

IEEE TNSE Inaugural Issue Editorial

Mung Chiang

NETWORK Science and Engineering (NSE) is a discipline of both rich intellectual heritage and visible practical implications. The topics explored in NSE traverse modeling/analysis and design/synthesis, covering topological as well as functional features of networks. The types of networks studied can be technological, informational, social, or biological. The impact of such study is particularly deep and strong when coupled with domain-specific details from other research communities.

Along with nine other members of the founding steering committee, representing the three IEEE sponsoring societies (Computer, Communication, and Circuits and Systems), we worked over 2013-2014 to lay down the foundation of this new journal devoted to NSE. The life span of an archival journal is long. It will take years of initiation and decades of sustained effort to create its reputation and maintain its impact. The inaugural editorial board holds the key in setting the tone for our new journal. With help from the EiC Search Committee chaired by Bruce Hajek, we were excited to select Ali Jadbabaie as the inaugural editor-in-chief in January 2014. A widely-respected researcher with a fair mind and diligent professionalism, Professor Jadbabaie further proposed a strong and balanced editorial board, which was approved by the steering committee in March 2014. His biography and photo are below.

In the age of overabundance of research papers, we believe *TNSE* will showcase the highest quality of scholarly contribution. Over the many years to come, we hope *TNSE* will also keep the flexibility needed as the field continues to evolve. Ultimately, the rigor and vigor of this Transaction relies on the network of researchers who will submit, review, and read the papers contained in-between the two “digital covers” of each issue. We are thrilled to “hold” the first issue today, and eager to see the future ones unfold.

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Ali Jadbabaie received the BS degree with high honors from Sharif University of Technology in Tehran, Iran, in February 1995, the MS degree in electrical and computer engineering from the University of New Mexico in Albuquerque in December of 1998, and the PhD degree in control and dynamical systems from the California Institute of Technology in December 2000. He is the Alfred Fittler Moore professor of network science at the University of Pennsylvania, currently on sabbatical as a visiting Scientist at the Laboratory for Information and Decision Systems at MIT. He was a postdoctoral scholar at Caltech and Yale before joining the faculty at the University of Pennsylvania in July 2002. He is the Alfred Fittler Moore professor of network science in the Department of Electrical and Systems Engineering at Penn, with secondary appointments in the departments of Computer and Information Science and Operations and Information Management (in Wharton School). He is a faculty member of the GRASP laboratory, and is the cofounder and director of the Raj and Neera Singh Program in Networked and Social Systems (NETS) at Penn Engineering, a new undergraduate interdisciplinary degree program focused on Network Science and Engineering, Operations Research, and Computational Social Science. He is the inaugural editor in chief of the new

IEEE Transactions on Network Science and Engineering, a new interdisciplinary IEEE Transactions sponsored by IEEE Computer, Communications, and Circuits and Systems Societies that launched in 2014. He has served as an associate editor of *IEEE Transactions on Control of Network Systems* and the *Informa Journal Operations Research*. He received National Science Foundation (NSF) Career Award, and ONR Young Investigator Award, the O. Hugo Schuck Best Paper Award of the American Automatic Control Council and the George S. Axelby Best Paper Award of the IEEE Control Systems Society. His research interests are in multi-agent coordination and control, distributed optimization, network science, network economics, and collective robotics. He is a fellow of the IEEE.