



DEPARTMENT OF
ELECTRICAL &
COMPUTER
ENGINEERING



UNIVERSITY OF
WESTERN MACEDONIA

Online Webinar Series of the Department of Electrical and Computer Engineering

Title: “**Quantum Technologies for Communications Systems**”

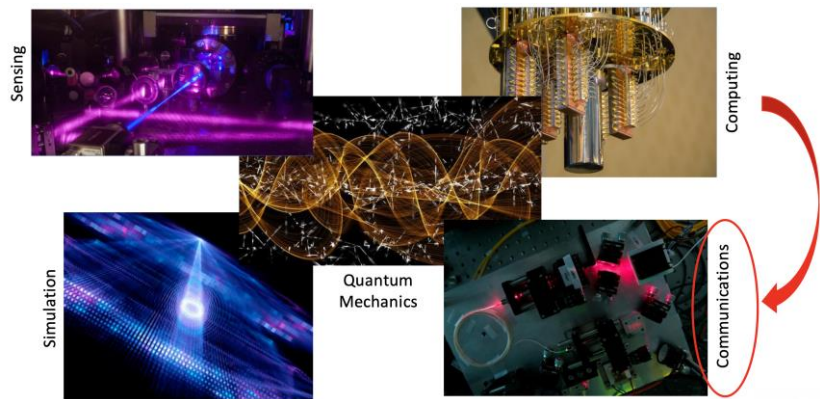
Symeon Chatzinotas (Full Professor/Chief Scientist and Head of the research group SIGCOM in the Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg)

Wednesday, 29 November 2023, 15:00 – 16:30 CET (16:00-17:30 GR time)

Bridge: <https://zoom.us/my/uowm.ece1>

Abstract: The quantum domain has brought forward many innovations across computing, communication and sensing. This talk focuses on two distinct areas: 1) Quantum Communication Infrastructure, 2) Quantum Optimization for Communication Problems. In the first area, we elaborate on the architectural and technological elements towards building a QKD network. Subsequently, we describe the longer-term vision towards a

Quantum Internet and the role of entanglement as a new form of network resource. In the second area, we describe typical optimization problems which are challenging for large-scale communications and can benefit from a potential quantum supremacy in the future. Early results are presented in this direction, as well as a roadmap for future open topics.



Biography: **Symeon Chatzinotas** (MEng, MSc, PhD, FIEEE) is currently Full Professor/Chief Scientist and Head of the research group SIGCOM in the Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg. In parallel, he is an Adjunct Professor in the Department of Electronic Systems, Norwegian University of Science and Technology and a Collaborating Scholar of the Institute of Informatics & Telecommunications, National Center for Scientific Research “Demokritos”.

In the past, he has lectured as Visiting Professor at the University of Parma, Italy and contributed in numerous R&D projects for the Institute of Telematics and Informatics, Center of Research and Technology Hellas and Mobile Communications Research Group, Center of Communication Systems Research, University of Surrey.

He has received the M.Eng. in Telecommunications from Aristotle University of Thessaloniki, Greece and the M.Sc. and Ph.D. in Electronic Engineering from University of Surrey, UK in 2003, 2006 and 2009 respectively.

He has authored more than 800 technical papers in refereed international journals, conferences and scientific books and has received numerous awards and recognitions, including the IEEE Fellowship and an IEEE Distinguished Contributions Award. He is currently in the editorial board of the IEEE Transactions on Communications, IEEE Open Journal of Vehicular Technology and the International Journal of Satellite Communications and Networking.