Call for papers
Machine Learning for Communications and Networking (MLCN)
ICNC 2020

Big Island, Hawaii, USA, February 17-20, 2020

http://www.conf-icnc.org/2020/

Symposium Co-chairs

Chin-Tser Huang, University of South Carolina (USA), huangct@cse.sc.edu
Burak Kantarci, University of Ottawa (Canada), burak.kantarci@uottawa.ca

Important Dates:

    Paper submission: July 5, 2019
    Paper Acceptance: Sept. 20, 2019
    Camera-ready paper: Oct. 18, 2019

Scope

Machine learning has shown significant potentials in facilitating human-centered cognitive systems, including image/video recognition, natural language and text analysis, finance, economics, and market analysis, medical diagnostics, robotics and autonomous vehicle, computational biology, cyber security, among others. The same potential can be expressed to enable the design and operations of complex communication and networking systems that connect massive number of users with diversified quality of service requirements. The emerging big data analytics, cloud/edge computing, software defined networking, and other relevant technologies provide opportunities for applying machine learning in communication and networking systems by studying the behaviors of these systems and further improving their performance and manageability. With machine learning, communication and networking systems can become cognizant, implementing agile reconfiguration and optimization processes based on measured data. As a result, the users can receive a better service, as enabled by the learning of the operating network environment and by the continuous adaptation of communication and network parameters as the observed conditions evolve.

The Machine Learning for Communication and Networking (MLCN) Symposium will focus on topics related to all aspects of machine learning applied to communication and networking systems. This symposium seeks original unpublished papers focusing on theoretical analysis, algorithm/protocol design,
novel system architectures, experimental studies, emerging applications, standardizations, testbeds, etc. The ultimate goal of this symposium is to bring together and disseminate the latest developments and technical solutions concerning all facets of the broad area of machine learning for communication and networking systems, including emerging intelligent and/or self-aware communications and networking technologies to improve network resource utilization and optimization, and make future communication and networking systems intelligent, autonomous, efficient, and trustworthy. The ICNC'20 Machine Learning for Communication and Networking (MLCN) symposium calls for original, previously unpublished papers in the topics including, but not limited to, the following:

● Machine learning for communication and network operation and control
● Machine learning for communication and network resource optimization
● Machine learning for cognitive communication and networks architecture
● Machine learning for communication and network security management
● Machine learning for self-aware network management
● Machine learning for the Internet of Things
● Machine learning for cyber-physical systems
● Machine learning-enabled communication and network big data analytics
● Machine learning-enabled cloud/edge/fog computing for communication and networking systems
● Machine learning-driven communication network theory and algorithms
● Machine learning for RF signal processing
● Machine learning for collaborative spectrum sharing
● Machine learning for distributed communications and sensing
● Machine learning for next-generation cognitive networks
● Machine learning for next-generation wireless networks such as 5G networks
● Machine learning for new network architectures such as software-defined networking and network function virtualization
● Machine learning for constrained networks such as sensor networks, tactical networks, etc.
● Machine learning for supporting ultra-low latency and highly reliable communications

Submission Guidelines

Please follow the author instructions at http://www.conf-icnc.org/2020/author.htm Direct paper submission for this symposium can be found at http://www.conf-icnc.org/2020/cfp.htm

Short biography of co-chairs

Chin-Tser Huang received a BS degree in computer science and information engineering from the National Taiwan University, Taipei, Taiwan in 1993, and an MS and a PhD in computer sciences from the University of Texas at Austin in 1998 and 2003, respectively. He joined the faculty at the University of South Carolina in Columbia in 2003 and is now a full professor in the Department of Computer Science and Engineering. His research interests include network security, network protocol design and verification, cloud computing, and distributed systems. He is the director of the Secure Protocol Implementation and Development (SPID) Laboratory at the University of South Carolina. He is the author (along with Mohamed Gouda) of the book Hop Integrity in the Internet, published by Springer in 2005. He is a senior member of IEEE and a senior member of ACM.

Burak Kantarci is an Associate Professor and the founding director of the Next Generation Communications and Computing Networks (NEXTCON) Research laboratory in the School of Electrical Engineering and Computer Science at the University of Ottawa (Canada). He received the M.Sc. and Ph.D. degrees in computer engineering from Istanbul Technical University in 2005 and 2009, respectively. He is an Area Editor of the IEEE Transactions on Green Communications Networking, an

Associate Editor of the IEEE Communications Surveys and Tutorials, and an Associate Editor of the IEEE Access and IEEE Networking Letters. He also serves as the Chair of the IEEE ComSoc Communication Systems Integration and Modeling Technical Committee. Dr. Kantarci is a senior member of the IEEE, member of the ACM, and a distinguished speaker of the ACM.