

**Curriculum Vitae**

**Athanasios Kakarountas**  
**Dipl. Eng., PhD**

## I. PERSONAL INFORMATION

LAST NAME : KAKAROUNTAS  
NAME : ATHANASIOS  
FATHER'S NAME : PANAGIOTIS  
DATE OF BIRTH : 26 JUNE 1973  
MARITAL CONDITION : MARRIED  
CITIZENSHIP : GREEK

### Office Address

Department of Business Administrations  
Technological & Educational Institute of Ionian Islands  
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Ethnikis Antistasis 12  
GR-26504, Patras - Aktaio  
GREECE

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## II. STUDIES

26/06/2009-today

MBA in Open University of Cyprus

2/2004 - 5/2007:

Post-Doc in the Dpt. of Electrical & Computer Engineering from the University of Patras, Greece, Laboratory of VLSI Design.

2/2004:

Ph.D. of Electrical & Computer Engineering from the University of Patras, Greece, Laboratory of VLSI Design.

Thesis: "Design of low-power fault-secure systems"

06/1998:

Diploma of Electrical & Computer Engineering, from the University of Patras, Greece.

## III. RESEARCH INTERESTS

- Computer Architecture
- Embedded Systems
- Safety-critical system
- Design for Testability
- Design of Low Power Integrated Systems
- Hardware/Software Co-Design
- Hardware accelerators for cryptography
- Computer Arithmetic

## IV. LANGUAGES

1. Fluent Greek
2. Fluent English
3. Satisfactory knowledge of the French language
4. Satisfactory knowledge of the German language

## **V. PROFESSIONAL EXPERIENCE**

1. Assistant Professor (Department of Applied Informatics on Management and Economics, TEI of Ionian Islands).
2. Researcher at the VLSI Design Laboratory, Department of Electrical and Computer Engineering, University of Patras. 1/10/1998 – today.
3. Auditor (General Secretary of Research and Technology) for 2009.
4. Patras Science Park S.A., Director of Strategic Planning and Development (06/2007-08/2008)
5. Authoring of educational material for Hellenic Open University
6. Technical material translation for Kleidarithmos Publications.
7. Educator for IDEKE
8. Auditor (Western Greece Region Authority)

## **VI. LECTURES AND ACADEMIC CONTRIBUTION**

### *A. Lectures in under-graduate courses*

#### **Department of Applied Informatics on Management and Economics, TEI of Ionian Islands**

- a. Lecturer of the course “Computer Networks II” (4<sup>th</sup> semester) (academic years 2008-09)
- b. Lecturer of the course “Internet Technology” (6<sup>th</sup> semester) (academic years 2008-today)
- c. Lecturer of the course “Information Systems Security” (5<sup>th</sup> semester) (academic years 2008-today)

#### **Department of Computer Technologies and Telecommunications, TEI of Ionian Islands**

- a. Lecturer of the course “Digital Logic Design” (1<sup>st</sup> semester) (academic years 2009-today)
- b. Lecturer of the course “Computer Architecture” (2<sup>nd</sup> semester) (academic years 2008-today)

#### **Department of Computer Science and Biomedical Informatics, University of Central Greece**

- a. Tutor of the course “Computer Architecture” (3<sup>rd</sup> semester) (academic years 2006-today)

#### **Department of Computer Engineering and Informatics, University of Patras**

- a. Laboratory lectures for course “Microprocessors” (academic years 2006-08)

#### **Department of Computer Science, Hellenic Open University**

- a. Tutor in course “Digital Systems Laboratory” (academic years 2005-06)

#### **Department of Electrical & Computer Engineering, University of Patras**

- a. Laboratory lectures for course “VLSI Design I” (7<sup>th</sup> semester) (academic years 1999-01)
- b. Laboratory lectures for course “VLSI design II” (8<sup>th</sup> semester) (academic years 1999-01)
- c. Laboratory lectures for course “VLSI System-on-Chip Design” (9<sup>th</sup> semester) (academic years 1999-01)
- d. Lectures for course “VLSI Design I” (7<sup>th</sup> semester) (academic year 2003-2004)
- e. Lectures for course “VLSI Design II” (8<sup>th</sup> semester) (academic year 2003-2004)
- f. Lectures for course “VLSI System-on-Chip Design” (9<sup>th</sup> semester) (academic year 2003-2004)

#### **Department of Electronics, Technological & Educational Institute of Lamia**

- a. Tutor of the course “Computer Architecture” (4<sup>th</sup> semester) (academic years 2006-07)
- b. Tutor of the course “Microprocessors-Microcontrollers” (6<sup>th</sup> semester) (academic years 2006-07)
- c. Tutor of the course “Computer Networks” (5<sup>th</sup> semester) (academic years 2005-07)
- d. Tutor of the course “High Frequency Electronics” (3<sup>rd</sup> semester) (academic years 2005-06)
- e. Tutor of the course “Medical Electronics” (7<sup>th</sup> semester) (academic years 2005-06)

#### **Department of Informatics, Technological & Educational Institute of Lamia**

- a. Tutor of the course “VLSI Design” (distance learning program) (academic years 2006-08)

b. Tutor of the course “Security-Cryptography” (distance learning program) (academic years 2006-08)

*B. Lectures in post-graduate courses*

a. Laboratory lectures for course series “Software and Hardware Design for Integrated Systems” (academic years 1999-01)

b. A series of lectures for the course “Design of Integrated Systems” of the post-graduate programme O.S.Y.L. of the University of Patras (academic year 2004-05)

*C. Supervisor in diploma (or degree) thesis*

*(Hellenic Open University)*

- Completed: 4

*(University of Central Greece)*

- Completed: 5

- Under development: 2

*(Technological & Educational Institute of Lamia)*

- Completed: 4

*(Technological & Educational Institute of Ionian Islands)*

- Completed: 6

- Under development: 10

*D. Assistant or member of the evaluation board of diploma (or degree) thesis*

*(University of Patras)*

- Completed: 17

*(Hellenic Open University)*

- Completed: 2

*(Technological & Educational Institute of Ionian Islands)*

- Completed: 6

*E. Organizing lectures on the Internet*

- Electronic lectures for courses:

- VLSI Design I
- VLSI Design II
- VLSI System-on-Chip Design

- Development of e-learning video tutorials for VLSI Design tools and techniques

- Development of e-learning “Digital Systems Laboratory”, funded by IEEE Circuits & Systems and conducted by Hellenic Open University

- Development of e-learning video tutorials for “VLSI Design”, for Technological & Educational Institute of Lamia (Distant learning programme)

- Development of e-learning video tutorials for “Security & Cryptography”, for Technological & Educational Institute of Lamia (Distant learning programme)

- Development of e-learning video tutorials for “VLSI Design”, for Technological & Educational Institute of Lamia (Distant learning programme)

- Design and Development of e-learning material for PLS51 course, for the Hellenic Open University

- Design and Development of laboratory educational material for “Computer Networks II”, for the Technological Educational Institute of Ionian Islands

## **VII. PARTICIPATION IN PROJECTS**

1. "EASY: Energy-Aware SYstem-on-Chip design of the HIPERLAN/2 standard" IST-2000-30093, European Union funding (1/9/2001-31/8/2004)
2. "COSAFE : Low Power Hardware-Software Co-Design for Safety-Critical Applications" IST-1998-28593, European Union funding KE 846, (1/8/1998 – 30/1/2001)
3. "A memory management methodology for real-time and low-power embedded multimedia systems", in the bounds of PENED'99 – 99ED501, Greek Secretariat of Research and Technology funding
4. "LPGD: A low-power design methodology/flow and its application to the implementation of a DCS1800-GSM/DECT Modulator-Demodulator" ESPRIT IV European Union funding through INTRACOM, (11/97 - 10/99).
5. "AMDREL: Architectures and Methodologies for Dynamic Reconfigurable Logic", IST-2001-34379, European Union funding
6. "TARDIS: Technical Coordination and Dissemination", Esprit project 25213-ESD-LPD, European Union funding
7. "MARLOW: A central market place for dissemination of lowpower microelectronics", IST-2001-37115, European Union funding
8. "INTRALED: Industry-driven training for low-power European designers", IST-2001-34631, European Union funding
9. "AMIED: Asynchronous low-power methodology and implementation of an encryption-decryption system", Esprit project 25249-ESD-LPD, European Union funding
10. "PYTHAGORAS: Methodologies for Revealing Reconfigurable Architectures for Embedded Systems", Greek Secretariat of Research and Technology funding
11. "ARCHIMIDIS II: Design of crypto-systems based on residual structures", Greek Secretariat of Research and Technology funding
12. "WEST GREECE INNOVATION POLE", Greek Secretariat of Research and Technology funding (National development project)
13. "JPEG-XR decoder development for digital embedded systems", in the framework of "Support of New Enterprises for R&D actions", National funds (1/1/2011-today)
14. "eCOMET Laboratory of the Hellenic Open University", Manager, National Funds (10/10/2011-today)

## **VIII. EXECUTIVE WORK**

- Department's Dean at the TEI of Ionian Island, Dept. of Applied Informatics on Management and Economics
- Representative of various Academic Institutes at the Corallia Clusters Initiative
- Head officer of Laboratories and Network Operation Center (NOC) at TEI of Ionian Islands (Lefkada) for the academic year 2009-2010
- Head officer of Main Library at TEI of Ionian Islands (Lefkada) for the academic year 2008-2009
- Manager of Strategic Planning and Development (06/2007-08/2008)

## **IX. TECHNICAL MEMBERSHIP**

- Senior Member of IEEE
- Member of the Computer Society
- Member of the Solid-Satete Society
- Member of the Circuits and Systems Society (CAS)
- Member of the Consumer Electronics Society
- Member of the Biology and Medical Engineering Society του IEEE
- Member of the Greek CAS & SSC IEEE Chapter
- Senior Member of the Association Computing Machinery (ACM)
- Member of the Greece IEEE GOLD Affinity Group Council

- Member of the IET
- Member of the EUARSIP
- Member of the Greek Technical Chamber (TEE)
- Member of the Hellenic Association of Computer Engineers and Telecommunications

## X. PROJECT PROPOSAL AUTHORIZING

- EPEAEK II, project “PYTHAGORAS”, entitled “Methodologies for Revealing Reconfigurable Architectures for Embedded Systems” (approved).

## XI. PUBLICATIONS

### A. Ph.D. Thesis

- A1. A.P. Kakarountas: “Design of Low-Power Fault-Secure Systems”, University of Patras, Patra, Greece, 2004 (in Greek language).

### B. Book Chapter

- B1. A.P. Kakarountas, K.S. Papadomanolakis, C.E. Goutis, “*Low-Power Design for Safety-Critical Applications*” in “Designing CMOS Circuits for Low Power,” editors D. Soudris, C. Piguet, and C.E. Goutis, September 2002, Dordrecht/London/Boston, Kluwer Academic Publishers, September 2002, Dordrecht/London/Boston, pp. 9-22.
- B2. A.P. Kakarountas, R.E. King, “*Simulation and Virtual Reality*” in “Industrial Informatics,” (greek language) editor R.E. King, 2004, Tziolas Publications, pp. 177-185.
- B3. A.P. Kakarountas, H.E. Michail, “*Performance for Cryptography: hardware and software approach*”, in “Supercomputing Research Advances”, Ed. Yongge Huang, Nova Science Publishers, Inc., ISBN: 978-1-60456-186-9, 2008, pp. 403-418.
- B4. A.P. Kakarountas, H.E. Michail, “*Performance for Cryptography: a hardware approach*”, in “Cryptography Research Perspectives”, Ed. Roland E. Chen, Nova Science Publishers, Inc., ISBN: 978-1-60456-492-1, 2009, pp. -.

### C. Journals and Magazines

- C1. S. Nikolaidis, E. Karaolis, A. Kakarountas, K. Papadomanolakis and C.E. Goutis, “A Methodology for Calculating the Undetectable Double-Faults in Self-Checking Circuits”, *Journal of Circuits, Systems and Computers*, World Scientific, Vol. 12, No. 1, pp. 75-91, February 2003.
- C2. A. Milidonis, G. Dimitroulakos, M. D. Galanis, A. P. Kakarountas, G. Theodoridis, C.Goutis, and F.Catthoor, “A Framework for Data Partitioning for C++ Data-Intensive Applications”, *Journal of Design Automation for Embedded Systems*, Springer Science+Business Media B.V., Vol. 9, No. 2, pp. 101-121, June. 2005.
- C3. M.D. Galanis, A. Milidonis, A.P. Kakarountas, and C.E. Goutis, “A Design Flow for Speeding-up DSP Applications in Heterogeneous Reconfigurable Systems”, *Microelectronics Journal*, Elsevier, vol 37, pp. 554-564, 2006.
- C4. A.P. Kakarountas, H. Michail, A. Milidonis, G. Theodoridis, C.E Goutis, “High-Speed FPGA Implementation of Secure Hash Algorithm for IPsec and VPN Applications”, *Journal of Supercomputing*, Springer Science + Business Media, vol. 37, pp. 179–195, 2006.
- C5. H.E. Michail, A.P. Kakarountas, A.Milidonis, C.E. Goutis, “Efficient FPGA Implementation of Novel Cryptographic Hashing Core”, *Computing Letters*, VSP/Brill Publishing, vol. 2, num. 1-2, pp. 21-27(7), 2006.

- C6. I. Yiakoumis, M. Papadonikolakis, H.E. Michail, A.P. Kakarountas, C.E. Goutis “Maximizing the hash function of authentication codes”, *IEEE Potentials*, vol. 25, iss. 2, pp. 9–12, 2006.
- C7. H.E. Michail, A.P. Kakarountas, C.E. Goutis “Server Side Hashing Core Exceeding 3 Gbps of Throughput”, *International Journal of Network Security* (special issue), Vol. 1, Nos. 1/2/3, pp. 43–53, 2007.
- C8. A.P. Kakarountas, N.D. Zervas, H.E. Michail, G. Theodoridis, and D. Soudris, “Power Management through Dynamic Frequency Scaling for Low and Medium bit-rate Digital Receivers”, *Journal of Low Power Electronics*, ASP, vol.2, no 3, pp. 356–364, 2006.
- C9. G. N. Selimis, A.P. Kakarountas, A. P. Fournaris, A. Milidonis and O.Koufopavlou, “A Low Power Design for SBOX Cryptographic Primitive of Advanced Encryption Standard for Mobile End-Users”, *Journal of Low Power Electronics*, ASP, vol.3, no.3, pp. 327-336, 2007.
- C10. H.E. Michail, A. P. Kakarountas, A. S. Milidonis and C. E. Goutis, “A Top-Down Design Methodology for Implementing Ultra High-Speed Hashing Cores”, *IEEE Transactions on Dependable and Secure Computing*, vol.6, is.4, pp.255-268, 2009.
- C11. M. Papadonikolakis, A.P. Kakarountas, C.E. Goutis, “Efficient High-Performance Implementation of JPEG-LS Encoder”, *Journal of Real-Time Processing*, Springer. vol. 3, no. 4, pp 303-310, 2008.
- C12. A. Milidonis, V. Porpodas, N. Alachiotis, A.P. Kakarountas, H. Michail, G. Panagiotakopoulos and C. E. Goutis, “Low Power Architecture with Scratch-Pad Memory for Accelerating Embedded Applications with Run Time Reuse”, *IET Computers & Digital Techniques*, IET, vol. 3, is. 1, pp.109-123, 2009.
- C13. D.M. Schinianakis, A.P. Fournaris, A.P. Kakarountas and T. Stouraitis, “An RNS Architecture of an Fp Elliptic Curve Point Multiplier”, *IEEE Transactions on Circuits and Systems I*, vol.56, no.6, pp. 1202-1213, June 2009.
- C14. A.P. Kakarountas, H.E. Michail, C.E. Goutis, A.M. Rjoub, “High-Throughput Implementation of RipeMD-160”, *International Journal for Internet Technology and Secured Transactions*, Inderscience Ltd, vol. 1, no. 3/4, pp. 309 – 316, 2009.
- C15. A. Milidonis, N. Alachiotis, V. Porpodas, H. Michail, G. Panagiotakopoulos, A.P. Kakarountas, C.E. Goutis, “Decoupled Processors Architecture for Accelerating Data Intensive Applications using Scratch-Pad Memory Hierarchy” , *Journal of Signal Processing Systems*. Springer Science + Business Media, LLC, vol. 59, no.3, pp. 281-296, 2010.
- C16. H.E. Michail, A.P. Kakarountas, D. Schinianakis, G. Selimis, C.E. Goutis, “Cipher Block based Authentication Module: A Hardware Design Perspective”, *Journal of Circuits, Systems and Computers*, World Scientific Publishing Co., vol.20, no.2, pp. 163-184, 2011.

#### **Articles under review**

- C17. A. Kakarountas, “System Architecture and Design for Safety-Critical Applications with Low-Power and near Real-Time Fault-Detection Requirements”, submitted to *EURASIP Journal of Embedded Systems*, for the Special Issue “Power-Aware Embedded and Real-Time Systems”, *Hindawi Publishing*.
- C18. A.P. Kakarountas, E. Hatzidimitriou, A. Milidonis, “Throughput-Oriented Architectural Exploration of IEEE P1619 for Shared Storage Media”, submitted to *IEEE Transactions on Consumer Electronics*

#### **D. Conferences**

- D1.** A.P. Kakarountas, K. Papadomanolakis, E. Karaolis, S. Nikolaidis, N. Alachiotis, C.E. Goutis, “*Hardware and Power Requirements of Self-Checking Circuits*”, in Proc. of 6th IEEE International Conference on Electronics, Circuits and Systems (ICECS’99), Pafos, Cyprus, pp 1655-1658, Sept. 1999.
- D2.** A.P. Kakarountas, K. Papadomanolakis, E. Karaolis, S. Nikolaidis, C.E. Goutis, “*Hardware/Power Requirements vs. Fault Detection Effectiveness in Self-Checking Circuits*”, in Proc. of IEEE International Workshop on Power And Timing Modeling, Optimization and Simulation (PATMOS’99), Kos, Greece, pp. 387-396, Oct, 1999.
- D3.** A.P. Kakarountas, K. Papadomanolakis, V. Kokkinos, C.E. Goutis, “*Comparative Study on Self-Checking Carry-Propagate Adders in Terms of Area, Power and Performance*”, in Proc. of IEEE International Workshop on Power And Timing Modeling, Optimization and Simulation (PATMOS’00), Göttingen, Germany, pp. 187-194, Sept. 2000.
- D4.** A.P. Kakarountas, V. Kokkinos, C.E. Goutis, “*Design of Low-Power On-Line Reconfigurable Datapaths Using Self-Checking Circuits*”, in Proc. of 8th IEEE International Conference on Electronics, Circuits and Systems (ICECS’01), Malta, vol.III, pp.1565-1568, Sept. 2001.
- D5.** K. Papadomanolakis, A.P. Kakarountas, V. Kokkinos, S. Nikolaidis, C.E. Goutis, “*Low-Power Design of a Safety Critical Microcontroller*”, in Proc. of 1st Conference on Microelectronics, Microsystems and Nanotechnology (MMN’00), Athens, Greece, Nov. 2000.
- D6.** K. Papadomanolakis, A.P. Kakarountas, V. Kokkinos, N. Sklavos, C.E. Goutis, “*The Effect of Fault Secureness in Low-Power Multiplier Designs*”, in Proc. of IEEE International Workshop on Power And Timing Modeling, Optimization and Simulation (PATMOS’01), Yverdon-Les-Bains, Switzerland, pp. 10.3, Sept. 2001.
- D7.** K. Papadomanolakis, A.P. Kakarountas, V. Kokkinos, N. Sklavos, C.E. Goutis, “*A Comparative Study on Fault Secure Signed Multiplication Designs*”, in Proc. of 11th IFIP International Conference on Very Large Scale Integration (IFIP VLSI-SOC’01), Montpellier, France, pp. 183-188, Dec. 2001.
- D8.** A.P. Kakarountas, K. Papadomanolakis, V. Spiliotopoulos, S. Nikolaidis, C.E. Goutis, “*Designing a Low-Power Fault-Tolerant Microcontroller for Medicine Infusion Devices*”, in Proc. of Design, Automation & Test in Europe (DATE’02), Paris, France, pp. 205-211, March 2002.
- D9.** A.P. Kakarountas, K. Papadomanolakis, S. Nikolaidis, D. Soudris, C.E. Goutis, “*Confronting Violations of the TSCG(t) in Low-Power Design*”, in Proc. of the IEEE International Symposium on Circuits and Systems (ISCAS’02), Scottsdale, Arizona, USA, pp. 2606-2609, May 2002.
- D10.** N.D. Zervas, S. Theoharis, A.P. Kakarountas, G. Theodoridis, D. Soudris, C.E. Goutis, “*Reducing Power Consumption through Dynamic Frequency Scaling for a Class of Digital Receivers*”, in Proc. of IEEE International Workshop on Power And Timing Modeling, Optimization and Simulation (PATMOS’00), Göttingen, Germany, pp. 47-55, Sept. 2000.
- D11.** N. Liveris, N.D. Zervas, A.P. Kakarountas, C.E. Goutis, “*A code Transformation-Based Methodology for Improving I-Cache Performance*”, in Proc. of 8th IEEE International Conference on Electronics, Circuits and Systems (ICECS’01), Malta, vol.II, pp.917-920, Sept. 2001.
- D12.** K. Masselos, F. Catthoor, A.P. Kakarountas, C.E. Goutis, H. DeMan, “*Memory Hierarchy Layer Assignment for Data Re-Use Exploitation in Multimedia Algorithms Realized on Predefined Processor Architectures*”, in Proc. of 8th IEEE International Conference on Electronics, Circuits and Systems (ICECS’01), Malta, vol.I, pp.285-288, Sept. 2001.



- D13.** K.S. Papadomanolakis, A.P. Kakarountas, N. Sklavos, C.E. Goutis, “A *Low-Power Fault-Secure Timer Implementation*”, in Proc. of the IEEE International Conference on Electronics, Circuits and Systems (ICECS’02), Croatia, pp. 537-540, Sept. 2002.
- D14.** A.P. Kakarountas, G. Theodoridis, K.S. Papadomanolakis, C.E. Goutis, “A *Novel High-Speed Counter with Counting Rate Independent of the Counter's Length*”, in Proc. of the IEEE International Conference on Electronics, Circuits and Systems (ICECS’03), UAE, pp. 1164 - 1167, Dec. 2003.
- D15.** K.S. Papadomanolakis, A.P. Kakarountas, N. Sklavos, C.E. Goutis, “A *Fast Johnson-Mobius Encoding Scheme for Fault Secure Binary Counters*”, in Design, Automation & Test in Europe (DATE’02), Paris, France, Mar. 2002.
- D16.** D. Karatasos, A.P. Kakarountas, G. Theodoridis, C.E. Goutis, “A *Novel Constant-Time Fault-Secure Binary Counter*”, in Proc. of IEEE International Workshop on Power and Timing Modeling, Optimization and Simulation (PATMOS’04), Santorini island, Greece, Sept. 2004.
- D17.** A.P. Kakarountas, V. Spiliotopoulos, S. Nikolaidis, C.E. Goutis, “*The Impact of Low-Power Techniques on the Design of Portable Safety-Critical Systems*”, in Proc. of the IEEE International Workshop on Power and Timing Modeling, Optimization and Simulation (PATMOS’04), Santorini island, Greece, September 2004.
- D18.** H.E. Michail, A.P. Kakarountas, C.E. Goutis, “*Efficient Implementation of the Keyed-Hash Message Authentication Code (HMAC) Using the SHA-1 Hash Function*”, in Proc. of the IEEE International Conference on Electronics, Circuits and Systems (ICECS’04), Tel-Aviv, Israel, pp. -, Dec. 2004.
- D19.** A.P. Kakarountas, V. Spiliotopoulos, S. Nikolaidis, C.E. Goutis, “*COSAFE: Efficient Safety-Critical Portable System*”, in Proc. of the IEEE International Workshop on Biomedical Circuits and Systems (BioCAS’04), Singapore, pp. S1.6(13-16), Dec. 2004.
- D20.** H. Michail, A.P. Kakarountas, O. Koufopavlou, C.E. Goutis, “A *Low-Power and High-Throughput Implementation of the SHA-1 Hash Function*”, in Proc. of IEEE 2005 International Symposium on Circuits and Systems (ISCAS’05), Kobe, Japan, pp. 4086-4089, May 2005.
- D21.** A.P. Kakarountas, H. Michail, C.E. Goutis, “*Design of High-Speed Cryptographic Algorithms for Data Authenticity and Integrity*”, in the Proc. of the 1st Hellenic Conference of Electric Engineers, Athens, Mar. 2005.
- D22.** H. Michail, A.P. Kakarountas, A. Milidonis, C.E. Goutis, “*Low Power and High Throughput Implementation of SHA-256 Hash Function*”, in Proc. of IeCCS e-conference, May 2005.
- D23.** A.P. Kakarountas, G. Theodoridis, T. Laopoulos, C.E. Goutis, “A *High-Speed FPGA Implementation of the SHA-1 Hash Function*”, in Proc. of IEEE Third International Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS’05), Sofia, Bulgaria, pp. 211-215, Sep. 5-7, 2005.
- D24.** H.E. Michail, A.P. Kakarountas, G.N. Selimis, C.E. Goutis, “*State-of-the-Art Implementation of SHA-1 Hash Function for Low-Power and High Throughput*”, in Proc. of IEEE 2005 International Workshop on Power And Timing Modeling, Optimization and Simulation (PATMOS’05), Leuven, Belgium, pp. 591-600, Sep. 2005.
- D25.** K. Aisopos, A.P. Kakarountas, H. Michail, C.E. Goutis, “*High throughput implementation of the new Secure Hash Algorithm through partial unrolling*”, in Proc. of IEEE 2005 International Workshop on Signal Processing Systems (SiPS’05), Athens, Greece, pp. 99-103, Nov. 2-4, 2005.
- D26.** A. Brokalakis, A.P. Kakarountas, C.E. Goutis, “A *High-Throughput Area Efficient FPGA Implementation of AES-128 Encryption*”, in Proc. of IEEE 2005 International Workshop on Signal Processing Systems (SiPS’05), Athens, Greece, pp. 116-121, Nov. 2-4, 2005.

- D27.** H. Michail, A. Milidonis, A.P. Kakarountas, C.E. Goutis, “*Novel High Throughput Implementation of SHA-256 Hash Function Through Pre-Computation Technique*”, in Proc. of the IEEE 2005 International Conference on Electronics, Circuits and Systems (ICECS’05), Gammarth, Tunisia, pp. 1-4, Dec. 2005.
- D28.** M. D. Galanis, G. Dimitroulakos, A. P. Kakarountas, and C.E. Goutis, “*Speedups from Partitioning Software Kernels to FPGA Hardware in Embedded SoCs*”, in Proc. of IEEE 2005 International Workshop on Signal Processing Systems (SiPS’05), Athens, Greece, pp. 485-490, Nov. 2-4, 2005.
- D29.** I. Yiakoumis, M. Papadonikolakis, H. Michail, A.P. Kakarountas, C.E. Goutis, “*Efficient small-sized implementation of the keyed-hash message authentication code*”, in Proc. of IEEE 2005 EUROCON as finalist in the IEEE Region 8 Best Student Paper Contest, Belgrade, Yugoslavia, pp. 1875-1878, Nov. 21-24, 2005.
- D30.** D.M. Schinianakis, A.P. Fournaris, A.P. Kakarountas and T. Stouraitis, “*An RNS Architecture of an Fp Elliptic Curve Point Multiplier*”, in Proc. of IEEE International Symposium on Circuits and Systems (ISCAS) 2006, Kos Island, Greece, May 21-24, 2006.
- D31.** F. Aisopos, K. Aisopos, D.M. Schinianakis, H.E. Michail, A.P. Kakarountas, “*A Novel High-Throughput Implementation of a Partially Unrolled SHA-512*” in Proc. of IEEE Mediterranean Electrotechnical Conference, MELECON 2006, Malaga, Spain, pp. 61-65, May 16-19, 2006.
- D32.** D.M. Schinianakis, A.P. Kakarountas, T. Stouraitis, “*A New Approach to Elliptic Curve Cryptography: An RNS Architecture*”, in Proc. of IEEE Mediterranean Electrotechnical Conference, MELECON 2006, Malaga, Spain, pp. 1241-1245, May 16-19, 2006.
- D33.** H.E. Michail, A.P. Kakarountas, A.S. Milidonis, G.A. Panagiotakopoulos, V.N. Thanasoulis, C. E.Goutis, “*Temporal and System Level Modifications for High Speed VLSI Implementations of Cryptographic Core*”, in Proc. of the IEEE 2006 International Conference on Electronics, Circuits and Systems (ICECS’06), Nice, France, pp. 1180-1183, Dec. 2006.
- D34.** A. Milidonis, N. Alachiotis, V. Porpodas, H. Michail, A. P. Kakarountas, and C. E. Goutis, “*A Decoupled Architecture of Processors with Scratch-Pad Memory Hierarchy*”, in Proc. of Design, Automation & Test in Europe (DATE’07), Nice, France, pp. 612-617, April 2007.
- D35.** M. Papadonikolakis, V. Pantazis, and A.P. Kakarountas, “*Efficient High-Performance ASIC Implementation of JPEG-LS Encoder*”, in Proc. of Design, Automation & Test in Europe (DATE’07), Nice, France, pp. 159-164, April 2007.
- D36.** A.P. Kakarountas, H.E. Michail, and C.E. Goutis, “*RipeMD-160 Implementation Optimized in Terms of Throughput*”, in Proc. of 3rd International Conference on Information Technology (ICIT’07), Amman, Jordan, pp. - , May 2007.
- D37.** H.E. Michail, A.P. Kakarountas, G. Selimis and C.E. Goutis, “*Throughput Optimization of the Cipher Message Authentication Code*”, in Proc. of the 2007 IEEE Intl. Conf. on Digital Signal Processing (DSP’07), Cardiff, Wales, UK, pp. 495-498, July 2007.
- D38.** A.P. Kakarountas, H. Michail, C.E. Goutis, and C. Efstathiou, “*Implementation of HSSec: a High-Speed Cryptographic Co-processor*”, in Proc. of the 2007 IEEE Conference on Emerging Technologies and Factory Automation, (ETFA 2007), Patras, Greece, pp. 625-631, Sept. 2007.
- D39.** A. Kakarountas, H. Michail, and C.E. Goutis “*Integration of a Concurrent Signature Monitoring Mechanism in a System-on-a-Chip*”, in Proc. of the 2007 IEEE International Conference on Design & Technology of Integrated Systems in Nanoscale Era (DTIS’07), Rabat, Morocco, pp. 47-51, Sept. 2007.
- D40.** A. P. Kakarountas, H.E. Michail, G. Theodoridis and C. E. Goutis “*A Segmented High-Speed Counter Based on the Use of Redundant Bits*”, in Proc. of the 16<sup>th</sup> IFIP/IEEE

- Conference on Very Large Scale Integration (VLSI-SOC'08), Rhodes, Greece, pp. 42 – 48, Oct. 2008.
- D41.** A. Milidonis, V. Porpodas, N. Alachiotis, A. Kakaroudas, H. Michail, G. Panagiotakopoulos and C.E. Goutis, “A Scratch-Pad Memory Accelerator for Exploiting Run-Time Reuse”, in Proc. of the 16th IFIP/IEEE Conference on Very Large Scale Integration (VLSI-SOC'08), Rhodes, Greece, pp. 271 – 276, Oct. 2008.
- D42.** D. Schinianakis, A. Kakarountas, T. Stouraitis, A. Skavantzoz, “*Elliptic Curve Point Multiplication in  $GF(2^n)$  Using Polynomial Residue Arithmetic*”, to appear in Proc. of the IEEE 2009 International Conference on Electronics, Circuits and Systems (ICECS'09), Medina, Tunisia, pp. 980-983, Dec. 2009.
- D43.** E. Hatzidimitriou, A.P. Kakarountas, “*Implementation of a Low Cost Crypto-System for P1619 (XTS) on FPGA*”, in Proc. of 11th International Workshop on Computer Science and Information Technologies (CSIT), Rethymnon, Crete, Greece, pp. 1–4, Oct. 2009.
- D44.** C. Chrysoulas, N. Sklavos, A.P. Kakarountas, “*Enhancing Service Portability in Upcoming 3G UMTS Networks & Security Aspects*”, in Proc. of IEEE Mediterranean Electrotechnical Conference, MELECON 2010, Valetta, Malta, pp. 420-424, April 2010.
- D45.** E. Hatzidimitriou, A.P. Kakarountas, “*Implementation of a P1619 Crypto-Core for Shared Storage Media*”, in Proc. of IEEE Mediterranean Electrotechnical Conference, MELECON 2010, Valetta, Malta, pp. 597-601, April 2010.
- D46.** E. Arvaniti, I. Mavridis, A. Kakarountas, “*Exploration of 2D Cellular Automata as Binary Sequence Generators*”, in Proc. of IEEE Computer Society Annual Symposium on VLSI, ISVLSI 2010, Lixouri Kefalonia, Greece, pp. 41-45, July 2010.
- D47.** D. Tychalas, A. Kakarountas, “*Planning and Development of the Backend Software for an Electronic Health Record Client based on the Android Platform*”, to appear in Proc. of 14th Panhellenic Conference on Informatics, PCI 2010, Tripoli, Greece, pp. 3-6, September 2010.
- D48.** E. Hatzidimitriou, A.P. Kakarountas, A. Milidonis, “*Exploration and Enhancement of P1619-Based Crypto-Cores for Efficient Performance*”, in Proc. of the IEEE 2011 International Conference on Consumer Electronics (ICCE'11), Las Vegas, Nevada, USA, pp. 369-370, Jan. 2011.
- D49.** A.P. Kakarountas, E. Hatzidimitriou, A. Milidonis, “*A Survey on Throughput-Efficient Architectures for IEEE P1619 for Shared Storage Media*”, in Proc. of the 16th IEEE symposium on Computers and Communications, ISCC 2011, Corfu, Greece, pp. 758-763, June 2011.
- D50.** A.P. Kakarountas, E. Hatzidimitriou, A. Milidonis, “*High-Throughput ASIC Implementation of an Encryption Core for Securing Shared Storage Media*”, in Proc. of the 17th International Conference on Digital Signal Processing, DSP 2011, Corfu, Greece, pp. – (TC3.1), July 2011.
- D51.** A.P. Kakarountas, I. Mavridis, “*Efficient Exploitation of Parallel Computing on the Server-Side of Health Organizations' Intranet for Distributing Medical Images to Smart Devices*”, in Proc. of the 2nd International ICST Conference on Wireless Mobile Communication and Healthcare, Mobihealth 2011, Kos Island, Greece, pp. , October 2011.
- D52.** A.P. Kakarountas, E. Hatzidimitriou, P. Kitsos, “*Cipher Text Stealing Integrated in Implementations of IEEE P1619 for Shared Storage Media*”, accepted for inclusion in Proc. of the 6th International Symposium on Communications, Control, and Signal Processing, ISCCSP 2014, Athens, Greece, pp. - , May 2014.
- D53.** A.P. Kakarountas, S. Dragoumanos, K. Kakarountas, “*Extending Visitor's Reality at Museums*”, accepted for inclusion in Proc. of the 5th International Conference on Information, Intelligence, Systems and Applications, IISA 2014, Chania, Greece, pp. - , July 2014.
- D54.** A.P. Kakarountas, “*Disappearing Computing for Elderly Assisted Living*”, accepted for inclusion in Proc. of the 4th International Conference on Wireless Mobile

Communication and Healthcare, Mobihealth 2014, Athens, Greece, pp. - , November 2014.

#### **E. Editor – Reviewer - Translator of Scientific Books**

- E1.** V.A. Pedroni, “Circuit Design using VHDL”, Publication from KLEIDARITHMOS publishers. ISBN: 978-960-461-118-8 (Translation in Greek language)
- E2.** D. Nikolos, “Digital Systems” Volume B - “Computer Architecture I”, 2<sup>nd</sup> Edition, Hellenic Open University, Patras 2008, ISBN 978-960-538-753-2
- E3.** G. Alexiou, “Digital Systems” Volume C - “Microprocessors”, 2<sup>nd</sup> Edition, Hellenic Open University, Patras 2008, ISBN 978-960-538-745-7

#### **S. Reports**

- S1.** P.P. Groumpos, A.P. Kakarountas, S. Aggoti, “SWOT Analysis for the initiation of an Enterprise Incubator in the Municipality of Lamia ”, September 2008.
- S2.** A. Kakarountas et al (research team member) «Information and Communication Technologies - ICT », Innovation Pole – West Greece Region, Action 3: «Technology Roadmap in the West Greece Region», 2008
- S3.** A. Kakarountas, “Feasibility study for the School of Electronic Management and Telecommunications”, TEI of Ionian Islands, Lefkas Island, 2009.
- S4.** A. Kakarountas, “Sustainability study for the School of Electronic Management and Telecommunications”, TEI of Ionian Islands, Lefkas Island, 2009.

#### **XII. PARTICIPATION IN INTERNATIONAL CONFERENCES PRESENTING OWN RESEARCH**

- 1. 6th IEEE Int. Conf. on Electronics, Circuits, and Systems (ICECS), September 5-8, Pafos, Cyprus, 1999. (D1)
- 2. 9th Inter. Workshop on Power and Timing, Modeling, Optimization, and Simulation (PATMOS `99), October 6-8, 1999, Kos Island, Greece. (D2).
- 3. 10th Inter. Workshop on Power and Timing, Modeling, Optimization, and Simulation (PATMOS 2000), 13-15 Σεπτεμβρίου 2000, Gottingen, Germany. (D3, D10).
- 4. 1st Conference on Microelectronics, Microsystems and Nanotechnology (MMN'00), 10-12 November 2000, Athens, Greece. (D5).
- 5. 8th Int. Conf. on Electronics, Circuits and Systems (ICECS `01), September 2-5, 2001, Malta (D4, D11 and D12)
- 6. 11th Int. Workshop Power And Timing Modeling, Optimization And Simulation (PATMOS 2001), Yverdon-les-bains, Switzerland - September 26-28, 2001 (D6)
- 7. IEEE International Symposium on Circuits and Systems (ISCAS) 2002, May 2002, Scottsdale, Arizona, USA (D9).
- 8. Design Automation and Testing in Eurore (DATE), March 4-8, 2002, Paris, (D8 and D15)
- 9. 11th IFIP International Conference on Very Large Scale Integration (IFIP VLSI-SOC'01), Dec. 2001, Montpellier, France. (D7)
- 10. 10th Int. Conf. on Electronics, Circuits and Systems (ICECS `03), December 2003, UAE (D14)
- 11. IEEE 2004 International Workshop on Power and Timing Modeling, Optimization and Simulation (PATMOS'04), Santorini Island, Greece, Sept. 2004 (D16,D17).
- 12. IEEE 2005 International Symposium on Circuits and Systems (ISCAS'05), Kobe, Japan, May 2005 (D20).
- 13. IEEE 2005 International Workshop on Power And Timing Modeling, Optimization and Simulation (PATMOS'05), Leuven, Belgium, Sep. 2005 (D24).

14. IEEE 2005 International Workshop on Signal Processing Systems (SiPS'05), Athens, Greece, Nov. 2-4, 2005 (D25,D26).
15. 3rd International Conference on Information Technology (ICIT'07), Amman, Jordan, May 2007, (D36).
16. 2007 IEEE Intl. Conf. on Digital Signal Processing, Cardiff, Wales, UK, July 2007, (D37).
17. 2007 IEEE Conference on Emerging Technologies and Factory Automation, (ETFAs 2007), Patras, Greece, Sept. 2007, (D38).
18. 11th International Workshop on Computer Science and Information Technologies (CSIT 2009), Rethymnon, Crete, 2009, (D43).
19. IEEE Mediterranean Electrotechnical Conference, MELECON 2010, Valetta, Malta, April 2010 (D44,D45).
20. IEEE International Conference on Consumer Electronics (ICCE 2011), Las Vegas, Nevada, USA, Jan. 2011 (D48)

### **XIII. AWARDS AND RECOGNITION**

- Honored by Institute of Electrical and Electronic Engineers (IEEE) and designation to IEEE Senior Member
- Honored by Association for Computing Machinery (ACM) and designation to ACM Senior Member
- Organizer and Chairman of the IEEE Consumer Electronics Society – Greece Chapter
- Award from EURORACTICE for the research results of COSAFE #28593 "*Low Power Hardware-Software Co-Design for Safety-Critical Applications*", after a European Design Contest, which took place in the bounds of Design Automation and Testing in Europe (DATE) Conference, 4-8 March 2003, Paris, France.
- International Award in two categories from Mentor Graphics and SUN Microsystems for the research results of COSAFE #28593 "*Low Power Hardware-Software Co-Design for Safety-Critical Applications*".
- Award to IEEE Greece CAS Chapter as “Best CAS Chapter of the Year 2005”, when Kakarountas was Chair assistant.
- “Exemplary Award” for the University of Central Greece – IEEE Student Branch, when Kakarountas was the Counselor of the IEEE Student Branch
- During the COSAFE project (see section VI. PARTICIPATION IN PROJECTS), Dr. Kakarountas designed, developed and implemented a sophisticated microprocessor with high safety levels during operation, for which he was twice awarded. The design and the microprocessor’s architecture was considered advanced and that work was selected to be included as a separate chapter in the book “*Designing CMOS Circuits for Low Power*”, Kluwer Academic Publishers. Dr. A. Kakarountas and his colleague K. Papadomanolakis were the only students (PhD students), who participated to that book as authors along with famous scientists.
- When holding his post-doc position, he assembled two student teams, in 2004 and 2005 respectively, as a novel approach to enhance and enrich educational procedure at the VLSI laboratory of Patras University. The first recognition came with the award of the best

student paper award 2004, from the local SB (IEEE Patras Student Branch). The very same paper (D29) reached the finals (5 finalists) of IEEE Region 8, which includes Europe, Africa and Middle East. It was ranked in the third place. The students from the University of Patras were the only undergraduate nominees.

- Holding the post-doc position, he assisted the research team of Prof. C.E. Goutis to advance in architectures and system implementations. The first results came at SiPS Workshop, where PhD candidate M.D. Galanis received the Best Student Paper Award for his work (D29).
- Scholarships:  
Post-Doc research through “PYTHAGORAS” project, lasting 30 months, starting from 1<sup>st</sup> March 2004.
- *Citations to Kakarountas’s work: 160 (GoogleScholar reports 281)*

#### **XIV. COLLABORATION WITH ACADEMIA AND INDUSTRY**

##### *Industrial Field*

###### Greece:

- 1) MICREL Medical Devices S.A., A. Tsoukalis
- 2) Alma Technologies, Dr. N. Zervas, Dr. S. Theoharis
- 3) Intracom, Dr. L. Bidounis, Dr. H. Dre, Dr. H. Drosos
- 4) Sciensis, Dr. Pan. Karaivazoglou, Mr. M. Perakis
- 5) Micrologic, Mr. Konstantinos Efstathiou

###### International Collaborations:

- 1) Altera Corp., Dr. M. Papadonikolakis
- 2) ARM Ltd., V. Laganakos
- 3) Cadence, Dr. Patrick Haspel

##### *Academic Field*

###### Greece:

- 1) National Technical University of Athens, Dpt. of Electrical & Computer Eng., Athens, Prof. D. Soudris
- 2) Aristotle University of Thessaloniki, Thessaloniki, Dpt. of Physics, Ass. Prof. S. Nikolaidis
- 3) University of Peloponnese, Ass. Prof K. Masselos
- 4) Hellenic Open University, Prof. A. Skodras
- 5) University of Patras, Prof. C.E. Goutis
- 6) University of Patras, Prof. T. Stouraitis
- 7) University of Patras, Prof. O. Koufopavlou
- 8) University of Patras, Ass. Prof. V..Paliouras
- 9) University of Patras, Ass. Prof. G..Theodoridis
- 10) TEI of Athens, Prof C. Efstathiou
- 11) TEI of Lamia, Ass. Prof T. Ganetsos
- 12) TEI of Lamia, Ass. Prof N. Assimakis
- 13) TEI of Lamia, Lecturer E. Papageorgiou
- 14) TEI of Ionian Islands, Ass. Prof Ch. Beneki
- 15) TEI of Ionian Islands, Lecturer K. Kabasi
- 16) TEI of Ionian Islands, Lecturer G. Stylios

- 17) TEI of Patras, Ass. Prof N. Sklavos
- 18) Patras Science Park, President and CEO, P. P. Groumpos

International Collaborations:

- 1) Collaboration with the research team of F. Catthoor, “Design Technologies”, IMEC, Belgium (through the research team of Prof. Goutis, Univ. of Patras).
- 2) Assistant Professor Abdoul M. Rjoub, Jordan University of Science and Technology, Jordan.

**XV. SCIENTIFIC RELATED ACTIVITIES**

- Newsletter Editor of Greece IEEE Section (Elected member of the Board) for 2010-2013
- Chairman of the IEEE Consumer Electronics Society – Greece Chapter (2011-2015)
- Participation in Organizing Committee (Publicity Chair) of i) IEEE International Symposium on Circuits and Systems (ISCAS) 2006, ii) IEEE International Conference on Emerging Technologies and Factory Automation (ETFA) 2007, iii) IEEE International Symposium on Wireless Pervasive Computing (SWPC) 2008, iv) IEEE International Conference on Circuits, Electronics, and Systems (ICECS 2010), v) 2nd International ICST Conference on Wireless Mobile Communication and Healthcare (MobiHealth 2012), vi) IEEE MELECON 2012, vii) IEEE 18th International Conference on Digital Signal Processing (DSP 2013), viii) . 2nd International ICST Conference on Wireless Mobile Communication and Healthcare (MobiHealth 2014), ix) 6th International Symposium on Communications, Control, and Signal Processing (ISCCSP 2014)
- Participation in Program Committees of ) International Conference on Computer Design (CDES-2005), ii) International Conference on Computational Intelligence (ICCI 2005), iii) International Conference on Information Security (ICIS 2005), iv) International Conference on Artificial Intelligence (ICAI 2005), v) International Conference on Image Analysis (ICIA 2005), vi) International Conference on Data Analysis (ICDA 2005), vii) International Conference on Machine Intelligence (ICMI 2005), viii) International Conference on Automation Technology (ICAT 2005), ix) International Conference on Communication Technology (ICCT 2006), x) International Conference on Pattern Analysis (ICPA 2006), ix) International Conference on Neural Networks (ICNN 2006), xi) IEEE International Conference on Wireless Communications, Networking and Information Security (WCNIS2010), xii) 15th IEEE Mediterranean Electrotechnical Conference (MELECON 2010), xiii) IEEE International Conference on Wireless Communications, Networking and Information Security (WCNIS2011), xiv) 6th International conference on Design & Technology of Integrated Systems in nanoscale era (DTIS 2011), xv) 2011 International Conference on Network Computing and Information Security (NCIS 2011), xvi) International Conference on Microelectronics (ICM 2011), xvii) IEEE Symposium on Computers and Communications (ISCC 2011), xviii) 1st AI in Education Workshop: Innovations and Applications (AIeIA 2012), xix) 2012 International Symposium on Consumer Electronics (ISCE 2012), xx) 7th International Conference on Embedded and Multimedia Computing (EMC 2012), XXI) 18th Panhellenic Conference on Informatics (PCI 2012), xxii). 7th International Workshop on Reconfigurable and Communication-centric Systems-on-Chip (ReCoSoC 2012), xxiii) International Conference on Microelectronics (ICM 2013), xxiv) 8th International Workshop on Reconfigurable and Communication-centric Systems-on-Chip (ReCoSoC 2013), xxv) 6th International Symposium on Communications, Control, and Signal Processing (ISCCSP 2014), xxvi) 18th Panhellenic Conference on Informatics (PCI 2014), xxvii) 4th special

session on Mobile Device & Web Software Development - Small Systems Development (in conjunction with PCI 2014), xxviii) 24th International Conference on Field Programmable Logic and Applications (FPL2014), xxix) IEEE Symposium on Computers and Communication (ISCC 2014), xxx) 2014 International Conference on Connected Vehicles & Expo (ICCVE 2014), xxxi) 9th International Workshop on Reconfigurable and Communication-centric Systems-on-Chip (ReCoSoC 2014), xxxii) International Conference on Microelectronics (ICM 2013), xxxiii) International Conference on Microelectronics (ICM 2014)

- Member of the Editorial Board of the following journals:

Currently

- i) IEEE Potentials, ii) Journal of VLSI Design Tools and Technology (JoVDT), iii) Journal of Applied Mathematics and Bioinformatics (JAMB).

Past

- i) International Journal of Computational Intelligence (IJCI), ii) International Journal of Signal Processing (IJSP).

- Reviewer in:

Conferences: i) IEEE Int. Symp. on Circuits and Systems, (ISCAS), ii) IEEE International Workshop on Power and Timing Modeling, Optimization and Simulation (PATMOS), iii) IEEE Int. Conf. on Electronics, Circuits, and Systems (ICECS), iv) IEEE Mediterranean Electrotechnical Conference (MELECON 2004, 2010, 2012), v) IFIP/IEEE Conference on Very Large Scale Integration (VLSI-SOC 2008,2009,2010), vi) International Workshop on Systems, Architectures, Modeling, and Simulation, (SAMOS 2007, 2009), vii) IEEE International Conference on Computer as a Tool (EUROCON 2005,2010,2011), viii) ACM International Conference on Compilers, architecture and synthesis (CASES 2006,2007), ix) 6th International conference on Design & Technology of Integrated Systems in nanoscale era (DTIS 2011), x) IEEE International Symposium on Wireless Communication Systems (ISWCS 2007), xi) IEEE International Conference on Digital Signal Processing (DSP 2009,2011), xii) IEEE International Conference on Emerging Technologies and Factory Automation (ETFAC 2008), xiii) IEEE International Conference on Circuits and Systems for Communications (ICCSC 2008), xiv) IEEE 30th Annual Northeast Bioengineering, xv) IEEE International Symposium on Consumer Electronics (ISCE 2009, 2012, 2013), xvi) IEEE Wireless Communications and Networking Conference (WCNC 2009), xvii) International Conference on Computer Design (CDES 2005), xviii) IEEE Int. Conf. on Innovations in Information Technology (IIT 2007), xviii) International Conference on Network Computing and Information Security (NCIS 2011), xix) International Conference on Multimedia and Signal Processing (CMSP 2011), xx) IEEE Vehicular Technology Conference (VTC 2010, 2012), xxi) 7th International Conference on Embedded and Multimedia Computing (EMC 2012), xxii) IEEE International Symposium on Computers and Communications (ISCC 2011,2013,2014), xxiii) IEEE Business, Engineering & Industrial Applications Colloquium (BEIAC 2013), xxiv) IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2012, 2014), xxv) Design Automation Conference (DAC 2013, 2014), xxvi) International Conference Field Programmable Logic and Applications (FPL 2014), xxvii) IEEE/SAE International Conference on Connected Vehicles (ICCVE 2013), xxviii) IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2012, 2014), xxix) IEEE International Symposium on VLSI (ISVLSI 2013), xxx) IEEE Symposium on Industrial Electronics and Applications (ISIEA 2013), xxxi) Pan-Hellenic Conference on Informatics (PCI 2012, 2014), xxxii) International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC 2012,2013,2014), xxxiii) Jordanian International Electrical and Electronics Engineering Conference (JIEEEEC 2013), xxxiv) ICST Conference on Wireless Mobile Communication and Healthcare (MobiHealth 2011),



xxxv) IEEE Symposium on Humanities, Science and Engineering Research (SHUSER 2013), xxvi) IEEE International Conference on Microelectronics (ICM 2012, 2013, 2014).

*Journals:* i) IEEE Transactions on Computers, ii) IEEE Transactions on Parallel and Distributed Systems, iii) IEEE Transactions on Circuits and Systems-I, iv) IEEE Transactions on Circuits and Systems-II, v) IEEE Transactions on VLSI Systems, vi) IEEE Transactions on Dependable and Secure Computing, vii) IEEE Computer, viii) International Journal of Computational Intelligence (IJCI), ix) International Journal of Signal Processing (IJSP), x) Journal of Computers (JCP), xi) International Journal of Computer Aided Engineering and Technology (IJCAET), xii) International Journal of Sensor Networks (IJSNET), xiii) Information Security Journal: A Global Perspective (ISJ), xiv) Elsevier, Microprocessors and Microsystems (MICPRO), xv) Elsevier, Microelectronics Journal (MEJ), xvi) Elsevier, Integration, the VLSI Journal (VLSI), xvii) IEEE Consumer Electronics Magazine, xviii) SPIE, Journal of Applied Remote Sensing (JARS), xix) Springer, Journal of Real-Time Image Processing (JRTIP), xx) Elsevier, Scientia Iranica (SCIENTIA), xxi) IEEE, Access, xxi) IEEE, Systems Journal, xxii) IEEE, Transactions on Information Forensics & Security, xxiii) SPIE, Journal of Electronic Imaging, xxiv) Springer, Studies in Computational Intelligence, xxv) Wiley, Security and Communications Network (SCN).

- Counsellor Professor of IEEE Student Branch of the University of Central Greece.
- Counsellor of IEEE EMBS Student Club of the University of Central Greece.
- Proctor for IEEEExtreme 3.0, 4.0, 5.0 Programming Contests (University of Central Greece)
- Assistant of the Greek Chapter's IEEE Circuit and System Society (CAS) Chairman from 09/2003 until today.
- Greece IEEE Region 8 Committee Delegate in 2008 and 2009 Annual IEEE R8 Meetings
- Greece IEEE GOLD Affinity Group Council Member
- Reviewer of the Hellenic Open University Publications
  - Informatics
- EU Project Expert:  
Registered reviewer (as expert) for the FP6 και FP7 of the European Union (CORDIS).
- Member of the Study Group for «Technologies for Informatics and Communications», Innovation Regional Pole – Region of Western Greece, Horizontal Action 3: «Technological Foresight for the Region of Western Greece».

## **XVI. OTHER ACTIVITIES**

11/11/2003: Member of the organizing committee of the IEEE Student Branch, University of Patras

04/01/2004: Editor of the bimonthly published newsletter “The Circuit” of the IEEE Greek Circuits and Systems Society.

- 02/01/2004: Official invitation from the VLSI laboratory, Dpt. of Electrical and Computer Engineering, University of Patras to give a series of lectures on the topic of “Advanced Techniques for Integrated Circuits (VLSI) Design”
- 01/13/2006: Lecture at Aristotle University of Thessaloniki, Dpt. of Physics, Division of Electronics, on the topic of “Collision of Circuit Design Techniques. Case Study: When safe operation is not energy-friendly”
- 09/29/2006: Lecture at the University of Ioannina, Dpt. of Informatics, on the topic of “Decoupled Architecture – Speeding-up special applications”
- 10/15/2006: Lecture at the Technological and Educational Institute of Arta, Dpt. of Computer Science, “Modern technology trends on Computer Architecture”
- 01/19/2007: Lecture at the Technological Institute of Ionian Islands, Greece (Lefkas), Dpt. of Informatics, «Design Trends in Computer Architecture»
- 11/17/2007: Lecture at the governmental conference GEFYRES 2007, Patras, Greece, «Innovation Pole of West Greece »
- 11/24/2007: Lecture at the economic conference MoneyShow2007, Patras, Greece, «International Innovation Zone in West Greece»
- 11/24/2007: Lecture at the economic conference MoneyShow2007, Patras, Greece, «Patras Science Park: Present and Future »
- 12/19/2007: Lecture at the University of Peloponnese, Tripolis, Greece, Dpt. of Science & Computer Technology «Design of Safety-critical Computer Systems »
- 12/28/2007: Article in The Economist (magazine of the “Kathimerini” newspaper), «The era of self-detection », iss. 46, Dec. 2007.
- 23/01/2008: Lecture at the TEI Patras, Patras, Greece “Research and Innovation”.
- 15/04/2008: Lecture at the Patras Science Park, Patras, Greece “The Patras Science Park at the role of the regional motivator in innovation”.
- 26/04/2008: Participation in the IEEE R8 Committee Meeting (Malta) as delegate of the IEEE Greece Section.
- 25/04/2009: Participation in the IEEE R8 Committee Meeting (Venice) as delegate of the IEEE Greece Section.
- 09/09/2009: Greece IEEE GOLD Affinity Group Council Member
- 10/10/2009: Participation in the IEEE R8 Committee Meeting (Lisbon) as delegate of the IEEE Greece Section.
- 26/11/2009: Lecture at the Technical University of Crete, Chania, Greece, Dpt. of of Electronic & Computer Engineering «Hardware Accelerators for Embedded Systems»

(Rest of list available upon request)

Volunteer: Member of Amnesty International, NGO

Projects:

- a) Member of the group (OLPC) for porting the project in the Greek language
- b) Member of the group (IRMA) for porting the project in the Greek language (Linspire) in period 2006-2008
- c) Member of Sourceforge.net for the development of open-source applications