

IEEE BlackSeaCom 2022 Special Session

on

AI-enabled future communication systems

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Supported by the EU H2020-MSCA-ITN project 861219 MOTOR5G and the EU H2020-MSCA-RISE project 872857 RECOMBINE

Artificial intelligence (AI) can combine with future communication systems for the smart use of data and automated network management. To do so, it requires specialised researchers to adapt future communication systems to changes in traffic models, security risks and user conduct for more secure and trustworthy advanced wireless structures. This Special Session will examine the use of remote radio head (RRH) and drone-based technology to improve multi-antenna and data forwarding techniques and the use of AI for innovative adaptive digital beamforming techniques in realistic antenna arrays. Some of the topics covered but not limited to are:

UAV-based antenna and propagation measurements

AI-based and Blockchain-based spectrum sharing

SLAM (Simultaneous Localisation and Mapping) with mmWaves

AI-based beamforming and direction-of-arrival estimation

Adaptive Intelligent Reflective Surfaces (AIRS)

AI-based QoE for future communication networks

Antenna design using metamaterials

Reconfigurable antennas with advanced materials

Reconfigurable metasurface-enhanced antennas