in Computational Intelligence, natural language generation, argumentation and

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have also reinforced the methodologies of applying multistability theories to the description of many neurodynamic systems with associative memory phenomena. For now, he has authored or co-authored over 200 scientific papers published in leading journals. He was awarded the Outstanding Young Scholars by the National Natural Science Foundation of China, and the Yangtze River Distinguished Professorship by the Ministry of Education of China. He has been an Associate Editor of the IEEE Transactions on Neural Networks (2010–2011), IEEE Transactions on Cybernetics (since 2014), IEEE Transactions on Fuzzy Systems (since 2016), and a member of the Editorial Board of Neural Networks (since 2012), Cognitive Computation (since 2010), Applied Soft Computing (since 2013). He has been the General Chair, Program Committee Chair, Publications Chair, and Workshop and Special Sessions Chair for over 40 international conferences, such as the 19th International Conference on Neural Information Processing (ICONIP2012, the flagship annual conference of the Asia Pacific Neural Network Society), the 2014 IEEE World Congress on Computational Intelligence (IEEE WCCI 2014), the 2019 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2019, the flagship conference of IEEE Computational Intelligence Society).

Dongbin Zhao
Institute of Automation, Chinese Academy of Sciences, CHINA
for contributions to adaptive dynamic programming and reinforcement learning.



Dongbin Zhao is currently a Professor with the Institute of Automation, Chinese Academy of Sciences and also the University of Chinese Academy of Sciences, China. He received the B.S., M.S., Ph.D. degrees from Harbin Institute of Technology, Harbin, China, in 1994, 1996, and 2000 respectively. He was a postdoctoral fellow at Tsinghua University, Beijing, China, from 2000 to 2002. After then he joined the Institute of Automation, Chinese Academy of Sciences as an associate professor, now a Professor there. From 2007 to 2008, he was a visiting scholar at the University of Arizona, USA.

His current research interests are in the area of deep reinforcement learning, computational intelligence, autonomous driving, game artificial intelligence, robotics, smart grids, etc. He has published 6 books and over 80 international journal papers.

Dr. Zhao serves as the Associate Editor of IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Cybernetics, IEEE Computation Intelligence Magazine, etc. He is the chair of Distinguished Lecture

Program Subcommittee, and was the Chair of Technical Activities Strategic Planning Subcommittee (2019), the Chair of Beijing Chapter (2017–2018), Adaptive Dynamic Programming and Reinforcement Learning Technical Committee (2015–2016), Multimedia Subcommittee (2015–2016), and Newsletter Subcommittee (2013–2014) of IEEE Computational Intelligence Society (CIS). He worked as several guest editors of renowned international journals. He served as the General Co-Chair of IEEE Computational Intelligence for Financial Engineering and Economics 2019, the Program Chair/Co-Chair of IEEE International Joint Conference on Neural Networks 2019, IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning from 2016 to 2019, International Conference on Neural Information Processing (ICONIP) 2017, and Tutorial Chair of ICONIP 2018, the Publicity Co-chair of IEEE World Congress on Computational Intelligence (WCCI) 2016, and Finance Co-chair of WCCI 2014, and the Poster Chair of IEEE Symposium Series on Computational Intelligence 2014, etc.

Dr. Zhao was the recipient of Outstanding Paper Award of IEEE Transactions on Cognitive and Developmental Systems in 2020, etc. His team won several international competition awards including IEEE ICRA Robomaster AI Challenge.



President's Message *(continued from page 3)*

other cognitive psychology-based approaches. The problem of data quality is at the crossroad of statistical methods, fuzzy knowledge-based representations and fusion methodologies present in Computational Intelligence as well as agent-based systems. Among

all the crucial problems in Artificial Intelligence, ethical and social implications are the most difficult to deal with because of their complexity, and all technical submissions to TAI proposing solutions to such problems will be welcomed.

The submission website is open at <http://mc.manuscriptcentral.com/tai-ieee>. All original papers on Artificial Intelligence can be submitted.

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