

Webinar on

Photonics for 5G Wireless Communication and Surveillance

Microwave Photonics (MWP), a discipline that brings together the worlds of radiofrequency (RF) engineering and optoelectronics, has matured significantly with numerous applications including wireless, satellite communications, distributed antenna systems, optical signal processing and medical imaging systems using terahertz (THz) waves. **Prof. Antonella Bogoni** who has pioneered research in MWP will be delivering a distinguished talk, being organized by the *Centre for Next Generation Communication and Networking (C-NGCN)*, Department of ECE, LNMIIT.

About the Speaker

Prof. A. Bogoni is currently a Professor in Scuola Superiore Sant'Anna, Pisa, Italy, and the Director of National Inter-University Consortium for Telecommunications (CNIT). She is one of the pioneers of Integrated Research Center for Photonic Networks and Technologies, Pisa, where she also leads the digital and microwave photonics area. Her research interests include ultrafast optical signal processing, high-capacity interconnection networks and microwave photonics. She has coauthored 55 patents, 2 books, 9 chapters and more than 180 peer reviewed journal articles. She received 16 national and international project grants and five best paper awards. In 2012 and 2014, she was awarded two additional proof-of-concept ERC grants to explore preindustrial products for airport security and environment monitoring. She is a Topical Editor of *Optics Letters*. She is also in the Board of Reviewers of Wiley Editor, *Nature Photonics*, and IEEE/OSA journals.



Abstract of the Talk

An overview on the trend and main issues of RF technology and the potential of introducing photonics in RF systems will be presented, with particular emphasis to 5G and radar. The advantages in terms of frequency-agility, multi-band operation and performance on a single RF apparatus and on multiple input-multiple output systems will be detailed. Preliminary achievements in integrated photonics will be also introduced.

Date: Feb 19, 2021

Time: 04:00-05:00 PM IST (11:30-12:30 AM Italian Time)

Google Meet Link: meet.google.com/eae-ebvk-bjh