Gkouzionis A. Ioannis

Electrical & Computer Engineer - M.Sc. Student
Electronics Laboratory
Optoelectronics & Imaging Diagnostics Research Group
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Personal Information

- **Date of Birth:** December 14, 1994
- **Place of Birth:** Thessaloniki, Greece
- **Citizenship - Nationality:** Greek
- **Driving Licence:** A2

Education

Oct 2017 - Present

M.Sc. in Electrical & Computer Engineering (2 Yrs. Program)
School of Electrical & Computer Engineering
Technical University of Crete, Chania, Greece
Thesis Title: "Smart and Fast Spectral Imaging based on Machine Learning and Spectral Demultiplexing Methods"
Supervisor: Prof. Costas Balas

Sep 2012 - Sep 2017

Dipl.-Ing. in Electrical & Computer Engineering (5 Yrs. Program)
School of Electrical & Computer Engineering
Technical University of Crete, Chania, Greece
Thesis Title: "Spectral Cube Reconstruction from Multiplexed Spatial and Spectral Data"
Thesis Brief Description: "This thesis deals with a new method in acquiring and reconstructing the spectral cube in hyperspectral imaging. The method employs an electro-optical device that acquires and stores the spectral cube in a spatio-spectral multiplexed fusion. Two methods for the reconstruction of the spectral cube were implemented and analyzed in this thesis. Our approach is suitable for demanding spectral imaging applications, such as microscopic images and non-destructive analysis."
Supervisor: Prof. Costas Balas
GPA: Excellent, $\frac{8.50}{10}$

Sep 2009 - Jun 2012

High School Diploma
1st High School of Evosmos, Thessaloniki, Greece
GPA: Excellent, $\frac{18.5}{20}$

Research Interests

- Biomedical Signal & Image Processing & Analysis, Molecular Imaging, Computational Biology
- Biomedical Electronics, Medical Diagnostic Device Design, Modeling of Microelectronic Devices
- Hyper-Spectral Imaging, Biophotonics
- Medical Information Systems, Bioinformatics, Big Healthcare Data Analytics, Clinical Predictive Modeling

Work Experience

Jul 2016 - Aug 2016	**IT Intern, Municipality of Chania-Crete** Dept. of Information & Technology Chania, Greece

Fellowships, Awards & Distinctions

Jun 2017	**National Science Foundation (NSF) Fellowship to attend the 16th International Summer School on BioX: Biocomplexity, Biodesign, Bioinnovation, Biomanufacturing and Bioentrepreneurship** National Science Foundation (NSF)
Nov 2016	**Excellence Award (Top of Class) for the academic year 2015 - 2016** Technical University of Crete
Oct 2016	**IEEE Award for "Outstanding Contribution to IST 2016"** IEEE International Conference on Imaging Systems & Techniques
Sept 2012	**Award of Excellence and Performance in Education from Hellenic Petroleum S.A.** Award for the grades achieved at the Greek University admission exams

Seminars & Conferences Attendance

9 - 15 Jun 2017	**16th International Summer School on BioX: Biocomplexity, Biodesign, Bioinnovation, Biomanufacturing and Bioentrepreneurship** Chania, Greece
4 - 6 Oct 2016	**2016 IEEE International Conference on Imaging Systems & Techniques** Chania, Greece
22 - 24 Apr 2016	**9th National Conference of Electrical & Computer Engineering Students** Chania, Greece
11 - 13 Apr 2014	**7th National Conference of Electrical & Computer Engineering Students** Thessaloniki, Greece
10 - 13 Nov 2013	**13th IEEE International Conference on Bioinformatics & BioEngineering** Chania, Greece

Languages Spoken

Greek	Native Speaker
English	C2 level, Certificate of Proficiency in English, University of Michigan

Technical Skills

Programming Languages	C/C++, Java, PostgreSQL, Oracle PL/SQL, Matlab, Bison, Flex, VHDL, Assembly, Python, C#, R, UML, WebGL
Development Tools	Microsoft Visual Studio, Eclipse IDE, PyCharm IDE, Unity3D Game Engine, Siemens SIMATIC STEP 7, Mathworks Matlab, RStudio, Dev-C++ IDE, Xilinx ISE Design Suite, pgAdmin, Oracle SQL Developer IDE, Apache Hadoop, Magic VLSI Layout Tool, Arduino IDE, SPICE
Development Platforms	Digilent Basys 2, Arduino Family, SIEMENS S7-1200
Operating Systems	Microsoft Windows OS, Mac OS, Linux OS (Ubuntu, Mint)
Miscellaneous Skills	LaTeX, Microsoft Office, OpenOffice, LibreOffice

Selected Coursework

- **Graduate Courses**
  - *Special Topics in Image Processing, Grade:* $\frac{9.5}{10}$
- **Undergraduate Courses Cross-listed as Graduate Courses**
  - *Optoelectronics, Grade:* $\frac{10}{10}$
  - *Mathematical Biology, Grade:* $\frac{8.5}{10}$
- **Undergraduate Courses**
  - *Biomedical Electronics, Grade:* $\frac{10}{10}$
  - *Design of Analog CMOS Integrated Circuits, Grade:* $\frac{10}{10}$
  - *Computer Graphics, Grade:* $\frac{9.5}{10}$
  - *Algorithms & Complexity, Grade:* $\frac{9.5}{10}$
  - *Computer Networks I, Grade:* $\frac{9.5}{10}$
  - *Digital Signal Processing, Grade:* $\frac{9}{10}$
  - *Digital Image Processing, Grade:* $\frac{8.5}{10}$
  - *Embedded System Design, Grade:* $\frac{8.5}{10}$

Selected Academic Projects

Spring 2017	**3D Bowling Game** Created a realistic 3D Bowling game, using the Unity3D Game Engine. *Course:* Computer Graphics *Grade:* $\frac{9}{10}$
Fall 2016	**Biped Robot (Group Project)** Implemented a fully functional biped robot using Arduino IDE platform. *Course:* Embedded System Design *Grade:* $\frac{10}{10}$
Spring 2016	**SocialRank Algorithm** Implemented an algorithm called SocialRank, which can be used to find influential persons in a social network, using Apache Hadoop software platform and Java programming language. *Course:* Advanced Topics in Database Systems *Grade:* $\frac{9.7}{10}$
Spring 2015	**Database System for an airline company** Created a functional Database for an airline company using pgAdmin tool and PostgreSQL programming language. *Course:* Database Systems *Grade:* $\frac{9.5}{10}$
Spring 2015	**Design of a Pipeline Processor (Group Project)** Designed a pipeline processor using Xilinx ISE Design Suite and VHDL programming language. *Course:* Computer Organization *Grade:* $\frac{10}{10}$

Academic Memberships

- **IEEE Student Member**
- **IEEE Engineering in Medicine & Biology Society Member**
- **IEEE Student Branch Member**
  Technical University of Crete

References

Costas Balas (Dipl.-Ing. Thesis Supervisor)
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School of Electrical & Computer Engineering
Technical University of Crete
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