Dr. Dimitris BARMPAKOS

WORK EXPERIENCE

October 2022 – Today

Postdoctoral Researcher – Electronic Engineer
National Centre for Scientific Research "Demokritos",
Institute of Nanoscience and Nanotechnology

Project "ThermoSkin: A novel self-sterilizing surface for fighting Community and Hospital Acquired infections"

Research

April 2021 – Today

Researcher / Postdoctoral Researcher
Agricultural University of Athens [www.aua.gr]
Laboratory of Cell Technology
▪ Design of PCBs
▪ Firmware Development
▪ Development of embedded systems for sensor measurement and transmission

Research

October 2014 – Today

Researcher – Academic Scholar
Department of Electrical and Electronic Engineering, University of West Attica [www.uniwa.gr]
microSENSES laboratory [microsenses.eee.uniwa.gr]
▪ Sensor development using printing techniques
▪ Evaluation of sensors and devices
▪ Development of IoT systems
▪ Teaching laboratory courses for "Computer Systems Architecture" – "Microcontrollers – Embedded Systems"

Research - Teaching

July 2017 – August 2021

Researcher – PhD Candidate
National Centre for Scientific Research "Demokritos"
Institute of Nanoscience and Nanotechnology [inn.demokritos.gr]

Research

March 2016 – Today

Embedded Engineer (Contract - Shareholder)
Recycglobe P.C. [www.recycglobe.com]
▪ Firmware development
▪ Testing and evaluation of prototypes
▪ PCB Review
▪ Supervision of small – scale PCB production

Consulting – IoT Industry

March 2015 – July 2021

Embedded Engineer – Technical Consultant (Contract)
Citycrop [www.citycrop.io]
▪ Firmware development
▪ Sensor – actuator control
▪ Low level (UART) API development

Consulting – IoT Industry

EDUCATION AND TRAINING

2017 – 2021

Doctor of Philosophy (PhD) in Flexible and Printed Electronics   EQF 8
University of Patras, Department of Physics
Thesis: «A Multi Parametric Measurement and Control System Implemented on Flexible Substrates with Printing Technologies»

2019 – 2020

Embedded system design and microcontroller applications for the Internet of Things [20 ECTS, 500 hr.]
Hellenic Open University

2019

High Performance Computing Autumn Academy
University of Cambridge

2014 – 2017	Design and Development of Advanced Electronics Systems (MSc)	EQF 7

Technological Educational Institute of Athens, Faculty of Technological Applications, Department of Electronics Engineering
Thesis: «Development of Flexible Electronic Devices using Inkjet Printing Technology»

2010 – 2014	Electronic Engineer (BSc)	EQF 6

Technological Educational Institute of Central Greece, Faculty of Technological Applications, Department of Electronics Engineering

PERSONAL SKILLS

Mother tongue Greek

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
C1	C1	C1	C1	C1
French				
B1	B1	B1	B1	B1

Job-related skills Research and development of prototypes, working in laboratory environments, familiar with laboratory equipment for electronics development, evaluation and debugging, development and assessment of models for feature extraction and pattern recognition, technical documentation

Technical skills Electrical measurements – development of measurement setups, source-meters, logic analyzers, oscilloscopes, probers, 3D printers, CNC etc.). Design and development of rigid and flexible electronics, inkjet printing, PCB, optical microscopy, analysis of SEM, TEM, AFM results).

Altium Designer, LabVIEW, Rhino 3D, OriginLab, Atmel ATtiny – ATmega (Arduino & Codevision), STM32F4x | F7x | L4x : STM32CubeMX (HAL drivers) & CLion) – Arm mbed, C, Python, MATLAB, COMSOL, C++, UART, SPI, I2C, CAN etc., wireless transmission (GSM, WiFi, BLE), TCP sockets, HTTP/HTTPS (mbedTLS), ESP32/ESP8266, embedded Linux dev boards (Raspberry Pi, Beaglebone etc.), documentation (Git, Doxygen), Cooperation tools (Trello, Asana, Slack, Azure DevOps)

Research Interests Printed – flexible electronics, sensor design and development (humidity, temperature, stress-strain, flow, electrochemical), microheates, multi-layer printed devices, printed thermogenerators, techniques for interfacing printed with traditional electronics, microelectronic devices based on metallic nanoparticles, conductive polymers, hybrid graphenic dispersions, biocompatible sensors

Other skills Lighting design, Interactive Hardware – Human Machine Interface, sEGMs, Tennis, Muay-Thai

Reviewer *Journal of Micromechanics and Microengineering* (IOP),
Flexible and Printed Electronics (IOP),
Smart Materials and Structures (IOP),
Engineering Research Express (IOP)
IEEE Journal on Flexible Electronics (IEEE)
Sensor Review (Hindawi)
Nanoscale Advances (RCS)
Nature: Scientific Reports (Springer-Nature)
Chemosensors (MDPI)
Journal of Thermal Science and Engineering Applications (ASME)

Honors – Awards
- Three-year scholarship for performance in BSc
- Scholarship for tuition fees on MSc Program
- "The Gianna Angelopoulos Programme for Science Technology and Innovation" scholarship for attendance of High Performance Computing Autumn School
- "The Hellenic Initiative" Scholarship for attendance seminars at Ray and Maria Stata Centre, Massachusetts Institute of Technology
- "Industrial PhD Fellowship" Program by Stavros Niarchos Foundation (PhD full Scholarship)
- 1st place, 1st innovation competition (T.E.I. of Central Greece)
- 2nd place, 2nd innovation competition (T.E.I. of Central Greece)
- A company I co-founded (Direct Solutions P.C.) was selected by Eurobank's "EGG" incubator, and MIT Enterprise Forum of Greece
- 1st place, Crowdhackathon Insurtech, (analysis and multi-parametric models for driving behavior analysis)
- Outstanding Reviewer Award 2019, IOP JMM
- Outstanding Reviewer Award 2020, IOP FPE
- Trusted Reviewer Status, IOP