CALL FOR PAPERS

Special Session on “Artificial Intelligence and Machine Learning for Beyond 5G/6G”

Scope

According to Cisco, by 2023, there will be, in average, 3.6 connected wireless devices per global capita (in the US and western European countries, this number will be above 10). M2M connections will contribute to half of all devices (either wired or wireless) connected to the IP network, which will account to around 15 billion M2M nodes. By the same year, mobile data traffic is expected to grow by a factor of 4.5 (comparing to Dec. 2020) to reach 7.5 EB/day (source: Ericsson). To meet this challenging demand, it is crucial to develop dynamic and flexible techniques to effectively use scarce radio resources and accommodate billions of new IoT/M2M clients serving different verticals (e.g., e-health, intelligent transportation system, smart manufacturing, and smart utility). Moreover, as beyond 5G/6G networks are envisioned to heavily rely on artificial intelligence and machine learning, it is vital to rethink existing security solutions to come up with proper techniques for ensuring user privacy and secure data management (i.e., collection, communication, storage, processing, destruction).

Topics of Interest

In this Special Session, we welcome submissions of papers presenting original works. Submissions must not overlap with works that have been published or that are simultaneously considered for publication elsewhere. Specifically, we encourage researchers and industry experts to submit original contributions in the following major areas (indicative list, other related topics will also be considered):

- Beyond 5G/6G Mobile Networks
- Artificial Intelligence and Machine Learning
- Fog/Edge Computing
- Virtualized Network
- Radio Resource Management
- PHY/MAC Design and Optimization
- Intelligent Reflecting Surface
- Non-Orthogonal Multiple Access (NOMA)
- Filter Bank Multicarrier (FMBC) Waveform
- Orthogonal Frequency Division Multiplexing (OFDM)
- 5G New Radio
- Spectrum Sharing
- Unlicensed Access
- mm-Wave Communication
- THz Communication
- Massive MIMO
- IoT
- Optical-Wireless Convergence
- Smart Antenna
- M2M Communication
- V2X Communication
- D2D Communication
- Small Cell
- Security and Privacy
- Intrusion Detection and Prevention System (IDPS)
- Blockchain

**Important Dates**

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<td>Paper Submission (Extended) Deadline</td>
<td>15 August 2021</td>
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<td>Paper Acceptance Notification</td>
<td>15 September 2021</td>
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**Submission Guideline**

Prospective authors are invited to submit a full paper of not more than six (6) IEEE style pages including results, figures and references. Papers should be submitted via EDAS. Papers submitted to the conference, must describe unpublished work that has not been submitted for publication elsewhere. All submitted papers will be reviewed by at least three TPC members, while submission implies that at least one of the authors will register and present the paper at the conference. Electronic submission will be carried out through the EDAS web site at the following link: [https://edas.info/newPaper.php?c=28270&track=107937](https://edas.info/newPaper.php?c=28270&track=107937)

All accepted papers will be included in the conference proceedings and IEEE digital library ([http://ieeexplore.ieee.org/](http://ieeexplore.ieee.org/)).

**Organizers**

Dr. Firooz Saghezchi, Instituto de Telecomunicações, Portugal
Dr. Shahid Mumtaz, Instituto de Telecomunicações, Portugal
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