

# IEEE ICCA 2018 Plenary Panel Session

## Trends in Research on Multi-agent Systems

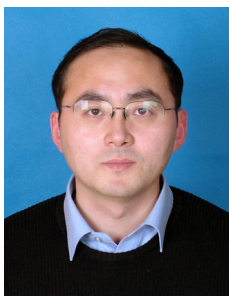
- Time: 4:00–6:00pm, June 14, 2018  
Venue: Howard Rock Foyer A, Sheraton Anchorage Hotel
- Chairs: Professor Jie Chen, Beijing Institute of Technology, China  
Professor Zongli Lin, University of Virginia, USA
- Panelists: Professor Guanrong Chen, City University of Hong Kong, China  
Professor Yiguang Hong, Chinese Academy of Science, China  
Professor Desineni Subbaram Naidu, University of Minnesota Duluth, USA  
Professor Oleg Yakimenko, Naval Postgraduate School, USA

The theme of the IEEE ICCA plenary session this year is Trends in Research on Multi-agent Systems. We are honored that four prominent researchers in our field will join this panel to share their expertise and visions, as well as to discuss about challenges and opportunities, in research on multi-agent systems. Through direct conversation between these world-renowned panelists and other ICCA attendees, we hope to gain a deeper insight into some fundamental and emerging problems in the research area of multi-agent systems and in our general field of control and automation. This panel will also serve as a platform for the audience, in particular students and other junior researchers, to hear the opinions of senior members of our community on issues we often face at the early stage of our career or study.

We introduce our panelists in the alphabetic order as follows.



**Professor Guanrong Chen** (M'89, SM'92, F'97) received the Master of Science degree in Computer Science from Sun Yat-sen University, Guangzhou, China, in 1981 and the PhD degree in Applied Mathematics from Texas A&M University, College Station, Texas, in 1987. He was a tenured Full Professor at the University of Houston, Texas, USA before he joined City University of Hong Kong in year 2000 as a Chair Professor and the Founding Director of the Centre for Chaos and Complex Networks. His research interests include nonlinear systems and networks on both dynamics and control.



**Professor Yiguang Hong** received his B.S. and M.S. degrees from Dept of Mechanics of Peking University, China, and the Ph.D. degree from the Chinese Academy of Sciences (CAS), China. He is currently a Guan Zhaozhi Professor in Academy of Mathematics and Systems Science, CAS, and serves as the Director of Key Lab of Systems and Control, CAS and the Director of the Information Technology Division, National Center for mathematics and Interdisciplinary Sciences, CAS. Also, he is a Fellow of IEEE and a Fellow of Chinese Association for Artificial Intelligence. Additionally, he is the chair of Technical Committee of Control Theory of Chinese Association of Automation and a board of governor of IEEE Control Systems Society.

His current research interests include nonlinear control, multi-agent systems, distributed optimization and game, machine learning, and social networks. He serves as Editor-in-Chief of Control Theory and Technology. He also serves or served as Associate Editors for many journals including the IEEE Transactions on Automatic Control, IEEE Transactions on Control of Network Systems, IEEE Control Systems Magazine, and Nonlinear Analysis: Hybrid Systems. Moreover, he is a recipient of the Guan Zhaozhi Award at the Chinese Control Conference, Young Author Prize of the IFAC World Congress, Young Scientist Award of CAS, the Youth Award for Science and Technology of China, and the National Natural Science Prize of China.



**Professor Desineni "Subbaram" Naidu** received MTech and PhD degrees in Electrical Engineering (with specialization in Control Systems Engineering), from Indian Institute of Technology (IIT), Kharagpur. Dr. Naidu taught, visited and/or conducted research at IIT; as National Research Council (NRC) Senior Research Associate at Guidance and Control Division at NASA Langley Research Center, Hampton, VA, USA; Old Domain University, Norfolk, VA; as Professor, Associate Dean and Director, School of Engineering at Idaho State University and Measurement and Control Engineering Research Center, Pocatello, Idaho; as National Research Council (NRC) Senior Research Associate at Center of Excellence in Advanced Flight Research at United States (US) Air Force Research Laboratory, Wright Patterson Air Force Base (WPAFB), Ohio; as Visiting Research Fellow at Center of Excellence for

Ships and Ocean Structures at Norwegian University of Science and Technology, Trondheim, Norway; as Academic Guest at Measurement and Control Laboratory at Swiss Federal Institute of Technology, Zurich, Switzerland; as Visiting Professor at Nantong University, Nantong, China; Visiting Research Professor at the University of Western Australia in Perth, Center for Industrial and Applied Mathematics at the University of South Australia in Adelaide; Jiangsu College of Information Technology, Jiangsu, China; as Visiting Professor at the Center for Applied and Interdisciplinary Mathematics at East China Normal University, Shanghai, China; as Visiting Professor at the Institute of Systems Science, Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, China; Shanghai Jiao-Tong University, Shanghai, China and as Satish Dhawan Endowed Visiting Professor at Indian Inst. of Science (IISc), Bengaluru, India.

Since August 2014, Professor Naidu has been with University of Minnesota Duluth as Minnesota Power Jack Rowe Endowed Chair. Professor Naidu received twice the Senior National Research Council (NRC) Associateship award from the US National Academy of Sciences (NAS), and is an elected (Life) Fellow of the Institute of Electrical and Electronic Engineers (IEEE) and an elected Fellow of the World Innovation Foundation, UK. Professor Naidu has over 200 journal and conference publications including 9 books. He has been on the editorial boards of several journals including the IEEE Transactions on Automatic Control and Optimal Control: Applications and Methods (Wiley).



**Professor Oleg Yakimenko** is a Professor of Systems Engineering and a Professor of Mechanical and Aerospace Engineering at the Naval Postgraduate School, Monterey, CA (NPS). He holds two doctoral degrees - in Aerospace Engineering (1991) and in Operations Research (1996). He serves as the Program Manager of the Autonomous Systems Track, Director of the Aerodynamic Decelerator Systems Center, and Director of Autonomous Systems Engineering and Integration Laboratory at NPS. His areas of interest include modeling, guidance, navigation and control of manned and unmanned aerial and maritime vehicles, satellites, guided weapons and parachutes. Dr. Yakimenko is an author or co-author of three hundred publications including fourteen textbooks and ten patents. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA) and a Fellow of the

Russian Academy of Sciences of Aviation and Aeronautics. He also serves as a Deputy Director of Education for the Region VI of AIAA covering university student branches of 15 western states.

Biographies of the panel session chairs:



**Professor Jie Chen** is currently the Vice President of Beijing Institute of Technology, Academician of Chinese Academy of Engineering, Professor and Head of the State Key Laboratory of Intelligent Control and Decision of Complex Systems, and leader of an innovative research group of the Natural Science Foundation of China (NSFC). He also serves as the Vice President of the Chinese Association of Automation (2013–), the Managing Editor for the Journal of Systems Science and Complexity (2014–), and Editorial Board Member and associate editor for many international journals.

His main research interests include multi-objective optimization and decision of complex system, multi-agent systems cooperative control, constrained nonlinear control. He has authored/co-authored 4 monographs and more than 100 research papers. He also holds 43 patents of invention. He is a Distinguished Young Scholar honored by NSFC and a Changjiang Scholar Distinguished Professor awarded by the Ministry of Education China. He received the National Natural Science Award of China (Class II) in 2014, and the National Science and Technology Progress Award of China (Class II) twice in 2009 and 2011, respectively.



**Professor Zongli Lin** is the Ferman W. Perry Professor in the School of Engineering and Applied Science and the Associate Chair for Graduate Studies of Charles L. Brown Department of Electrical and Computer Engineering at University of Virginia. He received his B.S. degree in Mathematics and Computer Science from Xiamen University, Xiamen, China, in 1983, his Master of Engineering degree in Automatic Control from Chinese Academy of Space Technology, Beijing, China, in 1989, and his Ph.D. degree in Electrical and Computer Engineering from Washington State University, Pullman, Washington, in 1994. His current research interests include nonlinear control, robust control, and control applications. In these areas, he has published 5 books and over 500 papers, about half of which are in archival journals.

Professor Lin was an Associate Editor of the IEEE Transactions on Automatic Control (2001-2003), IEEE/ASME Transactions on Mechatronics (2006-2009) and IEEE Control Systems Magazine (2005-2012). He was an elected member of the Board of Governors of the IEEE Control Systems Society (2008-2010), chaired the IEEE Control Systems Society Technical Committee on Nonlinear Systems and Control (2013-2015) and served on the IEEE Fellow Evaluation Committee of the IEEE Control Systems Society. He has also served on the operating committees of several CDCs and ACCs and is the Program Chair of the 2018 American Control Conference. He was a General Chair of the 13th International Symposium of Magnetic Bearings, 2012. He currently serves on the editorial boards of several journals and book series, including Automatica, Systems & Control Letters, Science China Information Sciences, and Springer/Birkhauser book series Control Engineering. He is a Fellow of the IEEE, a Fellow of the IFAC, and a Fellow of AAAS, the American Association for the Advancement of Science.