Special Issue

AI-Optimized Traffic Modelling and Dimensioning of 6G Networks

Message from the Guest Editors

The rapid evolution of 6G communication networks demands intelligent traffic management strategies to handle the increasing complexity of ultra-dense, high-rate, and low-latency communications. On the same hand, AI-driven approaches offer innovative solutions by leveraging machine learning (ML), deep learning (DL), and data analytics to predict and model network traffic for optimizing resource allocation in real time. By applying AI to the development of 6G, this Special Issue aims at innovative AI methodologies, challenges, and future research directions for the traffic modelling and dimensioning of 6G communication networks. It explores how ML as well as DL techniques can optimize network resource allocation, enhance the quality of service, and predict traffic patterns with high accuracy. The issue covers topics such as AI-based network design and dimensioning, network slicing, predictive traffic analytics, traffic forecasting, dynamic spectrum management, and energy-efficient traffic optimization.

Guest Editors

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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.

Editor-in-Chief

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