

CHRISTOS KONSTANTOPOULOS

EDUCATION

- SEPT 2015 - PRESENT | **PhD in Electronic and Computer Engineering**
University of Texas at Dallas, TX
(Advisor: Associate Prof. Dongsheng Brian Ma)
- NOV 2012 - MARCH 2015 | **MSc in Electronic and Computer Engineering (2-year program)**
Technical University of Crete, Chania
Thesis: "Self-powered plant sensor node for Scatter Radio"
(Advisor: Assistant Prof. Eftyhios Koutroulis)
- OCT 2007 - SEPT 2012 | **Dipl.-Ing. Electronic and Computer Engineering (5-year program)**
Technical University of Crete, Chania
Thesis: "Development of microelectronic system for maximizing the energy generated by flexible photovoltaic cells"
(Advisor: Assistant Prof. Eftyhios Koutroulis)
GPA: **7.93/10.00**

SCHOLARSHIPS

- 2007–2011 | Annual Scholarship of Academic Achievements¹, Technical University of Crete.
1 top 5% of class

RELATED COURSEWORK

- **Power Electronics**
Instructor: Taylor W Barton
Grade: A
- **CMOS Analog Design**
Instructor: M. Bucher, Textbook: Design of Analog CMOS Integrated Circuits by B. Razavi
Project: "Design of Cascoded OTA"
Grade: 8.5/10.0 (**Cross-listed course: attended as an undergraduate student**)
- **VLSI and ASIC system Design**
Grade: 9.8/10.0
- **Introduction to Optimization Theory**
Instructor: A. P. Liavas, Textbook: "Convex Optimization", by S. Boyd and L. Vandenberghe.
Grade: 8.5/10.0 (**Cross-listed course: attended as an undergraduate student**)
- **Electrical Measurements and Sensors**
Instructor: K. Kalaitzakhs, Textbook: Papers and Notes
Grade: 8.5/10.0 (**Cross-listed course: attended as an undergraduate student**)
- **Analysis and Synthesis (Design) of Telecommunications Modules**
Instructor: A. Bletsas, Textbook: "RF Microelectronics", by B. Razavi.
Project: "Acoustic Localization Network".
Grade: 9.0/10.0 (**Cross-listed course: attended as an undergraduate student**)
- **Theory and Applications of Automatic Control**
Instructor: M. Zervakis, Textbook: Modern Control Systems, By Richard C. Dorf and Robert H. Bishop
Grade: 9.0/10.0

RESEARCH INTERESTS

- Power Management IC Design
- Energy harvesting (Solar, RF, Thermal, Piezoelectric)
- Microelectronic power management systems
- Closed-loop control for power converters
- Design and evaluation of MPPT algorithms
- Building Integrated PV applications
- Design of analog signal conditioning units for sensors and transducers
- Development of readout interfaces for remote sensing
- Large scale backscatter networks for environmental sensing

RELEVANT PROJECTS

► BLASE

Backscatter Networks for Large-Scale Environmental Sensing

► Acoustic Localization Network

Localization of a Network based on Acoustic-Sonar technology

PUBLICATIONS

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| JOURNALS | Global Maximum Power Point Tracking of Flexible Photovoltaic Modules <i>IEEE Transactions on Power Electronics</i> Konstantopoulos C., Koutroulis E. Wireless Environmental Sensor Networking with Analog Scatter Radio & Timer Principles <i>Special Issue of IEEE Sensors, invited paper</i> Kampianakis E., Kimionis J., Tountas K., Konstantopoulos C., Koutroulis E., Bletsas A. Converting a Plant to a Battery and Wireless Sensor with Scatter Radio and Ultra-Low Cost <i>IEEE Transactions on Instrumentation and Measurement</i> Konstantopoulos C., Koutroulis E., Mitianoudis N., Bletsas A. |
| CONFERENCES | Wireless Sensor Node for Backscattering the Electrical Signals Generated by Plants <i>IEEE Sensors 2013</i> Konstantopoulos C., Kampianakis E., Koutroulis E., Bletsas A. Backscatter Sensor Network for Extended Ranges and Low Cost with Frequency Modulators: Application on Wireless Humidity Sensing <i>IEEE Sensors 2013</i> Kampianakis E., Kimionis J., Tountas K., Konstantopoulos C., Koutroulis E., Bletsas A. |

TECHNICAL SKILLS

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| PROGRAMMING LANGUAGES/TOOLS | C, Embedded C, Java, MySQL, MIPS Assembly. |
| APPLICATION SOFTWARE | LaTeX, Microsoft Office, OpenOffice, Inkscape and others. |
| COMPUTER-AIDED DESIGN | Advanced Design System, Micro Magic MAX Design Suite, Cadence Virtuoso, Eagle, Spice |
| SOFTWARE DEVELOPMENT TOOLS | Mathworks MATLAB, GNU Radio, Eclipse IDE. |
| HARDWARE DEVELOPMENT TOOLS | VHDL with Xilinx ISE. |
| OPERATING SYSTEMS | Microsoft Windows family, Linux. |

LANGUAGE SKILLS

GREEK | Native speaker
ENGLISH | Fluent (Michigan ECCE & IELTS Overall Score 6)

PERSONAL INTERESTS

MUSIC | Undergraduate of saxophone studies,
SPORTS | Tennis, Swimming.
OTHER | Layman science books, art, cinema.

REFEREES

- **Assistant Professor Eftychios Koutroulis** (*advisor*)
Renewable Energy Laboratory
Department of Electronic and Computer Engineering
Technical University of Crete, 73100 Chania, Greece
Phone: +30-28210-37377
E-mail: efkout@electronics.tuc.gr
- **Assistant Professor Aggelos Bletsas**
Telecommunications Laboratory
Department of Electronic and Computer Engineering
Technical University of Crete, 73100 Chania, Greece
Phone: +30-28210-37377
E-mail: aggelos@telecom.tuc.gr
- **Professor Matthias Bucher**
Microelectronics Laboratory
Technical University of Crete, 73100 Chania, Greece
Phone: +30-28210-37210
E-Mail: bucher@electronics.tuc.gr