

# DAPHNEY-STAVROULA ZOIS

3740 McClintock Ave, EEB 522, Los Angeles, CA 90089-2565  
Communication Sciences Institute  
Ming Hsieh Department of Electrical Engineering  
University of Southern California  
[www-scf.usc.edu/~zois](http://www-scf.usc.edu/~zois)

e-mail: [zois@usc.edu](mailto:zois@usc.edu)

Tel: 213 – 740 – 4447

---

## EDUCATION

### **University of Southern California**, Los Angeles, California USA

Degree Objective: PhD, Electrical Engineering Department (Aug. 2008 - present)  
Advisor: Prof. Urbashi Mitra  
Successfully passed Screening Exam (Fall 2009)  
Current GPA: 3.82/4

### **University of Southern California**, Los Angeles, California USA

Degree: MSc, Electrical Engineering Department (Aug. 2008 - May 2010)  
Specialization Area: Communications  
Advisor: Prof. Urbashi Mitra  
GPA: 3.75/4

### **University of Patras**, Patras, Greece

Degree: Diploma, Computer Engineering and Informatics Department (Sept. 2002 - July 2007)  
Advisor: Prof. Kostas Berberidis  
GPA: 8.95/10  
Standing: Excellent (2nd out of 200)

## DISTINCTIONS, FELLOWSHIPS & AWARDS

- USC WISE TRAVEL GRANT for attending INFOCOM 2012.
- PANAGIOTIS TRIANTAFYLLIDIS FELLOWSHIP, financial support for Greek students studying at US Institutions, 2010 - 2012.
- USC MYRONIS FELLOWSHIP, support with full tuition and stipend for the academic year 2010 - 2011.
- ANDREAS MENTZELOPOULOS SCHOLARSHIP, financial support for Greek students studying at US Institutions, 2008 - 2010.
- USC VITERBI'S DEAN FELLOWSHIP, support with full tuition and stipend, 2008 - 2012.
- CLARK SCHOOL OF ENGINEERING DISTINGUISHED GRADUATE FELLOWSHIP, University of Maryland, College Park, 2008 (Declined).
- MUTUAL EDUCATIONAL EXCHANGE GRANT, Fulbright Institution, 2008 (Declined).
- DISTINCTION & AWARD BY THE GREEK WOMEN'S ENGINEERING ASSOCIATION for graduating 1st among all women in my class, 2007.
- HONOR BY UNIVERSITY OF PATRAS for graduating 2nd among the students of two engineering departments, 2007.

- DISTINCTION & AWARD BY THE GREEK NATIONAL SCHOLARSHIP FOUNDATION for academic performance on undergraduate studies during 2006 - 2007.
- DISTINCTION & AWARD BY THE GREEK NATIONAL SCHOLARSHIP FOUNDATION for academic performance on undergraduate studies during 2005 - 2006.
- SKOURA FOUNDATION FELLOWSHIP for academic performance on undergraduate studies during 2004 - 2005.
- NOMINEE FOR UNDERGRADUATE STUDIES AWARD BY THE GREEK NATIONAL SCHOLARSHIP FOUNDATION for ranking in the top 4% of the class during 2002 – 2005.
- HONOR BY UNIVERSITY OF PATRAS for admission at the Computer Engineering and Informatics Department, 2002.

RESEARCH  
INTERESTS

- Sensor Networks
- Optimization Theory
- Communication Theory& Systems
- Detection & Estimation Theory
- Coding Theory
- Embedded Systems
- Machine Learning

RESEARCH  
EXPERIENCE

Member of the COMMUNICATION SCIENCES INSTITUTE, CSI at the Electrical Engineering Department, University of Southern California, Los Angeles, CA.  
Advisor: Prof. Urbashi Mitra (Aug. 2008 - present)

Member of the SIGNAL PROCESSING & COMMUNICATIONS LABORATORY at the Computer Engineering and Informatics Department, University of Patras, Greece.  
Advisor: Prof. Kostas Berberidis (Sept. 2006 - July 2008)

Member of RESEARCH UNIT 6 at the Research Academic Computer Technology Institute, University of Patras, Greece.  
Advisor: Prof. Christos Bouras (2003 - 2005)  
Subjects: Networked Virtual Environments, Design and Development of 3D Applications.

TEACHING  
EXPERIENCE

Teaching Assistant for the following courses:

- USC EE-241 (Applied Linear Algebra for Engineering)  
- Instructor: Prof. Todd Brun (Spring 2012)
- USC EE-564 (Communication Theory)  
- Instructor: Prof. Urbashi Mitra (Fall 2011)
- USC EE-562a (Random Processes in Engineering)  
- Instructor: Prof. Robert A. Scholtz (Spring 2010)
- UoP 23Y320 (Information Transmitting Systems)  
- Instructor: Prof. Kostas Berberidis (Spring 2008)
- UoP 23Y384 (Digital Communications)  
- Instructor: Prof. Kostas Berberidis (Fall 2007)
- UoP 23Y131 (Software Laboratory)  
- Instructors: Prof. Eleftherios Polychronopoulos, Christos Makris (Fall 2006, Fall

2007)

WORKING EXPERIENCE SYSTEM ADMINISTRATOR, Computer and Communication Systems Center, Electrical and Computer Engineering Department, University of Patras, Greece (Dec. 2007 - July 2008).

EVENT ORGANIZATION Third Annual School of Information Theory, University of Southern California, Los Angeles, CA, August 5-8, 2010.

VOLUNTEER *Responsibilities:* Participants' registration and welcome package, campus orientation information.

## PUBLICATIONS **Articles and Journals**

Urbashi Mitra, Adar Emken, Sangwon Lee, Ming Li, Viktor Rozgic, Gautam Thatte, Harshvardhan Vathsangam, **Daphney-Stavroula Zois**, Murali Annavaram, Shrikanth Narayanan, Marco Levorato, Donna Spruijt-Metz, Gaurav S. Sukhatme, "*KNOW-ME: a Case Study in Wireless Body Area Sensor Network Design*," IEEE Communications Magazine, vol. 50, issue 5, pp. 116-125, May 2012.

## **Chapters in Books**

**Daphney-Stavroula Zois**, George Roumeliotis, Vasileios Kekatos, Konstantinos Berberidis, "*Information Transmitting Systems*," Patras, Greece, April 2008 (in Greek).

## **Conferences and Workshops**

**Daphney-Stavroula Zois**, Marco Levorato, Urbashi Mitra, "*A POMDP Framework for Heterogeneous Sensor Selection in Wireless Body Area Networks*," 31st Annual International Conference on Computer Communications Mini-conference (INFOCOM 2012), Orlando, FL, March 25-30, 2012. [**Acceptance Rate: 25.5%**]

**Daphney-Stavroula Zois**, Marco Levorato and Urbashi Mitra, "*POMDP Framework for Optimal Sensor Selection and Activity Detection in Wireless Body Area Networks*," 3rd International Workshop in Sequential Methodologies (IWSM 2011), Stanford University, Stanford, CA, June 14-16, 2011.

## **Posters**

**Daphney-Stavroula Zois**, Marco Levorato, Urbashi Mitra, "*Energy-Efficient, Heterogeneous Sensor Selection for Physical Activity Detection in Wireless Body Area Networks*," 2012 EE Research Festival, University of Southern California, Los Angeles, CA, April 20th, 2012.

**Daphney-Stavroula Zois**, "*Optimal Sensor Selection for Multihypothesis Physical Activity Detection in Wireless Body Area Networks*," 2011 EE Research Festival, University of Southern California, Los Angeles, CA, April 29th, 2011.

**Daphney-Stavroula Zois**, Urbashi Mitra, “*Sleep Schedules for Energy Efficient Activity Detection in a Wireless Body Area Network*,” 2010 School of Information Theory, University of Southern California, Los Angeles, CA, August 5-8, 2010.

### Theses

**Daphney-Stavroula Zois**, “*Telecommunication channel estimation algorithms using hidden training sequence*,” Patras, Greece, September 2007 (in Greek).

### STUDENTS SUPERVISION

**Mr. Vishnu Ratnam**, Summer intern from Indian Institute of Technology, Kharagpur under the USC-IIT Kharagpur infoUSA Program, Summer 2011.

### COURSE WORK

**Basic Graduate:** Transform Theory for Engineers, Applied Linear Algebra for Engineering, Probability Theory for Engineers, Random Processes in Engineering, Communication Theory, Information Theory, Error Correcting Codes, Estimation Theory, Mathematical Pattern Recognition, Analysis of Algorithms.

**Advanced Graduate:** Computational Solution of Optimization Problems, Random Processes in Engineering II, Stochastic Systems & Finance, Probabilistic Graphical Models, Data Analytics.

### TECHNICAL SKILLS

- DB APPLICATIONS: MySQL, MS SQL Server.
- IMAGE PROCESSING APPLICATIONS: Adobe Photoshop, Jasc Paintshop.
- OPERATING SYSTEMS: Mac OS X, Minix, MS DOS, Linux, Unix, Windows.
- PROGRAMMING LANGUAGES / LIBRARIES: Assembly, Borland Delphi, C, C++, CSS, Flex/Bison, HTML, Java, Javascript, JSP, LaTeX, LEDA, Maple, Matlab, Pascal, PHP, Pic Programming, POSIX Threads, Prolog, Servlets, SQL, UML,XML/XSL.
- VLSI DESIGN: Irsim, Hspice, Magic, Spice.
- WEB SERVERS: Apache HTTP Server, Apache Tomcat.

### LANGUAGES

- GREEK: Native
- ENGLISH: Cambridge First Certificate, Cambridge Certificate of Proficiency, Michigan Certificate of Proficiency, TOEFL
- FRENCH: DELF 1, DELF 2

### PROFESSIONAL MEMBERSHIPS

- Institute of Electrical and Electronic Engineers (IEEE)
- IEEE Communication Society