

## WS-16: WORKSHOP ON OPTICAL WIRELESS COMMUNICATIONS (OWC'22)

### General Co-chairs:

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### Scope:

Future wireless networks are expected to ensure low latency, high reliability, scalability, as well as support enhanced quality-of-service and quality-of-experience in sophisticated scenarios arising from emerging multimedia applications and exponential increase in the number of smart sensors and devices. In such scenarios, optical wireless communication (OWC) gains importance where it can leverage the unique advantages of the light propagation medium as opposed to radio technologies, such as ultra-high capacity, immunity against electromagnetic interference, the possibility to communicate wirelessly through water, and the ability to provide an inherent physical security. Furthermore, combining OWC with radio technology creates a synergy yielding a hybrid system with superior properties than the individual technologies could offer. Because of the numerous operational and technical advantages offered by OWC, we have been witnessing increased research and development activities in the past two decades, covering visible-light communications (VLC) and free space (FSO) communications for indoor and outdoor (including underwater and satellite) applications. Nevertheless, there exist still several technical challenges that need addressing before a wide-spread deployment of OWC.