



Call for Papers ACM/Springer Mobile Networks & Applications (MONET)

SPECIAL ISSUE ON

Machine Learning and Intelligent Communications

<http://www.springer.com/engineering/signals/journal/>

Overview: Along with the fast developing of mobile communications technologies, the amount of high quality wireless services is required and increasing exponentially. According to the prediction of Cisco VNI Mobile Forecast 2016, Global mobile data traffic will increase nearly eightfold between 2015 and 2020, and mobile network connection speeds will increase more than threefold by 2020. Hence, there is still a big gap between the future requirements and current communications technologies, even using 4G/5G. How to integrate the limited wireless resources with some intelligent algorithms/schemes and boost potential benefits are the interests of the conference. As an emerging discipline, machine learning is a subfield of computer science that evolved from the study of pattern recognition and computational learning theory in artificial intelligence, and explores the study and construction of algorithms that can learn from and make predictions on complicated scenarios. In communication systems, the previous/current radio situations and communication paradigms should be well considered to obtain a high quality of service (QoS), such as available spectrum, limited energy, antenna configurations, and heterogeneous properties. Machine learning algorithms facilitate complicated scenarios analysis and prediction, and thus to make an optimal actions in OSI seven layers. **We hope the integrating of machine learning algorithms into communication systems will improve the QoS and make the systems smart, intelligent, and efficient.** We invite high quality original research papers describing recent and expected challenges or discoveries along with potential intelligent solutions for future mobile communications and networks. We welcome both theoretical and experimental papers. We expect the papers of the special issue to serve as valuable references for a large audience from both academia and industry. Both original, unpublished contributions and survey/tutorial types of articles are encouraged.

Topics

Topics of interest for the special issue include, but are not limited to:

- Intelligent cloud-support communications
- Intelligent spectrum (or resource block) allocation schemes
- Intelligent energy-aware/green communications
- Intelligent software defined flexible radios
- Intelligent cooperative networks
- Intelligent antennas design and dynamic configuration
- Intelligent Massive MIMO communication systems
- Intelligent positioning and navigation systems
- Intelligent cooperative/distributed coding
- Machine learning algorithm & cognitive radio networks
- Machine learning and information processing in wireless sensor networks
- Data mining in heterogeneous networks.
- Machine learning for multimedia
- Machine learning for IoT.
- Decentralized learning for wireless communication systems

Important Dates:

- Manuscript submission deadline: Nov. 15, 2016
- Notification of acceptance: Jan. 15, 2017
- Submission of final revised paper: Feb. 15, 2017
- Publication of special issue (tentative): Fall/Winter, 2017

Submission Procedure:

Authors should follow the MONET Journal manuscript format described at the journal site. Manuscripts should be submitted on-line through <http://www.editorialmanager.com/mone/>. A copy of the manuscript should also be emailed to the following email: monet.mhealth@gmail.com. Authors need to register to submit their papers.

Guest Editors:

Dr. Xin-Lin Huang, Tongji University, China



Xin-Lin Huang (S'09-M'12-SM'16, IEEE) received the M.E. and Ph.D. degrees in information and communication engineering from Harbin Institute of Technology (HIT), Harbin, P. R. China, in 2008, and 2011, respectively. Right now, he is an Associate Professor with the Department of Information and Communication Engineering, Tongji University, Shanghai, P. R. China. His research focuses on *Cognitive Radio Networks, Multimedia Transmission, Machine Learning, OFDM Technology, Massive MIMO Feedback*. He has published over 60 research papers, 4 patents, and 3 book chapters in these fields. Dr. Huang was a recipient of *Scholarship Award for Excellent Doctoral Student* granted by Ministry of Education of China in 2010, *Best PhD Dissertation Award* from HIT in 2013, *Shanghai High-level Overseas Talent Program* in 2013, and *Shanghai "Chenguang" Scholar Program* in 2014. From Aug. 2010 to Sept. 2011, he was supported by *China Scholarship Council* to do research in the Department of Electrical and Computer Engineering, University of Alabama (USA), as a visiting scholar. He was invited to serve as Session Chair for the *IEEE ICC2014*. He served as a Guest Editor for *IEEE Wireless Communications* and Chief Guest Editor for *International Journal of MONET*. He also serves as IG leader for IEEE ComSoc-MMTC. He is a paper reviewer for *IEEE Transactions on Wireless Communications, IEEE Transactions on Signal Processing, IEEE Transactions on Vehicular Technology, IEEE Wireless Communications, IEEE Network, IEEE Systems Journal, IEEE Communications Letters, Computer Communications, Wireless Personal Communications, and the International Journal of Communication Systems*. His research work is supported by *NSF of China, NSF of Shanghai, Shanghai Pujiang Program*, et al. He is a *Senior Member* of the IEEE.

Prof. Xiaomin Ma, Oral Roberts University, USA



Xiaomin Ma (M'03-SM'08) received B.E. and M.E. degrees in electrical engineering in 1984 and 1989, respectively. He got the Ph.D. degree in Information engineering at the Beijing University of Posts & Telecommunications, China, in 1999. From 2000 to 2002, he was a post-doctoral fellow in the Department of Electrical and Computer Engineering, Duke University, USA. He had been teaching in the field of Electrical and Computer Engineering as an assistant professor and associate professor at the Petroleum University of China for about eight years. Then, he worked in a telecommunication company (Huawei in Beijing) for a short time. Currently, he is a professor in the Department of

Engineering at Oral Roberts University in U.S. He has published over 100 papers in peer-reviewed journals and conferences. He also holds a US patent. He is the recipient of Best Paper Award in IEEE International Conference on Network Infrastructure and Digital Content. He is in Editorial Board of International Journal of Vehicular Technology, Hindawi Publish House. Also, he is a guest editor of Special Issue on "Reliable and secure VANETs" in IEEE Transactions on Dependable and Secure Computing and a guest editor of Special Issue on " Emerging Technologies in Wireless Communications" in ACM/Springer Mobile Networks & Applications (MONET). His research interests include stochastic modeling and analysis of computer and communication systems, physical layer and MAC layer of vehicular ad hoc wireless networks, computational intelligence and its applications to coding, signal processing, and control, and Quality of service (QoS) and call admission control protocols in wireless networks. He is (or was) PI, Co-PI or project leader in several projects sponsored by NSF, NSF EPSCoR, Motorola, Chinese NSF, AFOSR, and ARO, etc. Currently, he is a senior member of the IEEE.

Prof. Fei Hu, The University of Alabama, USA



Fei Hu (M'12) received the Ph.D. degrees in signal processing from Tongji University, Shanghai, China, in 1999, and in electrical and computer engineering from Clarkson University, New York, NY, USA, in 2002. He is currently an Associate Professor with the Department of Electrical and Computer Engineering at the University of Alabama (main campus), Tuscaloosa, AL, USA. His research expertise is cognitive radio networks and security. He has published over 170 journal/conference papers and book chapters. His research has been supported by the U.S. the NSF, Cisco, Sprint, and other sources.



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