Special Issue

5G Technology for Internet of Things Applications

Message from the Guest Editor

Recent years have seen a significant surge in the number of Internet of Things (IoT) applications and services across different industry verticals, including healthcare, manufacturing, and automotive. These applications have different requirements, e.g., bandwidth, latency, reliability, and energy, that the current mobile networks cannot fully accommodate given the way in which they are built and operated. Fifth-generation technology represents an auspicious solution to the ever-growing user demands as it endorses a new architecture, called Open-RAN (O-RAN), that provides flexible and programmable network infrastructure that can be tailored to the specific needs of every application. It also implements Artificial Intelligence (AI) and Machine Learning (ML) techniques across different layers, i.e., Radio Access Network (RAN) and Core, to enhance network management and energy efficiency. Although efforts have lately been devoted to study and enhance the performance of the O-RAN architecture, several open issues need to be addressed, including service and resource management, energy consumption, security, and standardisation.

Guest Editor

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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