

Curriculum Vitae

Personal Information

Name Marinos
Surname Sampson
Place of birth Cholargos, Athens
Date of birth 23/7/1980
Address 62 Moraiti str., 11525, Athens
Tel. number 210 7721529 (laboratory), 210 7640638 (home), 6947040464
Email: sampson@cslab.ece.ntua.gr , sampson.marios@gmail.com

Education

- Graduate studies in **School of Electrical and Computer Engineering of the National Technical University of Athens** under the supervision of Professor George Papakonstantinou (October 2004 – July 2009).
- Undergraduate studies in the **Computer Engineering and Informatics Department of the Polytechnic School of the University of Patras** (September 1999 – July 2004). Graduation degree 8.04 / 10, ranking 12th at the time of graduation.
- Admittance to the **School of Computer Science of the University of Crete** (September 1998) ranking 12th.
- Graduation from the 2nd High school of New Phychikon (June 1998) with graduation degree of 18.6 / 20.

Diploma Thesis

Supervisor: Professor Dimitris Nikolos (nikolosd@cti.gr)

Thesis Title:

“Design of mixed-mode BIST (Built-In Self Test) techniques for low power consumption”.

PhD Thesis

Supervisor: Professor George Papakonstantinou (papakon@cslab.ntua.gr).

Thesis Title:

“Exclusive-OR-Sum of Logical Expressions Minimization – Quantum Algorithms”.

Publications / Documented Research Activities

International Journals

- M. Sampson, D. Voudouris, G. Papakonstantinou, “**Utilization of Variable Reordering in Quantum ESCT Minimization**”, Hermis-μπ Journal, Vol. 11, 2009, pp. 33-40, (HERCMA 2009 Best Paper Award).
- D. Voudouris, M. Sampson, G. Papakonstantinou, “**Exact ESCT Minimization for functions of up to six input variables**”, Elsevier Integr. VLSI Journal. 41, 1 (Jan. 2008), 87-105. DOI= <http://dx.doi.org/10.1016/j.vlsi.2007.01.003>.
- M. Sampson, D. Voudouris, G. Papakonstantinou, “**A Quantum algorithm for finding minimal exclusive-or expressions for incompletely specified Boolean functions**”, Hermis-μπ Journal, Vol. 10, 2008, pp. 6-12.
- M. Sampson, D. Voudouris, G. Papakonstantinou, “**Using Simple Disjoint Decomposition to Perform Secure Computations**”, Journal of Circuits,

International Conferences

- M. Sampson, D. Voudouris, G. Papakonstantinou, **“Utilization of Variable Reordering in Quantum ESCT Minimization”**, HERCMA 2009, Athens, 2009, (HERCMA 2009 Best Paper Award).
- M. Sampson, D. Voudouris, G. Papakonstantinou, **“Secure computations in minimal model using simple ESCT decomposition”**, 16th International Conference on Software, Telecommunications and Computer Networks, SoftCOM 2008, 25-27 Sept. 2008, Page(s):380 – 383.
- M. Sampson, D. Voudouris, G. Papakonstantinou, **“A Quantum Algorithm for Finding Minimum Exclusive-Or Expressions for Multi-Output Incompletely Specified Boolean Functions”**, in International Conference on Computer Design, CDES08, Las Vegas, 2008. CDES08, 2008.
- D. Voudouris, M. Sampson, G. Papakonstantinou, **“Finding minimal esct expressions for boolean functions with weight of up to 7”**, in International Conference on Computer Design, CDES08, Las Vegas, 2008. CDES08, 2008.
- M. Sampson, D. Voudouris, G. Papakonstantinou, **“A Quantum Algorithm for Finding Minimum Exclusive-Or Expressions”**, ISVLSI, pp. 416-421, IEEE Computer Society Annual Symposium on VLSI (ISVLSI '07), 2007.
- M. Sampson, D. Voudouris, M. Kalathas, G. Papakonstantinou, **“A Quantum Algorithm for finding Minimum Exclusive-Or Expressions for incompletely specified Boolean Functions”**, HERCMA 2007, Athens, 2007.
- Dimitrios Voudouris, Marinos Sampson and George Papakonstantinou, **“Variable Reordering for Reversible Wave Cascades”**, HERCMA 2007, Athens, 2007.
- Technical report, **“On Low Power Testing Of Embedded Cores, Dimitris Kaseridis, Marinos Sampson, Dimitris Nikolos”**.

Research Fields

- Computer Architecture
- ESOP
- Maitra Cascades
- Logic Expressions Minimization
- Quantum Computers
- Quantum Circuits
- Reversible Circuits
- VLSI Design and Testing
- E-CAD
- Core based design
- Wireless Sensor Networks
- Bioinformatics and e-Health
- Cryptography and Secure Communications
- Building Automation / SCADA systems

Academic Activities

- Laboratory Supervisor for the undergraduate course of “Operating Systems” of the School of Electrical and Computer Engineering of the National Technical University of Athens during the winter semesters of 2004 – 2005, 2005 – 2006,

2006 – 2007, 2007 – 2008, 2008 – 2009, 2009 – 2010. Design and proof testing of exercises in C / C++ for Windows and Linux.

- Laboratory Supervisor for the undergraduate course of “Operating Systems Laboratory” of the School of Electrical and Computer Engineering of the National Technical University of Athens during the spring semesters of 2005, 2006, 2007, 2008, 2009 and 2010. Design and proof testing of exercises in C / C++ for Windows, Linux, TinyOS, Empix, Microempix.

Professional Experience

- European Dynamics - Information Business Development Executive (freelancer) (2010-). European Commission Tenders:
 - *EFSA 2010/S 149-229384*
- Computer Science Research Laboratory, Biomedical Research Foundation, Academy of Athens. Upgrade and implementation of Hippocrates-mst software for the processing of mammograms and the automated evaluation of microcalcifications in order to accurately and timely detect breast cancer. Member of the managing team for the implementation of the nation-wide platform. The project is under government / EU funding (funding of the proposal is approved and the competition is to be published in early October) (since 2008). Software development in C / C++, Visual Basic 6.0/.net and MySQL.
- Design and integration of a grid for recording, encoding and processing of TV signal and metadata. Development in Ubuntu and MythTV.
- Design and implementation of the portal, remote education / teleconference platform and the mail server of the School of Electronic Warfare of the Greek Army (2009). Development in Drupal, Moodle, Active Directory and Kmailserver.
- Adult Training Centers of the Institute of Continuous Learning of Adults, Greek Ministry of National Education and Religious Affairs. Teacher in computer science courses (2007 –2008).
- Participation in the research program of ΥΠΕΠΘ-ΠΥΘΑΓΟΡΑΣ II under the title “Automatic Mapping of Algorithms to Embedded Systems” (2005 – 2007). Development in C++.
- Rethymnon Renaissance Festival. Participation in the technical support group during summer months of 2000, 2001 and 2002.

Foreign Languages

- English (Certificate of Proficiency in English, Certificate in Advanced English, First Certificate in English from University of Cambridge, UK)
- German (Zertifikat Deutsch als Fremdsprache)

Certified Participations in Seminars / Schools

- *May 2000*, Pan-Hellenic conference under the title «Applications of Telematics».
- *May 2008*, “KNX-Instabus, the new technique for electrical installations of buildings”
- School of Electronic Warfare of the Greek Army, training in means of electronic warfare (2009).

Participation in Scientific Organizations

- Greek Technical Chamber member
- KNX Partner (www.knx.org)

Honorary Distinctions

- 2009, HERCMA 2009 Best Paper Award
- 2007, Greek Technical Chamber Award for excellent performance in undergraduate studies during the academic year of 2003 – 2004.

Informatics Related Knowledge

Programming Languages

- Assembly x86
- C,C++,C#
- Java, Javascript
- HTML
- Perl
- Delphi
- Visual Basic
- Php
- Matlab

Hardware Description Languages

- Verilog
- VHDL

Databases

- Oracle
- Mysql
- SQL
- Access

E-Cad Tools

- Synopsys
- Atalanta, HOPE
- Xilinx Foudation
- Experience with Xilinx and Altera FPGAs

VLSI Tools

- Magic layout editor
- Esim logic simulator
- Irsim logic simulator
- Spice time simulator
- Hspice time simulator
- Sigview
- Cazm time simulator

Hobbies / Social participation

- Blood donor
- Astronomy
- Robotics
- Traveling
- Trekking

Available Recommendations

Panos Ligomenides: Professor, Life Member of the Academy of Athens, Ex-president of the Academy of Athens (pligo@academyofathens.gr).

George Papakonstantinou: Professor, School of Electrical and Computer Engineering of the National Technical University of Athens (papakon@cslab.ece.ntua.gr).

Nektarios Koziris: Deputy Professor, School of Electrical and Computer Engineering of the National Technical University of Athens (nkoziris@cslab.ece.ntua.gr).

Panagiotis Tsanakas: Professor, School of Electrical and Computer Engineering of the National Technical University of Athens (panag@cs.ntua.gr).

Dimitris Nikolos: Professor of the Computer Engineering and Informatics Department of the Polytechnic School of the University of Patras (nikolosd@cti.gr).