Contact

Phone: 6987917217 (Mobile)

Email: tsimkonstantinos@gmail.com

Location: Heraklion, Crete, Greece

Top Skills

Optoelectronics
Photonics
Optics
Laser spectroscopy
TCSPC
Physics

Languages

Greek (Native)
Spanish (Elementary)
English (Full Professional)

Certifications

Full EU Driving License

Diploma de Español como Lengua Extranjera, Instituto Cervantes – B2

Soft Skills

MS office tools
MATLAB / Origin pro
Python programming
Research skills
Scientific writing
Communication skills
Presentation skills
Organisation and planning skills
Multitasking capability
Analytical thinking
Time management

Konstantinos Tsimvrakidis

Post-Doctoral Researcher

IESL- FORTH

Summary

A motivated, hard-working, and fast-learning research professional with a strong background in optics/photonics and electrical/electronic engineering, combining a strong academic background with hands-on experience.

Experience

Foundation for Research and Technology – Hellas (FORTH)

Ultrafast Laser Micro and Nano Processing

Post-Doctoral Fellow

December 2020 – Present

Heraklion, Crete, Greece

The University of Glasgow - James Watt School of Engineering

PhD Researcher - Electronics and Nanoscale Engineering

May 2016 – May 2020

Glasgow, United Kingdom

Supervisor: Professor Robert Hadfield

Singlet Oxygen Luminescence Detection with Single-Photon Detectors

- Superconducting nanowire single-photon detector (Visible, NIR, MidIR)
- Single photon avalanche diode (Visible, NIR)
- Fibre-coupled lasers
- Fibre / Free-space Optics
- Spectroscopy
- Time-correlated single photon counting (TCSPC) techniques
- Helium cryogenic cooling systems
- Biophotonics and imaging
- Dosimetry for Photodynamic Therapy

UK and International collaborations with Prof. Nikolaj Gadegaard (Glasgow), Prof. Tim Zhu (UPenn), Prof. Brian Wilson (Toronto), Dr. Hirotaka Terai (Japan)

MadMelody Ltd.

Electronics / Electrical Technician / Junior Programmer

June 2008 - October 2011

Athens, Greece

- Engineering (Analogue / Digital systems, PCB, Structure wiring, CMOS)

Publications

• IEEE Journal of Selected Topics in Quantum Electronics – Jan 2019

“Enhanced Optics for Time-resolved Singlet Oxygen Luminescence Detection”

Vol. 25, No. 1, pp. 1-7, doi: 10.1109/JSTQE.2018.2836962

• IOP Science Superconductor Science and Technology – Sep 2017

“A miniaturized 4K platform for superconducting infrared photon counting detectors”

Vol. 30, No. 11, Art. No. 11LT01

Presentations

• We-Heraeus-Seminar, Physics and Applications of Superconducting Nanowire Single Photon Detectors 2018 – Bad Honnef, Germany

• Photon 2018 – Birmingham, UK

• International Photodynamic Association 2017 – Coimbra, Portugal

• Fluorofest 2017 – Glasgow, UK

• System administration (Experience on Windows Server 2003 and Linux systems)

• Programming assistance (Python, Java, Site Development, HTML, HTML5, CSS, CSS3)

• Technical support (Hardware replacement on damaged PC systems, Software installation, Network setup, Security and Administration settings)

Education

University of Glasgow

Doctor of Philosophy (Ph.D.)
Electronics and Nanoscale Engineering - Quantum Sensors · **(2016 - 2020)**

• Thesis title “Singlet oxygen luminescence detection”

< Studied the photochemistry of excited oxygen molecules through photosensitized laser excitation. Designed and engineered a sophisticated optical setup and implemented various TCSPC techniques while characterizing and using next-generation single photon detectors such as the SNSPD and SPAD >

University of Strathclyde

Master’s Degree, Nanoscience · **(2014 - 2015)**

• Dissertation on “Energy upconversion in nano-crystallites for application in ultra-high definition display technology”

• Laser Spectroscopy

• Solid State Physics

• NanoPhotonics

• Nanochemistry

• Research skills

• Nanofabrication techniques

• Nanoscale Microscopy Techniques

Technological Educational Institute of Central Greece

Bachelor’s Degree, Electrical and Electronics Engineering · **(2009 - 2014)**

- Dissertation on “Driving electric motors through PLC logic”
- Electrical and Electronic circuit design, CMOS & PCB design and creation, Digital systems, High Voltage technologies, Structured Wiring, AutoCAD
- Automation, Automatic Control Systems, PLC programming and design
- Fortran, Java, LOGO, Visual Studio
- Mechanical engineering