

Rita Asquini - Short resume

Rita Asquini (High School Diploma in Computer Science with 60/6 M.Sc. degree in Electronic Engineering 110/110 cum laude from University "Roma Tre", Qualification to the Engineering profession received the Ph.D. degree in Electronic Engineering in 2002 from "L Sapienza" University of Rome in Italy (receiving in 2004 a recognition award for the best PhD thesis from the Italian Liquid Crystal Society In 2017 she obtained the National Scientific Qualification for Full Professor in Electronic Engineering. Currently, she is Associate Professor in Electronic Engineering with the Department of Information Engineering, Electronics and Telecommunications in "Sapienza University of Rome, where she has been Assistant Professor from 2000 to 2015 and Research Fellow from 2002 to 2008.

R. A. is Founder and President of ARAPhEE - Association for the Research Advancement on Photonics and Electronic Engineering, a non profit scientific and cultural association.

In 1998, as a consultant, she was appointed by SI.TE.L. (Livorno) for the computerization of port structures with neural networks techniques. In 1998 she also was employed by Telecom Italia (in Rome) with a permanent position working on Service Assurance of Communication Networks. In the same period she attended a post-degree specialization course (5 months) in Telecommunications and Management at the "Scuola Superiore di Telecomunicazioni Guglielmo Reiss Romoli" in L'Aquila. In May 2000, having been admitted to the Ph.D. course in Electronic Engineering (XIV Cycle), she quits Telecom Italia to devote herself full time to research. Nevertheless, in 2001 she continued the collaboration with Telecom Italia holding Master Courses for Telecom Italia Lab (formerly CSELT) researchers on "DWDM optical fiber transmission systems" at the aforementioned "Scuola Superiore di Telecomunicazioni Guglielmo Reiss Romoli". In 2006 she was a consultant for D'Appolonia in the framework of an European Research Project for the making of a neural network for image recognition in GPR systems. In 2007 she had a contract in the European project COMUNET-EQUAL as Research Collaborator for the testing of an e-learning community network model.

Since 2000 she holds lessons and tutorials for the course "Optoelectronics" of the Faculty of Engineering, University "La Sapienza. She has also been adjunct Professor for the course of "Applied Electronics" (from ay 2003/2004 to ay 2007/2008) and for the course of "Innovative electronic devices and molecular electronics" (from ay 2010/2011 to ay 2011/2012). She has been also Professor of the course "Computer Science E-Learning" (from ay 2004/2005 to ay 2007/2008) for the Faculty of Philosophy (now Faculty of Medicine and Psychology), University "La Sapienza". She is currently Professor of the course "Applied Electronics" (since 2014) for the Master Degree in Mechanical Engineering (Faculty of Civil and Industrial Engineering), and of the course "Photonic Microsystems" (since 2008) for the Master Degree in Electronic Engineering (Faculty of Information Engineering, Informatics, and Statistics) and the Master Degree in Nanotechnology Engineering (Faculty of Civil and Industrial Engineering) at the University "La Sapienza". She is also Professor in the II level Master "Optics and Quantum Information" (Sapienza University).

Moreover since 2000 R.A. has been supervisor/co-supervisor of more than 50 Master and Bachelor Theses students in Electronic Engineering, Nanotechnology Engineering and Mechanical Engineering, and supervisor/co-supervisor of 6 PhD students in Electronic Engineering.

Since 1999 R.A. has been managing and developing the Optoelectronics Laboratory in the Department of Information Engineering, Electronics and Telecommunications (DIET) in University of Rome "La Sapienza". She also supports the activities of undergraduates and PhD students in the lab, following both experimental and theoretical/design aspects.

Her main research interests include modeling, fabrication, and characterization of guided-wave as well as free-space optoelectronic devices with liquid crystals and polymers, realized with ion-exchange glass waveguides, with liquid crystals planar structures, and silicon 2D structures. She studied the spectral and temporal response

in electro-optical waveguide switches, integrated Bragg reflectors, filters and add-drop multiplexers, with liquid crystals and composites.

R. A. has been involved in National and European Research Projects, and recently she participated to the Joint IIT-Sapienza LAB Life-NanoScience on Lab-on-chip for biomolecular analysis (2011-2016) and to the COST ACTION (European Cooperation in Science and Technology): IC COST 1208 “Integrating devices and materials: a challenge for new instrumentation in ICT” (IDEM) (2013-2017).

Actually she is a Management Committee Member (Proponent) of the European COST action CA16215 “European network for the promotion of portable, affordable and simple analytical platforms” (PortASAP), and she has been elected Working Group Leader of WG5 “New Instrumentation” (2017-2021).

Rita Asquini has obtained, as Principal Investigator, funding from Sapienza University research projects on "Optofluidic optically tunable microstructures for biosensor applications" (2011), "Optofluidic devices in polydimethylsiloxane and liquid crystal for Lab-on-Chip applications" (2014) and “Microfluidic resonant photonic structures in PDMS and liquid crystals for biosensing applications” (ongoing).

R. A. has participated in numerous national and international conferences, presenting more than 30 papers and posters many as invited speaker.

She is member of the Institute of Electrical and Electronics Engineers (IEEE), of the International Liquid Crystal Society (ILCS), of the Italian Liquid Crystal Society (SICL), of the Italian Electronics Group (GE) and of the Research Center on Nanotechnologies applied to Engineering (CNIS).

Since 2008 she is part of the Electronic Engineering PhD Programme Board of University of Rome "La Sapienza".

From 2011 to 2014 R. A. has been an elected Representative Member in the Restricted Faculty Council of the Board of the Faculty of Information Engineering, Informatics, and Statistics (Membro eletto della Giunta di Facoltà) as Researchers delegate of the Department of Information Engineering, Electronics and Telecommunications of Sapienza University of Rome.

From 2013 to 2015 she has been an elected member in the Academic Senate (Governance) of Sapienza as Researchers delegate of 12 Departments (about 300 Researchers).

She has been General Chair of the International Conference 41st “Photonics & Electromagnetic Research Symposium” PIERS 2019 held on 17-20 June 2019 in Rome – Italy (1800 researchers participants) (<http://piers.org/piers2019Rome/organization.php>).

In November 2019 she has been elected member in the Academic Senate (Governance) of Sapienza as a Associate Professors delegate from 12 Departments (representative of about 300 Professors).

R. A. is reviewer for international journals and she has served in the Editorial Board of Scientific Reports (Nature Publishing Group) of the Electronics, Photonics and Device Physics section. She is author and co-author of more than 150 scientific publications and co-inventor of an international patent.