Call for Papers

Special Issue on New Techniques for Intelligent Networks with Machine Learning

With the rapid development of data science, machine learning has been widely applied to many important fields such as computer vision, healthcare systems, and financial predictions, to support the design of constructs of Artificial Intelligence. Although significant progress has been achieved in the applications of machine learning in networks, some limitations in the current works still exist. In fact, the architectures and applications of networks are dynamic, heterogeneous, and complex, in which machine learning tasks are faced with a variety of multiple parties, such as Internet of Things (IoT), mobile telecom networks, cognitive networks, wired/wireless heterogeneous backbone networks, and so on.

To understand the complexity of networks, one should address the following main issues: 1) Enable networks to autonomously make decisions in dynamic and distributed environments; 2) How to process and/or utilize the data from heterogeneous networks, and find valuable information or patterns; 3) How to develop machine learning algorithms which can possess high complexity.

This feature topic will benefit the research community towards identifying challenges and disseminating the latest methodologies and solutions to machine learning. The ultimate objective is to publish high-quality articles presenting open issues, delivering algorithms, protocols, frameworks, and solutions. All received submissions will be sent out for peer review by at least three experts in the field and evaluated with respect to relevance to the special section, level of innovation, depth of contributions, and quality of presentation. Case studies, which address state-of-the-art research and state-of-practice industry experiences are also welcome. The Guest Editors will make an initial determination of the suitability and scope of all submissions. Papers that either lack originality, clarity in presentation or fall outside the scope of the special issue will not be sent for review and the authors will be promptly notified in such cases. Submitted papers must not be under consideration by any other journal or publication.

Topics

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

- Network Architectures with Machine Learning Methods
- Intelligent Network Resource Management and Big Data Analytics

- Dependable Machine Learning Algorithms for Security and Privacy Issues of Networks
- Machine Intelligence for Implementation/Testbed/Application of Networks
- Deep Learning based Communication Protocols for Heterogeneous Networks
- Green Networks with Machine Learning Solutions

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Important Dates

Submissions welcome from: 20 March 2020

Notification date: 3-4 months

Submission deadline: 20 November 2020

Submission Instructions

Paper submissions for this special issue should follow the submission format and guidelines for regular papers at the Journal of High Speed Networks website: https://www.iospress.nl/journal/journal-of-high-speed-networks/ .

Authors' manuscripts should be submitted online to the journal's editorial management system: http://mstracker.com/submit1.php?jc=jhsn .

Authors have to specify that the manuscript is for the "New Techniques for Intelligent Networks with Machine Learning" special issue. This can be done by inserting a proper note within the manuscript or in the cover letter.