

ALEXANDROS K. PANTAZIS

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Personal Information

Nationality Swedish and Greek
Date of birth 27 April 1980
Place of birth Stockholm, Sweden

Current Research Interests

Biosensors
Lab-on-a-chip systems
MEMS
Opto- and Micro-fluidics
3D printing

His current research interests focus on developing platforms (device level, housing units, electronics) for biological, environmental and medical applications (protein interactions, monitoring of biomarkers and environmental pollutants, detection of foodborne pathogens, studying of cells and *C. Elegans*).

Education

Apr 2007 – May 2011 Ph.D. in Protein Biotechnology, Biology Department, University of Crete (UoC), Greece
Title: "*Lamb-type acoustic biosensors array for applications in health and the environment*"

Sep 2005 – April 2007 M.Sc. in Protein Biotechnology, Biology&Chemistry Departments, UoC, Greece

Sep 2002 – Sep 2004 M.Sc. in Microelectronics – Optoelectronics, Physics Department, UoC, Greece
Dissertation: "*Design and technology of novel micromachined Yagi-Uda antenna for applications in RF MEMS*"

Sep 1998 – Sep 2002 B.Sc. in Physics with specialization in Microelectronics, UoC, Greece
Diploma Thesis: "*Study of InAs quantum dots on GaAs*"

Research and Professional Experience

May 2015 – today **RESEARCH SCIENTIST**, Biosensors Lab & Microelectronics Research Group (MRG), Foundation for Research and Technology Hellas (FORTH), Greece

- Developing 3D printed platforms for field applications
- Developing new generation sensors for environmental and point-of-care applications
- Developing microfluidic platforms for research and clinical applications
- Mentoring 1 PhD and 2 undergraduate students
- Preparing and contributing to scientific proposals (National and European)

Curriculum Vitae – Alexandros K. Pantazis

- Oct 2011 – Feb 2015 **RESEARCH FELLOW**, BioMEMS laboratory, Mechanical Engineering, University of Michigan, USA
- Developed a novel optofluidic chip for studying the mechanical properties of various wild-type and malignant cells
 - Established new technologies by developing more than 10 different microfluidic devices (currently under evaluation by 4 research groups)
 - Initiated new collaborations with clinical researchers to design innovative diagnostic tools for point-of-care applications
 - Development & commercialization of Intra-ocular pressure sensors
 - Mentored 2 PhD students
 - Lab managerial duties
 - Submitted proposals to National Institute of Health
- Apr 2007 – May 2011 **PHD CANDIDATE**, Biology Department, University of Crete (UoC), Greece
- Developed the first Lamb-type acoustic device on GaN material
 - Established the microfluidic technology facility at MRG, IESL-FORTH
 - Represented MRG during negotiations for European project preparations
 - Contributed in proposal preparations (National and European)
- Oct 2004 – Sep 2005 **RESEARCH ASSISTANT**, MRG, IESL-FORTH, Greece
- Fabrication of reconfigurable micromachined semiconductor RF front-end devices
- Feb 2003 – Jun 2005 **GRADUATE STUDENT INSTRUCTOR**, Physics Department, UoC, Greece
- Physics laboratories II – Electromagnetism
 - Physics laboratories I – Mechanics
- Nov 2001 – Aug 2002 **RESEARCH ASSISTANT**, MRG, IESL-FORTH, Greece
- Optical characterization (photoluminescence)
 - DC electric characterization
 - A.F. Microscopy

Languages

Greek	Native language
English	Fluently
French	Fair
Swedish	Fair

Scholarships

Oct 2007 – Jun 2011	Institute of Electronic Structure and Laser (IESL)-FORTH
Oct 2005 – Sep 2007	Institute of Molecular Biology and Biotechnology -FORTH
Sep 2003 – Sep 2004	IESL-FORTH
Nov 2002 – Aug 2003	IESL-FORTH for being among the top 3 M.Sc. students of that year

Skills

Technology	Semiconductor (III-nitrides, III-arsenides, Si, SiC) and soft-lithography clean room techniques Device and Photolithographic mask design Processing of polymers (PI, PMMA, PMGI, PDMS) and piezoelectric materials (Quartz, LiNbO ₃) Electrical and Optical characterization techniques 3D printing
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Curriculum Vitae – Alexandros K. Pantazis

Biology Characterization and immobilization of biomolecules on surfaces
Cell and bacterial culture
Immunoassay techniques (ELISA, Immunostaining and fluorescence microscopy)

CAD Autodesk Inventor, Clewin, Corel Draw, IE3D Zeland, Metamorph, PSpice, Solidworks, Cura

Research Grants

2018-2021 National, General Secretariat for Research and Technology – Research-Create-Innovate
“An Innovative wearable sensor for continuous gait analysis and evaluation”
Project Role: Principal Investigator
of participating groups: 6
Total Budget: € 996,057
FORTH's Budget: € 253,673

Hobbies

Basketball
Beach volleyball
Dancing
Fishing
Soccer
Tennis