

CURRICULUM VITAE

Dr. Christos Riziotis

Associate Researcher

National Hellenic Research Foundation
Theoretical and Physical Chemistry Institute
48, Vassileos Constantinou Avenue
Athens 11635, Greece



Phone: +30 2107273887

Fax: +302107273794

E-mail: riziotis@eie.gr

Research Activity's Web Page: [Applied Photonics - Materials & Devices](#)

EDUCATION

- Ph.D. in Photonics, Optoelectronics Research Centre ORC, University of Southampton, UK (2001)
- M.Sc. in Electronics and Telecommunications, National and Kapodistrian University of Athens (Physics and Informatics Departments), Greece (1995).
- B.Sc. Honors Degree in Physics, National and Kapodistrian University of Athens, Greece (1993).

PROFESSIONAL EXPERIENCE AND APPOINTMENTS

- 12/2012- : Associate Researcher, TPCI/NHRF, Athens, Greece
- 6/2008 - 11/2012: Assistant Researcher, TPCI/NHRF, Athens, Greece
- 9/2007 – 5/2008: Adj. Assistant Professor, University of Western Macedonia, Department of Informatics and Telecommunications Engineering
- 9/2003-8/2007: Assistant Professor, University of Peloponnese, Department of Telecommunications Science and Technology
- 4/2002–7/2004: Technical Consultant and Project Manager. OTE Consulting/TEMAGON S.A., Hellenic Telecommunications Organization -OTE Group.

- 9/2000-3/2002: Research Fellow, University of Southampton, Optoelectronics Research Centre, UK
- 2/1999- 3/2000: Technical Consultant, Southampton Photonics Inc, Pirelli Cavi S.p.A
- 9/1998-7/2000: Teaching Assistant, Physics Department, University of Southampton
- 3/1996-8/1997: Hellenic Army Aviation, General Staff of Army (Military service)

MAIN RESEARCH INTERESTS

Photonic devices, Optoelectronics, Optical materials, Integrated optical circuits, Bragg-Grating based devices, UV written structures and photosensitivity, Micromachining and Direct Laser writing, Plasmonic devices, Polymer Optical Fibers, Design and modelling of photonic devices, Optimization strategies, Integrated and optical fiber sensors, Photonics components for telecommunications and WDM networks, Structural Health Monitoring, Industrial sensors, Biosensors and medical applications.

The current research directions are included and implemented within TPCI/NHRF's activity: [Applied Photonics - Materials & Devices](#)

PROJECTS MANAGEMENT, FUNDING and RESEARCH NETWORKING

Investigator in more than 10 national and international research projects in collaboration with academia and industry. Recent research funding and networking projects include:

- WelCOM: "Wireless Sensors for Engineering Asset Life Cycle Management" - funded by the Hellenic General Secretariat for Research and Technology- GSRT <http://welcom-project.ipet.gr/> (PI: C. Riziotis)
- SESAMO (A-0931-RT-GC-EDA): "Sensors for Structural Monitoring" –funded by European Defence Agency-EDA (PI: G. Kakarantzas)
- COST Action TD1001- "Novel and Reliable Optical Fibre Sensor Systems for Future Security and Safety Applications" (OFSeSa), (C. Riziotis, Greek National Delegate and Management Committee Member) <http://www3.ul.ie/td1001/>
- NANOMACRO: "Functional Self-assembled Nanostructures from Block Copolymers and Proteins", GSRT (PI: S. Pispas)
- POLYNANO: "Novel Multifunctional Nanostructured Materials and Devices" funded by the Hellenic General Secretariat for Research and Technology- GSRT Polynano- Kripis 447963. (PI: E.I. Kamitsos)
- BM1401 "Raman-based Applications for Clinical Diagnostics (Raman4clinics)"

- MP1206 "Electrospun Nano-Fibres for Bio Inspired Composite Materials and Innovative Industrial Applications" (C. Riziotis, National Delegate & MC Member)
- CM1403 "The European Upconversion Network - From the Design of Photon Upconverting Nanomaterials to Biomedical Applications" (C. Riziotis, National Delegate & MC Member)
- MP1401 "Advanced Fibre Laser and Coherent Source as Tools for Society, Manufacturing and Lifescience" (C. Riziotis, National Delegate & MC Member)

PROFESSIONAL ACTIVITIES

1. Associate Editor, *Journal of Sensors*, <http://www.hindawi.com/journals/js/>
2. Associate Editor, *Instruments*, <http://www.mdpi.com/journal/instruments>
3. Editorial Board Member, Optics & Physical Chemistry, *The Open Access Journal of Science and Technology*, <http://www.agialpress.com/journals/oajost/>
4. Lead Guest Editor, *Sensors MDPI*, Organizer of the Special Issue: ["Materials and Applications for Sensors and Transducers"](#)
5. Lead Guest Editor, *Journal of Sensors*. Organizer of the Special Issue (Oct. 2009): [Special Issue: "Fiber and Integrated Waveguide-Based Optical Sensors"](#)
6. Lead Guest Editor, *Journal of Computational and Theoretical Nanoscience* (www.aspbs.com/ctn). Organizer of the Special Issue: "Technology Trends and Theory of Nanoscale Devices for Quantum Applications" (Vol. 7, No. 9, Sep. 2010)
7. Chair, 6th International Conference on Materials and Applications for Sensors and Transducers, IC-MAST, Athens <http://icmast.net/>
8. Scientific Committee Member, International Conference on Strategic Innovative Marketing, IC-SIM, <http://www.icsim.net/>. Workshop Chair: "Development and Marketing Strategies in Innovative Technological Enterprises" IC-SIM 2016
9. International Program Committee Member for the "1st International Conference on Sensors Engineering and Electronics Instrumental Advances", (Dubai, SEIA' 2015). http://www.sensorsportal.com/HTML/CONFERENCES/SEIA_2015/
10. International Program Committee Member for "The First International Conference on Advances in Sensors, Actuators, Metering and Sensing ALLSENSORS 2016", April 2016 Venice, Italy. <http://www.aria.org/conferences2016/ComALLSENSORS16.html>
11. Reviewer for a wide range of international technical journals: IEEE/OSA Journal of Lightwave Technology, IEEE Photonics Technology Letters, IEE Proceedings Circuits Devices & Systems, IEE Proceedings in Optoelectronics, Optics Communications, Applied Optics, Information Sciences, IEEE Transactions on

Systems Man and Cybernetics, Telecommunications Systems Journal, Journal of Optical Networking, Optics Express, Optics Letters, Sensors MDPI, Optics & Laser Technology, Materials MDPI, IEEE Sensors Journal, Polymers MDPI, IEEE Transactions on Industrial Electronics, Applied Sciences MDPI, Sensors & Actuators B: Chemical, etc.

12. Technical Expert, Member of International Technical Commission for Fiber Optics Sensors' Standardization: Technical Committee No. 86 "Fibre Optics" / Subcommittee 86C "Fibre Optic Systems and Active Devices"/ Working Group WG2 "Fibre Optic Sensors", IEC International Electrotechnical Commission.
13. Official Representative of NHRF/TPCI in the Hellenic Semiconductor Industry Association –HSIA (www.hsia.gr)
14. Official Representative of NHRF/TPCI in the technological innovation cluster: mi-Cluster - "Nano/Microelectronics and Embedded Systems"
15. Evaluator for the General Secretariat for Research and Technology GSRT <http://www.gsrt.gr/> and the Hellenic Technology Clusters Initiative- Corallia. <http://www.corallia.org>
16. Member of the European Photonics Platform, PHOTONICS 21. <http://www.photonics21.org/>

TEACHING ACTIVITIES

Microwaves and Waveguides, Optical Fiber Communication Systems, Photonics Engineering, Physics and Electromagnetic Theory, Electronics, Digital Communications, Electrical Circuits. Supervision of Diploma, Masters and PhD Theses.

PROFESSIONAL AFFILIATIONS

Member, Institute of Electrical and Electronics Engineers (IEEE), Member of Photonics Society IEEE/LEOS, Member of Optical Society of America OSA, Member of Association of Computing Machinery -ACM

PUBLICATIONS

Over 80 technical papers in international journals and conference proceedings. Two appearances in international magazines: Fiber Systems (Aug. 2003), Photonics Spectra (Nov. 2003) featuring novel research results on photonics devices fabrication techniques. A number of technical reports, and deliverables for industrial projects. Three international patents and patent applications, in the area of design and fabrication of photonics devices and structures.

SELECTED PUBLICATIONS

- "Characterization of industrial coolant fluids and continuous ageing monitoring by wireless node-enabled fiber optic sensors", A. El Sachat, A. Meristoudi, C. Markos, A. Papadopoulos, S. Katsikas, and C. Riziotis, [Sensors MDPI 17, 568 \(2017\)](#).
- "Design optimization of gold-coated fiber tips with embedded plasmonic slot nano-resonators", A. Petropoulou, M.N. Zervas, and C. Riziotis, [Journal of Optics 19, 055002 \(2017\)](#).
- "Implementation of a real-time reference and calibration grid platform for improved screening - mapping in Pap test slides", E. Tsiambas and C. Riziotis, [Pathology International \(Wiley\) 67, 24 \(2017\)](#).
- "Cost-effective polymethacrylate-based electrospun fluorescent fibers toward ammonia sensing", A. Petropoulou, K. Christodoulou, C. Polydorou, T. Krasia-Christoforou, and C. Riziotis, [Macromolecular Materials and Engineering 302, 1600453 \(2017\)](#).
- "Robust plasmonic tips fabricated by the tapering of composite hybrid silicate microfibers with metallic core", A. Petropoulou, G. Antonopoulos, P. Bastock, C. Craig, G. Kakarantzas, D.W. Hewak, M.N. Zervas, and C. Riziotis, [Proc. SPIE 10028, Plasmonics II, 100280N, \(2016\)](#). (Invited Paper)
- "Assessment of block and random copolymer overlayers on polymer optical fibers towards protein detection through electrostatic interaction", A. El Sachat, A. Meristoudi, S. Pispas, and C. Riziotis, [Journal of Polymer Science Part B: Polymer Physics 53, 327 \(2015\)](#).
- "ArF excimer laser microprocessing of polymer optical fibers for photonic sensor applications", L. Athanasekos, M. Vasileiadis, A. El Sachat, N.A. Vainos, and C. Riziotis, [Journal of Optics 17, 015402 \(2015\)](#).
- "Flat fibre and femtosecond laser technology as a novel photonic integration platform for optofluidic based biosensing devices and lab-on-chip applications: current results and future perspectives", K. Kalli C. Riziotis, A. Posporis, C. Markos, C. Koutsides, S. Ambran, A.S. Webb, C. Holmes, J.C. Gates, J.K. Sahu, P.G.R. Smith, [Sensors and Actuators B. Chemical, 209, 1030 \(2015\)](#).
- "Amphiphilic diblock copolymer based multi-agent photonic sensing scheme", L. Athanasekos, A. El Sachat, S. Pispas, and C. Riziotis, [Journal of Polymer Science Part B: Polymer Physics 52, 46 \(2014\)](#)
- "Fiber optic architectures for strain monitoring of solid rocket motors' propellant", C. Riziotis, L. Eineder, L. Bancallari, G. Tussiwand, [Sensor Letters, 11, 1403 \(2013\)](#)

- "Diffractive ammonia sensors based on sol-gel nanocomposites materials", N. Aspiotis, A. El Sachat, L. Athanasekos, M. Vasileiadis, G. Mousdis, N. Vainos, and C. Riziotis, [Sensor Letters, 11, 1415 \(2013\)](#)
- "Planar Bragg Grating Sensors—Fabrication and Applications: A Review", I.J.G. Sparrow, P.G.R. Smith, G. D. Emmerson, S. P. Watts, and C. Riziotis, [J. Sensors 2009, 607647 \(2009\)](#)