

## PERSONAL INFORMATION

## Curriculum Vitae of Dr. Evangelos Skotadis



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🌐 <https://gr.linkedin.com/in/evangelos-skotadis-9b0b1239>

Sex male | Date of birth 20/05/1982 | Nationality Greek | Military service completed

## WORK EXPERIENCE

29/9/2022 - Present

**R&D engineer (E.TE.Π)/Researcher**

National Technical University of Athens (NTUA), Athens, Greece ([www.ntua.gr](http://www.ntua.gr))

- Manager of the Microscopy Lab (SEM) and XRD lab of the School of Physics, NTUA
- Researcher in national and EU funded research-projects.

1/4/2021 – 31/7/2023

**Scientific director of the “AcID” research project**

NEUROPUBLIC S.A. (<https://www.neuropublic.gr/>)

- Scientific director for the «Active ingredient detector (AcID)» research project in the context of the “Research-Create-Innovate” action
- [Research/Project-management](#)

September 2016 – October 2022

**Adjunct Lecturer**

University of West Attica; Athens, Greece. (<https://www.uniwa.gr/>)

- Teaching of 3 undergraduate courses (Nanoelectronics, nanotechnology, biomaterials & tissue engineering) in the department of Biomedical Engineering and Electrical Engineering.

[Research/Teaching](#)

September 2014 - Present

**Post-doctoral researcher**

National technical University of Athens; Athens, Greece (<http://www.ntua.gr/>)

- Materials research/development, nano-materials, bio-materials, sensors, material physics, electronics. Development of thin/thick films using DC/RF sputtering and the ALD technique.
- Lecturing in undergraduate & postgraduate courses, Lab instructor/teaching (thin film processing & characterization, clean room techniques, nanomaterials)

[Research/Teaching](#)

March 2016 – June 2022

**Research technology development & innovation Consultant**

Atlantis Consulting S.A. (<http://www.atlantisresearch.gr/>)

- Part-time consultant/Research affiliate. Writing/submission of research proposals for European/national calls.

[Consulting](#)

September 2014 - June 2015

**Project-manager**

N.C.S.R. Demokritos (<http://www.demokritos.gr/>)

- Scientific input and game development of a “serious-game”, in the framework of the EU funded project “STIMULATE - Stimulating the Public Attitude Towards Advanced Materials”, which highlights and popularizes the importance of advanced materials.

[Project management/research](#)

March 2009 - October 2013

**Ph.D. candidate/researcher**

National technical University of Athens; Athens, Greece (<http://www.ntua.gr/>)

- Main researcher of a project funded by the E.U. and National funds, in the frame of the “Heraclitus II actions”, for 36 months. Development of nano-materials/thin films for sensing applications.
- Lab instructor in the school of Applied Mathematics & Physics of the N.T.U.A, for the undergraduate courses: Experimental Physics I & II.

## Research

## EDUCATION AND TRAINING

March 2009 - October 2013	<b>Doctor of Philosophy (Ph.D.)</b>	EQF 8
	National technical University of Athens; Athens, Greece.	
	<ul style="list-style-type: none"> <li>▪ Research in materials physics, nanotechnology, microelectronics &amp; sensor technology; material development via DC/RF magnetron sputtering, material characterization.</li> </ul>	
2006 - 2008	<b>Postgraduate course “Microsystems &amp; nanodevices” (M.Sc.)</b>	EQF 7
	National technical University of Athens; Athens, Greece.	
	<ul style="list-style-type: none"> <li>▪ M.Sc. program in the field of material physics, microsystems &amp; nanodevices; laboratory experience in microelectronic processes, material development &amp; characterization.</li> </ul>	
2000 - January 2007	<b>School of applied Mathematics and Physics (Diploma)</b>	EQF 6
	National technical University of Athens; Athens, Greece.	
	<ul style="list-style-type: none"> <li>▪ Five year diploma degree. Specialized in Applied Physics and particularly in: Optoelectronics and Material Physics.</li> </ul>	
1997-2000	<b>High school degree.</b>	EQF 4
	The Italian school of Athens; Athens, Greece.	

DISTINCTIONS/AWARDS  
ACHIEVEMENTS

- **Outstanding publication/presentation award**, Eurosensors 2012 Int. Scientific Conference for the paper: Platinum nanoparticle chemical Sensor on Polyimide Substrate
- **“Thomaideio award”**, awarded by the National Technical University of Athens, for exceptional publications in journals **for the years 2012 & 2013**.
- **“Heraclitus II” PhD scholarship** (ranked in the first ten, among 240 scholarship proposals within NTUA, 2010). E.U. and NSRF funded scholarship.
- **“IKY-Siemens 2014-2016” post-doc scholarship**, awarded after the selection of Dr. Skotadis’ research proposal. The scholarship is funded by the National State Scholarship Foundation (IKY) and Siemens.
- **“IKY-Siemens 2016-2017” post-doc scholarship**, awarded after the selection of Dr. Skotadis’ research proposal. The scholarship is funded by the National State Scholarship Foundation (IKY) and Siemens.
- **Guest editor in «Biosensors» journal**, for the special issue: «Novel Concepts in Aptamer Selection, Modification and Integration into Sensing Platforms»
- **Scientific Director/Principal investigator for a Research Program (Active Ingredient Detector (AcID)) Research program**, under the call “RESEARCH-CREATE-INNOVATE” (project code: T2EDK-01949).

## PERSONAL SKILLS

Mother tongue(s) Greek

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient	Proficient	Proficient	Proficient	Proficient
Proficiency diploma: University of Cambridge & University of Michigan (C1)					
Italian	Proficient	Proficient	Proficient	Proficient	Proficient

Diploma di Lingua Italiana (istituto Italiano di cultura in Atene) (C1), Graduated from the Italian school of Athens

**Communication skills** Excellent communication skills, professor/tutor in undergraduate and postgraduate courses in the NTUA and UniWA. Presentations & talks in international scientific conferences, workshops and business forums; dissemination of research via reports, publications and presentations. In the frame of the «Stimulate» project: organization of the evaluation process of the project from high school student groups.

**Organisational / managerial skills** Excellent organisational, managerial and leadership skills (coordination/management of multimember and interdisciplinary groups of scientists & students in the frame of EU funded research programs). Management/coordination of a scientific group (a team of 7 people) for the EU funded project «Stimulate». Preparation/writing of research proposals and deliverables. Mentoring: supervisor of undergraduate and postgraduate thesis.

**Job-related skills** Autonomous teaching of 3 undergraduate courses. Lab instructor for 4 years in the school of Applied Mathematics & Physics of the N.T.U.A, for the undergraduate courses: Experimental Physics I & II. Lab instructor/Lecturer in undergraduate as well as postgraduate experimental courses at N.T.U.A.'s M.Sc. program: Microsystems & Nanodevices. Research in the field of experimental/laboratory Physics, material science/nanotechnology and microelectronics technology. Material characterization/metrology. Data analysis/processing, procurement, building-up and maintenance of lab equipment. Development of new lab equipment specifically designed for experiments. Experimental data analysis. Analytical thinking, working under strict deadlines, demanding and competitive conditions. Proposal writing, drafting/writing/reviewing of scientific articles.

#### Technical skills

Production/synthesis of thin films, High vacuum deposition systems: physical vapour deposition (PVD) of thin film materials (DC, RF magnetron sputtering). Atomic layer deposition (ALD) of thin film materials, Ink-jet printing, thermal and e-gun evaporation of metals. Standard microelectronic processing, clean room techniques, chemical processing, e-beam lithography, optical lithography. Structural, surface and electrical characterization of materials: Scanning Electron Microscopy (SEM), Scanning Probe Microscopy (AFM), profilometer, electrical characterization (I-V, C-V, low temperature I-V measurements), XRD, TEM, Laboratory research.

#### Digital competence

##### SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

C++, Fortran, Java, Python, Matlab, LabVIEW, Pascal, UNIX, Microsoft Office suite, Origin, Photoshop, CAD.

**Other skills** Classic & electric guitar, member of the undergraduate and postgraduate student council (NTUA).

**Driving licence** B

#### ADDITIONAL INFORMATION

##### Publications:

##### Scientific journals

1. E. Skotadis, J. Tang, V. Tsouti, D. Tsoukalas, Chemiresistive sensor fabricated by the sequential ink-jet printing deposition of a gold nanoparticle and polymer layer, *Microelectronic Engineering*, 2010, 87 (11) 2258-2263.
2. J. Tang, E. Skotadis, S. Stathopoulos, V. Roussi, V. Tsouti, D. Tsoukalas, PHEMA functionalization of gold nanoparticles for vapor sensing: Chemi-resistance, chemi-capacitance and chemi-impedance, *Sensors and Actuators, B: Chemical*, 2012 (170) 129-136.
3. E. Skotadis, J.L. Tanner, S. Stathopoulos, V. Tsouti, D. Tsoukalas, Chemical sensing based on double layer PHEMA polymer and

- platinum nanoparticle films, *Sensors and Actuators B: Chemical*, 2012 (175) 85-91.
4. J.L. Tanner, D. Mousadakos, K. Giannakopoulos, E. Skotadis, D. Tsoukalas, High strain sensitivity controlled by the surface density of platinum nanoparticles, *Nanotechnology*, 2012 (23) 285501.
  5. E. Skotadis, et al., Flexible polyimide chemical sensors using platinum nanoparticles, *Sensors and Actuators, B: Chemical*, 2013 (189) 106-112.
  6. E. Skotadis et al., Label-free DNA biosensor based on resistance change of platinum nanoparticles assemblies, *Biosensors & bioelectronics*, 2016 (81) 388-394.
  7. E. Skotadis et al., Heavy metal ion detection using DNAzyme-modified platinum nanoparticle networks, *Sensors and Actuators, B: Chemical*, 2017 (239) 962–969.
  8. P. Bousoulas, E. Michelakaki, E. Skotadis, M. Tsigkourakos, D. Tsoukalas, Low-Power Forming Free TiO<sub>2-x</sub>/HfO<sub>2-y</sub>/TiO<sub>2-x</sub>-Trilayer RRAM Devices Exhibiting Synaptic Property Characteristics, *IEEE transactions on Electron Devices*, 2017, 64 (8) 3151-3158.
  9. M.X. Tsigkourakos, P. Bousoulas, E. Skotadis, D. Tsoukalas, Ultra-low power multilevel switching with enhanced uniformity in forming free TiO<sub>2-x</sub>-based RRAM with embedded Pt nanocrystals, *Physica Status Solidi* 2017, 214 (12) 1700570.
  10. L. Madianos, G. Tsekenis, E. Skotadis, L. Patsiouras, D. Tsoukalas, A highly sensitive impedimetric aptasensor for the selective detection of acetamiprid and atrazine based on microwires formed by platinum nanoparticles, *Biosensors & Bioelectronics*, 2018 (101) 268-274.
  11. L. Madianos, E. Skotadis, G. Tsekenis, L. Patsiouras, M. Tsigkourakos, D. Tsoukalas, Impedimetric nanoparticle aptasensor for selective and label free pesticide detection, *Microelectronic Engineering* 2018 (189) 39-45.
  12. L. Patsiouras, E. Skotadis, N. Gialama, C. Drivas, S. Kennou, K. Giannakopoulos, D. Tsoukalas, Atomic Layer Deposited Al<sub>2</sub>O<sub>3</sub> thin films as humidity barrier coatings for nanoparticle-based strain sensors, *Nanotechnology*, 2018 (29) 465706.
  13. L. Madianos, E. Skotadis, L. Patsiouras, M.K. Filippidou, S. Chatzandroulis, D. Tsoukalas, Nanoparticle based gas-sensing array for pesticide detection, *Environmental Chemical Engineering*, 2018 6(5) 6641-6646.
  14. E. Aslanidis, E. Skotadis, E. Moutoulas, D. Tsoukalas, Thin Film Protected Flexible Nanoparticle Strain Sensors: Experiments and Modeling, *Sensors*, 2020 (20) 2584, doi:10.3390/s20092584.
  15. E. Skotadis, A. Kanaris, E. Aslanidis, P. Michalis, N. Kalatzis, F. Chatzipapadopoulos, N. Marianos, D. Tsoukalas, A sensing approach for automated and real-time pesticide detection in the scope of smart-farming, *Computers and Electronics in Agriculture*, 2020 (78) 105759.
  16. E. Skotadis, E. Aslanidis, M. Kainourgiaki, D. Tsoukalas, Nanoparticles Synthesised in the Gas-Phase and Their Applications in Sensors: A Review, **Review article:** *Applied Nano* 2020 (1) 70-86.
  17. E. Aslanidis, E. Skotadis, D. Tsoukalas, Resistive crack-based nanoparticle strain sensors with extreme sensitivity and adjustable gauge factor made on flexible substrates, *Nanoscale*, 2021 (13) 3263-3274.
  18. E. Aslanidis, E. Skotadis, D. Tsoukalas, Simulation tool for predicting and optimizing the performance of nanoparticle based strain sensors, *Nanotechnology*, 2021 (32) 275501.
  19. M.X. Tsigkourakos, M. Kainourgiaki, E. Skotadis, K.P. Giannakopoulos, D. Tsoukalas, Y.S. Raptis, Capping technique for chemical vapor deposition of large and uniform MoS<sub>2</sub> flakes, *Thin Solid Films*, 2021 (733) 138808.
  20. E. Skotadis, A. Kanaris, E. Aslanidis, N. Kalatzis, F. Chatzipapadopoulos, N. Marianos, D. Tsoukalas, Identification of Two Commercial Pesticides by a Nanoparticle Gas-Sensing Array, *Sensors*, 2021 (21) 5803, doi: 10.3390/s21175803.
  21. M. Kaloumenou, E. Skotadis, N. Lagopati, E. Efstathopoulos, D. Tsoukalas, Breath Analysis: A Promising Tool for Disease Diagnosis—The Role of Sensors, **Review article:** *Sensors*, 2022 (22)3 1238.
  22. E. Skotadis, E. Aslanidis, G. Kokkoris, E.A. Vargkas Kousoulas, A. Tserepi, D. Tsoukalas, Flow determination via nanoparticle strain sensors for easy Lab on Chip integration, *Sensors and Actuators A: Physical* 2022 (344) 113765.
  23. C. Papakonstantinopoulos, P. Bousoulas, E. Aslanidis, E. Skotadis et al, Highly sensitive stretchable sensor combined with low-power memristor for demonstration of artificial mechanoreceptor properties, *Flexible and Printed Electronics* 2022 7(3),035024.
  24. M. Kainourgiaki, M. Tsigkourakos, E. Skotadis, E. Aslanidis, D. Tsoukalas, Overcoming the response instability of MoS<sub>2</sub> humidity sensors by hydrochloric acid surface treatment, *Micro and Nano Engineering*, 2023, <https://doi.org/10.1016/j.mne.2023.100216>
  25. M.K. Filippidou, A.I. Kanaris, E. Aslanidis, A. Rapesi, D. Tsounidi, S. Ntouskas, E. Skotadis et al., Integrated Plastic Microfluidic Device for Heavy Metal Ion Detection, *Micromachines*, 2023 (14) 1595.
  26. E. Skotadis, E. Aslanidis, et al., Hybrid Nanoparticle/DNAzyme Electrochemical Biosensor for the Detection of Divalent Heavy Metal Ions and Cr<sup>3+</sup>, *Sensors* 2023 (23) 7818
  27. E. Aslanidis, S. Sarifiannidis, E. Skotadis, D. Tsoukalas, Vibration Sensors on Flexible Substrates Based on Nanoparticle Films Grown by Physical Vapor Deposition, *Materials* 2024 (17) 1522.

#### Conference journals (peer reviewed)/conference proceedings

1. J. Tang, E. Skotadis, V. Tsouti, D. Tsoukalas, PHEMA functionalized gold nanoparticle films for vapor sensing, 2010, *Procedia engineering* 5 (Euroensors 2010 conference).
2. J.L. Tanner, E. Skotadis, S. Stathopoulos, V. Tsouti, D. Tsoukalas, Chemi-resistive sensors based on platinum nanoparticle arrays, 2011, *Procedia engineering* 25 (Euroensors 2011 conference).
3. E. Skotadis, D. Mousadakos, K. Katsabrokou, S. Stathopoulos, D. Tsoukalas, Platinum nanoparticle chemical sensors on polyimide substrates, 2012, *Procedia engineering* 47 (Euroensors 2012 conference).
4. E. Skotadis, D. Mousadakos, J. Tanner, D. Tsoukalas, Flexible platinum nanoparticle strain sensors, *European Solid-State Device Research Conference*, 2013, Article number 6818891, Pages 354-357.
5. M. Charalampides, T. Bozios, D. Tsoukalas, S. Ntouskas, S. Chatzandroulis, E. Skotadis, et al., Advanced Edge to Cloud system architecture for Smart Real-Time water quality monitoring using cutting-edge portable IoT biosensor devices, *SmartNets 2023 – EFCIT*
6. E. Aslanidis, E. Skotadis, et. Al., Nanoparticle/DNAzyme Based Biosensors for Heavy-Metal Ion Detection: Effect of DNAzyme Surface Modifications on Device Sensitivity, *IECB 2023, Eng. Proc.* 2023, 35(1), 17.

**Presentations/conference publications:**

1. J. Tang, E. Skotadis, S. Stathopoulos, V. Roussi, V. Tsouti, D. Tsoukalas, Chemical sensors obtained by ink-jet printing of gold nanoparticles and polymer films (Micro & Nano 2010 conference)
2. E. Skotadis, D. Mousadakos, D. Tsoukalas, Chemical sensing by Nanoparticle assemblies (Micro & Nano conference 2012).
3. D. Mousadakos, E. Skotadis, J.L. Tanner, P. Broutas, D. Tsoukalas, Platinum nanoparticle strain sensors in polyimide substrates (MNE 2012, Micro & Nano Engineering Conference Toulouse, September 2012).
4. E. Skotadis, M. Chatzipetrou, G.Tsekenis, S. Chatzandroulis, I. Zergioti, D.Tsoukalas, Resistive label-free DNA biosensor based on resistance change of nanoparticle assemblies (MNE 2013, Micro & Nano Engineering Conference London, September 2013).
5. E. Skotadis et al., Nanoparticle based DNA biosensor: an optimization study, (MNE 2015, Micro & Nano Engineering Conference, The Hague, September 2015).
6. E. Skotadis et al., Nanoparticle based DNA biosensor, (Micro & Nano 2015 conference).
7. L. Madianos, M. Filippidou, G. Tsekenis, E. Skotadis, S. Chatzandroulis, D. Tsoukalas, Aptamer-based bioassay for the sensitive detection of atrazine, (Micro & Nano 2015 conference).
8. E. Skotadis et al., Novel biosensor concept based on conductivity change of nanoparticle networks, (SclnTe 2015).
9. L. Madianos, M. Filippidou, E. Skotadis, S. Chatzandroulis, D. Tsoukalas, Chemical sensors for chlorpyrifos detection using platinum nanoparticles (SclnTe 2015).
10. E. Skotadis, G. Tsekenis, M. Chatzipetrou, L. Patsiouras, L. Madianos, P. Bousoulas, I. Zergioti, D. Tsoukalas, Environmental monitoring using dnzyme-modified platinum nanoparticle networks (MNE 2016, Micro & Nano Engineering Conference, Vienna, September 2016).
11. E. Skotadis, N. Gialama, L. Patsiouras, S. Kennou, D. Tsoukalas, Al<sub>2</sub>O<sub>3</sub> coating of nanoparticle networks via ALD: effect on strain-sensing performance, (EUROSOI-EULIS 2017 conference).
12. E. Skotadis, L. Madianos, G. Tsekenis, L. Patsiouras, D. Tsoukalas, Impedimetric nanowire-aptasensor for selective pesticide detection (EUROMAT 2017 conference).
13. L. Patsiouras, E. Moutoulas, N. Gialama, E. Aslanidis, E. Skotadis, D. Tsoukalas, S. Kennou, Humidity barrier coatings for nanoparticle-based strain sensors deposited by atomic layer deposition (MNE 2018, Micro & Nano Engineering Conference, Copenhagen).
14. E. Skotadis, L. Madianos, L. Patsiouras, M.K. Filippidou, S. Chatzandroulis, D. Tsoukalas Nanoparticle Gas-sensor for organophosphate pesticide detection (MNE 2018, Micro & Nano Engineering Conference, Copenhagen).
15. E. Skotadis, L. Madianos, L. Patsiouras, D. Tsoukalas, Pesticide gas-sensors based on Platinum nanoparticles (33rd Panhellenic Conference on Solid State Physics and Materials Science).
16. L. Patsiouras, E. Aslanidis, E. Skotadis, E. Moutoulas, N. Gialama, S. Kennou, K. Giannakopoulos, D. Tsoukalas, Protection of Pt nanoparticle strain sensors against humidity by atomic layer deposition (33rd Panhellenic Conference on Solid State Physics and Materials Science).
17. E. Aslanidis, L. Patsiouras, E. Moutoulas, E. Skotadis, S. Kennou, D. Tsoukalas, Humidity protected Platinum nanoparticles strain sensor using alumina coating (Micro and Nano 2018 conference).
18. E. Aslanidis, L. Patsiouras, E. Skotadis, K. Giannakopoulos, D. Tsoukalas, The effect of cracked alumina substrate on high sensitive Pt nanoparticles strain sensor (MNE 2019, Micro & Nano Engineering Conference, Rhodes)
19. E. Skotadis, L. Patsiouras, E.K.A. Vargkas, E. Aslanidis, G. Kaprou, A. Tserepi, D. Tsoukalas, Nanomaterial based Flow-sensor for easy microfluidic chip integration (MNE 2019, Micro & Nano Engineering Conference, Rhodes)
20. M. Tsigkourakos, M. Kainourgiaki, E. Skotadis, K.P. Giannakopoulos, D. Tsoukalas, Y. Raptis, Novel approach for CVD-grown large and uniform MoS<sub>2</sub> flakes (Materials Info 2021, 2nd Virtual Congress on Materials Science and Engineering)
21. E. Skotadis, E. Aslanidis, N. Kalatzis, F. Chatzipapadopoulos, N. Marianos, D. Tsoukalas, Nanoparticle gas sensors for commercial-pesticide identification (MNE 2021, Micro & Nano Engineering Conference, Turin)
22. E. Skotadis, E. Aslanidis, A. Tserepi, E. Gogolides, S. Chatzandroulis, D. Tsoukalas, Nanomaterial based flow-sensing device for microfluidic systems (MNE 2021, Micro & Nano Engineering Conference, Turin)
23. M. Kainourgiaki, M. Tsigkourakos, E. Skotadis, E. Aslanidis, S. Kitsios, D. Tsoukalas, Switching of sensing response for MoS<sub>2</sub>-based humidity sensor, XXXV Panhellenic Conference on Solid State Physics and Materials 2021, NCSR "Demokritos"
24. E. Skotadis, E. Aslanidis, C. Papakonstantinopoulos, N. Kalatzis, F. Chatzipapadopoulos, N. Marianos, D. Tsoukalas, Gas sensors based on self-assembled nanoparticles for environmental pollutants detection, XXXV Panhellenic Conference on Solid State Physics and Materials 2021, NCSR "Demokritos"
25. M. Kainourgiaki, M. Tsigkourakos, E. Skotadis, E. Aslanidis, D. Tsoukalas, Control of MoS<sub>2</sub> humidity sensor response by a hydrochloric acid surface treatment (MNE/Eurosensors 2022, Micro & Nano Engineering Conference, Leuven)
26. E. Aslanidis, S. Sarigiannidis, E. Skotadis, D. Tsoukalas, Dynamic behaviour of flexible nanoparticle strain sensors based on a cracked alumina thin film (MNE/Eurosensors 2022, Micro & Nano Engineering Conference, Leuven)
27. M.K. Filippidou, A. Kanaris, S. Ntouskas, E. Aslanidis, E. Skotadis, et al, Heavy Metal Ion Detection in a Microfluidic Device combined with biosensors incorporating DNAzyme and Nanoparticles (Micro and Nano 2022 conference)
28. E. Aslanidis, M. Kainourgiaki, E. Skotadis et al, Heavy Metal Ion Detection using monolayer MoS<sub>2</sub> based and Pt nanoparticle based biosensors (Micro and Nano 2022 conference)
29. M.K. Filippidou, A. Kanaris, S. Ntouskas, E. Aslanidis, E. Skotadis, et al, A Microfluidic Device incorporating DNAzyme and Nanoparticles for Heavy Metal Ion Detection (MNE/Eurosensors 2022, Micro & Nano Engineering Conference, Leuven)
30. E. Aslanidis, E. Skotadis, et al., Heavy metal ion detection by an impedance sensor based on Platinum nanoparticles/DNAzymes network, (MNE 2023, Micro & Nano Engineering Conference, Berlin)
31. M.K. Filippidou, A. Kanaris, E. Aslanidis, A. Rapesi, S. Ntouskas, E. Skotadis et al., A Simple Fabrication Process for the Integration of Microfluidics on Si based Biosensors, (MNE 2023, Micro & Nano Engineering Conference, Berlin).



**Presentations/entrepreneurial activities:**

- **Startupbootcamp smart materials, open Pitch days 2015.** Participation and 3 min pitch presentation of an advanced material application (sensors for tactile surfaces) in startupbootcamp's open pitch days, so as to participate in a business accelerator program. (<http://www.startupbootcamp.org/welcome.html>)

**Seminars:**

- **International workshop MINASENS** of the N.C.S.R. Demokritos, dealing with technological systems for health, food industry and environmental applications.
- **2010 & 2011 summer schools** for microelectronics and nanotechnology of the N.C.S.R. Demokritos.

**Work in research programs:**

- **EU research program "Stimulate"**. Outreach program for the information of the general public on the results of scientific research in the field of materials/microelectronics/nanotechnology and its effect on European societies.
- **EU research program "Lab on Chip"**. Development of a biological sensor incorporating elements of nanotechnology and implemented in a Lab on Chip application
- **NSRF Program "DIAMOND"** in the framework of the RTDI State Aid Action "**Research-create-innovate**". Development of a portable Lab On Chip application for the rapid detection of diseases, based on micro-sensors of advanced materials.
- **Privately funded research program "Sensor fabrication and characterization"** (NTUA, Neupublic). Fabrication of nanomaterial based chemical sensors for the detection of environmental pollutants (pesticides) in the gas phase.
- **2 post-doctoral** research programs funded by the **IKY Fellowships of Excellence for Postgraduate Studies in Greece – Siemens Program**.
- **NSRF program "Development of low-dimensional material-based biosensor for DNA detection"**, under the call for proposals "\_Researchers' support with an emphasis on young researchers- 2nd Cycle\_". The project is co-financed by Greece and the European Union (European Social Fund- ESF). Development of a novel Bio-FET biosensor, by employing 2D materials (MoS<sub>2</sub>).
- **Scientific Director/Principal investigator for a Research Program «Active Ingredient Detector (AcID)» Research program**, co-financed by the European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call "**RESEARCH-CREATE-INNOVATE**" (project code: T2EDK-01949). Development of a chemical/gas sensing-array for the identification of commercial pesticides in the greenhouse; the array will be also integrated inside a remote smart-farming tool.
- **NSRF program «MICSYS: Microfluidic based system for the detection of water pollution»**, in the framework of the RTDI State Aid Action "**Research-create-innovate**". Development of a novel biosensor for the detection of heavy metal ions in water.
- **NSRF program «Ship Predictive Intelligent Sensor Model Integrated Digitally: sPRISMoid»** (TAEΔK 05405) in the framework of the RTDI State Aid Action "**Research-create-innovate**" implemented under the National recovery and resilience «**Greece 2.0**». Development of novel nanomaterial based sensors for detecting critical parameters in ship drive-shafts.
- **NSRF program «MIKROVIOFARM: Development of a Biosensors' Microsystem for the Selective Detection of Pesticides»** (ATTP4-0325463). Development of electrochemical biosensors for detecting pesticides via portable, on-site diagnostic systems (Lab on chip systems).