

Reconfigurable, circularly polarized and scanning antennas for wireless communications and sensors

Dr Branka Jokanovic, Research Professor, Institute of Physics, University of Belgrade, Serbia, July 2nd, 10:00 am., Room 340, Building 30.10

The overview of the recent development of high-gain, scanning and reconfigurable antennas obtained in the Project TR 32024 will be presented in this talk. High-gain printed microwave and millimeter wave antennas, both linearly and circularly polarized are discussed as well as reconfigurable circularly polarized antenna with switchable sense of polarization. Special attention has been devoted to the design of frequency scanning antennas based on metamaterial-inspired phase shifters. All presented antennas demonstrate considerable improvement of the efficiency, bandwidth of operation, axial ratio and frequency sensitivity. Also, they are very simple for manufacturing even at millimeter wave frequencies. Innovative design of these antennas and their excellent performances, which in many aspects outperform the characteristics of existing solutions, make them an excellent candidate for the future 5G networks.



Dr Branka Jokanovic received the Dipl. Ing., M.Sc. and Ph.D. degrees in electrical engineering from the University of Belgrade, Belgrade, Serbia, in 1977, 1988, and 1999, respectively. From 1978 until 2009, she worked with the Institute for Applied Physics, today the IMTEL Institute, on research and development of microwave and millimeter-wave devices. Since 2003 she held the position of director's counselor for science. In October 2009, she joined the Photonics Center of the Institute for Physics, University of Belgrade where she established the Laboratory for Metamaterials for research and development of artificial electromagnetic structures for communications and sensors. She is a Corresponding Member of the Serbian Academy of Engineering Sciences.

