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SPECIAL ISSUE ON

Machine Learning and Intelligent Communications

Overview:
With the advent of the fourth industrial revolution and the fast development of virtual/augmented reality, the number of high quality wireless services is exponentially increasing. According to the prediction of Cisco VNI Mobile Forecast 2017, global mobile data traffic will increase sevenfold between 2016 and 2021, and the speed of mobile network connections will increase threefold to 20.4 megabits per second (Mbps) by 2021. Hence, there is still a big gap between the future requirements and current communications technologies, even using 4G/5G. This motivates the researchers to improve the system performance by integrating the limited wireless resources with some intelligent algorithms/schemes.

As an emerging discipline, machine learning is a subfield of computer science that evolves pattern recognition and computational learning theory in artificial intelligence, which can be further used to 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, such as high communication rate, energy saving, consumption reducing, and the robust of communications for high mobility especially in large scale networks. **We hope that integrating machine learning algorithms into communication systems will improve the systems to be smarter, more intelligent, and more efficient.** Thus, this is a good time to call for intelligent solutions that can be applied to future mobile communications and networks.

This Special Issue aims to explore intelligent/machine-learning algorithms for mobile communication networking systems. Expected contributions call upon a wide range of novel modeling as well as algorithmic and computational frameworks related to intelligent optimization or machine learning. This special issue welcomes the papers from all the areas which are related to mobile communication networking systems.

Topics
Topics of interests include, but are not limited to, the following scope:

| Intelligent cloud-support communications | Power and Spectrum Allocations |
| Intelligent software defined networks | Energy-aware/green communications |
| Intelligent cooperative networks | Smart antennas design and configuration |
| Intelligent cooperative/distributed coding | Smart MIMO communication systems |
| Intelligent wireless communications | Smart positioning and navigation system |
| Intelligent wireless sensor networks | Smart underwater sensor networks |
- Intelligent satellite communications
- Machine learning for multimedia
- Machine learning for Internet of Things
- Data mining in heterogeneous networks
- Dynamic Spectrum Price and Access
- Machine learning & cognitive radio

- Information processing in sensor networks
- Decentralized learning for wireless communication systems
- Smart unmanned vehicular technology
- Smart sensing for human activity

**Important Dates**

- **Manuscript submission deadline:** September 1, 2019
- **Notification of acceptance:** October 15, 2019
- **Submission of final revised paper:** November 15, 2019
- **Publication of special issue (tentative):** Spring, 2020

**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/](http://www.editorialmanager.com/mone/).

A copy of the manuscript should also be emailed to the Guest Editors at the following email address(es): blueicezhaixp@nuaa.edu.cn; licongd@mail.sysu.edu.cn; liukai0807@gmail.com.

Authors need to register to submit their papers.

**Guest Editors:**
**Dr. Xiangping Bryce Zhai, Nanjing University of Aeronautics and Astronautics, China**

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**Dr. Congduan Li, Sun Yat-sen University, China**

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Dr. Kai Liu, Chongqing University, China

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