Special Issue

Recent Advances and Challenges in Network and Service Management of Next Generation 5G/6G Networks

Message from the Guest Editor

It is well known that 5G networks and their evolution to 6G networks are transforming the telecommunication infrastructure landscape through the introduction of disruptive technologies in the network, enabling a rich ecosystem of services. The support of such services drives the transformation of several sectors vertically to the telecommunications industry, through new services/applications requiring ubiquitous high-speed connectivity, reliability and dense deployments. To cope with these requirements, 5G and beyond/6G networks will comprise versatile infrastructures consisting of multiple disaggregated pools of network, compute and storage resources, while network deployments are expected to appear in various (physical/vertical) environments as access network extensions of public or private networks. This heterogeneity of resources and versatility of networks brings challenges on how to effectively control, manage and orchestrate them. To cope with these challenges, 5G/6G networks must be equipped with intelligent self-organizing and control capabilities to automate and optimize the key processes involved in network and service operation.

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