

SHORT CV of  
Mario Nicola Armenise

Mario Nicola Armenise received the laurea degree in Electrical Engineering from the University of Bari, Bari, Italy. He has been Full Professor of Optoelectronics at Politecnico di Bari, Italy, from 1986 until 2013. From 1st November 2013 he got retired.

He has been Deputy Rector of the Politecnico di Bari from 1994 to 1997.

He has been Deputy Chair of the Consortium of the Apulian Universities (CIRP), from 1995 to 1997, and Chair from 2004 to 2011.

From 2001 to 2005 he has been a member of the Scientific Council of the Department of Science and Technology of Communications and Information of the French National Committee of Scientific Research (Centre National de la Recherche Scientifique - CNRS).

From 2004 to 2007 he has been a member of the Scientific Council of the Italian Space Agency (ASI).

He served as scientific advisor of the European Space Agency (ESA).

From 2007 to 2009, he was a member of the Scientific Council of the Department of Materials and Technologies of the Italian National Council of Research.

He has been President of the Italian Optics and Photonics Society.

He is Fellow of the European Optical Society.

He was main co-founder and President (from November 2011 to December 2014) of the Electronics Italian Association (Gruppo Italiano di Elettronica) whose members to the Italian universities and to some public research bodies and private companies.

His main research interests are in the field of optoelectronics and guided wave integrated optics for space applications, telecommunications, sensing and signal processing, and include the fabrication and characterization of optical waveguides and integrated optical devices in lithium niobate and semiconductor materials, modeling, design, fabrication and characterization of optoelectronic devices and photonic circuits.

The main results obtained by the Optoelectronics Laboratory at Bari Polytechnic, founded by Prof. Armenise from about thirty years, are briefly summarized in the following points:

- Important pioneering work on optical waveguides in lithium niobate, which has led to the definition, for the first time, of the mechanisms for the optical waveguide formation through the thermal diffusion of titanium.
- Development of rigorous mathematical models for the design of optoelectronic waveguiding devices.
- Important pioneering work on mathematical models, design and proof-of-concept of optoelectronic devices for space applications, such as optical pre-processor and innovative optical gyroscopes to be used on board aircraft or satellites.
- Study, design and fabrication of "optical tweezers" for the nanoparticles trapping in biomedical applications.

He is author or co-author of about 400 journal articles and conference presentations, co-author of two books, and co-inventor of three international patents.

He serves as referee of a number of international journals.

He is an advisory Member of the IEICE (Institute of Electronics, Information and Communication Engineers - Japan) Transactions on Electronics.

He has been visiting professor in several universities and has been invited to give seminars in Europe, USA, Japan and former East Countries.

He has been Chair, Co-Chair or Member of Program Committee of numerous international conferences.

He has given invited talks in many international conferences.

He has been scientific coordinator of several national and international research projects.