



On-demand 6G Networks using Autonomous Platforms

Workshop

Abstract: While improving the network capacity was the focus up to 4G networks, 5G networks have introduced a new set of strict orthogonal performance requirements, in order to enable enhanced mobile broadband, ultra-reliable and low-latency communications, and communications for a massive number of connected devices, on top of a shared network infrastructure. 6G networks will go beyond these requirements, targeting ubiquitous connectivity enabled by Edge intelligence, while taking advantage of on-demand networks able to autonomously reconfigure themselves according to time-varying network conditions. Besides ensuring the network performance targeted by emerging services and applications, this paradigm will make it possible to minimize the costs that fixed communications infrastructures imply. In order to achieve this goal, autonomous unmanned platforms carrying communications nodes, including drones and robots, will play a key role for providing wireless connectivity anywhere, anytime. In this Workshop, the participants will configure a wireless network from scratch, leveraged by the controlled mobility provided by a Robot Dog to offer wireless connectivity on-demand.

Duration: 2 hours

Maximum number of participants: 12

Location: FEUP, DEEC, room I -105

Requirements: Personal laptop to be brought by participants

