Keynote Speech 4

RF Technologies for Advanced Industrial and Space Applications

Roberto Sorrentino

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Thursday, 21 September 2017, 17:00-17:30

Abstract – Microwave and RF represent a pervasive and key technology for a wide number of industrial, civil and military applications. This talk will illustrate and discuss some of such applications, with specific reference to microwave sensors and components for industrial processes and space communications.

Roberto Sorrentino is a Professor at the University of Perugia, Perugia, Italy. In 2007, he founded RF Microtech, a spinoff company of the University of Perugia dealing with RF-MEMS, microwave systems, and antennas. His research activities have been concerned with numerical methods and computer-aided design (CAD) techniques for passive microwave structures and the analysis and design of microwave and millimeter-wave circuits including filters and antennas. In recent years, he has been involved in modeling and design of radio-frequency microelectromechanical systems (RF-MEMS) and their applications on tunable and reconfigurable circuits and antennas. He is the author or coauthor of more than 150 technical papers in international journals and 200 refereed conference papers. He edited a book *Numerical Methods for Passive Microwave Structures* (Piscataway, NJ, USA: IEEE Press, 1989) and coauthored four books: *Advanced Modal Analysis* (New York, NY, USA: Wiley, 2000), *RF and Microwave Engineering* (New York, NY, USA: McGraw-Hill, 2006, in Italian), *Electronic Filter Simulation and Design* (New York, NY, USA: McGraw-Hill, 2007), and *RF and Microwave Engineering* (New York, NY, USA: Wiley, 2010). The last one has been translated in Chinese. Dr. Sorrentino is a Fellow of the IEEE (1990) "for contribution to the modeling of planar and quasi-planar microwave and millimeter-wave circuits." He has received several international awards and recognitions such as the IEEE MTT-S Meritorious Service Award (1993), the IEEE Third Millennium Medal (2000), the IEEE MTT-S Distinguished Educator Award (2004), the EuMA Distinguished Service Award (2010), the IEEE MTT-S Microwave Prize (2012), and the IEEE MTT-S Microwave Career Award (2015). He served the International Union of Radio Science (URSI) as Vice Chair (1993-1996), then Chair (1996-1999) of the Commission D (Electronics and Photonics). Since 2007, he has been the President of the Italian Commission of URSI. In 1998, he was one of the founders of the European Microwave Association (EuMA) and was its President until 2009.