

Giorgio Leuzzi – Curriculum Vitae

Giorgio Leuzzi graduated cum laude in 1982 from the University of Roma 'La Sapienza' with a thesis on transmission lines for microwave integrated circuits. After the military service as Officer of the Technical Corps, from 1984 he has been Research and Teaching Assistant at the University of Roma 'Tor Vergata' where he taught Microwave Electronics from 1991 to 2000. In 1990 he spent several months at the Centre Hyperfréquences et Semiconducteurs of the Université de Lille (France), as visiting researcher. In 1998 he became Associated Professor of Electron Devices at the University of L'Aquila (Italy), and in 2001 he became Full Professor at the same University.

His research activity was initially devoted to the study of transmission lines on semiconductor substrate for applications in the microwave frequency range; in particular, slow-wave phenomena on dispersive layered media and resonance phenomena in enclosed guiding structures have been addressed. Later, his activity has been addressed to the investigation of active devices and circuits, again in the microwave frequency range. In particular, he has worked on global physical and electromagnetic modelling of microwave and millimetre-wave semiconductor devices, and on linear and nonlinear characterisation of microwave and millimetre-wave active devices. Regarding the circuits, he has developed method for the design of nonlinear microwave circuits; in particular, the design of efficient power amplifiers by means of harmonic manipulation, and the control of stability in nonlinear regime through the use of the conversion matrix. Lately, his research activity has been devoted to the development of innovative tunable active filters for monolithic implementation, and to the development of innovative circuits for sub-THz and THz frequencies.

His teaching activities include regular lectures at the International Travelling Summer School (since 1991), that he has organised three times (in Rome and in L'Aquila). He holds lectures on Power Amplifier Design at the European Microwave Conference since 1999.

Giorgio Leuzzi has authored or coauthored more than 200 scientific papers, and a book (Nonlinear Microwave Circuit Design, Wiley 2004). He is co-inventor of three patents (2008, 2011, 2015).

Giorgio Leuzzi has taken part to several research projects, both Italian and international. Lately, he was involved in the European Project ITN 'CELTA - Convergence of Electronics and Photonics Technologies for Enabling Terahertz Applications', in the ARTES AT 6B.071 Project on 'Monolithic Integrated Tuneable Active Filters for Wideband Frequency Converters' of the European Space Agency, and in 'OCEANOS - Monitoraggio coltivazioni e zone marine costiere: Tecnologie Satellitari di nuova generazione', a project of the Italian Ministry MIUR.

He also has regular collaborations with Italian and international industries. Lately, he was responsible for several contracts with Elettronica S.p.A. (Rome, Italy), on the design of circuits and systems for airborne active antennas. He was also responsible for several contracts with Thales Alenia Space (Rome, Italy) on the design of monolithic circuits for satellite transponders. He has regular collaborations with IHP (Frankfurt am Oder, Germany) on the design of sub-THz circuits and systems for imaging applications. He was also the Technical Supervisor in a contract with Nexvap S.A. (Puidoux, Switzerland) on an 'Electronic portable delivery system for aerosol applications'.