

TECHNICAL UNIVERSITY OF CRETE

**School
of Electronic
and Computer
Engineering**



Annual Activity Report

Sep 2014 – Aug 2015

Chania 2015

Computer Science Division

Faculty Members

- Chalkiadakis Georgios, Assistant Professor
- Christodoulakis Stavros, Professor
- Deligiannakis Antonios, Associate Professor
- Garofalakis Minos, Professor
- Lagoudakis Michail, Associate Professor
- Mania Ekaterini, Associate Professor
- Petrakis Euripides, Professor
- Samoladas Vasilis, Assistant Professor



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Georgios Chalkiadakis

Rank: Assistant Professor

Years in rank: since March 2011 (unofficially); since January 2012 (officially)

Division: Computer Science

Lab affiliation: Intelligent Systems

A – Teaching

- Undergraduate courses taught
 - [COMP-517 Multiagent Systems \(ΠΛΗ-517 Πολυπρακτορικά Συστήματα\)](#) [Winter 2014]
 - [COMP-201 Design and Development of Information Systems \(ΠΛΗ-201 Σχεδίαση και Ανάπτυξη Πληροφοριακών Συστημάτων\)](#) [Winter 2014]
 - [COMP-417 Artificial Intelligence \(ΠΛΗ-417 Τεχνητή Νοημοσύνη\)](#) [Spring 2014]
- Updated course material/slides for all aforementioned courses taught

B – Publications

- **Book chapters:**
 - Angelos Chliaoutakis and Georgios Chalkiadakis: **Interpreting the Past through Agent-Based Modeling and GIS**. In A. Sarris (ed.): [Best Practices of Geoinformatic Technologies for the Mapping of Archaeolandscapes](#). Archaeopress. Submitted. (published: November 2015)
- **Publications in refereed journals:**
 - Submitted: **Characteristic Function Games with Restricted Agent Interactions: Core-Stability and Coalition Structures**. With G. Greco and E. Markakis. Submitted to *Artificial Intelligence (AIJ)*. **Status: accepted**
 - Submitted: **Agent-Based Modeling of Ancient Societies and their Organization Structure**. With A. Chliaoutakis. Submitted to *Autonomous Agents and Multi-Agent Systems (JAAMAS)*, status: accepted
- **Publications in refereed conferences (thoroughly peer-reviewed, almost always under a double-blind reviewing process)**

- **Published (full papers):**
 - Angelos Angelidakis and Georgios Chalkiadakis: [Factored MDPs for Optimal Prosumer Decision-Making](#). In Proc. of the 14th Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS-2015), Istanbul, Turkey, May 2015. **Honorable Mention, Best Student Paper Award Finalist.**

A version of this paper, entitled **Optimal Prosumer Decision-Making using Factored MDPs** also appeared in **IJCAI-2016 (the 27th International Joint Conference on Artificial Intelligence)** - Accepted for presentation in the **Sister Conference Best Papers Special Track**.

- Athanasios Aris Panagopoulos, Georgios Chalkiadakis, and Nicholas R. Jennings: [Towards Optimal Solar Tracking: A Dynamic Programming Approach](#). In Proc. of the 29th AAI Conference on Artificial Intelligence (AAAI-2015), Austin, TX, USA, January 2015.

C – Awards & Distinctions

1. **Sept 2014: Reached the second stage of the 2014 European Research Council Starting Grant (ERC-STG-2014).** Acceptance rate for the ERC PE6 (“Computer Science and Informatics”) panel: 6.8% Note: Less than 15% of the proposals evaluated by the PE6 panel reach the second (interview) stage of evaluation, and about 45% of these (i.e., about 6.8% of those initially evaluated) eventually get accepted.
2. **Editorial Board member for the Journal of Artificial Intelligence Research (JAIR) for a 3-year term: July 1, 2013-June 30, 2016.**

D – Funded Projects

- Current projects:
 - **Project “ATLANTAS”.** Development of a prototype 3D forming touch table for interactive 3D GIS. The table will be integrating appropriate robotic and automated modules to provide capabilities for creating live 3D landscape layouts and maquettes (3D forming GIS products). As part of the project, novel algorithms will be developed, to facilitate decision making in the case of emergencies/ natural disasters. ATLANTAS (11SYN_6_1937_TPE) is supported by the Greek Ministry of Education and Religious Affairs and is co-financed by **ESPA 2007-2013**. Role: team member

E – Professional service

- Conference Senior Program Committee service
 - The 14th International Conference on Autonomous Agents and Multiagent Systems, Istanbul, Turkey, May 2015 (AAMAS-15)
 - The 24th International Joint Conference on Artificial Intelligence, Buenos Aires, Argentina, 2015 (IJCAI-15).

- Conference Technical Program Committee service
 - The 29th AAAI Conference on Artificial Intelligence, Austin, Texas, USA, January 2015 (AAAI-15).
 - The 2015 Autonomous Agents and Multi-Agent Systems at Scale Workshop (MassiveMAS@AAMAS-2015).

- Conference Organization (specify role)
 - Co-organizer of the 1st Algorithmic Game Theory Workshop at IJCAI (AGT@IJCAI-2015), an IJCAI-2015 workshop, Buenos Aires, Argentina, July 2015.
 - Co-organizer of the 6th Workshop on Cooperative Games in Multiagent Systems (CoopMAS-2015), an AAMAS-2015 workshop, Istanbul, Turkey, May 2015.

- Reviewing activities
 - Reviewer for the conferences and workshops I was a Program Committee member at (mentioned above)
 - Reviewer for the “Journal of Autonomous Agents and Multiagent Systems (JAAMAS)
 - Reviewer for the “Journal of Artificial Intelligence Research” (JAIR)
 - Reviewer for the “Artificial Intelligence Journal” (AIJ)

G – Advising

- Graduate students supervised
 - PhD theses in progress (supervisor)
 - Charilaos Akasiadis: mechanism design, and intelligent agent technologies for the Smart Grid.
 - Evangelos Tripolitakis: probabilistic topic modeling, game theory, and recommendation systems
 - Angelos Chliaoutakis: agent-based modeling and agent organizations
 - MSc theses in progress (supervisor)
 - Angelos Angelidakis: intelligent agent technologies in the smart grid domain
 - Michail Mamakos: cooperative game theory, overlapping coalitions
 - Aris Kidonakis: machine learning and multiagent systems

- Undergraduate students supervised
 - Diploma theses completed (supervisor)
 - Nektarios Mitakidis (graduated October 2014): worked on agent-oriented software engineering.
 - Dimosthenis Skipetaris: works on developing basic and advanced infrastructure for the operation of Virtual Power Plants, and the validation of various multiagent systems techniques in such environments
Graduated: November 2014
 - Diploma theses in progress (supervisor)
 - Marios Asiminakis: works on applying machine learning and stochastic search techniques on solving the game of bridge

- Filippou Christianos: works on mechanisms for the smooth integration of electric vehicles in the Smart Grid
- Efthimios Floros: agent-oriented software engineering
- Manos Karamalegos: applying learning and bargaining techniques in the Settlers of Catan strategy game
- Michail-Angelos Papilaris: works on (inverse) reinforcement learning and recommendation systems



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Stavros Christodoulakis

Rank: Professor

Years in rank: 26

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Distributed Multimedia Information Systems and Applications Laboratory

A – Teaching

- Undergraduate courses taught
 - COMP 302 : Data Bases (mandatory)
 - AIS 412 : Human – Computer Interaction
 - AIS 419 : Web Information Systems
- Graduate courses taught
 - AIS 603 : Human – Computer Interaction
 - AIS 601 : Web Information Systems
(Offered jointly with AIS 419)
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted: those published / appeared (see below)
 - Accepted / Published :
- Conference Publications
 - Published:

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “Natural Europe : Natural History & Environmental Cultural heritage in European Digital Libraries for Education”, Funding Source : “Seventh Framework Programme, FP7 Policies, Competitiveness and Innovation Framework Programme (CIP)”, Budget : € 250.000,00, Duration : Oct. 2010 – Dec. 2015
 - “Open Discovery Space: A socially-powered and multilingual open learning infrastructure to boost the adoption of eLearning resources”, Funding Source : “Seventh Framework Programme, FP7 Policies, Competitiveness and Innovation Framework Programme (CIP)”, Budget : € 112.232,00, Duration : Apr. 2012 - Sep. 2015
 - QONIAon : Vet Qualification Practice For e-Inclusion, EU, Budget : € 48.337,00, Duration : Oct. 2013 – Sep. 2015
 - EVANDE: Enhancing Volunteer Awareness and education against Natural Disasters through E-learning, EU, Budget : € 63.927,00, Duration : Jan. 2015 – Dec. 2016

- Project proposals submitted:

E – Professional service

F – Service to the Department and the School

- Departmental responsibilities
 - Lab Director Distributed Multimedia Information Systems and Applications Laboratory (MUSIC)

- School – level responsibilities

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Skevakis Yannis (M.Sc.)
 - Stylianakis Georgios (M.Sc.)

 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Arapi Polyxeni (Ph.D.)
 - Christoulakis Marios (M.Sc.)
 - Kalokyri Varvara (M.Sc.)
 - Mylonakis Emmanuel (M.Sc.)
 - Pitsiladis Andreas (M.Sc.)
 - Trochatou Ioanna (M.Sc.)
 - Sifakis Ioannis (M.Sc.)

 - Ph.D. and M.Sc. awarded (committee member)

- Demertzis Ioannis (M.Sc.)
 - Tsakonas Constantinos (M.Sc.)
 - o Ph.D. and M.Sc. Degrees (committee member)
 - Chliaoutakis Aggelos (Ph.D.)
 - Koulieris Georgios Alexandros (Ph.D.)
 - Stravoskoufos Konstantinos (Ph.D.)
 - Sfakianakis Stylianos (Ph.D.)
 - Chliaoutakis Aggelos (M.Sc.)
 - Georgiladakis Spyridon (M.Sc.)
 - Koulieris Georgios Alexandros (M.Sc.)
 - Mainas Nikolaos (M.Sc.)
 - Malisova Ekaterini (M.Sc.)
 - Ninos Spyridon (M.Sc.)
 - Petrovski Stefan (M.Sc.)
 - Sfakianakis Stylianos (M.Sc.)
 - Stravoskoufos Constantinos (M.Sc.)
 - Veronikis Constantinos (M.Sc.)
- Undergraduate students supervised
 - o Diploma theses in progress
 - Christodoulopoulos Christos
 - Geronymakis Theodoros
 - Kontogiannis Petros
 - Koutsouris Themistoklis
 - Lidas Stefanos
 - Troulitakis Apostolos
 - o Diploma theses in progress (committee member)
 - Lyggeridis Christos
 - Saringelos Athanasios
 - Sidorakis Nikolaos
 - o Diploma theses completed (committee member)
 - Kotsarinis Panagiotis
 - Kranas Ioannis
 - Sarri Efrosini



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For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Antonios Deligiannakis

Rank: Associate Professor

Years in rank: 2

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Software Technology and Network Applications Laboratory (SoftNet)

A – Teaching

- Undergraduate courses taught
 - o COMP 102 : Structure Programming (mandatory)
 - o COMP 516 : Data Processing and Handling in Sensor Networks
- Graduate courses taught
 - o COMP 626 : Data Processing and Handling in Sensor Networks (Offered jointly with COMP 516)
 - o COMP 622 : Special Issues in Database Systems
- Labs taught
- Curriculum & course development
 - o New courses / labs developed
 - o Lecture notes / slides developed
 - o Authored textbooks

B – Publications

- Publications in refereed journals
 - o Published:
 - S. Papadopoulos, G. Cormode, A. Deligiannakis, M.N. Garofalakis: Lightweight Query Authentication on Streams. ACM Transactions on Database Systems, 39(4): 30:1-30:45, 2014 (Best of SIGMOD/PODS'2013 special issue)
 - O. Papapetrou, M.N. Garofalakis, A. Deligiannakis. Sketching distributed sliding-window data streams. VLDB Journal, 24(3): 345-368 (2015)

- Publications in refereed conferences
 - Published:
 - I. Flouris, N. Giatrakos, M.N. Garofalakis, A. Deligiannakis. Issues in Complex Event Processing Systems. In Proceedings of the 1st IEEE International Workshop on Real Time Data Stream Analytics (RTStreams'15), held in conjunction with IEEE BigDataSE-15, Helsinki, Finland, August 2015.
 - S. Bothe, V. Manikaki, A. Deligiannakis, M. Mock. Towards Flexible Event Processing in Distributed Data Streams. In Proceedings of the Event Processing, Forecasting and Decision-Making in the Big Data Era (EPForDM) Workshop, held in conjunction with EDBT/ICDT, Brussels, Belgium, March 2015.

C – Awards & Distinctions

D – Funded Projects

E – Professional service

- Conference Technical Program Committee service
 - SIGMOD - ACM SIGMOD International Conference on Management of Data 2015
 - VLDB - Very Large Data Bases 2014
 - ICDE - IEEE International Conference on Data Engineering 2014
 - CIKM - ACM International Conference on Information and Knowledge Management 2015, 2014
 - SDM - SIAM International Conference on Data Mining 2015
- Reviewing activities
 - TKDE - IEEE Transactions on Knowledge and Data Engineering 2015, 2014

F – Service to the Department and the School

- Departmental responsibilities

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Tsakonas Constantinos (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Flouris Ioannis (Ph.D.)
 - Charalambakis Stergios (Ph.D.)
 - Igglezakis Antonios (M.Sc.)
 - Bourdakis Savvas (M.Sc.)
 - Manikaki Vasiliki (M.Sc.)
 - Paloli Giorgo (M.Sc.)

- o Ph.D. and M.Sc. awarded (committee member)
 - Karkasis Panagiotis (Ph.D.)
 - Alevizos Panagiotis (M.Sc.)
 - Asimoglou Ekaterini (M.Sc.)
 - Demertzis Ioannis (M.Sc.)
 - Konstantopoulos Christos (M.Sc.)
 - Skevakis Yannis (M.Sc.)

- o Ph.D. and M.Sc. Degrees (committee member)
 - Alevizos Panagiotis (Ph.D.)
 - Toutoudakis Michail (Ph.D.)
 - Vazeos Evaggelos (Ph.D.)
 - Agadakos Nikolaos (M.Sc.)
 - Babalis Charalambos (M.Sc.)
 - Dilis Dimitrios (M.Sc.)
 - Kalokyri Varvara (M.Sc.)
 - Kasimatis Vasilios (M.Sc.)
 - Loizou Konstantinos (M.Sc.)
 - Mantakos Georgios (M.Sc.)
 - Mavromichelaki Evangelia (M.Sc.)
 - Nydriotis Apostolos (M.Sc.)
 - Pattakos Nikolaos (M.Sc.)
 - Petrovski Stephan (M.Sc.)
 - Skoulakis Ioannis (M.Sc.)
 - Thermolia Chryso (M.Sc.)
 - Tountas Konstantinos (M.Sc.)
 - Verykokidi Eleni – Aggela (M.Sc.)
 - Vlachou Georgia (M.Sc.)
 - Zervoudakis Nikolaos (M.Sc.)

- Undergraduate students supervised
 - o Diploma theses in progress
 - Aretakis Constantinos
 - Didymiotis – Ventouris Georgios
 - Fragkakis Panteleimon
 - Giannopoulos Emmanuel
 - Tzimas Dimitrios

 - o Diploma theses completed (supervisor)
 - Manikaki Vasiliki

 - o Diploma theses in progress (committee member)
 - Aretakis Constantinos
 - Asiminakis Marios
 - Chorozoglou Dimitrios
 - Christodoulopoulos Christos
 - Dimitriou Georgios
 - Geronymakis Theodoros
 - Ioannou Kostas
 - Karamalegkos Emmanuel
 - Kastrinakis Marios

- Kontogiannis Petros
 - Koutsouris Themistoklis
 - Kyriakakis Dimitrios
 - Lappas Dionysios
 - Lidas Stephanos
 - Lyggeridis Christos
 - Malindretos Eleftherios
 - Margaris Ioannis
 - Panou Christos
 - Phytanoglou Iordanis
 - Smyrneos Dimitrios
 - Soutanopoulos Theodoros
 - Souris Anastasios
 - Surlantzis Sotirios
 - Theodorou Theodoros
 - Theodosiou Nikolas
 - Troulitakis Apostolos
 - Tsakalakis Georgios
- o Diploma theses completed (committee member)
- Balabanis Stylianos
 - Bamiedakis Pananos Michael
 - Daskalakis Spyridon Nektarios
 - Dimitriou Marianna
 - Grammenos Andreas
 - Oikonomakos Panagiotis
 - Paliatsa Dimitra
 - Tountas Constantinos



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For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Minos Garofalakis

Rank: Professor

Years in rank: 7 years

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: SoftNet – Software Technology and Network Applications Laboratory
(Director)

A – Teaching

- Undergraduate courses taught
 - o COMP 401: Algorithms and Complexity (mandatory)
 - o COMP 415: Advanced Topics in Database Systems
- Graduate courses taught
 - o COMP 627: Processing and Analyzing Big Data
- Labs taught
- Curriculum & course development
 - o New courses / labs developed
 - o Lecture notes / slides developed
 - o Authored textbooks

B – Publications

- Publications in refereed journals
 - o Submitted
 - o Accepted:
 - o Published:
 - Ekaterini Ioannou and Minos Garofalakis. “Query Analytics over Probabilistic Databases with Unmerged Duplicates”, IEEE Transactions on Knowledge and Data Engineering, Vol. 27, No. 8, August 2015.

- Odysseas Papapetrou, Minos Garofalakis, and Antonios Deligiannakis. “Sketching Distributed Sliding-Window Data Streams”, The VLDB Journal, Vol. 24, No. 3, June 2015.
- Publications in refereed conferences
 - Accepted:
 - Published:
 - Ekaterini Ioannou and Minos Garofalakis. “Analytics over Probabilistic Unmerged Duplicates”, Proceedings of the 8th International Conference on Scalable Uncertainty Management (SUM’2014), Oxford, UK, September 2014.
 - Arnon Lazerson, Izchak Sharfman, Daniel Keren, Assaf Schuster, Minos Garofalakis, and Vasilis Samoladas. “Monitoring Distributed Streams using Convex Decompositions”, Proceedings of the 41st International Conference on Very Large Databases (VLDB’2015, PVLDB Vol. 8, No. 5), Kohala Coast, Hawaii, August 2015.
 - Odysseas Papapetrou and Minos Garofalakis. “Continuous Fragmented Skylines over Distributed Streams”, Proceedings of the 30th IEEE International Conference on Data Engineering (ICDE’2014), Chicago, Illinois, USA, March 2014.
- Books and edited book chapters
 - Minos Garofalakis, Etienne Riviere, Lus Veiga, Anita Sobe (Eds.). Proceedings of the 5th International Workshop on Cloud Data and Platforms, CloudDP@EuroSys 2015, Bordeaux, France, April 2015. (ACM 2015, ISBN 978-1-4503-3478-5)
 - Chee-Yong Chan, Minos Garofalakis, and Rajeev Rastogi. “Indexed Regular Expression Matching”, Entry in: Encyclopedia of Algorithms (Ming-Yang Kao, Ed.), Springer, 2015.
 - Jianzhong Li, Xiaoyang Sean Wang, Minos Garofalakis, Ian Soboroff, Torsten Suel, Min Wang (Eds.): Proceedings of the 23rd ACM International Conference on Conference on Information and Knowledge Management (CIKM’2014), Shanghai, China, November 3-7, 2014. (ACM 2014, ISBN 978-1-4503-2598-1)
 - Sihem Amer-Yahia, Vassilis Christophides, Anastasios Kementsietsidis, Minos Garofalakis, Stratos Idreos, Vincent Leroy (Eds.): Proceedings of the 17th International Conference on Extending Database Technology (EDBT), Athens, Greece, March 24-28, 2014 (OpenProceedings.org 2014)
- Patents
 - Wenfei Fan, Minos Garofalakis, and Ming Xiong. “Grammar and Method for Integrating XML Data from Multiple Sources”, U.S. Patent No. 8,949,710, Issued February 3, 2015.

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - FP7-ICT-2013 (Scalable Data Analytics Objective) Collaborative STREP Project: “*FERARI – Flexible Event Processing for Big Data Architectures*” Duration : Feb. 2014 – Jan. 2017
Total funding: 4.3Me, TUC budget: 693Ke
Role: *Principal Investigator for TUC*
 - FP7-ICT-2013 (Scalable Data Analytics Objective) Collaborative STREP Project: “*QualiMaster – A Configurable Real-Time Data Processing Infrastructure Mastering Autonomous Quality Adaptation*”
Duration: Jan. 2014 – Dec. 2016
Total funding: 3.7Me, TUC/TSI budget: 915Ke
Role: *Principal Investigator for TUC/TSI*
 - FP7 FET Flagship
Project: “*The Human Brain Project*”
Duration: 2013 – 2023
(Total funding: 1.2Be)
Role: *Principal Investigator for TUC (in charge of brain data analytics)*
 - FP7-ICT-2011 Collaborative STREP
Project: “*LEADS – Large-Scale Elastic Architecture for Data-as-a-Service*”
Duration: Oct. 2012 – Sep. 2015
Total funding: 2.9Me, TUC/TSI budget: 649Ke
Role: *Principal Investigator for TUC/TSI*
- Project proposals submitted:

E – Professional service

- Associate Editor duties
 - ACM SIGMOD Jim Gray Doctoral Dissertation Award: Committee Member (2013 – 2015)
 - Encyclopedia of Database Systems (EDBS), 2nd Edition: Area Editor (Uncertain Data Management)
 - Foundations and Trends in Databases: Editorial Board Member (2006 - present)
 - Statistical Analysis and Data Mining (SAM): Associate Editor (2010 - present)
 - Knowledge and Information Systems: An International Journal (KAIS): Editorial Board Member (2010 - present)
 - Social Network Analysis and Mining (SNAM): Associate Editor (2013 - present)
- Society Technical Committee duties
- Conference Technical Program Committee service
 - ACM SIGMOD (2015), VLDB (2014, 2015), ACM PODS (2015), IEEE ICDE (2015), EDBT (2014,2015), ACM SIGKDD 2014), UAI (2014,2015), ICDCS (2014), ACM DEBS (2014)

- Conference Organization (specify role)
 - 2015 SIAM International Conference on Data Mining (SDM'2015), Vancouver, British Columbia, Canada: Senior PC Member
 - 2015 Workshop on Event Processing, Forecasting and Decision-Making in the Big Data Era (EPForDM'2015 – in conjunction with EDBT/ICDT'2015): PC Co-Chair
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
 - Software Technology and Network Applications Laboratory, Director
- School – level responsibilities

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Demertzis Ioannis (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Kalantzaki Calliope (Ph.D.)
 - Toutoudakis Michael (Ph.D.)
 - Vazaios Evangelos (Ph.D.)
 - Mavrommatis Alexandros (M.Sc.)
 - Nydriotis Apostolos (M.Sc.)
 - Pavlakis Nikolaos (M.Sc.)
 - Ph.D. and M.Sc. awarded (committee member)
 - Chrysos Grigorios (Ph.D.)
 - Asimoglou Ekaterini (M.Sc.)
 - Nikolakaki Sofia – Maria (M.Sc.)
 - Tsakonas Konstantinos (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Arapi Polyxeni (Ph.D.)
 - Charalambakis Stergios (Ph.D.)
 - Drymonas Efthimios (Ph.D.)
 - Flouris Ioannis (Ph.D.)
 - Georgogiannis Alexandros (Ph.D.)
 - Konstantakis Christos (Ph.D.)
 - Liampa Irene (Ph.D.)
 - Bourdakis Savvas (M.Sc.)
 - Igglezakis Antonios (M.Sc.)
 - Kalaitzis Konstantinos (M.Sc.)
 - Kostoulas Georgios (M.Sc.)

- Manikaki Vasiliki (M.Sc.)
 - Mantakos Georgios (M.Sc.)
 - Michelioudakis Evangelos (M.Sc.)
 - Ninos Spyridon (M.Sc.)
 - Georgiladakis Spyridon (M.Sc.)
 - Palolli Giorgo
 - Preventis Alexandros (M.Sc.)
 - Vlachou Georgia (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Smyrnaios Dimitrios
 - Diploma theses completed (supervisor)
 - Grammenos Andreas
 - Diploma theses in progress (committee member)
 - Aretakis Constantinos
 - Barberakis Stylianos
 - Boras Charalambos
 - Christodoulopoulos Christos
 - Didimiotis – Ventouris Georgios
 - Giannopoulos Emmanuel
 - Gompaki Efstathia
 - Gotsoulias Dimitrios
 - Kontogiannis Petros
 - Kritikakis Charalambos
 - Lappas Dionysios
 - Tzimas Dimitrios
 - Diploma theses completed (committee member)
 - Christodouleas Dimitrios
 - Douzis Constantinos
 - Giakoumakis Pavlos
 - Kotronia Maria
 - Manikaki Vasiliki
 - Mantakos Georgios



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For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Michail G. Lagoudakis

Rank: Associate Professor

Years in rank: 2

Full-time or part-time: Full-Time, but on paternity leave during this academic year

Division: Computer Science

Lab affiliation: Intelligent Systems Laboratory

A – Teaching

[Exemption from teaching due to paternity leave]

- Undergraduate courses taught
- Graduate courses taught
- Labs taught
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed

B – Publications

- Publications in refereed journals
 - _____
- Publications in refereed conferences
 - Published:
 - Eric Chown and **Michail G. Lagoudakis**, “The Standard Platform League,” Proceedings of the 18th RoboCup International Symposium, João Pessoa, Brazil, July 2014; in RoboCup 2014: Robot Soccer World Cup XVIII, Lecture Notes in Computer Science Volume 8992, Springer, 2015, pp. 636–648.
 - Stylianos Piperakis, Emmanouil Orfanoudakis, **Michail G. Lagoudakis**, “Predictive Control for Dynamic Locomotion of Real Humanoid Robots”, Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Chicago, USA, September 2014.
 - Georgios Papadimitriou, Nikolaos I. Spanoudakis, **Michail G. Lagoudakis**, “Extending the Kouretes Statechart Editor for Generic Agent Behavior Development”, Proceedings of the 10th International Conference on Artificial Intelligence Applications and Innovations (AIAI), Rhodes, Greece, September

2014; in IFIP Advances in Information and Communication Technology, Volume 436, 2014, pp. 182–192.

- Books and edited book chapters
 - o _____

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - o “ATLANTAS: Development of a Prototype Real 3-D Forming Touch Table for Interactive 3-D Geographical Information System”, Principal Investigator for TUC: Panagiotis Partsinevelos (School of Min. Res. Eng.), *Synergasia 2011*, General Secretariat for Research and Technology, Hellenic Ministry of Education . December 2012–June 2015. Contract: 11SYN_6_1937, Budget: 247,900€ (for TUC).
 - o “NOPTILUS: autonomous, self-learning, optimal, and complete underwater systems”, *Integrated Project, Information and Communication Technologies (ICT)*, Seventh Framework Programme (FP7), European Commission, April 2011–April 2015, Contract: INFISO-ICT-270180, PIs: N. Liavas and M. G. Lagoudakis, Budget: 524,300€ (for TSI/TUC).
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
 - o *Editor, Undergraduate Program Guide*
- School – level responsibilities

G – Advising

- Graduate students
 - o Ph.D and M.Sc. theses completed (supervisor)
 - o Ph.D. and M.Sc. theses in progress (supervisor)
 - Rexakis Ioannis (Ph.D.), “Reinforcement Learning via Supervised Learning”, Enrollment: 2006 – part-time

- Eleftherios Chatzilaris (M.Sc.), “Coordinated Action and Learning in RoboCup ”, Enrollment: 2009
- Ioannis Skoulakis (M.Sc.), “Efficient Reinforcement Learning in Alternating Games ”, Enrollment: 2010
- Emmanuil Orfanoudakis (M.Sc.), “Event Recognition in Underwater Robot Team Missions”, Enrollment: 2012
- Evangelos Michelioudakis (M.Sc.), “Event Recognition in Data Streams”, Enrollment: 2014
- o Ph.D and M.Sc. theses completed (committee member)
 - Nikolaos Tziortziotis (Ph.D.), “Machine Learning for Intelligent Agents”, Department of Computer Engineering and Informatics, University of Ioannina, defended Mar 2015.
 - Andrianakis Stamatis (M.Sc.), “Data Integration Approaches for Supporting Retrieval of Medical Information in the Web”, ECE, TUC, defended Jan 2015.
- o Ph.D and M.Sc. theses in progress (committee member)
 - Akasiadis Charilaos (Ph.D.)
 - Flouris Ioannis (Ph.D.)
 - Fachantidis Anestis (Ph.D.), Dept of CS, AUTH
 - Klasinas Ioannis (Ph.D.)
 - Kontes Georgios (Ph.D.), School of PEM, TUC
 - Koulieris Georgios–Alexandros (Ph.D.)
 - Limnaios Georgis (Ph.D.), School of PEM, TUC
 - Malakonakis Pavlos (Ph.D.)
 - Stravoskoufos Konstantinos (Ph.D.)
 - Angelidakis Angelos (M.Sc.)
 - Bacharidis Konstantinos (M.Sc.)
 - Dougiakis Lazaros (M.Sc.)
 - Georgiadou Despoina (M.Sc.)
 - Kalambogia Athena (M.Sc.)
 - Konstantinidis Konstantinos (M.Sc.)
 - Kontadakis Grigorios (M.Sc.)
 - Kydonakis Ares (M.Sc.)
 - Loukeris Nikolaos (M.Sc.)
 - Mamakos Michail (M.Sc.)
 - Mavromichelaki Evangelia (M.Sc.)
 - Mavrommatis Alexandros (M.Sc.)
 - Mylonakis Emmanuel (M.Sc.)
 - Pavlakis Nikolaos (M.Sc.)
 - Preventis Alexandros (M.Sc.)
 - Sifakis Ioannis (M.Sc.)
 - Verykokidi Eleni–Angela (M.Sc.)
 - Zervoudakis Nikolaos (M.Sc.)
- Undergraduate students
 - o Diploma theses completed (supervisor)
 - Liverios–Marinos Ioannis, “Visual Color and Field Line Recognition and Exploitation for the RoboCup Standard Platform League”, defended Oct 2014.
 - Trigakis Dimitrios, “Design and Implementation of an Autonomous Agent for the “League of Legends” Game”, defended Oct 2014.

- o Diploma theses in progress (supervisor)
- o Diploma theses completed (committee member)
 - Makris Dimitrios-Ioannis, “Design and implementation of a platform for the development and management of learning experiences in location-based mobile games”, defended Aug 2015.
 - Kousanakis Vasilios, “Bio-inspired Motion Control of the Humanoid Robot NAO using Central Pattern Generators (CPGs)”, defended Jun 2015.
 - Fytopoulos Nikolaos, “Discriminative Training of Language Models”, defended Oct 2014.
 - Mytakidis Nektarios, “Transforming ASEME Roles Models to Process Models”, defended Oct 2014.
- o Diploma Theses in progress (committee member):
 - Asiminakis Marios
 - Chatzipetrou Constantinos
 - Christianos Philippos
 - Floros Efthimios
 - Giannopoulos Emmanuel
 - Gioti Varvara
 - Ioannou Kostas
 - Karamalegos Emmanuel
 - Kastrinakis Georgios
 - Lidas Stefanos
 - Malindretos Eleftherios
 - Phytanoglou Iordanis
 - Savva Androula
 - Sideris Panagiotis
 - Theodorou Theodoros



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Katerina Mania

Rank: Associate Professor

Years in rank: 2 year 3 months as Associate Professor

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Distributed Multimedia Information Systems and Applications (MUSIC)

A – Teaching

- Undergraduate courses taught
 - PLH 418 - Computer Graphics (Spring 2015)
 - PLH 101 – Introduction to Computers and Computer Science (Winter 2014)

- Graduate courses taught
 - PLH 612 – Visualization and Virtual Reality (Spring 2015)

- Curriculum & course development
 - Updated laboratory exercises for PLH 101
 - Updated large project work for PLH 418
 - Updated lab lectures to be based on UNITY3D PLH 612

B – Publications

- Publications in refereed journals
 - Published
 - Koulieris, G.A., Drettakis, G., Cunningham, D., Mania, K. (2014). An Automated High Level Saliency Predictor for Smart Game Balancing. ACM Transactions on Applied Perception, 11(4), 17.

- Publications in refereed conferences
 - Submitted
 - Koulieris, G.A., Drettakis, G., Cunningham, D., Mania, K. (2015). Gaze Prediction using Machine Learning for Dynamic Stereo Disparity Manipulation, submitted to full paper track, ACM SIGGRAPH 2015, USA.

- Koulieris, G.A., Drettakis, G., Cunningham, D., Mania, K. (2015). Gaze Prediction using Machine Learning for Dynamic Stereo Manipulation in Games, submitted to full paper track, IEEE Virtual Reality 2015, USA.
- o Published
 - Malisova, K., Mania, K., Moysiadou, E., Kourkoutas, E. (2015). Tangram Quests: A Tablet Adventure Game Assisting Children with High Functioning Autism to Enhance their Communicative and Social Skills. In Proc. 7th Intl. Conf. on Education and New Learning Technologies, Crete, Greece.
 - Moirogiorgou, K., Nerantzaki, S., Livanos, G., Antonakakis, M., Nikolaidis, N., Petrakis, E., Savakis, A., Giakos, G., Zervakis, M., Mania, K. (2015). Color Characteristics for the Evaluation of Suspended Sediments. In Proc. IEEE Imaging Systems and Techniques, 1-5, Macau, China.
 - Parthenios, P., Mania, K., Petrofski, S. (2015). Reciprocal Transformations between Music and Architecture as a Real-Time Supporting Mechanism in Urban Design. In Proc. 33rd Annual Conf. on Education and Research in Computer Aided Architectural Design in Europe, Vienna.
 - Ragia, L., Sarri, F., Mania, K. (2015). 3D Reconstruction and Visualization of Alternatives for Restoration of Historic Buildings: A New Approach. In Proc. 1st Intl. Conference on Geospatial Information, Systems Theory, Applications and Management, Spain [BEST PAPER AWARD].
 - Sidorakis, N., Koulieris, G.A., Mania, K. (2015). Binocular Eye-Tracking for the Control of a 3D Immersive Multimedia User Interface. In Proc. of workshop 'Everyday Virtual Reality', IEEE Virtual Reality 2015, France.
 - Giannakidis, A., Giakoumidakis, G., Mania, K. (2014). 3D Photorealistic Scientific Visualization of Tsunami Waves and Sea Level Rise. In Proc. IEEE IST Imaging Systems and Techniques 2014, 167-173, Santorini, Greece.
 - Mavromichelaki, E., Eccles, J., Harrison, N., Grice-Jackson, T, Ward, J., Critchley, H., Mania, K. (2014). Cyberball3D+: A 3D Serious Game for fMRI Investigating Social Exclusion and Empathy. In 6th International Conference on Virtual Worlds and Games for Serious Applications (VSGames 2014), 90-97, Malta.

C – Awards & Distinctions

- Ragia, L., Sarri, F., Mania, K. (2015). 3D Reconstruction and Visualization of Alternatives for Restoration of Historic Buildings: A New Approach. In Proc. *1st Intl. Conference on Geospatial Information, Systems Theory, Applications and Management*, Spain [BEST PAPER AWARD].

D – Funded Projects

- Current projects (at the Technical University of Crete, Greece):
 - o Selective Rendering Algorithms based on Human Perception (Memory Schemas, HRACLEITOS II, 2011-2014. PhD candidate Giwrgos Koulieris. PI Assoc. Prof. Katerina Mania. Collaborators: Dr George Drettakis, INRIA Sophia Antipolis, Prof. Douglas Cunningham, Technical University of Cottbus, Germany.
 - o CYBERSENSORS: High Frequency Monitoring System for Integrated Water Resources Management of Rivers', THALIS, PI Prof. Nikos Nikolaidis, 2012-2015, TUC ECE PI Prof. Michalis Zervakis, Scientific Collaborator.

- nShield – New embedded Systems architecture for multi-Layer Dependable solutions”, National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Competitiveness and Entrepreneurship, PI Assoc. Prof. Y. Papaefstathiou, Scientific collaborator.
- Project proposals submitted:
 - COSMOS3D: Software Controlled Corrective Optics for Customized Stereoscopy, submitted to ERC, ERC Consolidator grant 2015. PI Assoc. Prof. Katerina Mania.
 - SolInno: Unlocking the Potential of the European Social Innovation Community, HORIZON2020, PI Assoc. Prof. Katerina Mania, Co-PI Assoc. Prof. Panos Parthenios.
 - Digital Model for Disseminating and Highlighting European Heritage: The Leprosy Heritage Sites, HORIZON2020, PI Assoc. Prof. Panos Parthenios, Co-PI Assoc. Prof. Katerina Mania.
 - Serious CAM: Serious Computer Aided Manufacturing, Erasmus+, PI Prof. Aristomenis Antoniadis, Co-PIs Prof. Nikos Bilalis, Assoc. Prof. Katerina Mania.

E – Professional service

- Associate Editor duties
 - Associate Editor, *Presence Tele-operators and Virtual Environments*, MIT Press (since June 2006)
 - Associate Editor, *ACM Transactions on Applied Perception*, ACM Press (since September 2007)
- Steering Committee
 - ACM Siggraph Symposium on Applied Perception (previously ACM Siggraph Symposium on Applied Perception in Graphics and Visualization)
- Conference Technical Program Committee service - membership
 - Computer Graphics International 2016 (CGI 2016), in co-operation with ACM Siggraph, Greece
 - Edutainment 2016, China
 - Games and Learning Alliance conference (GALA 2015), Italy.
 - 1st International Gamification for Business Conference (IGBC) 2015, UK
 - ACM Symposium on Applied Perception 2014, 2015
 - IEEE Int. Conf. in Games and Virtual Worlds for Serious Applications (VSGames), sponsored by IEEE, 2014, 2015
 - IEEE Systems Man and Cybernetics 2014: Human Machine Systems, Perceptual Factors in Graphics

- Reviewing activities
 - Various international conferences and journals

F – Service to the Department and the School

- Departmental responsibilities
 - Member of the Graduate Studies committee of ECE, 2014-2015
 - Studies' advisor for the Dept. of ECE, 2014-2015

G – Advising

- Active graduate students supervised
 - Graduate students supervised
 - Giwrgos Alexandros Koulieris 'Selective Rendering Algorithms based on Human Perception Memory Schemas' (Ph.D candidate, accepted for admission to PhD program, defending September 2015)
 - Katerina Malisova 'Conceptual 3D Visualization Methodologies' (M.Eng. candidate)
 - Stefan Petrovski (MEng TUC): 'Human-Centred Design Process for 3D Interfaces and Computer Graphics Simulations' (M.Eng. candidate)
 - Grigorios Kontadakis (MEng TUC): 'Pedagogically-driven Interactive 3D Applications' (M.Eng. candidate)
 - Evangelia Mavromixelaki (MEng TUC): 'Neuroscientific Fidelity Metrics for Interactive Computer Graphics Scenes' (M.Eng. candidate)
 - Verykokidi Eleni – Angela (M.Eng. intermitted) 'Interactive Immersive 3D Interfaces and Visualization' (M.Eng. candidate)
 - Ph.D. and M.Eng. Degrees awarded (committee member, examiner)
 - Chlis Nikolaos Kosmas (M.Sc.)
 - Skevakis Giannis (M.Sc.)
 - Stylianakis Georgios (M.Sc.)
 - Ph.D. and M.Eng. Degrees (committee member)
 - Oikonomidis Dimitrios (Ph.D.)
 - Karalas Constantinos (M.Sc.)
 - Mylonakis Emmanuel (M.Sc.)
 - Palogiannidi Elisavet (M.Sc.)
 - Pitsiladis Andreas (M.Sc.)
 - Sifakis Ioannis (M.Sc.)
 - Syntzanaki Athena (M.Sc.)
 - Trochatou Ioanna (M.Sc.)

- Undergraduate students
 - Diploma theses completed (supervisor)
 - Panagiotis Giannakouras 'Combining Voice and Touch Modalities in Educational Games for Preschoolers'
 - Froso Sarri '3D Photorealistic Reconstruction of Neoria based on Geodetic Measurements and Computer Graphics Techniques'
 - Panagiotis Kotsarinis 'Classification of Historical Monuments in Crete through a Web-based Scaleable 3D Platform'
 - Marianna Dimitriou 'Interactive storytelling for pre-school children'
 - Diploma theses supervised (in progress)
 - Fotis Pegios 'Advanced 3D Rendering Effects using a Field Programmable Gate Array'
 - Christos Panou 'An Outdoors Augmented Reality Application for Android featuring a Cultural Route through the Old Town of Chania'
 - Nikos Sidorakis 'Eye tracking Evaluation of a High-Level Visual Saliency Predictor'
 - Thanos Sariggelos 'Looparound: Development of a Web-based Platform for Musical Loops using 3D Objects in WebGL and a Virtual Sequencer'
 - Nikos Sidorakis 'Eye tracking Evaluation of a High-Level Visual Saliency Predictor'
 - Iordanis Fytanoglou 'Head Tracked Stereo Ski Simulation implemented on a High End Head Mounted Display'
 - Christos Liggeridis 'A 3D mobile Application for the Social Networking of an Academic Community'
 - Dimitris Kiriakakis 'Augmented Reality Applications for Mobile Platforms'
 - Lefteris Malindretos 'Development of a Role-Playing Game of Single and Multiple Players'
 - Konstantinos Chatzipetrou '3D computer gaming for Smart Vehicular combat racing'
 - Kostas Ioannou '3D Racing Game Development with Autonomous Opponents'
 - Theodoros Theodorou 'Development of a 3D real-time Strategy Game with Intelligent Opponent Behaviors'
- Diploma theses completed (committee member)
 - Chalepakis – Dellis Dimitrios – Apostolos
 - Skipetaris Demosthenes
- Diploma theses in progress (committee member)
 - Dretaki Paraskevi
 - Fragakis Panteleimon
 - Geronimakis Theodoros
 - Kirakosian Salva
 - Koutsouris Themistoklis
 - Mytakis Dimitrios
 - Petronikolos Constantinos

- Petsas Dimitrios
- Pezoulas Vasilios
- Tryphonas Constantinos – Georgios
- Tsakaneli Stavroula
- Zafiriou Odysseas



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Euripides G.M. Petrakis

Rank: Professor

Years in rank: 2

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Intelligent Systems Laboratory

A – Teaching

- Undergraduate courses taught
 - COMP 202 : Data Structures and File Structures (mandatory)
 - AIS 413 : Multimedia Data Management
- Graduate courses taught
 - COMP 618 : Special Topics in Information Systems
- Curriculum & course development
 - New courses / labs developed
 - Web Information Systems

B – Publications

- Publications in refereed journals
 - Submitted
 - Alexandros Preventis, Euripides G.M. Petrakis, Sotirios Batsakis, "[Chronos Ed: A Tool for Handling Temporal Ontologies in Protege](#)", International Journal of Artificial Intelligence Tools (IJAIT), 2014.
- Publications in refereed conferences
 - Accepted:
 - Lenos Vakanas, Stelios Sotiadis, Euripides G.M. Petrakis, "[Implementing the Cloud Software to Data Approach for OpenStack Environments](#)",

Workshop on Adaptive Resource Management and Scheduling for Cloud Computing (ARMS-CC 2015), Donostia-San Sebastián, Spain, July 20th, 2015.

- Chryssa Thermolia, Ekaterini S. Bei, Euripides G.M. Petrakis, Vangelis Kritsotakis, Manolis Tsiknakis, Vangelis Sakkalis, "[Designing A Patient Monitoring System for Bipolar Disorder Using Semantic Web Technologies](#)", 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2015), Milan, Italy, August 25-29, 2015.
- Alexandros Preventis, Kostas Stravoskoufos, Stelios Sotiriadis, Euripides G.M. Petrakis, "[Personalized Motion Sensor Driven Gesture Recognition in the FIWARE Cloud Platform](#)", 14th International Symposium on Parallel and Distributed Computing (ISPDC 2015), Limassol, Cyprus, June 29 - July 1, 2015.
- Chryssa Thermolia, Ekaterini S. Bei, Stelios Sotiriadis, Kostas Stravoskoufos, Euripides G.M. Petrakis, "[Designing A Patient Monitoring System Using Cloud And Semantic Web Technologies](#)", 17th International Conference on Brain and Health Informatics (ICBHI 2015), London, UK, May 25-26 2015.
- Alexandros Preventis, Kostas Stravoskoufos, Stelios Sotiriadis, Euripides G.M. Petrakis, "[Interact: Gesture Recognition in the Cloud](#)", 7th IEEE/ACM International Conference on Utility and Cloud Computing, London, UK, December 8-11, 2014 (poster and demo).
- Chrysa H. Thermolia, Ekaterini S. Bei, Euripides G.M. Petrakis, "[A Chronic Ontology Model as TeleCare-Decision Support System for Longitudinal Monitoring of Patients with Bipolar Disorder](#)", 2nd Joint WPA-INA-HSRPS International Psychiatric Congress, Athens, Greece, Oct. 30-Nov. 2, 2014 (poster).
- Eleftherios Anagnostopoulos, Euripides G.M. Petrakis, Sotirios Batsakis, "[CHRONOS: Improving the Performance of Qualitative Temporal Reasoning in OWL](#)", IEEE International Conference on Tools with Artificial Intelligence, Limasol, Cyprus, November 10-12, 2014.
- Nikolaos Mainas, Euripides G.M. Petrakis, "[CHOROS 2: Improving the Performance of Qualitative Spatial Reasoning in OWL](#)", IEEE International Conference on Tools with Artificial Intelligence, Limasol, Cyprus, November 10-12, 2014.
- Spiros Georgiladakis, Christina Unger, Elias Iosif, Sebastian Walter, Philipp Cimiano, Euripides G.M. Petrakis, Alexandros Potamianos. "[Fusion of Knowledge-Based and Data-Driven Approaches to Grammar Induction](#)". In Proc. of Interspeech, Singapore (poster) 2014

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “AI-CARE : Advanced Knowledge Management Systems with Inference Computational Intelligence and Applications in Health Care”, Funding Source :

Ministry of Development, Greek Secretariat for Research and Technology,
Budget : € 126.000,00, Duration : Aug. 2013 – Jun. 2015

- “FI – STAR : Future Internet Social and Technological Alignment Research”,
Funding Source : FP7-FI.ICT, Large Scale Integrating Project (IP), Budget : €
485.202,00, Duration : Apr. 2013 – Mar. 2015

E – Professional service

- Conference Technical Program Committee service
 - Session chair - session on Ontologies Knowledge Representation and Reasoning), International Conference on Tools with AI (ICTAI'2014), 10-12 November 2014, Limassol, Cyprus.
 - Perogram committee member, “International Symposium on Visual Computing (ISVC)”.
 - Conference on Image Analysis and Recognition (ICIAR'2010), Povo-de-Vatzim, Portugal, 2014.
- Reviewing activities
 - IEEE TKDE, and various conferences
 -

F – Service to the Department and the School

- Departmental responsibilities
 - Laboratory Director, Intelligent Systems Laboratory, Department of Electronic and Computer Engineering, Technical University of Crete

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Post Docs Ph.D. and M.Sc. students supervised (advisor, completed)
 - Andrianakis S. Title: **Data Integration Approaches for Supporting Retrieval of Medical Information in the Web** Master's Thesis, School of Electronic and Computer Engineering, Technical University of Crete, January 2015. Year: 2015 (MsC Thesis)
 - Dr. Stelios Sotiriadis (2013 – 2015), Cloud Computing, PhD Dept. of Computer Science, Univ. of Durby, UK (Post Doc).
 -
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Kostantinos Stravoskoufos, PhD Student, “Service Discovery in Cloud Infrastructures”, in progress (in progress).
 - Chryssi Thermolia, MSc Student “An Ontological-Based Monitoring System for Patients with Bipolar I Disorder” (in progress)
 - Alexandros Preventis, MSc Student “Service Deployment on the Cloud” (in progress)
 - Mainas Nikolaos “Service Interoperability in Clouds” (in progress)

- Ph.D. and M.Sc. Degrees (committee member)
 - Malandrakis Nikolaos (Ph.D.)
 - Livanos Georgios (Ph.D.)
 - Moirogiorgou Constantia (Ph.D.)
 - Oikonomidis Dimitrios (Ph.D.)
 - Rexakis Ioannis (Ph.D.)
 - Chorianopoulou Arodami (M.Sc.)
 - Christoulakis Marios (M.Sc.)
 - Giannoudaki Maria (M.Sc.)
 - Kydonakis Ares (M.Sc.)
 - Palloli Giorgo (M.Sc.)
 - Pitsiladis Andreas (M.Sc.)
 - Trochatou Ioanna (M.Sc.)
 - Xifaras Constantinos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Kargatzis Dimitrios
 - Kostopoulos Panagiotis
 - Sulttanopoulos Theodoros
 - Diploma theses completed (supervisor)
 - Vakanas L. Title: Implementation of the Cloud Software to Data Approach in an OpenStack Environment, September 2015.
 - Douzis K. Title: IoT management on the Cloud June 2015.
 - Balabanis S. Title: Sensing Motion in the Cloud March 2015.
 - Diploma theses in progress (committee member)
 - Aretakis Constantinos
 - Bikas Dimitrios
 - Chorozoglou Dimitrios
 - Leska Valsamo
 - Pogkas Nektarios
 - Tsakaneli Stavroula
 - Diploma theses completed (committee member)
 - Alevyzaki Androniki
 - Tsigdinos Stylianos



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Vasilis Samoladas

Rank: Assistant Professor

Years in rank: 11 years

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Software Technology and Network Applications Laboratory

A – Teaching

- Undergraduate courses taught
 - COMP 301 : Operating Systems (mandatory)
 - COMP 402 : Theory of Computation
 - COMP 420 : Principles of Distributed Software Systems
- Graduate courses taught
 - COMP 602 : Principles of Distributed Software Systems
(Offered jointly with COMP 420)
 - COMP 628 : Computational Geometry
- Curriculum & course development
 - New courses / labs developed

 - Lecture notes / slides developed

 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)
 - Accepted:
 - Published:
- Publications in refereed conferences
 - Published:
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “WSN – DPCM : WSN Development, Planning and Commissioning & Maintenance ToolSet”, 3rd calling of European Common Initiative “ARTEMIS Joint Undertaking / Advanced Research and Technology for Embedded Intelligence and Systems JU”, Budget : € 241.760,00, Duration : Oct. 2011 – June 2015
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
- School – level responsibilities

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Asimoglou Ekaterini (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Hatzisymeon Georgios (Ph.D.)
 - Babalis Charalambos (M.Sc.)
 - Mantakos Georgios (M.Sc.)
 - Ninos Spyridon (M.Sc.)
 - Kasimatis Vasilios (M.Sc.)
 - Vlahou Georgia (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Karkasis Panagiotis (Ph.D.)
 - Andrianakis Stamatios (M.Sc.)

- Koidis Joseph (M.Sc.)
 - Stylianakis Georgios (M.Sc.)
- o Ph.D. and M.Sc. Degrees (committee member)
 - Charalambakis Stergios (Ph.D.)
 - Kalantzaki Calliope (Ph.D.)
 - Toutoudakis Michail (Ph.D.)
 - Tripolitakis Evaggelos (Ph.D.)
 - Vazeos Evaggelos (Ph.D.)
 - Bervanakis Marcos (M.Sc.)
 - Bourdakis Savvas (M.Sc.)
 - Christoulakis Marios (M.Sc.)
 - Nydriotis Apostolos (M.Sc.)
 - Galanommatis Ioannis (M.Sc.)
 - Mamakos Michail (M.Sc.)
 - Manikaki Vasiliki (M.Sc.)
 - Skoulakis Ioannis (M.Sc.)
- Undergraduate students supervised
 - o Diploma theses in progress
 - Bikas Dimitrios
 - Chorozioglou Dimitrios
 - Lappas Dionysios
 - o Diploma theses completed (supervisor)
 - o Diploma theses in progress (committee member)
 - Barberakis Stylianos
 - Drakoulaki Eleni
 - Iggilis Anastasia
 - Kargatzis Dimitrios
 - Koukousoulas Pantelis
 - Margaris Ioannis
 - Pissadakis Emmanuel
 - Pouli Christina
 - Smyrniaios Dimitrios
 - Taxiarchis Vaios
 - Troulidakis Apostolos
 - Varikos Antonios
 - Vogiatzis Constantinos
 - o Diploma theses completed (committee member)
 - Grammenos Andreas
 - Klotsonis Alcibiades
 - Manikaki Vasiliki
 - Papadimitriou Georgios
 - Petridis Nikolaos

Electronics and Computer Architecture Division

Faculty Members

- Balas Costas, Professor
- Bucher Matthias, Assistant Professor
- Dollas Apostolos, Professor
- Kalaitzakis Kostas, Professor
- Koutroulis Eftichios, Assistant Professor
- Papaefstathiou Ioannis, Associate Professor
- Pnevmatikatos Dionisios, Professor
- Stavrakakis Georgios, Professor



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Costas Balas

Rank: Professor

Years in rank: 1

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Electronics Laboratory, Director

A – Teaching

- Undergraduate courses taught
 - ACE 204 : Electronics I (mandatory)
 - ACE 412 : Optoelectronics
 - ACE 513 : Biomedical Technology

- Graduate courses taught
 - ACE 614 : Optoelectronics
(Offered jointly with ACE 412)
 - ACE 603 : Special Topics in Optoelectronic Biomedical Technology

- Curriculum & course development
 - New courses / labs developed
 - _____

 - Lecture notes / slides developed
 - _____

 - Authored textbooks
 - _____

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)

 - Accepted:
 - _____

- _____
- _____

- Published:
- Publications in refereed conferences
 - Published:

- _____

- Patents
 - *GRANTED*
 - 1.

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - *“OncoSeed Diagnostics : Biology of Circulating Tumour Cells, Distant Metastasis & Development of Liquid Biopsy Methods”*, Funding Source : National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Operational Program Competitiveness & Entrepreneurship, “COOPERATION” – SUB ACTION II : Large Scale Cooperative Projects, Budget : € 358.250,00, Duration : Dec. 2010 – Dec. 2015
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
 - Director of the Electronics Lab
- School – level responsibilities

G – Advising

- Active graduate students supervised

- Ph.D. and M.Sc. students supervised (advisor, completed)
 - Papoutsoglou Georgios (Ph.D.)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Tsapras Athanasios (Ph.D.)
 - Giakoumakis Theodoros – Marios (M.Sc.)
 - Epitropou Giorgos (M.Sc.)
 - Rossos Christos (M.Sc.)
- Ph.D. and M.Sc. degrees awarded (committee member)
 - Chlis Nikolaos Kosmas (M.Sc.)
 - Papatnasiou Constantinos (M.Sc.)
- Ph.D. and M.Sc. Degrees (committee member)
 - Koulieris Georgios Alexandros (Ph.D.)
 - Mavredakis Nikolaos (Ph.D.)
 - Rozakis Georgios (Ph.D.)
 - Jaohar Osman (M.Sc.)
 - Kostopoulos Constantinos (M.Sc.)
 - Gyroukis Georgios (M.Sc.)
 - Savvakos Charalambos (M.Sc.)
 - Vourlaki Ioanna – Theoni
- Undergraduate students supervised
 - Diploma theses in progress
 - Boras Charalambos
 - Dousakis Alexandros
 - Dretaki Paraskevi
 - Emmanouilides Constantinos
 - Gotsoulias Dimitrios
 - Margaris Ioannis
 - Sioutas Apostolos
 - Symeou Andreas
 - Petronikolos Constantinos
 - Savva Androula
 - Zafiriou Odysseas
 - Vogiatzis Constantinos
 - Diploma theses completed (supervisor)
 - Kranas Ioannis
 - Petridis Nikolaos
 - Diploma theses in progress (committee member)
 - Diamantis Christos
 - Drakos Vissarios
 - Gegios Nikolaos
 - Gompaki Efstathia
 - Kokkonas Dimitrios
 - Leledakis Dimitrios

- Leska Valsamo
 - Manarolis Xenophon
 - Pappas Nikolaos
 - Sidorakis Nikolaos
- Diploma theses completed (committee member)
 - Fellas Constantinos
 - Kompotheklas Constantinos
 - Kotronia Maria
 - Kouloumentas Panagiotis
 - Tzivelopoulos Ioannis



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Matthias Bucher

Rank: Associate Professor

Years in rank: 1

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Electronics

A – Teaching

- Undergraduate courses taught
 - ACE 301 : Electronics II (mandatory)
 - ACE 416 : Design of CMOS Analog Integrated Circuits
- Graduate courses taught
 - ACE 604 : Special Themes of Analog Integrated Circuit Design
- Labs taught
 - ACE 301 : Electronics II – Laboratory (mandatory)
 - ACE 416 : Design of CMOS Analog Integrated Circuits – Laboratory

B – Publications

- Publications in refereed journals
 - Submitted:
 - R. K. Sharma, C.-A. Dimitriadis, **M. Bucher**, “A comprehensive analysis of nanoscale single- and multi-gate MOSFETs”, *Microelectronics Journal*.
 - K. Zekentes, A. Stavrinidis, G. Konstantinidis, M. Kayambaki, K. Vamvoukakis, E. Vassakis, K. Vassilevski, A. B. Horsfall, N. G. Wright, P. Brosselard, S. Niu, M. Lazar, D. Planson, D. Tournier, N. Camara, **M. Bucher**, "4H-SiC VJFETs with self-aligned contacts", *Materials Science Forum*.
 - Accepted:
 - K. Zekentes, A. Stavrinidis, G. Konstantinidis, M. Kayambaki, K. Vamvoukakis, E. Vassakis, K. Vassilevski, A. B. Horsfall, N. G. Wright, P. Brosselard, S. Niu, M. Lazar, D. Planson, D. Tournier, N. Camara, **M.**

Bucher, "4H-SiC VJFETs with self-aligned contacts", *Materials Science Forum*.

- Published:
 - K. Zekentes, A. Stavrinidis, G. Konstantinidis, M. Kayambaki, K. Vamvoukakis, E. Vassakis, K. Vassilevski, A. B. Horsfall, N. G. Wright, P. Brosselard, S. Niu, M. Lazar, D. Planson, D. Tournier, N. Camara, **M. Bucher**, "4H-SiC VJFETs with self-aligned contacts", *Materials Science Forum*, vol. 821-823, pp. 793-796, June 2015. [doi](#)
 - N. Mavredakis, W. Pflanzl, E. Seebacher, **M. Bucher**, "Methodology of 1/f noise parameter extraction for high-voltage MOSFETs", *Solid-State Electronics*, vol. 103, no. 1, pp. 202-208, Jan. 2015. [doi](#)
- Publications in refereed conferences
 - Published:
 - W. Grabinski, D. Tomaszewski, F. Jazaeri, A. Mangla, J.-M. Sallese, M.-A. Chalkiadaki, A. Bazigos, **M. Bucher**, "FOSS EKV2.6 parameter extractor", *22nd Int. Conf. on Mixed Design of Integrated Circuits and Systems (MIXDES)*, pp. 181-186, Torun, Poland, June 25-27, 2015. [ieeexplore](#)
 - N. Mavredakis, P. Habas, A. Acovic, R. Meyer, **M. Bucher**, "Variability of Low Frequency Noise in Moderately-Sized MOSFETs - A Model for the Area- and Gate Voltage-Dependence", *Int. Conf. on Noise and Fluctuations (ICNF)*, Xi'an, People's Republic of China, June 2-6, 2015. [ieeexplore](#)
 - N. Mavredakis, W. Pflanzl, E. Seebacher, T. Gneiting, **M. Bucher**, "Analysis of Drain Bias Dependence of 1/f Noise in HV-MOSFETs", *Int. Conf. on Noise and Fluctuations (ICNF)*, Xi'an, People's Republic of China, June 2-6, 2015. [ieeexplore](#)

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - "ANTI-SiC, Development of new transistors and inverter for photovoltaic systems based on Silicon Carbide", Funding Source : National Strategic Research Framework, "COOPERATION" Project Nr. 09ΣYN-32-1181, – General Secretariat of Research and Technology, Budget : € 80.000,00, Duration : Nov. 2010 – Nov. 2014.
- Project proposals submitted:
 - *HORIZON 2020*, H2020-COMPET-2015, Apr. 2015.
 - *HORIZON 2020*, H2020-ICT-25-2015, Apr. 2015.

E – Professional service

- Conference Technical Program Committee service
 - TPC member, 22nd International Conference on Mixed Design of Integrated Circuits and Systems (MIXDES 2015).
- Reviewing activities
 - *IEEE Trans. on Electron Devices*
 - *IEEE Trans. on Microwave Theory and Techniques*
 - *Solid-State Electronics*
 - *Microelectronic Engineering*
 - Several international conferences (*IEEE ISCAS 2015, MIXDES 2015*)

F – Service to the Department and the School

- School – level responsibilities
 - Member of the undergraduate studies committee.
 - Member of the committee for the admission of undergraduate students.

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Papathanasiou Konstantinos (M.Sc.). Design and layout techniques in analog/RF integrated circuits. Dec. 2014.
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Mavredakis Nikolaos (Ph.D.). Noise in high-voltage MOSFETs (HVMOSFETs), Enrollment: July 2010. Phone 28210 37269.
 - Gyroukis Georgios (M.Sc.). Compact modeling of multi-gate MOSFETs for analog design, Enrollment: Oct. 2012. Phone 28210 37269.
 - Kostopoulos Konstantinos (M.Sc.). Modelling and characterization of High-Voltage and High-Power FETs, Enrollment: Oct. 2010. Phone 28210 37269.
 - Vamvoukakis Konstantinos (M.Sc.). Characterization of power VJFETs, Enrollment: Oct. 2013.
- Undergraduate students supervised
 - Diploma theses completed (supervisor)
 - Evangeliou Nikos, Design of mixed analog/digital integrated circuits for biomedical applications, Aug. 2015.
 - Tsivelopoulos Yannis, Statistical analysis of low frequency noise and comparison between different types of CMOS transistors, June 2015.
 - Fellas Konstantinos, Study of low-frequency noise in HV-MOSFETs, Oct. 2014.
 - Diploma theses in progress
 - Diamantis Christos
 - Drakos Vissarios

- Gegios Nikolaos
- Kokkonas Dimitrios
- Manarolis Xenophon
- Papadopoulou Alexia
- Pappas Nikolaos

- Diploma theses in progress (committee member)
 - Emmanouilidis Konstantinos
 - Sioutas Apostolos

- Diploma theses completed (committee member)



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Apostolos Dollas

Rank: Professor

Years in rank: 14

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught
 - COMP 101 : Introduction to the field of ECE (mandatory)
 - ACE 101: Logic Design (mandatory)
 - ACE 203 : Advanced Logic Design (mandatory)
 - ACE 411: Embedded Systems Design
 - ACE 415 : Computer Architecture
- Graduate courses taught
 - ACE 606: Embedded Systems Design
- Labs taught
 - Supervised the labs of ACE 101
 - Supervised the labs of ACE 203, which were revised with new laboratory exercises for hands-on lab experience with Xilinx Spartan FPGA's.
- Curriculum & course development
 - Lecture notes / slides developed
Lecture notes / slides developed: Revised the ACE 203 (Advanced Logic Design) class notes which were distributed in preliminary form through the web-based e-learning environment Webcourses.

B – Publications

- Publications in refereed conferences
 - Published:
 - P Giakoumakis, G Chrysos, A Dollas, I Papaefstathiou, Acceleration of Data Streaming Classification using Reconfigurable Technology, Proceedings of the 11th International Symposium on Applied Reconfigurable Computing (ARC 2015), pp. 357-364, Bochum, Germany, April 15-17, 2015.
 - A. Stratikopoulos, G. Chrysos, I. Papaefstathiou, A. Dollas, HPC-gSpan: An FPGA-based parallel system for frequent subgraph mining , Proceedings of the 24th International Conference on Field Programmable Logic and Applications (FPL 2014), Munich, September 2-4, 2014.
- Books and edited book chapters
 - K. Papadimitriou, S. Thomas, A. Dollas, An FPGA-Based Real-Time System for 3D Stereo Matching, Combining Absolute Differences and Census with Aggregation and Belief Propagation, VLSI-SoC: At the Crossroads of Emerging Trends, Vol. 461 of the series IFIP Advances in Information and Communication Technology, pp. 168-187, A. Orailoglu, F. Ugurdag, et al. (Eds.), Springer International Publishing, 2015.

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - Participation in the FP7-ICT-2013 (Scalable Data Analytics Objective) Collaborative STREP Project: “QualiMaster – A Configurable Real-Time Data Processing Infrastructure *Mastering Autonomous Quality Adaptation*”, Jan. 2014 – Dec. 2016, Project total funding: 3.7Me, TUC/TSI budget: 915Ke, Project PI and TUC PI: Prof. Minos Garofalakis. Role: *WP3 and Hardware Team Leader* (WP3 budget: approx. 300Ke)
 - “COSSIM “A Novel, Comprehensible, Ultra-Fast, Security-Aware CPS Simulator”, Founding Source : European Commission, Total Funding : € 274.375,00, Duration : Jan. 2015 – Jan. 2018
 - Project “ROTA- Design and Development of a Novel System for the Telemangement of Ships with High-Speed Internet Bidirectional Communications”, Greek Secretariat of Research and Technology GSRT under program Synergasia, funded at 300,000 Euros (Telecommunication Systems Institute - TSI Budget 66,378 Euros), 2010 (3-year project – under completion).

E – Professional service

- Conference Technical Program Committee service
 - Program Committee Member, 24th IEEE/ACM International Symposium on Field Programmable Logic (FPL), Munich, Germany, Sept. 2-4, 2014.
 - Program Committee Member, IEEE/ACM 25th International Symposium on Field Programmable Logic (FPL), London, England, Aug 29 – Sept. 2-4, 2015.
 - Programmable Technology (FPT, IEEE Sponsored), Shanghai, China, December 10-12, 2014.
 - Program Committee Member, International Conference on Field Programmable Technology (FPT, IEEE Sponsored), Queenstown, New Zealand, December 7-9, 2015

In all the program committees in which I participated, I contributed with reviews of papers (as many as 8 full paper reviews in a single conference), the selection process, organizational issues, and when possible, attendance of the PC meeting. Because my field is rapidly changing, international conferences reflect the state of the art much more than archival journals and I have deliberately given the weight of my reviewing and committee activity on such conferences.

- Reviewing activities
 - Several international conferences, including all in which I participate in the program committee and journals, as well as project proposals reviewed for internal state funding in Poland and Switzerland

F – Service to the Department and the School

Dean of ECE (since September, 2013)

- Departmental responsibilities
 - Dean of ECE (since September, 2013)
 - Ex-officio Chairman of the Dean's Council
 - Ex-officio member of the ad hoc Undergraduate Studies Committee
 - Ex-officio member of the ad hoc Graduate Studies Committee
 - Ex-officio coordinator of Faculty Election Boards for the School of ECE at TUC
 - Faculty Advisor to the 1st semester students
 - Member, Undergraduate Studies Committee
 - Member of the Student Placement Committee, supervising the examination in the subject of Logic Design for graduates from other Departments who want to enroll at ECE.
 - Member of faculty election boards at the U. of Athens, U. of Ioannina
- School – level responsibilities
 - Ex-officio member of the University Senate, TUC
 - Ex-officio member of the TUC Student Services Committee
 - Ex-officio member of the TUC Property Development and Exploitation Committee

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Chrysos Grigorios (Ph.D.)
 - Nikolakaki Sofia – Maria (M.Sc.)
 - Rematska Georgia (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Malakonakis Pavlos (Ph.D.)
 - Apostolakis Stavros (M.Sc.)
 - Elias Anargyros (M.Sc.)
 - Kalaitzis Constantinos (M.Sc.)
 - Kousanakis Emmanuel (M.Sc.)
 - Maragoudakis Petros (M.Sc.)
 - Nikoloudakis Georgios (M.Sc.)
 - Rousopoulos Christos (M.Sc.)
 - Smerdis Miltiades (M.Sc.)
 - Veronikis Constantinos (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Karkasis Panagiotis (Ph.D.)
 - Koidis Joseph (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Brokalakis Andreas (Ph.D.)
 - Chatzivasilis Georgios (Ph.D.)
 - Fysarakis Constantinos (Ph.D.)
 - Ioannou Angelos (Ph.D.)
 - Tampouratzis Nikolaos (Ph.D.)
 - Bardis Stamatios (M.Sc.)
 - Charitopoulos Georgios (M.Sc.)
 - Galanommatis Ioannis (M.Sc.)
 - Kalodimas Panagiotis (M.Sc.)
 - Kartsonakis Ioannis (M.Sc.)
 - Miteloudi Constantina (M.Sc.)
 - Perdikakis Apostolos (M.Sc.)
 - Savvakos Charalambos (M.Sc.)
 - Strataki Eleni (M.Sc.)
 - Vatsolakis Charalambos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Andreopoulos Marios
 - Bozikas Dimitrios
 - Drosopoulos Andreas
 - Fotinopoulos Georgios
 - Kokkoni Theodora
 - Koukousoulas Pantelis
 - Kouinis Constantinos

- Kritikakis Charalambos
- Malandrakis Miller Georgios
- Marinaki Eftichia
- Michaelides Stavros
- Mitakis Dimitrios
- Mourtzanos Triantaphyllos
- Prokas Nikolaos
- Sotiropoulos Antonios
- Spyrou Angeliki
- Varsamidis Harisis

- Diploma theses completed (supervisor)
 - Filos Vasilios
 - Gardelakos Argirios Alexandros
 - Giakoumakis Pavlos
 - Kalaitzis Konstantinos
 - Kousanakis Emmanuel
 - Pialoglou Alexandros
 - Veremi Christina

- Diploma theses in progress (committee member)
 - Alexandris Nikolaos
 - Andronikakis Andreas
 - Andronikidis Georgios
 - Athanasiou Vasilios
 - Chondroulis Ioannis
 - Demertzis Eleftherios
 - Doitsinis Ioannis
 - Drakoulaki Eleni
 - Iggilis Anastasia
 - Katsinelis Constantinos
 - Kontos Nikolaos
 - Malavazos Constantinos
 - Panagidis Giannakis
 - Papadopoulou Sofia
 - Pegios Fotios
 - Pentafragas Georgios
 - Pouli Christina
 - Tampakakis Ioannis
 - Taxiarchis Vaios
 - Theodoroglaki Ioanna
 - Tryphonas Constantinos – Georgios
 - Vatsithianos Nikolaos

- Diploma theses completed (committee member)
 - Farantos Georgios
 - Karatzaferis Efstathios Alexandros
 - Kasambalis Vasilios
 - Kyritsis Sarantos
 - Kranas Ioannis
 - Mantakos Nikolaos



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Kostas Kalaitzakis

Rank: Professor

Years in rank: 12

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Electric Circuits & Renewable Energy Sources

A – Teaching

- Undergraduate courses taught
 - ACE 202: Electric Circuits Analysis (mandatory)
 - ACE 414 : Electric Measurements and Sensors
- Graduate courses taught
 - ACE 602 : Special Topics on Electric Measurement Systems
- Labs taught
 - _____
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Published:
- Publications in refereed conferences
 - Published:
- Books and edited book chapters
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - _____
 - _____
- Project proposals submitted:
 - _____

E – Professional service

- Associate Editor duties
 - _____
- Society Technical Committee duties
 - _____
- Conference Technical Program Committee service
 - _____
- Conference Organization (specify role)
 - _____
- Reviewing activities
 - _____

F – Service to the Department and the School

- Departmental responsibilities
 - Electric Circuits & Renewable Energy Sources Lab, Director
- School – level responsibilities
 - _____

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Vasilomichelaki Ariadni (Ph.D.)
 - Brellas Constantinos (M.Sc.)
 - Fytraki Evangelia (M.Sc.)

- Malisovas Athanasios (M.Sc.)
- o Ph.D. and M.Sc. degrees awarded (committee member)
 - Papoutsoglou Georgios (Ph.D.)
 - Lyronis Antonios (M.Sc.)
 - Mandourarakis Ioannis (M.Sc.)
 - Papathanasiou Constantinos (M.Sc.)
- o Ph.D. and M.Sc. Degrees (committee member)
 - Mavredakis Nikolaos (Ph.D.)
 - Tsapras Athanasios (Ph.D.)
 - Blazakis Konstantinos (M.Sc.)
 - Chatzidakis Panagiotis (M.Sc.)
 - Christeas Dimitrios (M.Sc.)
 - Gyroukis Georgios (M.Sc.)
 - Kalodimas Panagiotis (M.Sc.)
 - Kostopoulos Konstantinos (M.Sc.)
 - Syntzanaki Athena (M.Sc.)
 - Viskadouraki Evangelia (M.Sc.)
- Undergraduate students supervised
 - o Diploma theses in progress
 - Achillas Dimitrios
 - Andrianopoulos Georgios
 - Aronis Spyridon
 - Efthimiou Georgios
 - Gentsis Charalambos
 - Kalogridis Stylianos
 - Leledakis Dimitrios
 - Liontiris Andreas
 - Papantonakis Theodosios
 - Parlanis Dimitrios
 - Psychogios Marios
 - Sfakianakis Constantinos
 - Spyridakis Georgios
 - Zacharias Panagiotis
 - o Diploma theses completed (supervisor)
 - Afentoulis Dimitrios
 - Alexopoulos Dimitrios
 - Brellas Constantinos
 - Chatziagapoglou Constantinos
 - Dalaperas Georgios
 - Klotsonis Alcibiades
 - Kompotheklas Constantinos
 - Lathiotakis Ares
 - Michael Nikolaos
 - Nikolaou Spyridon
 - Soutlis Vasilios
 - o Diploma theses in progress (committee member)
 - Dimitriadis Constantinos

- Dinopoulou Vaia
 - Dousakis Alexandros
 - Gegios Nikolaos
 - Giannopoulos Asimakis
 - Kalomiris Nikolaos
 - Kosmopoulos Stefanos
 - Kostopoulos Panagiotis
 - Lukas Georgios
 - Michaelides Stavros
 - Papadopoulou Alexia
 - Pappas Nikolaos
 - Petrakis Emmanuel
 - Petsas Dimitrios
 - Politis Vasilios
 - Stephanou Christos
 - Symeou Andreas
 - Tsiamalos Christos
 - Tsokas Vasilios
 - Tzortzis Ioannis
 - Vatsithianos Nikolaos
- o Diploma theses completed (committee member)
- Alnatsheh Bassam
 - Andrianopoulos Timoleon
 - Kalogeropoulos Marios
 - Kantartzis Theodoros
 - Mastorakis Lambros
 - Millionis Georgios Alexandros
 - Neofytou Neofytos
 - Nikolakakis Eleftherios
 - Veremi Christina



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

Name: Eftichios Koutroulis

Rank: Assistant Professor

Years in rank: 3.5

Full-time or part-time: Full – Time

Division: Electronics and Computer Architecture

Lab affiliation: Electric Circuits and Renewable Energy Sources Laboratory

A – Teaching

- Undergraduate courses taught
 - ACE 102 : Basic Circuit Theory (mandatory)
 - ACE 511: VLSI and ASIC System Design

- Graduate courses taught
 - ACE 601: VLSI and ASIC System Design (offered jointly with ACE 511)
 - ACE 635 : Special Topics on Energy Management Electronic Systems

- Curriculum & course development
 - Lecture notes / slides developed
 - ACE 511 -VLSI and ASIC System Design: updated the existing slides
 - ACE 102 - Basic Circuit Theory: updated the existing slides
 - ACE 635 - Special Topics on Energy Management Electronic Systems: updated the existing slides

B – Publications

- Publications in refereed journals
 - Published:
 - E. Koutroulis, F. Blaabjerg, “Overview of Maximum Power Point Tracking Techniques for Photovoltaic Energy Production Systems”, *Electric Power Components and Systems / Special Issue: Renewable Energy Devices and Systems - State-of-the-Art and Future Trends*, vol. 43, no. 12, pp.1329-1351, 2015.

- Publications in refereed conferences
 - Published:
 - K. Loizou, E. Koutroulis, D. Zalikas, G. Liontas, “A Low-cost Capacitive Sensor for Water Level Monitoring in Large-Scale Storage Tanks”, *2015 IEEE International Conference on Industrial Technology (ICIT)*, pp. 1416-1421, 2015.
 - I. Mandourarakis, E. Koutroulis, “Optimal Design of a Boost-type DC-DC Converter for PV Power-Supplied Wireless Sensor Networks”, *2015 IEEE International Conference on Industrial Technology (ICIT)*, pp. 1100-1105, 2015.
 - S. Saridakis, N. Papanikolaou, D. Voglitsis, E. Koutroulis, E. Tatakis, G. Christidis, I. Karatzaferis, “Reliability analysis for a waste heat recovery power electronic interface applied at all-electric aircrafts”, *2015 International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles (ESARS)*, pp. 1-6, 2015.
 - K. Loizou, E. Koutroulis, D. Zalikas, G. Liontas, “A Low-cost Sensor Based on Time-Domain Reflectometry for Water Level Monitoring in Environmental Applications”, *2015 IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC 2015)*, Rome, Italy, June 10-13, pp. 1-6, 2015.
 - I. Mandourarakis, E. Koutroulis, “Design Optimization of a RES-based Power-Supply System for Wireless Sensor Networks”, *2015 IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC 2015)*, Rome, Italy, June 10-13, pp. 1-6, 2015.
 - G. Tzortzis, A. Amargianos, S. Piperidis, E. Koutroulis, N.C. Tsourveloudis, “Development of a compact regenerative braking system for electric vehicles”, *23rd Mediterranean Conference on Control & Automation*, Spain, June 16-19, pp. 1-7, 2015.

- Patents
 - National patent granted by the Hellenic Industrial Property Organization: “Capacitive Sensor for the Measurement of Water Level in Tanks”, no. 1008539, G01F 23/26.

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “AquaNet: Water Management for a City with an Intelligent, Autonomous and Low-cost Wireless Sensor Network”, Funding Source: “COOPERATION 2011”,

General Secretariat of Research and Technology, Budget : € 467.440,00,
Duration: Jun. 2013 – Jun. 2015

- Project proposals submitted:
 - ERANETMED “Energy-Water Nexus” call

E – Professional service

- Associate Editor duties
 - Member of the Editorial Board of the “Renewable Energy” journal.
- Conference Organization (specify role)
 - Session Chair at the “2015 IEEE International Conference on Industrial Technology (ICIT)”, March 17-19, 2015, Seville, Spain.
- Reviewing activities
 - Performed 97 reviews of journal papers (including revisions) for:
 - IEEE Journal of Photovoltaics
 - IEEE Transactions on Power Electronics
 - IEEE Transactions on Industrial Electronics
 - IEEE Journal of Emerging and Selected Topics in Power Electronics
 - IEEE Transactions on Circuits and Systems II
 - IEEE Transactions on Energy Conversion
 - IEEE Transactions on Industrial Informatics
 - IEEE Transactions on Industry Applications
 - IEEE Transactions on Sustainable Energy
 - IEEE Transactions on Instrumentation & Measurement
 - Renewable Energy
 - Electric Power Components and Systems
 - IET Electronics Letters
 - Energy
 - Mathematics and Computers in Simulation
 - Reviewed one new book proposal for WILEY.

F – Service to the Department and the School

- School – level responsibilities
 - School coordinator for the ERASMUS program
 - Editing of the postgraduate program guide (in Greek)
 - Undergraduate studies advisor

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Konstantopoulos Christos (M.Sc.)
 - Mandourarakis Ioannis (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Chatzidakis Panagiotis (M.Sc.)
 - Christeas Dimitrios (M.Sc.)
 - Loizou Constantinos (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Pantzekos Panagiotis (Ph.D.)
 - Aggelidakis Aggelos (M.Sc.)
 - Daskalakis Spyridon Nektarios (M.Sc.)
 - Dilis Dimitrios (M.Sc.)
 - Malisovas Athanasios (M.Sc.)
 - Oikonomakos Panagiotis (M.Sc.)
 - Viskadouraki Evaggelia (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Dimitriadis Constantinos
 - Dimitriou Georgios
 - Giannopoulos Asimakis
 - Kosmopoulos Stefanos
 - Koukouzas Christos
 - Lukas Georgios
 - Petrakis Emmanuel
 - Politis Vasilios
 - Tryphonas Constantinos – Georgios
 - Tzortzis Ioannis
 - Vatsithianos Nikolaos
 - Diploma theses completed (supervisor)
 - Chatzimeletiou Vlasios
 - Nikolakakis Eleftherios
 - Diploma theses in progress (committee member)
 - Bitzanakis Josef
 - Christianos Philippos
 - Kalogridis Stylianos
 - Kokkonas Dimitrios
 - Kokkoni Theodora
 - Manarolis Xenophon
 - Sfakianakis Constantinos

- Zacharias Panagiotis
- Diploma theses completed (committee member)
 - Alnatsheh Bassam
 - Andrianopoulos Timoleon
 - Daskalakis Spyridon – Nektarios
 - Fellas Constantinos
 - Kasambalis Vasilios
 - Kompotheklas Constantinos
 - Neophytou Neophytos
 - Skipetaris Demosthenes
 - Soutis Vasilios
 - Papapostolou Anastasios



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Ioannis Papaefstathiou

Rank: Associate Professor

Years in rank: 4

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

Exemption from teaching due to Sabbatical Leave

B – Publications

- Publications in refereed journals
 - Published:
 - K. Fysarakis, D. Mylonakis, C. Manifavas, I. Papaefstathiou, “Node.DPWS: Efficient Web Services for the IoT” , IEEE Software (Accepted)
 - K. Fysarakis, G. Hatzivasilis, C. Manifavas, I. Papaefstathiou, “RtVMF – A secure Real-time Vehicle Management Framework with critical incident response”, IEEE Pervasive Computing, Special Issue on Smart Vehicle Spaces (Accepted)
 - C. Manifavas, G. Hatzivasilis, K. Fysarakis and I. Papaefstathiou, "A survey of lightweight stream ciphers for embedded systems", EURASIP Journal on Information Security, (Accepted)
 - C. Manifavas, K. Fysarakis, A. Papanikolaou and I. Papaefstathiou, "Embedded Systems Security: A Survey of EU Research Efforts", Security and Communication Networks, Wiley, 2014 (available online 23 December 2014).
 - D. Pnevmatikatos, E. Vansteenkistec, K. Papadimitriou, T. Becker, P. Böhm, A. Brokalakis, K. Bruneel, C. Ciobanu, T. Davidson, G. Gaydadjiev, K. Heyse, W.Luk, X. Niub, I. Papaefstathiou, D. Paug, O. Pelff, C. Pilato, M.D. Santambrogio, D. Sciuto, D. Stroobandt, T. Todman, E. Vansteenkiste "FASTER: Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration." Microprocessors and Microsystems (available online 9th November 2014):

- Publications in refereed conferences
 - Published:
 - G. Hatzivasilis, I. Papaefstathiou and C. Manifavas, "ModConTR: A modular and configurable trust and reputation-based system for secure routing in ad-hoc networks", IEEE 11th ACS Int. Conf. on Computer Systems and Applications (AICCSA 2014), Doha, Qatar, 10-13 Nov., 2014

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “AFORMI – Allowing for Reconfigurable Hardware to Efficiently Implement Algorithms of Multidisciplinary Importance”, Founding Source : National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Education and Lifelong Learning, Budget : € 302.000,00, Duration : Sep. 2012 – Sep. 2015
 - “nShield – New embedded Systems architecture for multi-Layer Dependable solutions”, National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Competitiveness and Entrepreneurship, Budget : € 453.600,00, Duration : Sep. 2011 – Dec. 2014
 - Energy-efficient Heterogeneous Computing at Exascale (ECOSCALE), Information and Communication Technologies European seventh framework, Award Period October 2015 – September 2018, Overall Funding €4.2M, Budget : €770K. Technical Manager
 - Novel, Comprehensible, Ultra-Fast, Security-Aware CPS Simulator (COSSIM), Information and Communication Technologies H2020, Award Period February 2015 – January 2018, Overall Funding €2.4M, Budget : €470K. Technical Manager

E – Professional service

- Conference Technical Program Committee service
 - IEEE FPL
 - IEEE ISWCS
 - IEEE ICEAC
 - IEEE ICNC
 - IEEE UCHPC
- Reviewing activities
 - Regular reviewer for Elsevier Microprocessors and Microsystems Journal,
 - Regular reviewer for IEEE Transactions on Circuits and Systems for Video Technology
 - Regular reviewer for ACM Transactions on Reconfigurable Technology and Systems
 - Regular reviewer for IEEE Transactions on Parallel and Distributed Systems
 - Regular Reviewer for IEEE Design & Test

- Regular Reviewer for IEEE Transactions on Circuits and Systems for Video Technology

F – Service to the Department and the School

Exemption due to Sabbatical Leave

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Karkasis Panagiotis (Ph.D.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Brokalakis Andreas (Ph.D.)
 - Chatzivasilis Georgios (Ph.D.)
 - Fysarakis Constantinos (Ph.D.)
 - Ioannou Angelos (Ph.D.)
 - Tampouratzis Nikolaos (Ph.D.)
 - Bardis Stamatios (M.Sc.)
 - Kalodimas Panagiotis (M.Sc.)
 - Kartsonakis Ioannis (M.Sc.)
 - Miteloudi Constantina (M.Sc.)
 - Pattakos Nikolaos (M.Sc.)
 - Perdikakis Apostolos (M.Sc.)
 - Savvakos Charalambos (M.Sc.)
 - Strataki Eleni (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Chrysos Grigorios (Ph.D.)
 - Nikolakaki Sofia – Maria (M.Sc.)
 - Rematska Georgia (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Malakonakis Paulos (Ph.D.)
 - Moirogiorgou Constantia (Ph.D.)
 - Apostolakis Stavros (M.Sc.)
 - Babalis Charalamvos (M.Sc.)
 - Bacharidis Constantinos (M.Sc.)
 - Charitopoulos Georgios (M.Sc.)
 - Elias Anargyros (M.Sc.)
 - Kalaitzis Constantinos (M.Sc.)
 - Nikoloudakis Georgios (M.Sc.)
 - Pentari Anastasia (M.Sc.)
 - Smerdis Miltiades (M.Sc.)
 - Vatsolakis Charalambos (M.Sc.)

- Undergraduate students supervised
 - Diploma theses in progress
 - Alexandris Nikolaos
 - Athanasiou Vasilios
 - Chondroulis Ioannis
 - Demertzis Eleftherios
 - Kontos Nikolaos
 - Malavazos Constantinos
 - Panagidis Giannakis
 - Papadopoulou Sofia
 - Pogas Nektarios
 - Surlantzis Sotirios
 - Theodoroglaki Ioanna
 - Diploma theses completed (supervisor)
 - Farantos Georgios
 - Mantakos Georgios
 - Karatzaferis Efstathios – Alexandros
 - Kyritsis Sarantos
 - Diploma theses in progress (committee member)
 - Andreopoulos Marios
 - Andronikidis Georgios
 - Bozikas Dimitrios
 - Drosopoulos Andreas
 - Fotinopoulos Georgios
 - Kirakosian Salva
 - Kouinis Constantinos
 - Pegios Fotios
 - Politis Vasilios
 - Prokas Nikolaos
 - Sotiropoulos Antonios
 - Spyrou Aggeliki
 - Varikos Antonios
 - Varsamidis Harisis
 - Diploma theses completed (committee member)
 - Filos Vasilios
 - Giakoumakis Pavlos
 - Kalaitzis Constantinos
 - Pialoglou Alexandros



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Dionisios Pnevmatikatos

Rank: Professor

Years in rank: 6

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Microprocessor and Hardware Laboratory, Director

A – Teaching

- Undergraduate courses taught
 - ACE 201 : Digital Computers (mandatory)
 - ACE 302 : Computer Organization (mandatory)
 - ACE 411: Embedded Systems Design (w/ Prof A. Dollas)
 - ACE 415 : Computer Architecture (w/ Prof A. Dollas)
 - ACE 418: Parallel and Distributed Computer Architecture

- Graduate courses taught
 - ACE 613 : Parallel and Distributed Computer Architecture
(Offered jointly with ACE 418)

- Labs taught
 - ACE 201 : Digital Computers (mandatory)
 - ACE 302 : Computer Organization (mandatory)
 - ACE 415 : Computer Architecture (w/ Prof A. Dollas)

- Curriculum & course development
 - New courses / labs developed

 - Lecture notes / slides developed
 - ACE 411: Embedded Systems Design (w/ Prof A. Dollas)
 - ACE 302 : Computer Organization (mandatory)
 - ACE 411: Embedded Systems Design (w/ Prof A. Dollas)
 - ACE 418: Parallel and Distributed Computer Architecture

 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Published:
 - George Kornaros, Dionisios N. Pnevmatikatos: Dynamic Power and Thermal Management of NoC-Based Heterogeneous MPSoCs. TRETs 7(1): 1 (2014).
 - [Dionisios N. Pnevmatikatos, Kyprianos Papadimitriou, Tobias Becker, Peter Böhm, Andreas Brokalakis, Karel Bruneel, C. Ciobanu, Tom Davidson, Georgi Gaydadjiev, Karel Heyse, Wayne Luk, Xinyu Niu, Ioannis Papaefstathiou, Danilo Pau, Oliver Pell, Christian Pilato, Marco D. Santambrogio, Donatella Sciuto, Dirk Stroobandt, Tod Todman, Elias Vansteenkiste: FASTER: Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration. Microprocessors and Microsystems - Embedded Hardware Design 39(4-5): 321-338 (2015), June–July 2015. doi:10.1016/j.micpro.2014.09.006
- Publications in refereed conferences
 - Published:
 - A. Psathakis, V. Papaefstathiou, N. Chrysos, F. Chaix, E. Vasilakis, D. Pnevmatikatos, M. Katevenis "A Systematic Evaluation of Emerging Mesh-like CMP NoCs", Proc. of the 11th ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS'15), Oakland, CA USA, 7-8 May 2015, pp. 159-170; DOI: 10.1109/ANCS.2015.7110129
 - Dimitris Theodoropoulos, Dionisis Pnevmatikatos, Carlos Alvarez, Eduard Ayguade, Javier Bueno, Antonio Filgueras, Daniel Jimenez-Gonzalez, Xavier Martorell, Nacho Navarro, Carlos Segura, Carles Fernandez, David Oro, Javier Rodriguez Saeta, Paolo Gai, Antonio Rizzo, Roberto Giorgi: "The AXIOM project (agile, extensible, fast i/o module)", International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation (SAMOS XV), 2015, Pages: 262 - 269, DOI: 10.1109/SAMOS.2015.7363684
 - Carlos Alvarez, Eduard Ayguade, Javier Bueno, Antonio Filgueras, Daniel Jimenez-Gonzalez, Xavier Martorell, Nacho Navarro, Dimitris Theodoropoulos, Dionisios N Pnevmatikatos, Claudio Scordino, Paolo Gai, Davide Catani, Carlos Segura, Carles Fernandez, David Oro, Javier Rodriguez Saeta, Pierluigi Passera, Alberto Pomella, Antonio Rizzo, Roberto Giorgi: "The AXIOM Software Layers", DSD 2015, 18th Euromicro Conference on Digital Systems Design (DSD), 26-28 Aug. 2015. Pages:117 - 124, DOI: 10.1109/DSD.2015.52
 - Catalin Bogdan Ciobanu, Ana Lucia Varbanescu, Dionisios Pnevmatikatos, George Charitopoulos, Xinyu Niu, Wayne Luk, Marco D Santambrogio, Donatella Sciuto, Muhammed Al Kadi, Michael Huebner, Tobias Becker, Georgi Gaydadjiev, Andreas Brokalakis, Antonis Nikitakis, Alex JW Thom, Elias Vansteenkiste, Dirk Stroobandt: "EXTRA: Towards an Efficient Open Platform for Reconfigurable High Performance Computing", IEEE 18th International Conference on Computational Science and Engineering (CSE 2015), 21-23 Oct. 2015, Page(s): 339 - 342, DOI:10.1109/CSE.2015.54

- George Charitopoulos, Iosif Koidis, Kyprianos Papadimitriou, Dionisios Pnevmatikatos: "Hardware Task Scheduling for Partially Reconfigurable FPGAs", International Symposium on Applied Reconfigurable Computing (ARC), Bochum, Germany, April 2015. Pages 487-498, DOI: 10.1007/978-3-319-16214-0_45"
- Books and edited book chapters
- Patents

C – Awards & Distinctions

“Significant paper” (or test-of-time) award, FPL conference. Paper:

“Fast, Large-Scale String Match for a 10Gbps FPGA-based Network Intrusion Detection System”, 13th International Conference on Field Programmable Logic and Applications (FPL), September 1-3, 2003, Lisbon – Portugal

was selected among the 27 papers with the most impact from the first 25 years of the FPL conference (number of citations and citations over time) and awarded on FPL 2015.

D – Funded Projects

- Current projects:
 - “mCluster : Development of Standard Integrated Infrastructure for the resolution of complex computational problems”, Funding Source : General Secretariat for Research and Technology, Budget : € 99.000,00, Duration : Apr. 2014 – Jul. 2015
 - “MERIT: An Integrated RFID-based System for Securing And Speeding-Up Marine Transportations”, Funding Source : National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Competitiveness and Entrepreneurship, Budget: € 66.904,35, Duration : May 2011 – Oct. 2014
 - *Departmental Practical Training Program*
 - *FASTER: “Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration”, FASTER FP7, Coordinator, Total budget 3,683K€, Institutional budget : 480K€ Duration : Sept 2011 – Nov. 2014.*
 - *DeSyRe: "on-Demand System Reliability", DeSyRe FP7, Budget: 361K€, Duration : Oct 2011 – Jan. 2015*
 - AXIOM, Agile, eXtensible, fast I/O Module for the cyber-physical era. H2020, *Institutional budget : 320K€ Duration : Feb 2015 – Jan 2018.*
- Project proposals submitted:
 - Approved EXTRA, H2020, FET-HPC, Sept 2015-Aug 2018
 - Approved: dRedBox, H2020, Low Power Jan 1, 2016 – Dec 31 2018
 - Submitted SERFER, H2020, Internet of Things.

E – Professional service

- Conference Technical Program Committee service
 - DATE, FPL, IC-SAMOS, ICCD, Reconfig, RAW, VLSI-Soc, WRC, PACET, ParaFPGA
- Reviewing activities
 - Technical expert: Corallia Microelectronics Cluster
 - Technical expert: Artemis June 2013, June 2014
 - Proposal Evaluator: Eurostars 2013, 2014
- Reviewing activities
 - Journals: ACM TACO, TRETTS. ETRI, MICPRO, Hindawi

F – Service to the Department and the School

- Departmental responsibilities
 - Director, Microprocessor and Hardware Laboratory
- School – level responsibilities
 - Member of the School internal Evaluation Committee (OMEA)
 - Member of the Undergraduate Studies Committee
 - PI of the Undergraduate Practical Training Program
 - Undergraduate Advisor

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Koidis Iosif (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Charitopoulos Georgios (M.Sc.)
 - Galanommatis Ioannis (M.Sc.)
 - Vatsolakis Charalambos (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Chrysos Grigorios (Ph.D.)
 - Karkasis Panagiotis (Ph.D.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Brokalakis Andreas (Ph.D.)
 - Ioannou Angelos (Ph.D.)
 - Tambouratzis Nikolaos (Ph.D.)
 - Apostolakis Stavros (M.Sc.)
 - Elias Anagyros (M.Sc.)
 - Kartsonakis Ioannis (M.Sc.)
 - Kousanakis Emmanuel (M.Sc.)

- Maragoudakis Petros (M.Sc.)
 - Miteloudi Konstantina (M.Sc.)
 - Nikoloudakis Georgios (M.Sc.)
 - Pattakos Nikolaos (M.Sc.)
 - Perdikakis Apostolos (M.Sc.)
 - Rossos Christos (M.Sc.)
 - Rousopoulos Christos (M.Sc.)
 - Smerdis Miltiades (M.Sc.)
 - Strataki Eleni (M.Sc.)
 - Veronikis Konstantinos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Andronikakis Andreas
 - Doitsinis Ioannis
 - Drakoulaki Eleni
 - Gioti Varvara
 - Iggilis Anastasia
 - Katsinelis Constantinos
 - Pentafragas Georgios
 - Pissadakis Emmanuel
 - Pouli Christina
 - Souris Anastasios
 - Tampakakis Ioannis
 - Taxiarchis Vaios
 - Varikos Antonios
 - Diploma theses completed (supervisor)
 - Kasabalis Vasilios
 - Diploma theses in progress (committee member)
 - Alexandris Constantinos
 - Andreopoulos Marios
 - Bozikas Dimitrios
 - Fotinopoulos Georgios
 - Gerolymatos Dionysios
 - Kouinis Constantinos
 - Koukousoulas Pantelis
 - Kritikakis Charalambos
 - Malavazos Constantinos
 - Mourtzanos Triantaphyllos
 - Mytakis Dimitrios
 - Panagidis Giannakis
 - Petronikolos Constantinos
 - Pogas Nektarios
 - Sotiropoulos Antonios
 - Symeou Andreas
 - Theodoroglaki Ioanna

- Diploma theses completed (committee member)
 - Boukoros Spyridon
 - Filos Vasilios
 - Gardelakos Argyrios – Alexandros
 - Kalaitzis Constantinos
 - Kousanakis Emmanuel
 - Pialoglou Alexandros
 - Veremi Christina



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

Name: George Stavrakakis

Rank: Full Professor

Years in rank: 20

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Electric Circuits & Renewable Energy Sources (www.elci.tuc.gr)

A – Teaching

- Undergraduate courses taught
 - ENE 301 : Introduction to Power Systems
 - ENE 511 : Renewable Energy Sources
- Graduate courses taught
 - SYS 603 : Advanced Topics in Optimal Control
- Labs taught
 - Introduction to Power Systems (ENE 301)
 - Renewable Energy Sources (ENE 511)
- Curriculum & course development
 - New courses / labs developed already : Introduction to Power Systems (ENE 301)
 - Lecture notes / slides developed already : Renewable Energy Sources (ENE 511)
- Authored textbooks : None

B – Publications

- **Books and edited book chapters with referees:**
 - T. Nikolaou, D. Kolokotsa, G. Stavrakakis, A. Apostolou, C. Munteanu “Managing Indoor Environments and Energy in Buildings with Integrated Intelligent Systems”. Green Energy and Technology, **SPRINGER International Publishing**, New York, ISBN 978-3-319-21797-0(hard copy book) & ISBN 978-3-319-21798-7 (eBook).

- **Publications in refereed journals**

- Submitted : three
- Accepted : two

Published: two

- Christina Diakaki, Natalia Panagiotidou, Anastasios Pouliezos, Georgios D. Kontes, George S. Stavrakakis, et al.
“A decision support system for the development of voyage and maintenance plans for ships”
Int. J. Decision Support Systems, Vol. 1, No. 1, 2015, pp 42-71.
- Natalia Panagiotidou, George S. Stavrakakis, Christina Diakaki
“Sustainable urban solid waste management planning with the use of an advanced interactive decision support system based on the PROMETHEE II method”
Int.J. Decision Support Systems, Vol. 1, No. 3, 2015, pp 294-324.

- Publications in refereed conferences

- Submitted: NONE
- Accepted: NONE
- Published: NONE

- Publications in conferences on abstract review

- Submitted : NONE

- Patents: one in the national level (see below)

- *GR: Έξυπνη μέθοδος και ολοκληρωμένη ηλεκτρονική διάταξη διαχείρισης πληροφοριών σε συστήματα εξασφάλισης εσωτερικής άνεσης με ταυτόχρονη ενεργειακή διαχείριση κτιρίων. (OBI2004010045)*
- *EN: Intelligent methodology and integrated electronic device of information processing ensuring the indoor comfort with simultaneous energy management in buildings. (OBI2004010045)*

C – Awards & Distinctions

- Paper awards : none
- Technical Achievement awards : none
- Professional service awards : none
- Elevation to senior membership grades in Professional Societies (e.g., IEEE, ACM, ...): none
- Fellowships, Visiting Professorships: none
- Invited Plenary Lectures : none
- Other

D – Funded Projects

- Current projects:
 - “An integrated system for monitoring ship’s emissions and operating parameters with application to optimal management of the ship energy demands during

operation [E-GREENSHIP], (2011-2014)", General Secretary Research Technology - ΓΓΕΤ 09ΣΥΝ-51-871, Project site: www.egreensghip.com, Partner

- Project proposals submitted: One

E – Professional service

- Associate Editor duties: none
- Society Technical Committee duties: one
 - International Committee of Electrical Machines – ICEM
- Conference Technical Program Committee service: none
- Conference Organization (specify role) : none
- Reviewing activities : In six international Journals
 - Permanent invited Reviewer of the Journal of Intelligent and Robotic Systems.
 - Permanent invited Reviewer of the IEEE Transactions on Energy Conversion.
 - Permanent invited Reviewer of the Electric Power Systems Research
 - Reviewer on call basis International Journal of Distributed Sensor Networks
 - Reviewer on call basis Renewable Energy journal
 - Reviewer on call basis IEEE Transactions on Automation Science and Engineering
- Participation in National Committees (e.g., ΕΔΕΤ) : one
 - "Permanent Committee of the Prefecture of Crete for the Energy Planning of Crete
- Other

F – Service to the Department and the School

- Departmental responsibilities : none
- School – level responsibilities: none

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Yotis Thomas (Ph.D.)
 - Blazakis Constantinos (M.Sc.)
 - Syntzanaki Athena (M.Sc.)
 - Viskadouraki Evangelia (M.Sc.)

- o Ph.D. and M.Sc. degrees awarded (committee member)
 - Papoutsoglou Georgios (Ph.D.)
 - Mandourarakis Ioannis (M.Sc.)

- o Ph.D. and M.Sc. Degrees (committee member)
 - Tripolitakis Evangelos (Ph.D.)
 - Vasilomichelaki Ariadni (Ph.D.)
 - Bardis Stamatios (M.Sc.)
 - Brellas Constantinos (M.Sc.)
 - Chatzidakis Panagiotis (M.Sc.)
 - Fytraki Evangelia (M.Sc.)
 - Vamvoukakis Constantinos (M.Sc.)
 - Xifaras Constantinos (M.Sc.)

- Undergraduate students supervised
 - o Diploma theses in progress (supervisor):
 - Dinopoulou Vaia
 - Kalomiris Nikolaos
 - Kousanakis Vasilios
 - Stefanou Christos
 - Tsiamalos Christos
 - Tsokas Vasilios

 - o Diploma theses completed (supervisor) :
 - Alnatsheh Bassam
 - Andrianopoulos Timoleon
 - Kalogeropoulos Marios
 - Kantartzis Theodoros
 - Milionis Georgios Alexandros
 - Neophytos Neophytou
 - Papapostolou Anastasios

 - o Diploma theses in progress (committee member):
 - Aronis Spyridon
 - Dimitriadis Constantinos
 - Drosopoulos Andreas
 - Gentsis Charalambos
 - Giannopoulos Asimakis
 - Kosmopoulos Stefanos
 - Papantonakis Theodosios
 - Parlanis Dimitrios
 - Petrakis Emmanuel
 - Psychogios Marios
 - Sfakianakis Konstantinos
 - Sioutas Apostolos
 - Spyridakis Georgios

 - o Diploma theses completed (committee member):
 - Alexopoulos Dimitrios
 - Afentoulis Dimitrios
 - Brellas Constantinos
 - Chatziagapoglou Constantinos
 - Dapaleras Georgios

- Lathiotakis Aris
- Nikolakakis Eleftherios
- Petridis Nikolaos

Telecommunications Division

Faculty Members

- Bletsas Aggelos, Associate Professor
- Digalakis Vassilios, Professor
- Karystinos George, Associate Professor
- Koutsakis Polychronis, Associate Professor
- Liavas Athanasios, Professor
- Paterakis Michail, Professor
- Zervakis Michail, Professor



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Aggelos Bletsas

Rank: Associate Professor

Years in rank: 1,5

Full-time or part-time: Full-time

Division: Telecommunications


Lab affiliation: Telecommunications Laboratory

A – Teaching

- Undergraduate courses taught
 - TEL 412: Analysis & Design (Synthesis) of Telecom Modules (elective), fall 2014 (13 lectures + 10 labs).
 - TEL 303: Telecommunication Systems II (mandatory), spring 2015 (25 lectures).
- Graduate courses taught
 - TEL 602: Detection & Estimation Theory, fall 2014 (25 lectures).
- Labs taught
 - TEL 412: Analysis & Design (Synthesis) of Telecom Modules, fall 2014.

B – Publications

- Publications in refereed journals
 - Published:
 - K. Alexandris, G. Sklivanitis and **A. Bletsas**, "Reachback WSN Connectivity: Non-coherent Zero-Feedback Distributed Beamforming or TDMA Energy Harvesting?", *IEEE Transactions on Wireless Communications (TWC)*, Vol. 13, No. 9, pp. 4923 – 4934, Sept. 2014.
 - E. Kampionakis, J. Kimionis, K. Tountas, C. Konstantopoulos, E. Koutroulis and **A. Bletsas**, "Wireless Environmental Sensor Networking with Analog Scatter Radio & Timer Principles", *IEEE Sensors Journal (SENSORS)*, Vol. 14, No. 10, pp. 3365 – 3376, Oct. 2014. **Conference version selected as one of the best papers in IEEE Sensors Conference, November 2013, Baltimore, USA.** 🏆

- A.C. Polycarpou, A. Boursianis, T. Samaras, **A. Bletsas** and J.N. Sahalos, "Design procedure of UHF RFID reader antennas based on ETSI and FCC standards", *Wireless Power Transfer, Cambridge University Press*, Vol. 2, Special Issue 01, pp. 32-43, March 2015.
 - N. Fasarakis-Hilliard, P. Alevizos and **A. Bletsas**, "Coherent Detection and Channel Coding for Bistatic Scatter Radio Sensor Networking", *IEEE Transactions on Communications (TCOM)*, Vol. 63, No. 5, pp. 1798-1810, May 2015.
 - Publications in refereed conferences
 - Published:
 - G.N. Karystinos and **A. Bletsas**, "Cubic-complexity Optimal Noncoherent OOK Sequence Detection in Flat Fading", *IEEE International Conference on Communications (ICC)*, June 2015, London, UK.
 - P.N. Alevizos and **A. Bletsas**, "Noncoherent Composite Hypothesis Testing Receivers for Extended Range Bistatic Scatter Radio WSNs", *IEEE International Conference on Communications (ICC)*, June 2015, London, UK.
 - N. Fasarakis-Hilliard, P.N. Alevizos and **A. Bletsas**, "Coherent Detection and Channel Coding for Bistatic Scatter Radio Sensor Networking", *IEEE International Conference on Communications (ICC)*, June 2015, London, UK.
 - P.N. Alevizos, Y. Fountzoulas, G.N. Karystinos and **A. Bletsas**, "Noncoherent Sequence Detection of Orthogonally Modulated Signals in Flat Fading with Log-Linear Complexity", *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 19-24 April 2015, Brisbane, Australia. **Received conference-wide student paper award and best student paper award in Communications and Networks track.** 
 - N. Fasarakis-Hilliard, P. N. Alevizos, and **A. Bletsas**, "Variational Inference Cooperative Network Localization with Narrowband Radios," *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 19-24 April 2015, Brisbane, Australia.
 - K. Tountas, A.G. Dimitriou, **A. Bletsas** and J.N. Sahalos, "Mobility Improves Performance of RFID Library Systems", *IEEE European Conference on Antennas and Propagation (EUCAP)*, April 2015, Lisbon, Portugal.
 - D. Ntilis, P. Oikonomakos, V. Papadakis, A. Inglezakis, A. G. Dimitriou and **A. Bletsas**, "Frequency Planning for a Multi-Radio 802.11s City-Wide Water Management Network", *1st International Workshop on Cyber-Physical Systems for Smart Water Networks (CysWater 15), Cyber Physical Systems Week*, April 2015, Seattle, WA, USA.
 - A.G. Dimitriou, D. Ntilis, P. Oikonomakos, A. Inglezakis, V. Papadakis and **A. Bletsas**, "Designing Limited-EIRP, Long-distance Links for Water Management Networks Using Polarization Diversity and Redundant Routing Paths", *1st International Workshop on Cyber-Physical Systems*

for Smart Water Networks (CysWater 15), Cyber Physical Systems Week, April 2015, Seattle, WA, USA.

- P. Alevizos, E. Vlachos and **A. Bletsas**, "Factor Graph-Based Distributed Frequency Allocation in Wireless Sensor Networks", *IEEE Global Communications Conference (GLOBECOM)*, December 2014, Texas-Austin, USA.
 - N. Fasarakis-Hilliard, P. Alevizos and **A. Bletsas**, "Narrowband Cooperative Network Localization", *IEEE Global Communications Conference (GLOBECOM)*, December 2014, Texas-Austin, USA.
 - S.N. Daskalakis, S.D. Assimonis, L. Kampianakis and **A. Bletsas**, "Soil Moisture Wireless Sensing with Analog Scatter Radio, Low Power, Ultra-Low Cost and Extended Communication Ranges", *IEEE Sensors Conference (SENSORS)*, November 2014, Valencia, Spain.
 - P. Alevizos, N. Fasarakis-Hilliard, K. Tountas, N. Agadakos, N. Kargas and **A. Bletsas**, "Channel Coding for Increased Range Bistatic Backscatter Radio: Experimental Results", *IEEE International Conference on RFID-Technology and Applications (RFID-TA)*, September 2014, Tampere, Finland.
 - S. D. Assimonis, S.N. Daskalakis, and **A. Bletsas**, "Efficient RF Harvesting for Low-Power Input with Low-Cost Lossy Substrate Rectenna Grid", *IEEE International Conference on RFID-Technology and Applications (RFID-TA)*, September 2014, Tampere, Finland.
 - A.G. Dimitriou, S. Siachalou, **A. Bletsas** and J.N. Sahalos, "Automated RFID Network Planning with Site-Specific Stochastic Modeling and Particle Swarm Optimization", *IEEE International Conference on RFID-Technology and Applications (RFID-TA)*, September 2014, Tampere, Finland.
- Patents
 - P. Alevizos, Y. Fountzoulas, G.N. Karystinos and **A. Bletsas**, "A device for loglinear complexity GLRT-optimal noncoherent sequence detection of orthogonal modulation signals in flat fading", U.S. Provisional Patent Application 62060029, October 6, 2014. Γ.Ν. Καρυστινός, Α. Μπλέτσας, «Βέλτιστος ασύμφωνος ανιχνευτής κυβικής πολυπλοκότητας σημάτων on-off keying επίπεδης διάλειψης», αίτηση ευρεσιτεχνίας στον Οργανισμό Βιομηχανικής Ιδιοκτησίας, 29/9/2014, με αριθμό αίτησης 20140100515.

C – Awards & Distinctions

- Appointed Associate Editor in premier journal *IEEE Transactions on Wireless Communications*, June 2015.
- Received conference-wide student paper award and best student paper award in Communications and Networks track, at **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2015**, Brisbane, Australia, for the paper:

P.N. Alevizos, Y. Fountzoulas, G.N. Karystinos and A. Bletsas, "Noncoherent Sequence Detection of Orthogonally Modulated Signals in Flat Fading with Log-Linear Complexity", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 19-24 April 2015, Brisbane, Australia. 

D – Funded Projects

- Current projects:
 - 1 Project funded through EU Cost “WIPE”.
 - 3 Projects funded through GSRT Thalís.
 - 1 Project funded through GSRT “Proposals Evaluated positively at 3rd ERC Call”.
 - 1 Project funded through GSRT Synergasia.
 - 1 Project funded through Cyprus RPF.
- Project proposals submitted:
 - 1 proposal to EU

E – Professional service

- Associate Editor duties
 - Associate Editor for **IEEE Wireless Communication Letters**.
 - Associate Editor for **IEEE Transactions on Wireless Communications**.
- Conference Technical Program Committee service
 - IEEE ICC 2015 (Cognitive Radio & Networks Track)
 - IEEE ICC 2015 (Ad-hoc & Sensor Networks Track)
 - IEEE Globecom 2015 (Wireless Networks Track)
 - IEEE Globecom 2015 (Ad-hoc & Sensor Networks Track)
 - EURASIP RFID 2015
- Conference Organization (specify role)
 - **Technical Program Committee (TPC) Chair**, Sensor Networks Track, *IEEE Sensors 2014*, November 2014, Valencia, Spain.
- Reviewing activities
 - Reviewer for various class A IEEE Journals.

F – Service to the Department and the School

- School – level responsibilities
 - Presentations of the Department to several classes of Elementary and High school students (with Prof. Lagoudakis).

G – Advising

Students supervised

- Active graduate students supervised
 - M.Sc. students supervised as **principal advisor – COMPLETED Master of Science THESES**:
 - Nikos Kargas, SDR Readers for Gen2 RFID and Backscatter Sensor Networks, **M.S. Thesis**, School of ECE, Technical Univ. of Crete, Aug. 2015.
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Alevizos Panagiotis (Ph.D.)
 - Agadakos Nikolaos (M.Sc.)
 - Daskalakis Spyridon Nektarios (M.Sc.)
 - Dilis Dimitrios (M.Sc.)
 - Oikonomakos Panagiotis (M.Sc.)
 - Sklivanitis Georgios (M.Sc.)
 - Tountas Constantinos (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Antonopoulos Angelos (Ph.D.)
 - Constantopoulos Christos (M.Sc.)
 - Dimitriou Constantina (M.Sc.)
 - Fountzoulas Ioannis (M.Sc.)
 - Ph.D. and M.Sc. degrees - committee member
 - Fountzoulas Ioannis (Ph.D.)
 - Chatzilaris Eleftherios (M.Sc.)
 - Igglezakis Antonios (M.Sc.)
 - Kasimatis Vasilios (M.Sc.)
 - Loizou Constantinos (M.Sc.)
 - Pavlakis Nikolaos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses supervised as **principal advisor – COMPLETED Diploma THESES**
 - Mihalis Bamiedakis, Synchronization and Detection for Gen2 RFID, **Diploma Thesis**, School of ECE, Technical Univ. of Crete, January 2015.
 - Spyridon-Nektarios Daskalakis, Energy Harvesting and Sensing for Backscatter Radio, **Diploma Thesis**, School of ECE, Technical Univ. of Crete, October 2014.
 - Konstantinos Tountas, Implementation of Frequency Division Multiple Access Digital Backscatter Sensor Network, **Diploma Thesis**, School of ECE, Technical Univ. of Crete, October 2014.

- Panagiotis Oikonomakos, Dynamic resource allocation in rooftop networking, **Diploma Thesis**, School of ECE, Technical Univ. of Crete, September 2014.
- Diploma theses in progress (committee member)
 - Charitakis Spyridon
 - Dimitriou Georgios
 - Fountoulakis Emmanuel
 - Georgiopoulos Theodoros
 - Papadopoulou Alexia
 - Theofilou Eleni
- Diploma theses in progress/completed (committee member)
 - Chatzi Nikolaou Panagiotis
 - Costa Angela
 - Heliades Stylianos
 - Leonidakis Stylianos
 - Lourakis Georgios
 - Magounaki Theoni



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Vassilis Digalakis

Rank: Full

Years in rank: 15

Full-time or part-time: Full-time

Division: Telecommunications

Lab affiliation: Information & Networks Lab

A – Teaching

Rector – Exemption from teaching, due to University administrative duties

B – Publications

- Publications in refereed journals
 - Published:
- Publications in refereed conferences
 - Published:
- Books and edited book chapters
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - Linear Dynamical Models for Speech Synthesis, TOSHIBA RESEARCH EUROPE LIMITED, Budget : € 129.000,00, Duration : Feb. 2013 – Mar. 2015)
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
 - Information and Networks Lab, Director
- School – level responsibilities
 - Rector of Technical University of Crete

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Oikonomidis Dimitrios (Ph.D.)
 - Constantinidis Constantinos (M.Sc.)
 - Dougiakis Lazaros (M.Sc.)
 - Georgiadou Despina (M.Sc.)
 - Pechlivanis Constantinos (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Georgogiannis Alexandros (Ph.D.)
 - Klasinas Ioannis (Ph.D.)
 - Malandrakis Nikolaos (Ph.D.)
 - Athanasopoulou Georgia (M.Sc.)
 - Giakoumakis Theodoros Marios (M.Sc.)
 - Giannoudaki Maria (M.Sc.)
 - Loukeris Nikolaos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Sideris Panagiotis

- o Diploma theses completed (supervisor)
 - Fytopoulos Nikolaos

- o Diploma theses in progress (committee member)
 - Charitakis Spyridon
 - Fountoulakis Emmanuel

- o Diploma theses completed (committee member)
 - Christodouleas Dimitrios
 - Giannakouras Panagiotis
 - Lourakis Georgios



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: George Karystinos

Rank: Associate Professor

Years in rank: 3

Full-time or part-time: Full-time

Division: Telecommunications

Lab affiliation: Telecommunications Laboratory

A – Teaching

- Undergraduate courses taught
 - TEL 201 : Signals and Systems (mandatory)
 - TEL 415 : Statistical Signal Processing for Communications
 - TEL 416 : Information Theory and Coding
- Graduate courses taught
- Labs taught
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted
 - Accepted:
 - Published:
 - M. Gkizeli and **G. N. Karystinos**, “Maximum-SNR antenna selection among a large number of transmit antennas,” IEEE Journal of Selected Topics in Signal Processing, vol. 8, pp. 891-901, Oct. 2014.
 - P. P. Markopoulos, **G. N. Karystinos**, and D. A. Pados, “Optimal algorithms for L1-subspace signal processing,” IEEE

Transactions on Signal Processing, vol. 62, pp. 5046-5058, Oct. 2014.

- Publications in refereed conferences
 - Accepted:
 - Published:
 - **G. N. Karystinos** and A. Bletsas, “Cubic-complexity optimal noncoherent OOK sequence detection in flat fading,” in Proc. IEEE ICC 2015 - International Conference on Communications, London, UK, June 2015, pp. 2721-2726.
 - P. N. Alevizos, Y. Fountzoulas, **G. N. Karystinos**, and A. Bletsas, “Noncoherent sequence detection of orthogonally modulated signals in flat fading with log-linear complexity,” in Proc. IEEE ICASSP 2015 - Intern. Conf. Acoust., Speech and Signal Proc., Brisbane, Australia, Apr. 2015, pp. 2974-2978 (Best Paper Award).
- Books and edited book chapters
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “*Distributed Wireless Communications*”, Funding Source : National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Education and Lifelong Learning, Budget : € 539.959,47, Duration : Jan. 1, 2012 - Dec. 31, 2015
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
 - IEEE Wireless Communications and Networking Conference (WCNC) (2014,2015)
 - IEEE International Conference on Communications (ICC) - Wireless Communications Symposium (2015)
 - International Conference on Signal Processing & Data Mining (ICSPDM) (2015)
- Conference Organization (specify role)
 - _____
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
 - Undergraduate Studies Committee, School of Electrical and Computer Engineering, Technical University of Crete, 2013 - present.
- School – level responsibilities

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Fountzoulas Ioannis (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Fountzoulas Ioannis (Ph.D.)
 - Koupatsiaris Dimitrios (Ph.D.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Alevizos Panagiotis (M.Sc.)
 - Alibertis Emmanuel (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Alevizos Panagiotis (Ph.D.)
 - Giotis Thomas (Ph.D.)
 - Sfakianakis Stylianos (Ph.D.)
 - Agadakos Nikolaos (M.Sc.)
 - Daskalakis Spyridon – Nektarios (M.Sc.)
 - Kostoulas Georgios (M.Sc.)
 - Oikonomakos Panagiotis (M.Sc.)
 - Tountas Konstantinos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Fountoulakis Emmanuel
 - Theofilou Eleni
 - Diploma theses completed (supervisor)
 - Kosta Angela
 - Diploma theses in progress (committee member)
 - Fragakis Panteleimon
 - Georgiopoulos Theodoros
 - Giolias Athanasios
 - Karamolegos Nikolaos
 - Papakonstantinou Triantaphyllos
 - Pezoulas Vasilios

- Diploma theses completed (committee member)
 - Bamiedakis Pananos Michail
 - Chatzi Nikolaou Panagiotis
 - Heliadis Stylianos
 - Leonidakis Stylianos
 - Magounaki Theoni
 - Oikonomakos Panagiotis
 - Tountas Constantinos



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Polychronis Koutsakis

Rank: Associate Professor

Years in rank: 1,5

Full-time or part-time: Full – time

Division: Telecommunications

Lab affiliation: Information & Networks Laboratory

A – Teaching

- Undergraduate Courses Taught
 - Computer Networks I

B – Publications

- Publications in refereed journals
 - Submitted:
 - G. Athanasopoulou and **P. Koutsakis**, “eMatch: An Android Application for Finding Friends in your Location”, under preparation for submission to the Mobile Information Systems Journal (Hindawi Publ.).
- Publications in refereed conferences
 - Published:
 - E. Palogiannidi, E. Iosif, **P. Koutsakis** and A. Potamianos, “Valence, Arousal, Dominance Estimation for English, German, Greek, Portuguese and Spanish Lexica using Semantic Models”, accepted for presentation in Interspeech 2015, Dresden, Germany (*Acceptance Ratio: 51%*).
 - S. Boukoros, A. Kalampogia and **P. Koutsakis**, “A New Highly Accurate Workload Model for Campus Email Traffic”, accepted for presentation in the IEEE International Conference on Computing, Networking and Communications (ICNC) 2016, Kauai, Hawaii, USA (*Acceptance Ratio: < 30%*).

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “SpeDial: Spoken Dialogue Analytics”, Funding Source: FP7-ICT (ICT-SME-DCA STREP Call 2013), Project Budget: € 1,500,000, TUC Budget: € 110,000, Duration: Dec. 1, 2013 - Nov. 30, 2015, Role: Deputy Co-ordinator of the project and Technical Leader of the Technical University of Crete group. Project funded under the, Budget: 1.5 million €.

E – Professional service

- Associate Editor duties
 - IEEE Communication Surveys&Tutorials Journal
 - Computer Communications Journal (Elsevier)
- Society Technical Committee duties
- Conference Technical Program Committee service
 - IEEE GLOBECOM 2015 Symposium on Wireless Networks
 - IEEE ICC 2015 Ad-Hoc and Sensor Networking Symposium
 - IEEE Vehicular Technology Conference (VTC) - fall 2015
 - IEEE INFOCOM Workshop on Mobile Cloud Computing and Virtualization 2015
 - IEEE INFOCOM Workshop on Communication and Networking Techniques for Mobile Video 2015
 - IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM) 2015
 - IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) 2015
 - IEEE WCNC 2015 Mobile and Wireless Networks Track
 - IEEE International Conference on Wireless Communications and Mobile Computing (IWCMC) 2015
- Conference Organization (specify role)
 - Co-Chair for the 4th International IEEE Workshop on Video Everywhere (VidEv 2015), part of the 16th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June 2015, Boston, USA.
- Reviewing activities
 - IEEE Transactions on Multimedia
 - IEEE Transactions on Vehicular Technology
 - IEEE Transactions on Cloud Computing
 - Journal of Internet Technology

G – Advising

Undergraduate students supervised

- Active graduate students supervised

- o Ph.D. and M.Sc. students supervised (advisor, completed)
 - Dimitriou Konstantina (M.Sc.)
- o Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Klasinas Ioannis (Ph.D.)
 - Chorianopoulou Arodami (M.Sc.)
 - Kalambogia Athena (M.Sc.)
 - Loizidis Orestis – Stavros (M.Sc.)
 - Palogiannidi Elisavet (M.Sc.)
- Undergraduate students supervised
 - o Diploma theses in progress
 - Gerolymatos Dionysios
 - Kastrinakis Marios
 - Theodosiou Nikolas
 - Tsakalakis Georgios
 - o Diploma theses completed (supervisor)
 - Boukoros Spyridon
 - Kalampogia Athena
 - Paliatsa Dimitra
 - Tzamicha Greta Emmanuela
 - o Diploma theses in progress (committee member)
 - Alexiou Aristides
 - Bouzoukas Dimitris
 - Didymiotis – Ventouris Georgios
 - Psaromanolakis Nikolaos
 - Tampakakis Ioannis
 - Tzimas Dimitrios
 - Vlachantonis Georgios
 - o Diploma theses completed (committee member)
 - Kostoulas Georgios



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Athanasios P. Liavas

Rank: Professor

Years in rank: 6

Full-time or part-time: Full-time

Division: Telecommunications Division

Lab affiliation: Telecommunications Lab, Director

A – Teaching

- Undergraduate courses taught
 - TEL 301: Telecommunications Systems I (mandatory)
 - TEL 417 : Wireless Communication Systems
 - COMP 421 : Randomized Algorithms (Offered jointly with COMP 617)

- Graduate courses taught
 - COMP 617 : Randomized Algorithms
 - TEL 615 : Special Topics in Convex Optimization

- Labs taught

- Curriculum & course development
 - New courses / labs developed
 - Randomized Algorithms
 - Lecture notes / slides developed
 - Randomized Algorithms
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted

- Accepted:
 - **A.P. Liavas** and N.D. Sidiropoulos, “Parallel Algorithms for Constrained Tensor Factorization via the Alternating Direction Method of Multipliers”, *IEEE Trans. on Signal Processing*, accepted July 2015
- Published:
- Publications in refereed conferences
 - Accepted:
 - Published:
 - **A. P. Liavas** and N. D. Sidiropoulos “Parallel Algorithms for Large Scale Constrained Tensor Decomposition”, *IEEE ICASSP 2015*, Brisbane Australia, April 2015.
 - K. Huang, N. D. Sidiropoulos, and **A. P. Liavas**, “Efficient Algorithms for 'Universally' Constrained Matrix and Tensor Factorization”, in *European Signal Processing Conference (EUSIPCO)*, 2015, Nice, France.
- Books and edited book chapters
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “NOPTILUS: autonomous, self-learning, optimal and complete underwater systems”, Seventh Framework Programme, European Research Office, Budget € 524.300,00, Duration: Apr. 2011 – Mar. 2015
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)

- Reviewing activities
 - IEEE Trans. Signal Proc., ICASSP 2015, IEEE Journal of Selected Topics in Signal Processing

F – Service to the Department and the School

- Departmental responsibilities
- School – level responsibilities
 - Member of the Board, Telecommunication Systems Research Institute (T.S.I.), Technical University of Crete

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Georgogiannis Alexandros (Ph.D.)
 - Kostoulas Georgios (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Fountzoulas Ioannis (Ph.D.)
 - Koupatsiaris Dimitrios (Ph.D.)
 - Moutzianou Georgios (Ph.D.)
 - Athanasopoulou Georgia (M.Sc.)
 - Dougiakis Lazaros (M.Sc.)
 - Orphanoudakis Emmanuel (M.Sc.)
 - Pechlivanis Constantinos (M.Sc.)
 - Sklivanitis Georgios (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Charitakis Spyridon
 - Georgiopoulos Theodoros
 - Giolias Athanasios
 - Karamolegos Nikolaos
 - Papakonstantinou Triantaphyllos
 - Diploma theses completed (supervisor)
 - Chatzi Nikolaou Panagiotis
 - Christodouleas Dimitrios
 - Iliadis Stylianos

- Kostoulas Georgios
- Leonidakis Stylianos
- Lourakis Georgios
- Magounaki Theoni

- Diploma theses in progress (committee member)
 - Alexiou Aristides
 - Bitzanakis Joseph
 - Bouzoukas Dimitris
 - Charitakis Spyridon
 - Chondroulis Ioannis
 - Psaromanolakis Nikolaos
 - Vlachantonis Georgios

- Diploma theses completed (committee member)
 - Alevizaki Androniki
 - Kosta Angela



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Michael Paterakis

Rank: Professor

Years in rank: 16

Full-time or part-time: Full-time

Division: Telecommunications

Lab affiliation: Information and Computer Networks Laboratory

A – Teaching

- Undergraduate courses taught
 - TEL 202: *Probability and Random Signals*, Mandatory Core Undergraduate Course
 - TEL 512: *Introduction to Modeling and Performance Evaluation of Computer Communication Networks*, Advanced Senior Undergraduate Course
- Graduate courses taught
 - TEL 611: *Introduction to Modeling and Performance Evaluation of Computer Communication Networks*, Graduate Course (Offered jointly with TEL 512)
- Curriculum & course development
 - Lecture notes / slides developed
 - Developed a complete set of notes in Greek for the graduate course TEL 601 “Probability and Random Processes”

B – Publications

- Publications in refereed conferences
 - Submitted:
 - M. Theodorou and M. Paterakis, “Design and Performance Evaluation of Channel Sensing Algorithms for Homogeneous Multiple CRNs”, submitted to a conference

D – Funded Projects

- Current projects:
 - “Social Network Aware Cognitive Radio Networks – SoCoNet”, funded by the GSRT Thales Program. This project is a collaborative effort of research teams from AUTH (ECE Dept.), TUC (ECE School) and UTH (CET Dept.). Prof. M. Paterakis participates in the research team. Coordinator: Prof. Leonidas

Georgiadis, ECE Dept., AUTH. Funded for the period 1/4/2012 - 30/9/2015. Total budget: € 521.738.

- o “Services of Independent Auditor for the National Project: Development of Broadband Infrastructure on Rural White Areas of Greek Territory and Operations Services”, Public Private Partnership Project. Funded for the period 1/1/2015 – 31/12/2031 by the special purpose entities “OTE Rural North” and “OTE Rural South” of the Hellenic Telecommunications Organization (OTE S.A.). Budget: € 1.781.704.

E – Professional service

- June 2013 – June 2016. Member of the Executive Board, Greek Universities Network (GUnet), a no-profit company founded by all the Greek Academic Institutions.
- Conference Organization (specify role)
 - o Co-Chair for the 4th International IEEE Workshop on Video Everywhere (VidEv 2015), part of the 16th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June 2015, Boston, MA, U.S.A.
 - o Reviewer for 4th International IEEE Workshop on Video Everywhere (VidEv 2015), part of the 16th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June 2015, Boston, MA, U.S.A.

F – Service to the Department and the School

- School – level responsibilities
 - o June 2013 – , Director, Telecommunication Systems Research Institute (T.S.I.), Technical University of Crete

G – Advising

- Active graduate students supervised
 - o Ph.D. and M.Sc. students supervised (advisor, completed)
 - Theodorou Maria (M.Sc.), Thesis Title: *“Design and Performance Evaluation of Sensing Algorithms for Multiple Cognitive Radio Networks: the cases of No Cooperation and Limited Cooperation among the Secondary Users in case of Identical or Heterogeneous Channels”*.
 - o Ph.D. and M.Sc. Degrees awarded (committee member)
 - Dimitriou Konstantina (M.Sc.)
 - o Ph.D. and M.Sc. Degrees (committee member)
 - Kalabogia Athena (M.Sc.)
 - Loizidis Orestis Stavros (M.Sc.)
 - Pechlivanis Constantinos (M.Sc.)
- Undergraduate students supervised
 - o Diploma Theses completed (supervisor):

- Kyriazis Athanasios, Thesis Title: “*Cache Management Policies for Streaming Proxies: the cases of fixed and variable video sizes and collaboration among proxies*”.
- o Diploma theses in progress (supervisor):
 - Alexiou Aristides
 - Bouzoukas Dimitris
 - Psaromanolakis Nikolaos
 - Vlachantonis Georgios
- o Diploma Theses completed (committee member):
 - Boukoros Spyridon
 - Chatzimeletiou Vlasios
 - Kalampogia Athena
 - Kostoulas Georgios
 - Paliatsa Dimitra
 - Tzamicha Greta Emmanuela
- o Diploma Theses in progress (committee member):
 - Gerolymatos Dionysios
 - Giolias Athanasios
 - Karamolegos Nikolaos
 - Kastrinakis Marios
 - Michailidis Stavros
 - Papaonstantinou Triantaphyllos
 - Theodosiou Nikolas
 - Tsakalakis Georgios



**Technical University of Crete
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Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Michalis Zervakis

Rank: Professor

Years in rank: 15

Full-time or part-time: Full-time

Division: Telecommunications

Lab affiliation: 1. Digital Image and Signal Processing Lab
2. Lab of Automation

A – Teaching

- Undergraduate courses taught
 - TEL 302 : Digital Signal Processing (mandatory)
 - TEL 312 : Digital Image Processing
 - ACE 513 : Biomedical Technology
- Graduate courses taught
 - TEL 610 : Special Topics in Digital Image Processing
- Labs taught
 - Digital Signal Processing – Lab supervision
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Biomedical Technology – Development of notes on Electro-Cardiology (ECG) Signal Analysis
 - Authored textbooks

B – Publications

- Articles in Journals
 - M Papadogiorgaki, M, M G Kounelakis, P Koliou, and M E Zervakis. 2015. “A Glycolysis-Based in Silico Model for the Solid Tumor Growth.” IEEE Journal of Biomedical and Health Informatics Vol. 19, No 3, pp. 1106 - 1117, May 2015. doi:10.1109/JBHI.2014.2356254.
 - Kallergi, G., V. Tsintari, S. Sfakianakis, M. Zervakis, D. Mavroudis, and V. Georgoulas. “CXCR4 Pathways in CTCs: From Bioinformatics to

Immunophenotype.” *Cancer Research* 75, no. 15 Supplement (2015): 1592–1592.

- Tsolis KC, Bei ES, Papathanasiou I, Kostopoulou F, Gkretsi V, Kalantzaki K, Malizos K, Zervakis M, Tsezou A, Economou A (2015): Comparative proteomic analysis of hypertrophic chondrocytes in osteoarthritis. *Clinical Proteomics*, vol. 12, no. 12, April 2015
- L. Koumakis, G. Potamias, M. Tsiknakis, M. Zervakis, V. Moustakis, “Integrating Microarray Data and GRNs”, *Methods in Molecular Biology* pp 137-153, July 2015. doi: 10.1007/7651_2015_252

- Articles in Book Chapters

- E. Tripoliti, M. Zervakis, D. Fotiadis, “Computer-Based Assessment of Alzheimer’s Disease Employing fMRI and/or EEG: A Comprehensive Review”, a chapter in *Neuromethods, “Modern Electroencephalographic Assessment Techniques”* 91: 351–83, Springer, New York, Published online May 2014. DOI: 10.1007/7657_2014_70
- Michalopoulos, K., M. Zervakis, and N. Bourbakis. 2015. “Current Trends in ERP Analysis Using EEG and EEG/fMRI Synergistic Methods.” *Neuromethods, “Modern Electroencephalographic Assessment Techniques”* 91: 323–50, Springer, New York, Published online Dec. 2014. doi: 10.1007/7657_2013_67.
- G. Livanos, A. Deshpande, C. Narayan, Ying Na, R. Koglin , S. Shrestha, M. Zervakis, and G.C. Giakos, "New Trends in Immunohistochemical, Genome and Metabolomics Imaging", *Computational Optical Biomedical Spectroscopy and Imaging*, Sarhan M. Musa, CRC Press, ISBN 9781482230819-CAT# K22686, January 2015 (<https://www.crcpress.com/Computational-Optical-Biomedical-Spectroscopy-and-Imaging/Musa/9781482230819>)
- Tannaz Farrahi, Tri Quang, Keerthi Srivastav Valluru, George Livanos, Yinan Li, Aditi Deshpande, Michalis Zervakis, and George Giakos, "Nanooncology: Molecular Imaging, Omics, and Nanoscale Flow-mediated Medicine Tumors Strategies", *Nanoscale Flow Advances, Modeling, and Applications*, Sarhan M. Musa, CRC Press, ISBN 9781482233803 - CAT# K22969, December 2014 (<https://www.crcpress.com/Nanoscale-Flow-Advances-Modeling-and-Applications/Musa/9781482233803>)

- Articles in Conference Proceedings

- N.K. Chlis, E.S. Bei, S. Sfakianakis, D. Iliopoulou, D. Kafetzopoulos and M. Zervakis, “Searching for Significant Genes in Cancer Metastasis by Tissue Comparisons”, MBEC 2014, 6th European Conference of the International Federation for Medical and Biological Engineering, Dubrovnik, Croatia, Sept. 7 -11, 2014. (http://link.springer.com/chapter/10.1007/978-3-319-11128-5_148)
- D. Vassou, S. Arhondakis, K. Kalantzaki, M. Zervakis and D. Kafetzopoulos, “Towards Single-Cell Gene Expression Profiling: Assessing Amplification Biases”, MBEC 2014, 6th European Conference of the International Federation for Medical and Biological Engineering, Dubrovnik, Croatia, Sept. 7 -11, 2014.

- P. Alvanitopoulos, I. Andreadis, N. Georgoulas, M. Zervakis and N. Nikolaidis, “Solar Radiation Prediction Model Based on Empirical Mode Decomposition”, 2014 IEEE International Conference on Imaging Systems and Techniques (IST' 2014), Santorini, Greece, October 14-17, 2014.
- K. Moirogiorgou, K. Bacharidis, I. Sibetheros, A. Savakis and M. Zervakis, “River Flow Estimation Using Video Data”, 2014 IEEE International Conference on Imaging Systems and Techniques (IST' 2014), Santorini, Greece, October 14-17, 2014
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- P. Toumpaniaris, D. Verganelakis, N. Spanoudakis and M. Zervakis, “Intelligent Management of Brain Markers for Early Prognosis of the Spatiotemporal Growth of Gliomas”, 2014 IEEE International Conference on Tools with Artificial Intelligence (ICTAI), 10-12 November, Limassol, Cyprus Decem:647–51. doi:10.1109/ICTAI.2014.102.
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- N. K. Chlis, E. S. Bei, K. Moirogiorgou, M. Zervakis, “Extracting reliable gene expression signatures through Stable Bootstrap Validation”, 2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2015), Milan 25-29 Aug. 2015 Novem:4458–61. doi:10.1109/EMBC.2015.7319384.
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and Attack Strategies.” In Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, 2015-7426–29. doi:10.1109/EMBC.2015.7320108.

- N.P. Nikolaidis, S. Nerantzaki, D. Efstathiou, G. Giannakis, K. Moirogiorgou and M. Zervakis, “Novel Approaches for Assessing Contaminant Fluxes During Flash Flood Events”, e-proceedings of the 6th European Bioremediation Conference, Chania, Crete, Greece, June 29 – July 2, 2015
- S. Nerantzaki, K. Moirogiorgou, D. Efstathiou, G. Giannakis, S. Voutsadaki, M. Zervakis, I.A Sibetheros, I. Zacharias, G.P Karatzas, and N.P Nikolaidis, “Development of an Integrated Suspended Sediment Sampling System - Prototype Results”, European Geosciences Union General Assembly 2015 Vienna, Austria | 12 – 17 April 2015, Vol. 17, EGU2015-698, 2015, 2015

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “*OncoSeed Diagnostics : Biology of Circulating Tumour Cells, Distant Metastasis & Development of Liquid Biopsy Methods*”, Funding Source : National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Operational Program Competitiveness & Entrepreneurship, “COOPERATION” – SUB ACTION II : Large Scale Cooperative Projects, Budget : € 101.750,00, Duration : Dec. 2010 – Dec. 2015
 - “THALES-CyberSensors: High Frequency Monitoring System for Integrated Water Resources Management of Rivers”, co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program “Education and Lifelong Learning” of the National Strategic Reference Framework (NSRF) – Research Funding Program: Thales. Investing in knowledge society through the European Social Fund, 1/10/2011 - 31/8/2015, Hellenic Ministry of Education – Total Funding: 600,000 €
 - Particip[ation in “Active Deformable micro-Cutters with Nano-Abrasives – ADCnano”, GSRT, Cooperation II, National Strategic Reference Framework (NSRF) Sept 2012-Sept 2015
- Project proposals submitted:
 - Targeting: Marie Curie ITN proposal with CERN
 - mHealthEco: proposal submitted today under the H2020-MSCA-ITN-ETN-2014 call
 - MyHEalthCare: submitted under H2020-PHC-2015-single-stage
 - Empower: submitted under H2020-PHC-2015-single-stage
 - CYBIC: submitted under H2020-WIDESPREAD-2014-1

E – Professional service

- Conference Technical Program Committee service
 - IEEE IST 2014: Program Co-Chair

- Reviewing activities
 - Journals: Biomedical Signal Processing and Control, IEEE Transactions on Human-Machine Systems, Journal of Visual Communication and Image Representation
 - Conferences: IEEE EMBC 2015, IEEE ICIP 2015, IEEE IST 2014, ISVC 2014

F – Service to the Department and the School

- Departmental responsibilities
 - Member and Vice-chair of ECE School
 - Digital Image and Signal Processing Laboratory, Director
 - Automation Laboratory, Director
- School – level responsibilities
 - Member and Vice-chair ELKE

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Chlis Nikolaos Cosmas (M.Sc.)
 - Lyronis Antonios (M.Sc.)
 - Feigler Igor (M.Sc. at Masaryk University, Brno, Czech Republic)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Liaba Irini (Ph.D.)
 - Livanos Georgios (Ph.D.)
 - Mirogiorgou Constantia (Ph.D.)
 - Sfakianakis Stylianos (Ph.D.)
 - Bacharidis Constantinos (M.Sc.)
 - Jaohar Osman (M.Sc.)
 - Karalas Constantinos (M.Sc.)
 - Pentari Anastasia (M.Sc.)
 - Vourlaki Ioanna – Theoni (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Papoutsoglou Georgios (Ph.D.)
 - Rematska Georgia (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Chliaoutakis Angelos (Ph.D.)
 - Kalantzaki Calliope (Ph.D.)
 - Koulieris Georgios – Alexandros (Ph.D.)
 - Oikonomidis Dimitrios (Ph.D.)
 - Tsapras Athanasios (Ph.D.)
 - Blazakis Constantinos (M.Sc.)
 - Christeas Dimitrios (M.Sc.)

- Epitropou Georgios (M.Sc.)
 - Kalokyri Varvara (M.Sc.)
 - Rossos Christos (M.Sc.)
 - Roussopoulos Christos (M.Sc.)
 - Thermolia Chryso (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Barberakis Stylianos
 - Gompaki Efstathia
 - Kirakosian Salva
 - Leska Valsamo
 - Pezoulas Vasilios
 - Tsakaneli Stavroula
 - Diploma theses completed (supervisor)
 - Alevizaki Androniki
 - Halepakis Dellis Dimitrios – Apostolos
 - Kotronia Maria
 - Kouloumentas Panagiotis
 - Diploma theses in progress (committee member)
 - Andronikakis Andreas
 - Boras Charalambos
 - Demertzis Eleftherios
 - Doitsinis Ioannis
 - Gotsoulias Dimitrios
 - Katsinelis Constantinos
 - Kontos Nikolaos
 - Malandrakis Miller Georgios
 - Marinaki Eftichia
 - Mourtzanos Triantafyllos
 - Papadopoulou Sofia
 - Pentafragas Georgios
 - Savva Androula
 - Spyrou Angeliki
 - Varsamidis Harissis
 - Vogiatzis Constantinos
 - Zafiriou Odysseas
 - Diploma theses completed (committee member)
 - Chatzimeletiou Vlasios
 - Farantos Georgios
 - Gardelakos Argyrios – Alexandros
 - Kalambogia Athena
 - Karatzaferis Efstathios – Alexandros
 - Klotsonis Alcibiades
 - Liverios Marinos – Ioannis
 - Nikolaou Spyridon
 - Trigkakis Dimitrios
 - Tsigdinos Stylianos

Faculty in the Sciences

Faculty Members

- Angelakis Dimitris, Assistant Professor
- Ellinas Demosthenes, Professor
- Manoussaki Daphne, Assistant Professor
- Pantinakis Apostolos, Assistant Professor
- Petrakis Minos, Associate Professor



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Dimitris Angelakis

Rank: Assistant Professor

Years in rank: 3

Full-time or part-time: Full-time

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
 - Quantum Technology (FYS 411)
 - Physics-Electromagnetism (FYS 102)
 - Physics II, School of Mineral Resources Engineering (FYS 102)
- Graduate courses taught
 - Quantum Technology (FYS 602) (crosslisted)
- Curriculum & course development
 - New courses / labs developed
 - Laboratory experiments for Electromagnetism, School of ECE
 - Lecture notes / slides developed
 - Slides for the theory part Physics-Electromagnetism (FYS 102)
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)
 - Accepted:
 - Published:
 - C. Lee, C. Noh, N. Schetakis, D. G. Angelakis* " Few-photon transport in many-body photonic systems: A scattering approach", Phys. Rev. A 92, 063817 (2015)
 - G. W. Hanson, S. A. H. Gangaraj, C. Lee, D. G. **Angelakis**, M. Tame "Quantum plasmonic excitation in graphene and robust-to-loss propagation", [Phys. Rev. 92, 013828 \(2015\)](#)

- R. Keil, C. Noh, A. Rai, S. Stutzer, S. Nolte, **D. G. Angelakis***, A. Szameit "Experimental simulation of charge conservation violation and Majorana dynamics", *Optica* 2,454 (2015)
 - Changyoup Lee, Amit Rai, Changsuk Noh, **Dimitris G. Angelakis***. " Photonic lattice simulation of dissipation-induced correlations in bosonic systems", in *Nature Scientific Reports* 5, 8438 (2015).
 - C. Lee, C. Noh, N. Schetakis, **D. G. Angelakis*** " Few-photon transport in many-body photonic systems: A scattering approach", *Phys. Rev. A* **92**, 063817 (2015)
- Patents
 - *GRANTED*

C – Awards & Distinctions

- Appointed in the Management Committee, the Core group and elected WG4 deputy leader for the EU COST Action "Nanoscale Quantum Optics", 2014-2018
- Our experimental work "Optical simulation of charge conservation violation and Majorana dynamics" published in *Optica* 2,4 54 (2015) was covered as:
 1. a focus article in **Optics & Photonics News (OPN)** entitled "Using light to simulate unphysical particles" May 2015
 2. news in the Science Section, **International Business Times**, as well as **phys.org** and **sciencedaily**, April 2015

D – Funded Projects

- Current projects:
- Project proposals submitted:

E – Professional service

- Associate Editor duties
 - Editorial board of *European Physical Journal: Quantum Technology*
 - Lead editor, "Quantum simulations". *European Physical Journal: Quantum Technology*, 2014.
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
 - Main organizer and chair of the program committee for the symposium on "Many body quantum optics: Merging condensed matter with AMO physics" within the 9th International Conference on Computational Physics (ICCP9), Singapore January 7-11, 2015.
<http://www.physics.nus.edu.sg/iccp9/iccp9/minisym.htm#C13>

- Reviewing activities
 - Referee for research proposals submitted to: the EU ERC Starting Grant scheme, the EU ERC Consolidator Grant scheme, the European Young Investigators Award Scheme, the Netherlands Organization for Scientific Research, Swiss Research Council, Polish Research Council, Austrian Research Council
 - Referee for scientific papers at: Science, Nature, Nature Physics, Nature Communications, Phys. Rev Let., Phys. Rev. A., New Jour. of Phys., Jour. of Opt. Soc. Amer. B, Journ. of Opt. Phys. A, Phys. Let. A, Opt. Comm., J. Mod. Opt., Eur. Phys. Let and Eur. Phys. Journ. D.

- Invited talks in international meetings
 - “Driven dissipative many body physics with light” Control of Quantum Dynamics of Atoms, Molecules and Ensembles by Light Workshop 2014, Bourgas, Bulgaria, June 2015
 - “Strongly interacting photons” International Winter School and Workshop on Strongly correlated fluids of light and matter, European Centre for Theoretical Studies in Nuclear Physics and related areas (ECT), Trento, Italy January 12th-23rd 2015
 - “Quantum simulations of exotic physics with photonic chips” The Benasque Workshop on Quantum Simulators, Benasque, Spain, February 22nd-27th 2015
 - “Quantum simulations of condensed matter and exotic phenomena with strongly correlated photons and polaritons” Advanced Workshop on Landau-Zener Interferometry and Quantum Control in Condensed Matter, ICTP workshop, Smyrna, Turkey, October 2014

F – Service to the Department and the School

- Departmental responsibilities
 - Member of the departmental staff committee

- School – level responsibilities
 - Member of the school of ECE staff committee

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Shetakis Nikolaos (pHD)
 - Kalogerakis Michalis (pHD)

 - Ph.D. and M.Sc. Degrees (committee member)
 - Konstantakis Christos (PhD)
 - Moutzianou Georgios (PhD)



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Demosthenes Ellinas

Rank: Professor

Years in rank: 6

Full-time or part-time: Full-time

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
 - MATH 201 : Linear Algebra (mandatory)
 - MATH 208 : Discrete Mathematics
 - MATH 302 : Applied Mathematics
 - MATH 412 : Introduction to Quantum Information Science
- Graduate courses taught
 - MATH 601 : Introduction to Quantum Information Science
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)
 - Accepted:
 - Published:
- Publications in refereed conferences
 - Published:
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
- School – level responsibilities

G – Advising

- Active graduate students supervised
 - o Ph.D. and M.Sc. students supervised (advisor, completed)
 - o Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Dimitriadis Alexandros
 - Konstantakis Christos
 - Moutzianou Georgios
 - o Ph.D. and M.Sc. degrees awarded (committee member)
 - o Ph.D. and M.Sc. Degrees (committee member)
 - Shetakis Nikolaos
- Undergraduate students supervised
 - o Diploma theses in progress
 - o Diploma theses completed (supervisor)
 - o Diploma theses in progress (committee member)
 - o Diploma theses completed (committee member)



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Daphne Manoussaki

Rank: Assistant Professor

Years in rank: 9

Full-time or part-time: Full

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
 - MATH 101 : Mathematics I (mandatory)

B – Publications

- Publications in refereed journals
 - Cytosolic pressure provides a propulsive force comparable to actin polymerization during lamellipod protrusion, Scientific Reports 5, Article Number 12314, 2015

Link: <http://www.nature.com/articles/srep12314>

C – Awards & Distinctions

D – Funded Projects

E – Professional service

- Society Technical Committee duties
 - Member of the National Council for Higher Education

F – Service to the Department and the School

- Departmental responsibilities
 - Member of the Undergraduate Curriculum Committee

G – Advising

- Active graduate students supervised
 - o Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Nikos Papadakis (Ph.D. Student, member of the advisory committee)
 - Triantafyllia Kili (M.Sc. Student, advisor)
 - Anthi Kokkinaki (M.Sc. Student, advisor).



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Apostolos Pantinakis

Rank: Assistant Professor

Years in rank: 21

Full-time or part-time: Full-time

Division:

Lab affiliation: Research Laboratory of Experimental Physics

A – Teaching

- Undergraduate courses taught
 - PHYS 101 : Physics (Mechanics – Heat)
 - PHYS 102 : Physics (Electromagnetism)
- Graduate courses taught
 - PHYS 601: Techniques for detecting electromagnetic fields and radiation
- Curriculum & course development
 - New courses / labs developed
 - Open course: Physics (Mechanics –Heat)
 - Open course: Physics (Electromagnetism)
 - Lecture notes / slides developed
 - Authored textbooks
 - Physics Elements for scientists and engineers II Electromagnetism, 3rd ed.

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)
 - Accepted:
 - Published:
- Publications in refereed conferences
 - Published:
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
 - Postgraduate committee member

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Batsaki Elessa, Ph.D. student
 - Pantzekos Panagiotis, Ph.D. student
 - Violakis Efstratios, Ph.D. student
 - Ph.D. and M.Sc. Degrees (committee member)
 - Doukakis Markos Ph.D. student (MRED)
- Undergraduate students supervised
 - Diploma theses completed (committee member)
 - Tzivelopoulos Ioannis



**Technical University of Crete
School of Electronic & Computer Engineering**

Annual Activity Report

For the period: Sep. 1, 2014 to Aug. 31, 2015

Name: Minos Petrakis

Rank: Associate Professor

Years in rank: 1,5

Full-time or part-time: Full-time

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
 - MATH 102 : Mathematics II (mandatory)
 - MATH 107 : Probability Theory – Statistics (mandatory)
- Graduate courses taught
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)
 - Accepted:
 - Published:
- Publications in refereed conferences
 - Published:
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
- School – level responsibilities

G – Advising

- Active graduate students supervised
 - o Ph.D. and M.Sc. students supervised (advisor, completed)
 - o Ph.D. and M.Sc. students supervised (advisor, in progress)
 - o Ph.D. and M.Sc. degrees awarded (committee member)
 - o Ph.D. and M.Sc. Degrees (committee member)
- Undergraduate students supervised
 - o Diploma theses in progress
 - o Diploma theses completed (supervisor)
 - o Diploma theses in progress (committee member)
 - o Diploma theses completed (committee member)