

TECHNICAL UNIVERSITY OF CRETE

**School
of Electronic
and Computer
Engineering**



Annual Activity Report

Sep 2013 – Aug 2014

[DRAFT]

Chania 2014

Computer Science Division

Faculty Members

- Chalkiadakis Georgios, Assistant Professor
- Christodoulakis Stavros, Professor
- Deligiannakis Antonios, Associate Professor
- Garofalakis Minos, Professor
- Lagoudakis Michail, Associate Professor
- Mania Katerina, 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, 2013 to Aug. 31, 2014

Name: Georgios Chalkiadakis

Rank: Assistant Professor

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

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Intelligent Systems Laboratory

A – Teaching

- Undergraduate courses taught
 - COMP 517 : Multiagent Systems (Winter 2013)
 - COMP 201 : Design and Development of Information Systems (Winter 2013)
 - ECE 101 : Introduction to Electronic and Computer Engineering
- Graduate courses taught
 - COMP 606 : Multiagent Systems
- Curriculum & course development
 - Updated course material/slides for all aforementioned courses taught

B – Publications

- 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 with revisions; awaiting for revisions' approval**
 - **Agent-Based Modeling of Ancient Societies and their Organization Structure.** With A. Chliaoutakis. *Submitted to Autonomous Agents and Multi-Agent Systems (JAAMAS).*
- Publications in refereed conferences

(Thoroughly peer-reviewed, almost always under a double-blind reviewing process)

 - **Published (full papers):**
 - Konstantinos Babas, Georgios Chalkiadakis, and Evangelos Tripolitakis: [You Are What You Consume: A Bayesian Method For Personalized Recommendations.](#) In Proc. of the 7th ACM Conference on Recommender Systems (ACM RecSys 2013), Hong Kong, China, October 2013.

C – Awards & Distinctions

1. **(Pending final result, to be announced Nov 2014): Reached the interview 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.**
 3. **Grant Proposals Reviewer for**
 - The Natural Sciences and Engineering Research Council of Canada (NSERC)
 - The Israel Science Foundation
 - The French National Research Agency
- Extended Invited Research Visits
 - Invited Professor at the Institut de Recherche en Informatique de Toulouse, University of Toulouse, France. Duration: 1 month (Aug–Sep 2014) Topic: Bayesian Methods for Discourse Parsing
 - Invited Talks
 - “On Cooperative (Coalitional) Games in the Context of Multiagent Systems”. Institut de Recherche en Informatique de Toulouse, University of Toulouse, France, September 2014.
 - “Recommender Systems: Applying Mathematical Models to Predict Human Behaviour”. Universitat International Menendez Pelayo Barcelona (UIMP Barcelona), “The Transparent Brain Seminar”, July 2014.

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
- Project proposals submitted:
 - **A proposal for the ERC Starting Grant 2014 (value: 1.1 million euros).** Role: Principal Investigator

- **A Future and Emerging Technologies (FET) Horizon 2020 proposal.** Role: Co-author, TUC team contact person

E – Professional service

- Conference Senior Program Committee service
 - The 14th International Conference on Autonomous Agents and Multiagent Systems, Istanbul, Turkey, May 2015 (AAMAS-15)
- Conference Technical Program Committee service
 - The 29th AAI Conference on Artificial Intelligence, Austin, Texas, USA, January 2015 (AAAI-15).
 - Program Committee member: The 23rd International Joint Conference on Artificial Intelligence, Beijing, China, 2013 (IJCAI-13).
 - Program Committee member: The 2014 Conference on Prestigious Applications of Intelligent Systems, Prague, Czech Republic, August 2014 (ECAI/PAIS-2014)
- Conference Organization
 - *Scientific Committee Member and Local Organization Chair for the 16th European Agent Systems Summer School (EASSS-2014), Chania, Crete, July 14-18, 2014.*
 - Co-chair of the 5th *Workshop on Cooperative Games in Multiagent Systems (CoopMAS-2014)*, an AAMAS-2014 workshop, Paris, France, May 2014.
- 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)

F – Service to the Department and the School

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 degrees awarded (supervisor)
- Charilaos Akasiadis: mechanism design, and intelligent agent technologies for the Smart Grid. Defended December 2013.
- Konstantinos Babas (MSc student): recommendation systems. Defended June 2014.
- MSc theses in progress (supervisor)
- Angelos Angelidakis: intelligent agent technologies in the smart grid domain
- Aris Kidonakis: machine learning and multiagent systems

- Undergraduate students supervised
- Diploma theses completed (supervisor)
- Konstantinos Panousis (graduated June 2014; currently an MSc Student at University College London, UK): worked on reinforcement learning in multiagent game environments – and applying RL algorithms in the competitive multi-agent strategy game “Settlers of Catan”.
- Orfeas Romaidis (graduated July 2014): worked on employing reinforcement learning techniques for optimal solar tracking in photovoltaic systems
- Nektarios Mitakidis (graduated October 2014): worked on agent-oriented software engineering.
- Juliana Peres Hernandez Sanches (graduated July 2014): worked on the design and implementation of a Game Theory applications toolkit for smartphone (Android) devices

- Diploma theses in progress (supervisor)
- Marios Asiminakis: works on applying machine learning and stochastic search techniques on solving the game of bridge
- Georgios Kastrinakis: works on team formation and learning in the Fantasy Football application domain
- 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 Expected defence date: November 2014
- Joseph Bitzanakis: works on developing and verifying the applicability of various pricing mechanisms and algorithms for Virtual Power Plants
- Filippos Christianos: works on mechanisms for the smooth integration of electric vehicles in the Smart Grid
- Efthimios Floros: agent-oriented software engineering



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Stavros Christodoulakis

Rank: Professor

Years in rank: 25

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 419 : Web Information Systems
 - AIS 512 : Information, Semantics, and Services in the Web
- Graduate courses taught
 - AIS 601 : Web Information Systems
(Offered jointly with AIS 419)
 - AIS 604 : Information, Semantics, and Services in the Web
(Offered jointly with AIS 512)
- 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)
 - The SPARQL2XQuery Interoperability Framework: Bikakis N., Tsinaraki C., Stavrakantonakis G., Gioldasis N., Christodoulakis S. In the WWW Journal 2014.
 - Metadata management, interoperability and Linked Data publishing support for Natural History Museums, Skevakis G., Makris K., Kalokyri V., Arapi P., Christodoulakis S., International Journal on Digital Libraries (IJDL) 2014.
 - G. Skevakis, C. Tsinaraki, I. Trochatou, S. Christodoulakis, “A crowdsourcing framework for the management of mobile multimedia nature observations”. In the International Journal of

Pervasive Computing and Communications, Volume 10 Issue 4, IJPCC, Emerald Publishing 2014 194.

- Data Management Research at the Technical University of Crete: Christodoulakis S., Garofalakis M., Petrakis E.: SIGMOD Record - Web Edition, Volume 42, Number 4, December 2013 2013 (magazine publication).
- Interoperability between the XML and Semantic Web Worlds: A Survey of the State of the Art, Bikakis N., Tsinaraki C., Gioldasis N., Stavrakantonakis G., Christodoulakis S. In the "Semantic Hyper/Multimedia Adaptation" Springer series, pp. 319-360, 2013 2013 (Book Chapter).
- Spatiotemporal Event Visualization on top of Google Earth: Tsinaraki C., Tarantilis N., Kazasis F., Gioldasis N., Christodoulakis S. in "Semantic Multimedia Analysis and Processing", CRC Press 2013 (Book Chapter)

o Accepted / Published :

- The SPARQL2XQuery Interoperability Framework: Bikakis N., Tsinaraki C., Stavrakantonakis G., Gioldasis N., Christodoulakis S. In the WWW Journal 2014
- Metadata management, interoperability and Linked Data publishing support for Natural History Museums, Skevakis G., Makris K., Kalokyri V., Arapi P., Christodoulakis S., International Journal on Digital Libraries (IJDL) 2014
- G. Skevakis, C. Tsinaraki, I. Trochatou, S. Christodoulakis, "A crowdsourcing framework for the management of mobile multimedia nature observations". In the International Journal of Pervasive Computing and Communications, Volume 10 Issue 4, IJPCC, Emerald Publishing 2014 194
- Data Management Research at the Technical University of Crete: Christodoulakis S., Garofalakis M., Petrakis E.: SIGMOD Record - Web Edition, Volume 42, Number 4, December 2013 2013 (magazine publication)
- Interoperability between the XML and Semantic Web Worlds: A Survey of the State of the Art, Bikakis N., Tsinaraki C., Gioldasis N., Stavrakantonakis G., Christodoulakis S. In the "Semantic Hyper/Multimedia Adaptation" Springer series, pp. 319-360, 2013 (Book Chapter)
- Spatiotemporal Event Visualization on top of Google Earth: Tsinaraki C., Tarantilis N., Kazasis F., Gioldasis N., Christodoulakis S. in "Semantic Multimedia Analysis and Processing", CRC Press 2013 (Book Chapter)

● Conference Publications

o Published:

- Trends in Digital Cultural Heritage Management and Applications: Christodoulakis S.: In the Proceedings of the Fourth International Conference on Digital Presentation and Preservation of Cultural and Scientific Heritage - DiPP 2014
- Metadata Management and Interoperability Support for Natural History Museums: Makris K., Skevakis G., Kalokyri V., Arapi P., Christodoulakis S.: 17th International Conference on Theory and Practice of Digital Libraries (TPDL) 2013
- Elevating Natural History Museums' Cultural Collections to the Linked Data Cloud: Skevakis G., Makris K., Arapi P., Christodoulakis S. 3rd International Workshop on Semantic Digital Archives (SDA), In conjunction with the 17th International Conference on Theory and Practice of Digital Libraries (TPDL) 2013

- MoM-NOCS: Management of Mobile Multimedia Nature Observations using Crowd Sourcing: Tsinaraki C., Skevakis G., Trochatou I., Christodoulakis S.: In the proceedings of the 11th International Conference on Advances in Mobile Computing and Multimedia, MoMM 2013
- Supporting SPARQL Update Queries in RDF-XML Integration: Bikakis N., Tsinaraki C., Stavrakantonakis G., Christodoulakis S.: 13th International Semantic Web Conference (ISWC '14) 2014 (poster publication)
- Federating Natural History Museums in Natural Europe: Makris K., Skevakis G., Kalokyri V., Arapi P., Christodoulakis S., Stoitsis J., Manolis N., Rojas S.: 7th Metadata Semantics and Research Conference (MTSR) 2013
- Contextual Geospatial Picture Understanding, Management and Visualization: Christodoulakis S., Foukarakis M., Tsinaraki C., Ragia L., Kanellidi E.: In the proceedings of the 11th International Conference on Advances in Mobile Computing and Multimedia, MoMM 2013.
- CoLearn: Real Time Collaborative Learning Environment: Stylianakis G., Moumoutzis N., Arapi P., Christodoulakis S.: The Second International Conference on E-Learning and E-Technologies in Education (ICEEE2013), Sept. 23-25 Poland 2013
- Octopus: A Collaborative Environment Supporting the Development of Effective Instructional Design: Mylonakis M., Arapi P., Moumoutzis N., Christodoulakis S., Ampartzaki M.: The Second International Conference on E-Learning and E-Technologies in Education (ICEEE2013), Sept. 23-25 Poland 2013
- When eShadow met ALICE and Akritans: Christoulakis M., Pitsiladis A., Stergiopoulos P., Moumoutzis N., Moraiti A., Maragoudakis I., Christodoulakis S.: Adults learning for intergenerational creative experiences, ALICE International Conference, Bucharest, October 2013
- COLearn and Open Discovery Space Portal alignment - A case of enriching open learning infrastructures with collaborative learning capabilities from 8th International Conference on Interactive Mobile Communication Technologies and Learning 2014 (IMCL 2014)

C – Awards & Distinctions

- Keynote address speech: Trends in Digital Cultural Heritage Management and Applications: Christodoulakis S.: In the Fourth International Conference on Digital Presentation and Preservation of Cultural and Scientific Heritage - DiPP 2014
- Invited Talk: Contextual Visualization and Interactions, ISIS 2014 Conference, Kuala Lumpur, 2014
- Invited Talk: Big Data and Cloud: Trends, Applications and Training, Talk, Workshop on Data Management in the Cloud Era, Kuala Lumpur, 2014

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 – Oct. 2013

- "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 - Mar. 2015
- ALICE: "Adult's Learning for Intergenerational Learning Experience", EU Grundwik, Budget : 45.000,00, Duration : 2011 - 2013
- QONIAon : Vet Qualification Practice For e-Inclusion, EU, Budget : € 48.327,00, Duration : Oct. 2013 – Sep. 2015
- Project proposals submitted:
 - EVANDE, EU, Accepted, starting January 2015.
 - Sociomedicare, Crete, Accepted (Region of Crete)

E – Professional service

F – Service to the Department and the School

- Departmental responsibilities
 - Graduate Committee ECE
 - Lab Director ECE (MUSIC)
- School – level responsibilities
 - Scientific Board, Institute of Telecommunications, TUC
 - Member of the Senate, TUC

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Makris Constantinos (M.Sc.)
 - Skevakis Yannis (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Arapi Polyxeni (PhD)
 - Christoulakis Marios (M.Sc.)
 - Kalokyri Varvara (M.Sc.)
 - Pitsiladis Andreas (M.Sc.)
 - Trohatou Ioanna (M.Sc.)
 - Sifakis Ioannis (M.Sc.)
 - Stylianakis Georgios (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Flouris Ioannis (M.Sc.)
- Undergraduate students supervised

- Diploma theses in progress
 - Christodouloupoulos Christos
 - Kontogiannis Petros
 - Koutsouris Themistoklis
 - Lidas Stefanos
 - Makris Dimitrios – Ioannis
 - Troulitakis Apostolos

- Diploma theses in progress (committee member)
 - Kotsarinis Panagiotis
 - Sariggelos Athanasios
 - Sarri Efrosini
 - Sidorakis Nikolaos

- Diploma theses completed (committee member)
 - Anagnostopoulos Eleftherios
 - Demertzis Ioannis
 - Giakoumidakis Ioannis
 - Mainas Nikolaos



**Technical University of Crete
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Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Antonios Deligiannakis

Rank: Associate Professor

Years in rank: 1

Full-time or part-time: Full-time

Division: Computer Science

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

A – Teaching

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

B – Publications

- Publications in refereed journals
 - Published:
 - [Daniel Keren](#), [Guy Sagy](#), [Amir Abboud](#), [David Ben-David](#), [Assaf Schuster](#), [Izchak Sharfman](#), Antonios Deligiannakis: Geometric Monitoring of Heterogeneous Streams. [IEEE Trans. Knowl. Data Eng.](#) **26**(8): 1890-1903 (2014)
 - [Nikos Giatrakos](#), Antonios Deligiannakis, [Minos N. Garofalakis](#), [Izchak Sharfman](#), [Assaf Schuster](#): Distributed Geometric Query Monitoring Using Prediction Models. [ACM Trans. Database Syst.](#) **39**(2): 16 (2014)

- [Nikos Giatrakos](#), [Yannis Kotidis](#), Antonios Deligiannakis, [Vasilis Vassalos](#), [Yannis Theodoridis](#): In-network approximate computation of outliers with quality guarantees. [Inf. Syst. 38](#)(8): 1285-1308 (2013)
- [Stavros Christodoulakis](#), [Minos N. Garofalakis](#), [Euripides G. M. Petrakis](#), Antonios Deligiannakis, [Vasilis Samoladas](#), [Ekaterini Ioannou](#), [Odysseas Papapetrou](#), [Stelios Sotiriadis](#): Data management research at the technical university of crete. [SIGMOD Record 42](#)(4): 61-66 (2013)
- Publications in refereed conferences
 - Published:
 - [Daniel Keren](#), [Guy Sagy](#), [Amir Abboud](#), [David Ben-David](#), [Assaf Schuster](#), [Izchak Sharfman](#), Antonios Deligiannakis: Monitoring Distributed, Heterogeneous Data Streams: The Emergence of Safe Zones. [ICAA 2014](#): 17-28
 - [Antonios Igglezakis](#), Antonios Deligiannakis, [Aggelos Bletsas](#): Geometric monitoring for CSI reduction in amplify-and-forward relay networks. [ICASSP 2014](#): 2729-2733

C – Awards & Distinctions

D – Funded Projects

E – Professional service

- Conference Technical Program Committee service
 - PVLDB 2014
 - IEEE ICDE 2014
 - ACM CIKM 2014
- Reviewing activities
 - IEEE TKDE

F – Service to the Department and the School

- Departmental responsibilities
 - Substitute member of the Undergraduate Program Committee

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Flouris Ioannis (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Flouris Ioannis (Ph.D.)

- Stergios Charalambakis (Ph.D.)
- Antonios Igglezakis (M.Sc.)
- Sabbas Burdakis (M.Sc.)

- Ph.D. and M.Sc. Degrees (committee member)
 - Akasiadis Charilaos (M.Sc.)
 - Fasarakis – Chilliard Nikolaos (M.Sc.)
 - Makris Konstantinos (M.Sc.)
 - Perros Joachim (M.Sc.)

- Undergraduate students supervised

- Diploma theses in progress
 - Manikaki Vasiliki

- Diploma theses completed (supervisor)
 - Maropaki Stella
 - Mavrikou Marina
 - Papadakis Ioannis

- Diploma theses in progress (committee member)
 - Asiminakis Marios
 - Balabanis Stylianos
 - Demetriou Georgios
 - Fytanoglou Iordanis
 - Grammenos Andreas
 - Koutsouris Themistoklis
 - Kyriakakis Dimitrios
 - Makris Dimitrios
 - Malindretos Eleftherios
 - Paliatsa Dimitra
 - Souris Anastasios
 - Surlantzis Sotirios
 - Vakanas Lenos

- Diploma theses completed (committee member)
 - Demertzis Ioannis
 - Fragiadoulakis Georgios
 - Goros Dimitrios
 - Mavrommatis Alexandros
 - Panousis Constantinos
 - Tsihli Constantinos
 - Verykokidi Eleni – Angela



**Technical University of Crete
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Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Minos Garofalakis

Rank: Professor

Years in rank: 6 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
 - COMP 401: Algorithms and Complexity (mandatory)
 - COMP 415: Advanced Topics in Database Systems
- Graduate courses taught
 - COMP 627: Approximate Methods for Massive Databases and Data Streams
- Labs taught
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted
 - Accepted:
 - Published:
 - Stavros Papadopoulos, Graham Cormode, Antonios Deligiannakis, and Minos Garofalakis. “Lightweight Query Authentication on Streams”,

ACM Transactions on Database Systems, 2014 (SIGMOD/PODS'2013 Special Issue).

- Nikos Giatrakos, Antonios Deligiannakis, Minos Garofalakis, Izchak Sharfman, and Assaf Schuster. "Distributed Geometric Query Monitoring using Prediction Models", *ACM Transactions on Database Systems*, Vol. 39, No. 2, May 2014.
- Kalliopi D. Kalantzaki, Ekaterini S. Bei, K. P. Exarchos, Michalis Zervakis, Minos Garofalakis, and D. I. Fotiadis. "Nonparametric Network Design and Analyses of Disease Genes in Oral Cancer Progression", *IEEE Journal of Biomedical and Health Informatics*, Vol. 18, No. 2, March 2014.
- Stavros Christodoulakis, Minos Garofalakis, Euripides G.M. Petrakis, Antonios Deligiannakis, Vasilis Samoladas, Ekaterini Ioannou, Odysseas Papapetrou, and Stelios Sotiriadis. "Data Management Research at the Technical University of Crete", *ACM SIGMOD Record*, Vol. 42, No. 4, December 2013.
- Kalliopi D. Kalantzaki, Ekaterini S. Bei, Minos Garofalakis, and Michalis Zervakis. "Biological Interaction Networks based on Non-Parametric Estimation", *International Journal of Biomedical Engineering and Technology*, Vol. 13, No. 4, 2013.

- Publications in refereed conferences

- Accepted:

- Published:

- Minos Garofalakis, Daniel Keren, and Vasilis Samoladas. "[Sketch-based Geometric Monitoring of Distributed Stream Queries](#)", *Proceedings of VLDB'2013 (PVLDB, Vol. 6, No. 10)*, Trento, Italy, September 2013.
- 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

- Graham Cormode, Ke Yi, Antonios Deligiannakis, and Minos Garofalakis (Eds.). [Proceedings of the First International Workshop on Big Dynamic Distributed Data \(BD3\) -- Co-located with VLDB'2013](#), Riva del Garda, Italy, August 30, 2013. (ISSN 1613-0073)
- Sihem Amer-Yahia, Vassilis Christophides, Anastasios Kementsietsidis, Minos Garofalakis, Stratos Idreos, and Vincent Leroy (Eds.). [Proceedings of the 17th International Conference on Extending Database Technology \(EDBT\)](#), Athens, Greece, March 2014. (OpenProceedings.org 2014)

- Patents

- Graham Cormode and Minos Garofalakis. "[Methods and Apparatus to Construct Histogram and Wavelet Synopses for Probabilistic Data](#)", U.S. Patent No. 8,775,362, Issued July 8, 2014. (Filed February 2013)

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*
 - FP7-ICT-2009-FET Open Collaborative STREP
Project: *“LIFT – Using Local Inference in Massively Distributed Systems”*
Duration: Oct. 2010 – Nov. 2013
Total funding: 2.5Me, TUC budget: 482Ke
Role: *Principal Investigator for TUC*
 - FP7-PEOPLE-2009-RG (Marie-Curie International Reintegration Grant) PIRG05-GA-2009-249217
“HeisenData: Towards a Next-Generation Uncertain-Data Management System”
Duration: Apr. 2010 – Mar. 2014
Role: *Fellow & Scientist-in-Charge.* (Total funding: 100Ke)
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- [ACM SIGMOD Jim Gray Doctoral Dissertation Award](#): Committee Member (2013 -- present)
- [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 (2013), VLDB (2013, 2014), EDBT (2013), ACM SIGKDD (2013,2014), UAI (2013,2014), ICDCS (2014), ACM DEBS (2013,2014)

- Conference Organization (specify role)
- [2014 ACM International Conference on Information and Knowledge Management \(CIKM'2014\)](#), Shanghai, China: PC Chair (Knowledge Management Track)
- [2013 ACM International Conference on Information and Knowledge Management \(CIKM'2013\)](#), San Francisco, CA: Senior PC Member (Database Track & Knowledge Management Track)

- 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)
 - Perros Ioakeim (M.Sc.)
 - Vazaios Evangelos (M.Sc.)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Kalantzaki Calliope (phD)
 - Vazaios Evangelos (phD)
 - Demertzis Ioannis (M.Sc.)
 - Mavrommatis Alexandros (M.Sc.)
- Ph.D. and M.Sc. Degrees (committee member)
 - Joseph Elias (phD)
 - Eliou Dimitrios (M.Sc.)

- Flouris Ioannis (M.Sc.)
- Kalantzaki Calliope (M.Sc.)
- Kofinas Nikolaos (M.Sc.)

- Undergraduate students supervised

- Diploma theses in progress
 - Grammenos Andreas

- Diploma theses completed (supervisor)
 - Demertzis Ioannis
 - Fragiadoulakis Georgios

- Diploma theses in progress (committee member)
 - Douzis Constantinos
 - Manikaki Vasiliki

- Diploma theses completed (committee member)
 - Kargas Nikolaos
 - Maropaki Stella
 - Mavrikou Marina
 - Nikolakaki Sofia – Maria
 - Papadakis Ioannis
 - Stratikopoulos Athanasios



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Michail G. Lagoudakis

Rank: Associate Professor

Years in rank: 1

Full-time or part-time: Full-time

Division: Computer Science

Lab affiliation: Intelligent Systems Laboratory

A – Teaching

- Undergraduate courses taught
 - COMP 402 : Theory of Computation [mandatory] (Spring 2014)
 - COMP 417 : Artificial Intelligence [elective] (Spring 2014)

- Graduate courses taught
 - COMP 613 : Machine Learning (Fall 2013)

- Labs taught
 -

- Curriculum & course development
 - New courses / labs developed
 -
 - Lecture notes / slides developed
 - Developed new lecture slides for Machine Learning
 - Updated lecture slides for Theory of Computation
 - Updated lecture slides for Artificial Intelligence

B – Publications

- Publications in refereed journals
 - Published:
 - Ioannis Rexakis and **Michail G. Lagoudakis**, “Directed Policy Search for Decision Making using Relevance Vector Machines,” Journal of Artificial Intelligence Tools (JAIT), 23(4), 2014, p 1-21.
 - Nikolaos Kofinas, Emmanouil Orfanoudakis, **Michail G. Lagoudakis**, “Complete Analytical Forward and Inverse Kinematics for the NAO

Humanoid Robot”, Journal of Intelligent and Robotic Systems (JINT), 2014, pp. 1–14.

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

C – Awards & Distinctions

- Research Distinction
 - Team Kouretes was video-featured on the Academic and Scientific Excellence Node of the Hellenic Ministry of Education:
<http://excellence.minedu.gov.gr/listing/506-soccer-robotics>
- Invited Speaker
 - *Reinforcement Learning as Classification: Exploiting Structure for Directed Policy Search*, Research Talk, School of Informatics, University of Edinburgh, U.K., May 2014

D – Funded Projects

- Current projects:
 - “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).
 - “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: INF50-ICT-270180, PIs: N. Liavas and M. G. Lagoudakis, Budget: 524,300€ (for TSI/TUC).
- Project proposals submitted:

E – Professional service

- Associate Editor duties
 - *Editorial Board*, Journal of Intelligent Learning Systems and Applications
- Society Technical Committee duties
 - *Standard Platform League Executive Committee*, RoboCup Federation
 - *Technical Committee on Robot Learning*, IEEE Robotics and Automation
- Conference Technical Program Committee service
 - *28th AAAI Conference on Artificial Intelligence (AAAI 2014)*

- *8th Workshop on Wireless Sensor, Actuator and Robot Networks 2014*
- *14th Intl Conf on Autonomous Robot Systems and Competitions 2014*
- Reviewing activities
- *Reviewer, IEEE European Control Conference 2014*
- *Reviewer, IEEE Transactions on Cybernetics (ToC)*

F – Service to the Department and the School

- Departmental responsibilities
- *Editor, Undergraduate Program Guide (Greek and English)*
- School – level responsibilities
- *Vice Departmental Representative, TUC Library Committee*

G – Advising

- Graduate students
- Ph.D and M.Sc. theses completed (supervisor)
 - Stylianos Piperakis (M.Sc. program) , “Predictive control for stable dynamic locomotion of real humanoid robots”, Defended Jul 2014.
 - Nikolaos Kofinas (M.Sc. program), “Grammatical inference for event recognition”, Defended Jul 2014.
- Ph.D. and M.Sc. theses in progress (supervisor)
 - Rexakis Ioannis (Ph.D. program), “Reinforcement Learning via Supervised Learning”, Enrollment: 2006 – part-time
 - Eleftherios Chatzilaris (M.Sc. program), “Coordinated Action and Learning in RoboCup ”, Enrollment: 2009
 - Ioannis Skoulakis (M.Sc. program), “Efficient Reinforcement Learning in Alternating Games ”, Enrollment: 2010
 - Emmanuil Orfanoudakis (M.Sc. program), “Event Recognition in Underwater Robot Team Missions”, Enrollment: 2012
 - Evangelos Michelioudakis, “Event Recognition in Data Streams”, Enrollment: 2014
- Ph.D and M.Sc. theses completed (committee member)
 - Bilal Hashem Kalil Abed-Alguni (Ph.D. program), “Cooperative Reinforcement Learning for Independent Learners”, School of Electrical Engineering and Computer Science, University of Newcastle, NSW, Australia . Defended: Jul 2014.
 - Majd Hawasly (Ph.D. program), “Policy Space Abstraction for a Lifelong Learning Agent ”, Institute of Perception, Action and Behaviour, School of Informatics, University of Edinburgh, U.K. Defended: May 2014.
 - Savas Piperidis (Ph.D. program), “Autonomous Underwater Robots’ Cooperative Behaviour”, School of Production Engineering and Management, TUC. Defended: Apr 2014.
 - Emmanouil Alimpertis, (M.Sc. program), “Smart Sensors of RF and Backscatter Signals with Localization ”, ECE, TUC. Defended Ayg 2014.
 - Ioakeim Perros, (M.Sc. program), “Stochastic Pagerank Maintenance over Shared-Nothing Architectures ”, ECE, TUC. Defended Jul 2014.
 - Konstantinos Babas, (M.Sc. program), “A Bayesian Personalized Recommendation System ”, ECE, TUC. Defended Jun 2014.
 - Konstantinos E. Makris, (M.Sc. program), “The SPARQL-RW Framework: Mapping Modeling and Query Rewriting for Ontology-Based Mediators ”, ECE, TUC. Defended May 2014.

- Alexandros Georgogiannis, (M.Sc. program), “Regularized Optimization Applied to Clustering and Estimation of Multiple Undirected Graphical Models”, ECE, TUC. Defended Apr 2014.
- Charilaos Akasiadis, (M.Sc. program), “A Novel Electricity Demand Management Scheme via Multiagent Cooperatives in the Smart Grid”, ECE, TUC. Defended Dec 2014.
- Evangelos E. Vazaios, (M.Sc. program), “BePadoop: Large Scale Exact Belief Propagation on Hadoop”, ECE, TUC. Defended Oct 2014.
- Ph.D and M.Sc. theses in progress (committee member)
 - Georgios Kontes (Ph.D. program), “Model-Assisted Control For Energy Efficiency In Buildings”, School of Production Engineering and Management, TUC.
 - Georgios Limnaios (Ph.D. program), “Design of Robust and Intelligent Control and Navigation Algorithms for Unmanned Aerial Vehicles”, School of Production Engineering and Management, TUC.
 - Anestis Fachantidis (Ph.D. program), “Knowledge Transfer in Reinforcement Learning”, Department of Informatics, Aristotle University of Thessaloniki, Greece.
- Undergraduate students
 - Diploma theses completed (supervisor)
 - Stylianos Tsigdinos, “Systematic Search and Reinforcement Learning for the Board Game Backgammon”
 - Georgios Papadimitriou, “Extending Kouretes Statechart Editor for Executing Statechart-Based Robotic Behavior Models ”
 - Nikolaos Makropoulos, “Hardware and Software Design for a Maze-Solving Robot ”
 - Evangelos Michelioudakis, “Dynamic Multi-Robot Coordination for the RoboCup Standard Platform League”
 - Nikolaos Kargas, “Robust Localization for the RoboCup Standard Platform League”
 - Diploma theses in progress (supervisor)
 - Ioannis Liverios-Marinos, “Visual Color and Field Line Recognition and Exploitation for the RoboCup Standard Platform League ”
 - Dimitrios Trigkakis, “Design and Implementation of an Autonomous Agent for the “League of Legends” Game”
 - Diploma theses completed (committee member)
 - Konstantinos Karalas, “Sentiment Analysis Using Continuous-Space Language Models”
 - Alexandros Mavrommatis, “Design and Implementation of an Interactive 3D Simulation of the Board Game “Cluedo” Using Autonomous Software Opponents”
 - Marios Antonakakis, “Magnetoencephalogram (MEG) Analysis using Independent Components Analysis (ICA)”
 - Lazaros Dougiakis, “Text Categorization in Continuous Space using Gaussian Mixture Models”
 - Dimitrios Kagiara, “Continuous Language Models with Semantic and Syntactic Information”
 - Michail Papakostas, “Continuous Language Model Adaptation”
 - Ioannis Koutsoukos, “Automated Classification of Pollen Grains from Microscope Images using Computer Vision and Semantic Web Technologies”
 - Eleftherios Anagnostopoulos, “CHRONOS: A Reasoning Engine for Qualitative Temporal Information in OWL”
 - Nikolaos Mainas, “CHOROS 2.0: Improving the Performance of Spatial Reasoning in OWL”
 - Konstantinos Pechlivanis, “Clustering and Optimization in Continuous Language Models”
 - Michail Karvelas-Kalogerakis, “Lung Adenocarcinoma Analysis through Digital Image Processing”
 - Konstantinos Bacharidis, “Fluid flow motion estimation using video data”
 - Michail Tsepapadakis, “Recognition and Characterization of Traffic in Traffic Videos”

- Anna Repousi, “Device System for Electronic Patient Records in Hospitals using Android Technology”
- Eleni-Angela Verykokidi, “Development of a 3D game for mobile platforms with autonomous interactive characters”
- Konstantinos-Panagiotis Panousis, “Real-time Planning and Learning in the “Settlers of Catan” Strategy Game”
- Marianna Dimitriou, “Digital storytelling with interactive edutainment in Android application”
- Vasilios Koutlis, “Development of an autofocus system for digital cameras”
- Evangelos Gatzos, “Development of a self-screening/training mobile platform for eye pathologies”
- Despoina Georgiadou, “Spoken language classification for automated call routing”
- Juliana Peres Hernandez Sanches, “Design and implementation of a game theory application toolkit for handheld devices”
- Georgios-Orpheus Romaidis, “Moving windows value iteration for effective solar tracking”
- Eleni Chiou, “Data classification and mapping in optical dynamic contrast-enhanced imaging of cervical neoplasia”
- Student team projects
 - Founder and leader of the RoboCup team Kouretes (www.kouretes.gr), the first and only Greek team participating in the RoboCup competition. Kouretes 2013-2014 consisted of two graduate and three undergraduate ECE students working on their master's/diploma theses.



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Katerina Mania

Rank: Associate Professor

Years in rank: 1 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 2014)
 - PLH 101 : Introduction to Computers and Computer Science (Winter 2012)
- Graduate courses taught
 - PLH 612 : Visualization and Virtual Reality (Spring 2014)
- Curriculum & course development
 - Updated laboratory exercises for PLH 101
 - Updated large project work for PLH 418 and PLH 612
 - Updated laboratory lectures to be based on WEBGL PLH 418
 - Updated lecture slides for PLH 101, PLH 418 and PLH 612

B – Publications

- Chapter in Books
 - Submitted
 - Sylaiou, S., **Mania, K.**, Liarokapis, F., White, M., Walczak K.5, Wojciechowski R. 5, Wiza W. (submitted in e-book 2013). Evaluation of a Cultural Heritage Augmented Reality Game. Simulation and Gaming, special issue on ‘Serious Games: Analysis and Case Studies’, SAGE Publications.
- Publications in refereed journals
 - Submitted
 - Sylaiou, S., **Mania, K.**, Paliokas, I., Puzol-tost, L., Killintzis, V., Liarokapis, F. (2014). Exploring the Educational Impact of Diverse Technologies in

online Virtual Museums. Submitted to ACM Journal of Cultural Heritage.

o 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.
- Koulieris, G.A., Drettakis, G., Cunningham, D., **Mania, K.** (2014). C-LOD: Context-aware Material Level-Of-Detail applied to Mobile Graphics. Computer Graphics Forum Volume 33, Number 4, 41-49, – June 2014, Lyon, France.

● Publications in refereed conferences

o Submitted:

- Numerous publications submitted

o Published:

- Parthenios, P., **Mania, K.**, Yiannoudes, S., Oikonomou, A., Mallouchou, F., Ragia, L., Patsavos, N., Christaki, A., Kotsarinis, P., Dimitriou, M. (2014). Using WebGL to Design an Interactive 3D platform for the main Monuments of Crete. In Proc. Computer Applications and Quantitative Methods in Archaeology-GR, Crete, 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.
- Sylaiou, S., Killintzis, V., Paliokas, I., **Mania, K.**, Patias, P. (2014). Usability evaluation of virtual museums' interfaces visualization technologies. Proc. of 16th International conference on Human Computer Interaction, Heraklion, Crete, Greece, 124-133, Springer International Publishing.
- Koulieris, G.A., Drettakis, G., Cunningham, D., **Mania, K.** (2014). C-LOD: Context-aware Material Level-Of-Detail applied to Mobile Graphics. In Proceedings of the Eurographics Symposium on Rendering (Computer Graphics Forum) Volume 33, Number 4, 41-49 – June 2014, Lyon, France.
- Ragia, L., **Mania, K.**, Sarri, F. (2013). 3D Reconstruction of Neoria, Crete, Greece, using Geodetic Measurement and Computer Graphic Techniques. In Proc. 18th conference on Cultural Heritage and New Technologies 2013, Vienna, Austria.
- Koulieris, G.A., Drettakis, G., Cunningham, D., **Mania, K.** (2014). High Level Saliency Prediction for Smart Game Balancing. Talk, ACM Siggraph 2014, Vancouver, Canada
- Itti, L., Koulieris, G.A., **Mania, K.**, McNamara, A. (2014). Attention-Aware Rendering, Mobile Graphics and Games. Half-day course at ACM Siggraph 2014, Vancouver, Canada.

- Mavromichelaki, E., Eccles, J., **Mania, K.**, Harrison, N., Critchley, H. (2014). Cyberball for fMRI: Implementing Neuroscientific Gaming. Poster, ACM Siggraph 2014, Vancouver, Canada [selected in 25 best posters of ACM Siggraph 2014]
- Koulieris, G.A., Drettakis, G., Cunningham, D., **Mania, K.** (2014). C-LOD: Context-aware Material Level-of-Detail for Mobile Graphics. Poster, ACM Siggraph 2014, Vancouver, Canada [3rd prize ACM Research Student Competition, ACM SIGGRAPH 2014]
- Petrovski, S., Parthenios, P., **Mania, K.**, Oikonomou, A. (2014). Music as an Interventional Design Tool for Urban Designers. Poster, ACM Siggraph 2014, Vancouver, Canada

C – Awards & Distinctions

- Koulieris, G.A., Drettakis, G., Cunningham, D., **Mania, K.** (2014). C-LOD: Context-aware Material Level-of-Detail for Mobile Graphics. Poster, ACM Siggraph 2014, Vancouver, Canada [3rd prize ACM Research Student Competition, ACM SIGGRAPH 2014]
- Mavromichelaki, E., Eccles, J., **Mania, K.**, Harrison, N., Critchley, H. (2014). Cyberball for fMRI: Implementing Neuroscientific Gaming. Poster, ACM Siggraph 2014, Vancouver, Canada [selected in 25 best posters of ACM Siggraph 2014]

D – Funded Projects

- Current projects (at the Technical University of Crete, Greece):
 - ‘Selective Rendering Algorithms based on Human Perception (Memory Schemas, HRACLEITOS II, 2011-2014. PhD candidate Giwrgos Koulieris. Collaborators: Dr George Drettakis, INRIA Sophia Antipolis, Prof. Douglas Cunningham, Technical University of Cottbus, Germany.
 - ‘Exploring Behavioural Fidelity of Lighting Simulations through Neuroscientific and Clinical Imaging Science Metrics for Normal and Patient Populations’, Budget 15.000, Basic Research Funding from the Basic Research Committee of TUC, 2012-2014, Collaborators: Brighton and Sussex Medical School.
 - ‘CYBERSENSORS: High Frequency Monitoring System for Integrated Water Resources Management of Rivers’, THALIS, PI Prof. Nikos Nikolaidis, 2012-2015 TUC ECE team Prof. Michalis Zervakis, Dr Euripides Petrakis, Dr Katerina Mania.
- Project proposals submitted:
 - ‘Transference: Research About Neural Substitution using fMRI Enabled Neurofeedback for Subjective Enrichment’, submitted to FET Open call, FP7, PI Assoc. Prof. Katerina Mania
 - 3Dcrete / Using WEBGL to design an interactive 3D platform for the main monuments of Crete, National Strategic Reference Framework, Innovation, PI and Co-PI, Assist. Prof. Panagiotis Parthenios, Assoc. Prof. Katerina Mania
 - Spatiotemporal Queries by Sketch in Moving Object Geodatabases, National Strategic Reference Framework, Innovation, PI and Co-PI, Assist. Prof. Panagiotis Partsinevelos, 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
 - 1st International Gamification for Business Conference (IGBC) 2015, UK
 - ACM Grace Hopper Celebration of Women in Computing 2014, Phoenix, Arizona, USA
 - IEEE Systems Man and Cybernetics 2013, 2014: Human Machine Systems, Manchester, Perceptual Factors in Graphics
 - The XXVII Conference on Graphics, Patterns and ImagesGames and Learning Alliance conference 2014, Rio de Janeiro Brasil
 - Eurographics Computational Aesthetics, 2013-2014
 - ACM Symposium on Applied Perception 2013, 2014.
 - [IEEE Int. Conf. in Games and Virtual Worlds for Serious Applications](#) 2013, 2014
- Reviewing activities
 - Various international conferences and journals

F – Service to the Department and the School

- Departmental responsibilities
 - Substitute member of the Graduate Studies committee of ECE, 2013 – 2014.
 - Studies' advisor for the Dept. of ECE, 2012 – 2013

G – Advising

Undergraduate students supervised

- Active graduate students supervised
- Graduate students completed (at the Technical University of Crete)
 - Giwrgos Papadakis 'Minimizing Head Tracking Latency in Immersive Virtual Environments and Exploring its Impact on Spatial Cognition' (M.Eng. candidate, year of enrollment Dec. 2007, defended winter 2013).
- Graduate students supervised (at the Technical University of Crete)

- Giwrgos Alexandros Koulieris 'Selective Rendering Algorithms based on Human Perception Memory Schemas' (Ph.D candidate, accepted for admission to PhD program, April 2011).
 - Katerina Malisova '3D Conceptual Visualization' (M.Eng. candidate).
 - Stefan Petrovski (MEng TUC): '3D Architectural Visualization' (M.Eng. candidate).
 - Grigorios Kontadakis (MEng TUC): 'Pedagogically-driven Interactive 3D Applications' (M.Eng. candidate).
 - Evangelia Mavromixelaki (MEng TUC): 'Neuroscientific fidelity metrics for immersive simulations' (M.Eng. candidate).
 - Ph.D. and M.Eng. Degrees (committee member, examiner)
 - Pavlos Mavridis, University of Cyprus, Department of Computer Science (PhD)
 - Roniotis Alexandros (Ph.D)
 - Perakis Georgios (M.Eng.)
 - Undergraduate students
 - Diploma theses completed (supervisor)
 - Giannis Giakoumidakis 'A Methodology towards the photorealistic visualization of tsunamis applied to the past tsunami in Heraklion, Crete'
 - Dimitris Gkoros 'Extraction of building data from IFC files via BimServer platform and their processing for the generation of thermal simulation elements'
 - Mavrommatis Alexandros '3D CLUEDO'
 - Eleni Verikokidi 'Development of a 3D game on Mobile Platforms with Autonomous Interactive Characters'
 - Marianna Dimitriou 'Interactive storytelling for pre-school children'
 - Diploma theses supervised (in progress)
 - Panagiotis Kotsarinis 'Classification of Historical Monuments in Crete through a Web-based Scaleable 3D Platform' (in progress).
 - Nikos Sidorakis 'Eye tracking Evaluation of a High-Level Visual Saliency Predictor' (in progress).
 - Froso Sarri '3D Photorealistic Reconstruction of Neoria based on Geodetic Measurements and Computer Graphics Techniques' (in progress).
 - Konstantinos Chatzipetrou 'Development of a Smart Racing Game' (in progress).
 - Giannis Giakoumidakis 'A Methodology towards the photorealistic visualization of tsunamis applied to the past tsunami in Heraklion, Crete' (in progress).
 - Iordanis Fytanoglou 'Implementation of an Immersive Game'.
 - Thanos Sariggelos 'Looparound: Development of a Web-based Platform for Musical Loops using 3D Objects in WebGL and a Virtual Sequencer' (in progress).

- Nikos Sidorakis 'Eye tracking Evaluation of a High-Level Visual Saliency Predictor' (in progress).
- Lefteris Malindretos 'Development of a Role-Playing Game' (in progress)
- Dimitris Kiriakakis 'Implementation of an Augmented Reality Digital Narrative (in progress)
- Christos Liggeridis 'Implementation of 3D Smart Campus'(in progress)
- Diploma theses (among others, committee member)
 - Chalepakis – Dellis Apostolos – Dimitrios
 - Koutsouris Themistoklis
 - Makris Dimitrios – Ioannis
 - Petronikolos Constantinos
 - Petsas Dimitrios
 - Tsakaneli Stavroula
- Diploma theses completed (committee member)
 - Antonakakis Marios
 - Douzos Georgios
 - Gatzos Evangelos
 - Kyrousis Eleftherios
 - Papadakis Ioannis
 - Peres Hernandes Sanches Juliana
 - Politi Vasiliki



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Euripides G.M. Petrakis

Rank: Professor

Years in rank: 1

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
 - AIS 414 : Computer Vision
- Graduate courses taught
 - P 613 : Computer Vision (offered jointly with AIS 414)
 - AIS 618 : Special Topics in Information Systems

B – Publications

- Publications in refereed journals
 - Submitted
 - Sotirios Batsakis, Euripides G.M. Petrakis, "Temporal Representation and Reasoning in OWL 2.0", Semantic Web Journal, 2014
 - Sotirios Batsakis, Euripides G.M. Petrakis, "SOWL QL: Querying Spatio - Temporal Ontologies in OWL", Journal of Data Semantics, 2014
 - Published:
 - 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
 - Stavros Christodoulakis, Minos Garofalakis, Euripides G.M. Petrakis, Antonios Deligiannakis, Vasilis Samoladas, Ekaterini Ioannou, Odysseas Papapetrou, Stelios Sotiriadis, "[Data Management Research at the Technical University of Crete](#)", SIGMOD Record, Web edition, 2013

- Publications in refereed conferences

- Accepted:

- 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

- Published:

- 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 Petrakis, Alexandros Potamianos. "[Fusion of Knowledge-Based and Data-Driven Approaches to Grammar Induction](#)". In Proc. of Interspeech, Singapore 2014 ([poster](#)).
- 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](#)).
- Kostantinos Stravoskoufos, Stelios Sotiriadis, Alexandros Preventis, and Euripides G.M. Petrakis, "[Motion Sensor Driven Gesture Recognition for Future Internet Application Development](#)", 5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014), Chania, Crete, Greece, July 7-9 2014.
- Stelios Sotiriadis, Nik Bessis, Euripides G.M. Petrakis, "[An Intercloud Architecture for Future Internet Infrastructures](#)", Workshop on Adaptive Resource Management and Scheduling for Cloud Computing (ARMS-CC), Paris, France, July 15th, 2014.
- Chrysa H. Thermolia, Ekaterini S. Bei, and Euripides G.M. Petrakis, "[Prediction of the Evolution of Bipolar Depression using Semantic Web Technologies](#)", 5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014), Chania, Crete, Greece, July 7-9 2014.
- Kostas Stravoskoufos, Alexandros Preventis, Stelios Sotiriadis and Euripides G.M. Petrakis, "[A Survey on Approaches for Interoperability and Portability of Cloud Computing Services](#)", In Proceedings of the 4th International Conference on Cloud Computing and Services Science (CLOSER 2014), Barcelona, Spain, April 3-5, 2014 (position paper).
- Paraskevi Raftopoulou, Christos Tryfonopoulos, Euripides G.M. Petrakis, and Nikos Zevlis, "[DS4: Introducing Semantic Friendship in Distributed Social Networks](#)", In Proceedings of the 21st International Conference on Cooperative Information Systems (CoopIS), September, 11-13, 2013, Graz, Austria.
- Kleanthi Lakiotaki, Angelos Hliaoutakis, Serafim Koutsos and Euripides G.M. Petrakis. "[Recommending medical documents by user profile](#)", IEEE 13th International Conference on Bioinformatics and Bioengineering, (BIBE 2013), November, 10-13, 2013, Chania, Crete ([presentation](#)).
- Chryssa H. Thermolia, Ekaterini S. Bei, and Euripides G. M. Petrakis, "[TeleCare of Mental Disorders by Applying Semantic Web Technology](#)", IEEE 13th International Conference on Bioinformatics and Bioengineering, (BIBE 2013), November, 10-13, 2013, Chania, Crete.
- Stelios Sotiriadis, Euripides G.M. Petrakis, Stefan Covaci, Paolo Zampognaro, Eleni Georga, Christoph Thuemmler, "[An Architecture for Designing Future Internet \(FI\) Applications in](#)

[Sensitive Domains: Expressing the Software to Data Paradigm by Utilizing Hybrid Cloud Technology](#)", IEEE 13th International Conference on Bioinformatics and Bioengineering, (BIBE 2013), November, 10-13, 2013, Chania, Crete.

- Evanthia E. Tripoliti, Iannis Pappas, Euripides G.M. Petrakis, Josep Maria Sans, "[E-Learning Templates for Peripheral Vascular Stenting](#)", 15th International Conference on E-Health Networking Applications and Services, October 9-12, 2013, Lisbon, Portugal.
- Evanthia E. Tripoliti, Ioannis G. Pappas, Euripides G.M. Petrakis and Josep Maria Sans, "[Crafting Vascular Medicine Training Scenarios: The RT3S Authoring Tool](#)", IEEE 13th International Conference on Bioinformatics and Bioengineering, (BIBE 2013), November, 10-13, 2013, Chania, Crete.
- Spyros Argyropoulos, Euripides G.M. Petrakis, Panos Milios, "[Positive Training Thinking](#)", 1st International Conference on Technological Ecosystems for Enhancing Multiculturality, Nov. 14-15, 2013, Salamanca, Spain ([presentation](#)).
- G.S. Karanasiou, A.I. Sakellarios, E.E. Tripoliti, E.G.M. Petrakis, M.E. Zervakis, Francesco Migliavacca, Gabriele Dubini, Elena Dordoni, L.K. Michalis, D.I. Fotiadis, "[Modeling of Stent Implantation in a Human Stenotic Artery](#)", XIII Mediterranean Conference on Medical and Biological Engineering and Computing, September 25-28, 2013, Sevilla Spain.
- Georgia.S. Karanasiou, Antonios.I. Sakellarios, Evanthia.E. Tripoliti, Euripides.G.M. Petrakis, Michalis.E. Zervakis, Francesco Migliavacca, Gabriele Dubini, Elena Dordoni, Lambros.K. Michalis, Dimitrios.I. Fotiadis, "[Modeling Stent Deployment in Realistic Arterial Segment Geometries: the Effect of the Plaque Composition](#)", IEEE 13th International Conference on Bioinformatics and Bioengineering, (BIBE 2013), November, 10-13, 2013, Chania, Crete.
- Eleftherios Anagnostopoulos, Sotiris Batsakis, Euripides G.M. Petrakis, "[CHRONOS: A Reasoning Engine for Qualitative Temporal Information in OWL](#)", 16th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES'2013), 9-11 September 2013, Kitakyushu, Japan.

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “AI-CARE : Advanced Knowledge Management Systems with Inherence 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 : € 623.300,00, Duration : Apr. 2013 – Oct. 2015
 - “RT3S: Real Time Simulation for Safer Vascular Stenting”, Funding Source : FP7-STREP, Total Budget : € 4.980.000,00 – Budget for TUC € 490.000,00, Duration : Jan. 2010 – Dec. 2013
- Project proposals submitted:
 - Several proposals submitted and awaiting for evaluation results in various calls for proposals by EU and GSRT

E – Professional service

- Society Technical Committee duties
- member of the FI-PPP Architecture Board committee of the EU

- Conference Technical Program Committee service
- Session chair - session on Ontologies Knowledge Representation and Reasoning) στο International Conference on Tools with AI (ICTAI'2014), 10-12 November 2014, Limassol, Cyprus.
- Program committee member, 13th IEEE International Conference on Bioinformatics and BioEngineering, November 11-13, Chania, Greece
- Program committee member) , International Symposium on Visual Computing (ISVC), 2014

- Reviewing activities
- Reviewer for journals and Conferences in his area of expertise (semantic web, cloud computing, information systems)

F – Service to the Department and the School

- Departmental responsibilities
- Intelligent Systems Lab, Director

- School – level responsibilities
- member of the Undergraduate Studies Committee
- member of the Committee by the Dean

G – Advising

Undergraduate students supervised

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Chliaoutakis Angelos (ph.D, in progress, new advisor G. Halkiadakis)
 - Stravoskoufos Konstantinos (PhD, in progress)
 - Nikolaos Mainas, (MSc, in progress)
 - Alexandros Preventis (MSc, in progress)
 - Kleanthi Lakiotaki (PostDoc, in progress)
 - Ekaterini Bei (PostDoc, in progress)
 - Stelios Sotiriadis (PostDoc, in progress)
 - Stamatis Andrianakis (MSc, in progress)
 - Chrisi Thermolia (MSc, in progress)
- Ph.D. and M.Sc. Degrees (committee member)
 - Joseph Elias (ph.D)
 - Roniotis Alexandros (ph.D)
 - Kalantzaki Kalliopi (M.Sc.)
 - Livanos Georgios
- Undergraduate students supervised

- Diploma theses in progress
 - Balabanis Stylianos
 - Douzis Constantinos
 - Mastorakis Labros
 - Vakanas Lenos

- Diploma theses completed (supervisor)
 - Anagnostopoulos Eleftherios
 - Koutsoukos Ioannis
 - Mainas Nikolaos
 - Koutsos Serafim

- Diploma theses in progress (committee member)
 - Leska Valsamo
 - Tsakaneli Stavroula

- Diploma theses completed (committee member)
 - Bacharidis Constantinos
 - Chorianopoulou Arodami
 - Fragiadoulakis Georgios



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Vasilis Samoladas

Rank: Assistant Professor

Years in rank: 10 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 416 : Computational Geometry
 - 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
(Offered jointly with COMP 416)

- 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)
 - Charalambos Paravalos, Eftichios Koutroulis, Vasilis Samoladas, Tamas Kerekes, Dezso Sera, Remus Teodorescu: Optimal Design of Photovoltaic Systems Using High Time-Resolution Meteorological Data. IEEE Trans. Industrial Informatics 10(4): 2270-2279 (2014)
 - Accepted:

- Published:
 - Charalambos Paravalos, Eftichios Koutroulis, Vasilis Samoladas, Tamas Kerekes, Dezso Sera, Remus Teodorescu: Optimal Design of Photovoltaic Systems Using High Time-Resolution Meteorological Data. IEEE Trans. Industrial Informatics 10(4): 2270-2279 (2014)
- Publications in refereed conferences
- Published:
 - Minos N. Garofalakis, Daniel Keren, Vasilis Samoladas: Sketch-based Geometric Monitoring of Distributed Stream Queries. PVLDB 6(10): 937-948 (2013)
- 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 – Sep. 2014
- Project proposals submitted:

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
 - CIKM 2014
- Conference Organization (specify role)
- Reviewing activities
 - Reviews for journal “Future Generation Computer Systems (FGCS)”

F – Service to the Department and the School

- Departmental responsibilities
- School – level responsibilities
 - Member of Research Committee
 - Member of IT Committee
 - Representative of TUC to EEL/LAK

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Babalis Charalambos (M.Sc.)
 - Asimoglou Katerina (M.Sc.)
 - Vlahou Georgia (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Vazaios Evangelos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Souris Anastasios
 - Diploma theses completed (supervisor)
 - Diploma theses in progress (committee member)
 - Grammenos Andreas
 - Manikaki Vasiliki
 - Pouli Christina
 - Diploma theses completed (committee member)
 - Maropaki Stella
 - Sklikas Alexandros

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, 2013 to Aug. 31, 2014

Name: Costas Balas

Rank: Professor

Years in rank:

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Electronics Laboratory

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

○ Electronics Laboratory, Director

- School – level responsibilities

○

G – Advising

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, completed)
 - Eliou Dimitrios (M.Sc.)
 - Kavadias Vasilios (M.Sc.)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Giakoumakis Theodoros – Marios (M.Sc.)
 - Rosos Christos (M.Sc.)
 - Tsoulidis Nikolaos (M.Sc.)
- Ph.D. and M.Sc. degrees awarded (committee member)
 -

- Ph.D. and M.Sc. Degrees (committee member)
 - Roniotis Alexandros (phD)
- Undergraduate students supervised
- Diploma theses in progress
 - Petronikolos Constantinos
 - Savva Androula
 - Sioutas Apostolos
- Diploma theses completed (supervisor)
 - Ampatzi Fani
 - Chantzi Efthimia
 - Chiou Eleni
 - Gatzos Evangelos
 - Giakoumakis Theodoros – Marios
 - Klapaki Styliani
 - Koutlis Vasilios
 - Politi Vasiliki
 - Rosos Christos
 - Theodoropoulos Michael
 - Trilyraki Ekaterini
 - Tsoulidis Nikolaos
- Diploma theses in progress (committee member)
 - Kompotheklas Constantinos
 - Kouloumentas Panagiotis
 - Leska Valsamo
 - Sidorakis Nikolaos
 - Evangeliou Nikolaos

- Diploma theses completed (committee member)
 - Anthoulis Stylianos
 - Asimakopoulos Ioannis
 - Chlis Nikolaos – Kosmas
 - Ineglis Philippos
 - Jaohar Osman
 - Kalaitzakis Georgios
 - Karvelas Kalogerakis Michael
 - Vlachopoulos Odysseas



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Matthias Bucher

Rank: Assistant Professor (tenure)

Years in rank: 10 + 1/2

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 - Fall 2013)
 - ACE 416 : Design of CMOS Analog Integrated Circuits (Spring 2014)
- Graduate courses taught
 - ACE 604 : Special Themes of Analog Integrated Circuit Design (Spring 2014)
- Labs taught
 - ECE 311 : Electronics II (Fall 2013)
 - ECE 416 : Design of CMOS Analog Integrated Circuits (Spring 2014)

B – Publications

- Publications in refereed journals
 - Submitted:
 - **M. Bucher**, N. Makris, R. K. Sharma, M. Kayal, J.-M. Sallese, “Charge-based Modelling of Double-Gate Junction Field-Effect Transistors”, *IEEE Trans. on Electron Devices*.
 - N. Mavredakis, W. Pflanzl, E. Seebacher, **M. Bucher**, “Methodology of 1/f noise parameter extraction for high-voltage MOSFETs”, *Solid-State Electronics*.
 - Accepted:
 - N. Mavredakis, W. Pflanzl, E. Seebacher, **M. Bucher**, “Methodology of 1/f noise parameter extraction for high-voltage MOSFETs”, *Solid-State Electronics*.
 - N. Fasarakis, A. Tsormpatzoglou, D. H. Tassis, K. Papathanasiou, **M. Bucher**, G. Ghibaudo, C. A. Dimitriadis, “Compact Modeling of Nanoscale Trapezoidal FinFETs”, *IEEE Trans. on Electron Devices*.

- A. Antonopoulos, **M. Bucher**, K. Papathanasiou, N. Mavredakis, N. Makris, R. K. Sharma, P. Sakalas, M. Schroter, “CMOS Small-Signal and Thermal Noise Compact Modeling at High Frequencies”, *IEEE Trans. on Electron Devices*.
- Published:
 - A. Antonopoulos, **M. Bucher**, K. Papathanasiou, N. Makris, N. Mavredakis, R. K. Sharma, P. Sakalas, M. Schroter, “Modeling of High Frequency Noise of Silicon MOS Transistors for RFIC Design”, *Int. J. of Numerical Modelling: Electronic Networks, Devices and Fields*, Vol. 27, Nr. 5-6, pp. 802-811, 2014. [doi](#)
 - W. Grabinski, M. Brinson, P. Nenzi, F. Lannutti, N. Makris, A. Antonopoulos, **M. Bucher**, “Open source circuit simulation tools for RF compact semiconductor devices modeling”, *Invited paper, Int. J. of Numerical Modelling: Electronic Networks, Devices and Fields*, Vol. 27, Nr. 5-6, pp. 761-779, 2014. [do](#)
 - N. Fasarakis, A. Tsormpatzoglou, D. H. Tassis, I. Pappas, K. Papathanasiou, **M. Bucher**, G. Ghibaudo, C. A. Dimitriadis, “Compact Modeling of Nanoscale Trapezoidal FinFETs”, *IEEE Trans. on Electron Devices*, Vol. 61, N° 2, pp. 324-332, Feb. 2014. [doi](#)
 - A. Antonopoulos, **M. Bucher**, K. Papathanasiou, N. Mavredakis, N. Makris, R. K. Sharma, P. Sakalas, M. Schroter, “CMOS Small-Signal and Thermal Noise Compact Modeling at High Frequencies”, *IEEE Trans. on Electron Devices*, Vol. 60, N° 11, pp. 3726-3733, Nov. 2013. [doi](#)
- Publications in refereed conferences
 - M. Vassakis, K. Vamvoukakis, **M. Bucher**, K. Zekentes, “Electrical characterization procedure of power transistors: Application in the case of 4H-SiC VJFETs”, *Proc. 38th Workshop on Compound Semiconductor Devices and Circuits (WOCSDICE)*, Delphi, Greece, June 16-18, 2014.
 - K. Kostopoulos, N. Makris, **M. Bucher**, “A compact model for SiC JFETs”, *Proc. 38th Workshop on Compound Semiconductor Devices and Circuits (WOCSDICE)*, Delphi, Greece, June 16-18, 2014.
 - K. Papathanasiou, N. Makris, A. Antonopoulos, **M. Bucher**, “Moderate inversion: analog and RF benchmarking with the EKV3 compact model”, *Proc. 29th Int. Conf. on Microelectronics (MIEL)*, pp. 205-208, Belgrade, Serbia, May 12-15, 2014. [ieeexplore](#)
 - K. Fellas, N. Mavredakis, W. Pflanzl, E. Seebacher, **M. Bucher**, “Simple 1/f noise parameter extraction method for high-voltage MOSFETs”, *Proc. 29th Int. Conf. on Microelectronics (MIEL)*, pp. 89-92, Belgrade, Serbia, May 12-15, 2014. [ieeexplore](#)
- Tutorial/Workshop presentations
 - **M. Bucher**, A. Antonopoulos, “RF and Noise Performance Trends and Compact Modeling of Advanced Bulk CMOS – Physics-based nonlinear compact transistor modeling for mm-wave applications”, Tutorial, *IEEE International Microwave Symposium (IEEE IMS)*, Tampa Bay, Florida, June 1-6, 2014.
 - **M. Bucher**, R. K. Sharma, K. Zekentes, “TCAD Investigation of SiC Power JFETs”, *MOS-AK Workshop, Int. Conf. ESSDERC-ESSCIRC*, Bucharest, Romania, Sept. 20, 2013.

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - NANOsympraxis, Multigate MOSFET nanotransistors: compact models for current and noise – development of automated design tools for nanoelectronics, “Synergasia” Project Nr. 09ΣYN-42-998, General Secretariat of Research and Technology (GSRT). Duration: 2011 – 2014.
 - ANTI-SiC, Development of new transistors and inverter for photovoltaic systems based on Silicon Carbide, “Synergasia” Project Nr. 09ΣYN-32-1181, General Secretariat of Research and Technology (GSRT). Duration: 2010 – 2014.
 - Nanoscale RF CMOS Transceiver Design, “Heracleitus II” Project Nr. 17/050/6, PhD scholarship for A. Antonopoulos. Greek Ministry of Education. Duration: 2010 – 2014.
 - NexGenMiliWave, Next Generation Millimeter Wave Backhaul Radio, “Corallia” Hellenic Technology Cluster Initiative in Microelectronics, Phase 2, Project Nr. MIKPO2-ΣE-B/E-II. Duration: 2009 – 2013.
- Project proposals submitted:
 - *HORIZON 2020*, H2020-COMPET-2014, Mar. 2014.
- Development of Electronics Laboratory infrastructure:
 - Cadence IC & System software

E – Professional service

- Conference Technical Programme Committee service
 - *TPC member, 20th International Conference on Mixed Design of Integrated Circuits and Systems (MIXDES 2014).*
 - *TPC member, 29th International Conference on Microelectronics (MIEL 2014).*
 - *Organizing Committee Member, 38th Workshop on Compound Semiconductor Devices and Integrated Circuits (WOCSDICE 2014).*
- Reviewing activities
 - *IEEE Trans. on Electron Devices*
 - *IEEE Trans. on Microwave Theory and Techniques*
 - *Solid-State Electronics*
 - *Microelectronic Engineering*
 - *Several international conferences (MIEL 2014, MIXDES 2014)*

F – Service to the Department and the School

- Departmental responsibilities
 - Member of the undergraduate studies committee.
 - Member of the committee for the admission of undergraduate students.

G – Advising

- Graduate students supervised
 - Ph.D. completed (supervisor):
 - Angelos Antonopoulos, Design of Nanoscale RF CMOS Transceivers, Feb. 24, 2014.
 - Ph.D. students supervised (supervisor):

- Angelos Antonopoulos, Design of nanoscale RF CMOS transceivers, Enrollment: June 2008. Phone 28210 37269. aantoni "at" electronics.tuc.gr
- Nikos Mavredakis, Noise in high-voltage MOSFETs (HVMOSFETs), Enrollment: July 2010. Phone 28210 37269. nmavredakis "at" isc.tuc.gr
- M.Sc. theses awarded (committee member):
 - Stefanos Saridakis, Optimization of photovoltaic inverters, July 2014.
 - Vassilis Kavvadias, Dec. 2013.
- M.Sc. students supervised (supervisor):
 - Konstantinos Kostopoulos, Modelling and characterization of High-Voltage and High-Power FETs, Enrollment: Oct. 2010. Phone 28210 37269.
 - Konstantinos Papathanasiou, Design and layout techniques in analog/RF integrated circuits. Enrollment: Feb. 2011. Phone 28210 37269.
 - George Gyroukis, Compact modeling of multi-gate MOSFETs, Enrollment: Oct. 2012. Phone 28210 37269.
 - Konstantinos Vamvoukakis, Characterization of power VJFETs, Enrollment: Oct. 2013.
- Undergraduate students supervised
- Diploma theses completed (supervisor):
 - Stelios Anthoulis, Implementation of a compact MOSFET model in a SPICE circuit simulator, Oct. 2013.
- Diploma students (supervisor):
 - Konstantinos Fellas, Study of low-frequency noise in HV-MOSFETs.
 - Yannis Tsivelopoulos, Statistical analysis of low frequency noise and comparison between different types of CMOS transistors.
 - Xenofon Manarolis, Coding of compact HV-MOSFET model in a SPICE circuit simulator.
 - Dimitrios Kokkonas, Experimental and analytical study of scaling in advanced CMOS technologies.
 - Nicolas Gegios, RF CMOS modeling.
 - Nikos Pappas, TCAD investigation of analog properties of multi-gate CMOS transistors.
 - Nikos Evangeliou, Design of mixed analog/digital integrated circuits for biomedical applications.
- Diploma theses completed (committee member):
 - Katerina Trilyraki, Development of an advanced platform for controlling the imaging parameters of CMOS image sensors, July 2014.
 - Giorgos Kimionis, Design of photovoltaic AC/DC inverters in Matlab/Simulink, Mar. 2014.
 - Efi Chantzi, Spectral cube construction from hyper spectral scanning, Oct. 2013.
 - Philippos Ineglis, Design and development of a high efficiency, high fidelity acoustic amplifier, Oct. 2013.



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Apostolos Dollas

Rank: Professor

Years in rank: 13

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught
 - ACE 101: Logic Design (mandatory)
 - ACE 203 : Advanced Logic Design (mandatory)
 - ACE 591 : Special Topics on Reconfigurable Computing
- Graduate courses taught
 - ACE 631 : Special Topics on Reconfigurable Computing
(Offered jointly with ACE 591)
- Labs taught
 - Updated and supervised Laboratory exercises of all courses taught
- Curriculum & course development
 - Lecture notes / slides developed
 - Substantially updated (> 20%) the class notes of ACE 203 Advanced Logic Design

B – Publications

- Publications in refereed journals
 - Published:
 - G. Chrysos, E. Sotiriades, C. Rousopoulos *et al.*, Reconfiguring the Bioinformatics Computational Spectrum: Challenges and Opportunities of FPGA-Based Bioinformatics Acceleration Platforms, *IEEE Design and Test*, Special Issue on Hardware Acceleration for Computational Biology, pp. 62-73, January/February 2014.
 - M. Lakka, E. Koutroulis, A. Dollas, Development of an FPGA based SPWM Generator for High Switching Frequency DC/AC Switching Inverters, *IEEE Transactions on Power Electronics*, issue 99, vol. 29, no. 1, pp. 356-365, January, 2014.

- Publications in refereed conferences

- Published:

- A. Dollas, “*Big Data Processing with FPGA Supercomputers: Opportunities and Challenges*”, IEEE Computer Society Annual Symposium on VLSI (ISVLSI), Jul. 9-11, Tampa, Florida, USA, 2014.
- A. Dollas, “FPGA Supercomputers as Compute Servers – Are We There Yet?”, *Workshop on Reconfigurable Computing WRC '14*, in conjunction with the HIPEAC 2014 Conference, Vienna, Austria, January 2014 (presentation and short paper).
- G. Rematska, K. Papadimitriou, A. Dollas, *A Low-Cost Embedded Real-Time 3D Stereo Matching System for Surveillance Applications*, Proceedings, 13th International Conference on Bioinformatics and Bioengineering (BIBE 2013), Chania, Greece, November, 2013.
- S. Thomas, K. Papadimitriou, A. Dollas, *Architecture and Implementation of 3D Stereo Vision on a Xilinx FPGA*, Proceedings of the 21st IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC), pp. 190-195, Istanbul, Turkey, Oct. 7-9, 2013.

C – Awards & Distinctions

- Faculty advisor to the undergraduate student team G. Mantakos, D. Skarlatos, A. Stratikopoulos, First Prize (most innovative use of FPGA category), ALTERA Pan-European Design Competition, awarded at the International Conference on Field Programmable Logic, Sept. 2-4, 2013.

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).
 - Project “*EVAGORAS – Reconfigurable Logic Based Supercomputer for Biological, Ecological and Medical Data and Algorithms*”, Funding Source : National Strategic Reference Framework (NSRF 2007 – 2013) under European Territorial Cooperation Programmes, Total Funding : € 779.740,00 – TUC Budget : € 440.700,17, Duration : June, 2011 – Nov. 2013. Role: Project and TUC PI.
 - Project “*ROTA – Design and Development of a Novel System for the Telemangement of Ships with High-Speed Internet Bidirectional Communications*”, Funding Source : Greek Secretariat of Research and Technology GSRT under Program Synergasia funded at € 300.000,00, (Telecommunication Systems Institute – TSI Budget : € 66.378,00), Duration : Jan. 2011 – Sep. 2014. Role: Technical PI (Project PI is Cpt. L. Vasilikiotis of HSW).
 - Project “*RUNNER 5527 – Reconfigurable Ultra – Autonomous Novel Robots*”, Funding Source : Greek Secretariat of Research and Technology GSRT under Program EUREKA-EUROSTARS, Telecommunication Systems Institute – TSI Budget : € 50.000,00, Duration : Dec. 2010 – May 2014.

E – Professional service

- Conference Technical Program Committee service
- Program Committee Member, 21st International Symposium on Field Programmable Custom Computing Machines (FCCM), April 28-30, Seattle, Washington, USA.
- Program Committee Member, 23rd International Conference on Field Programmable Logic (FPL), Sept. 2-4, Porto, Portugal.
- Program Committee Member, International Conference on Field Programmable Technology (ICFPT), December 9-11, Kyoto, Japan.

- Reviewing activities
- Reviewer for conferences including FCCM, FPL, FPT, HIPEAC-WRC, DATE
- Reviewer for Journals including ACM TRETs and IEEE TVLSI

F – Service to the Department and the School

- 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

- 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
- Member of faculty election boards at NTUA, U. of Ioannina

G – Advising

Undergraduate students supervised

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, completed)
 - (None)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Chrysos Grigorios (defended, March 21, 2014, Degree Award Pending)
 - Roussopoulos Christos (M.Sc.)
 - Apostolakis Stavros (M.Sc.)
 - Nikolakaki Sofia – Maria (M.Sc.)
 - Rematska Georgia (M.Sc.)
- Ph.D. and M.Sc. Degrees (committee member)
 - Nikitakis Antonios (Ph.D.)
 - Kornaros Georgios (Ph.D.)
 - Agadakos Ioannis (M.Sc.)

- Kampianakis Eleftherios (M.Sc.)
- Tampouratzis Nikolaos (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Andreopoulos Marios
 - Bozikas Dimitrios
 - Didimiotis – Ventouris Georgios
 - Drosopoulos Andreas
 - Fotinopoulos Georgios
 - Gardelakos Argirios – Alexandros
 - Kalaitzis Konstantinos
 - Kazantzis Polichronis – Georgios
 - Kousanakis Emmanuel
 - Michailidis Stavros
 - Pialoglou Alexandros
 - Sotiropoulos Antonios
 - Spirou Aggeliki
 - Varsamidis Harissis
 - Veremi Christina
 - Diploma theses completed (supervisor)
 - Koukkoulis Andreas
 - Maragos Konstantinos
 - Nikolakaki Sofia – Maria
 - Xeni Orestis
 - Rematska Georgia
 - Stratikopoulos Athanasios
 - Diploma theses in progress (committee member)
 - Farantos Georgios
 - Hondroulis Ioannis
 - Karatzaferis Efstathios – Alexandros
 - Katsinelis Konstantinos
 - Kontos Nikolaos
 - Papadopoulou Sofia
 - Pouli Christina
 - Diploma theses completed (committee member)
 - Krommidas Theodoros
 - Skarlatos Dimitrios
 - Chlis Nikolaos Kosmas



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Kostas Kalaitzakis

Rank: Professor

Years in rank: 11

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)
 - Perakis Georgios (M.Sc.)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Malisovas Athanasios (M.Sc.)
- Ph.D. and M.Sc. degrees awarded (committee member)
 -
- Ph.D. and M.Sc. Degrees (committee member)
 - Agadakos Ioannis (M.Sc.)
 - Saridakis Stefanos (M.Sc.)
 - Panagiotidou Natalia (M.Sc.)
- Undergraduate students supervised
- Diploma theses in progress
 - Brellas Constantinos
 - Efthimiou Georgios
 - Kompotheklas Constantinos
 - Lathiotakis Ares
 - Liontiris Andreas
 - Michael Nikolaos
 - Papantonakis Theodosios
- Diploma theses completed (supervisor)
 - Foutrakis Pantelis
 - Ineglis Philippos
 - Malisovas Athanasios
 - Tsihli Constantinos
 - Vlachopoulos Odysseus
 - Wahhabi Tawfiq
- Diploma theses in progress (committee member)
 - Kalogeropoulos Marios
 - Kantartzis Theodoros
 - Kosmopoulos Stefanos
 - Mastorakis Lambros
 - Michaelides Stavros
 - Neofytou Neofytos
 - Petsas Dimitrios
 - Tsiamalos Christos

- Diploma theses completed (committee member)
 - Achladellis Nikolaos
 - Chantzi Efthimia
 - Giakoumakis Theodoros – Marios
 - Grammatikos Anastasios
 - Kimionis Georgios
 - Koutlis Vasilios
 - Markakis Onoufrios
 - Paraskevas Alexandros
 - Rossos Christos
 - Theodoropoulos Michael
 - Tsepapadakis Michael
 - Tsoulidis Nikolaos



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Eftichios Koutroulis

Rank: Assistant Professor

Years in rank: 2,5

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

- Labs taught
 - ACE 102 : Basic Circuit Theory (mandatory)
 - ACE 511 : VLSI and ASIC System Design
 - ACE 601 : VLSI and ASIC System Design
(Offered jointly with ACE 511)

- 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 – developed new slides and updated the existing slides

B – Publications

- Publications in refereed journals

- Published:
 - C. Konstantopoulos, E. Koutroulis, “Global Maximum Power Point Tracking of Flexible Photovoltaic Modules”, *IEEE Transactions on Power Electronics*, vol. 29, no. 6, pp. 2817-2828, 2014.
 - E. Kampianakis, J. Kimionis, K. Tountas, C. Konstantopoulos, E. Koutroulis, A. Bletsas, “Wireless Environmental Sensor Networking With Analog Scatter Radio and Timer Principles”, *IEEE Sensors Journal, Special Issue on Selected Papers from the 12th IEEE Sensors Conference 2013*, vol. 14, no. 10, pp. 3365-3376, 2014.
 - C. Paravalos, E. Koutroulis, V. Samoladas, T. Kerekes, D. Sera, R. Teodorescu, “Optimal Design of Photovoltaic Systems Using High Time-Resolution Meteorological Data”, *IEEE Transactions on Industrial Informatics, Special Section on “Modeling and Simulation of Cyber-Physical Energy Systems”*, vol. 10, no. 4, pp. 2270 – 2279, 2014.
 - S. Saridakis, E. Koutroulis, F. Blaabjerg, “Optimization of SiC-based H5 and Conergy-NPC Transformerless PV Inverters”, *IEEE Journal of Emerging and Selected Topics in Power Electronics*, accepted for publication, available online at <http://ieeexplore.ieee.org>.
- Publications in refereed conferences
- Published:
 - S. Saridakis, E. Koutroulis, F. Blaabjerg, “Filter Optimization of Si and SiC Semiconductor-based H5 and Conergy-NPC Transformerless PV Inverters”, 15th European Conference on Power Electronics and Applications (EPE’13 - ECCE Europe), pp. 1-10, 2-6 Sept. 2013.
 - S. Saridakis, E. Koutroulis, F. Blaabjerg, “Optimization of SiC-based H5 and Conergy-NPC Transformerless PV Inverters”, 2013 IEEE Energy Conversion Congress and Exposition (ECCE 2013), pp. 4732-4739, 15-19 Sept. 2013.
 - E. Kampianakis, J. Kimionis, K. Tountas, C. Konstantopoulos, E. Koutroulis and A. Bletsas, “Backscatter Sensor Network for Extended Ranges and Low Cost with Frequency Modulators: Application on Wireless Humidity Sensing”, *IEEE Sensors 2013*, pp. 1-4, 3-6 Nov. 2013.
 - C. Konstantopoulos, E. Kampianakis, E. Koutroulis, A. Bletsas, “Wireless Sensor Node for Backscattering Electrical Signals Generated by Plants”, *IEEE Sensors 2013*, pp. 1-4, 3-6 Nov. 2013.
 - N. Achilladelis, E. Koutroulis, F. Blaabjerg, “Optimized Pulse Width Modulation for transformerless active-NPC inverters”, 2014 16th European Conference on Power Electronics and Applications (EPE'14-ECCE Europe), pp. 1-10, 26-28 Aug. 2014.

C – Awards & Distinctions

- Second Prize Paper Award for 2013 in the *IEEE Transactions on Power Electronics* journal, for the paper “E. Koutroulis, F. Blaabjerg, Design Optimization of Transformerless Grid-Connected PV Inverters Including Reliability, *IEEE Transactions on Power Electronics*, vol.28, no.1, pp. 325-335, Jan. 2013”.
- [Certificate of Excellence](#) in Reviewing award for 2013, by Elsevier and the *Renewable Energy* journal.
- The paper “E. Kampianakis, J. Kimionis, K. Tountas, C. Konstantopoulos, E. Koutroulis and A. Bletsas, Backscatter Sensor Network for Extended Ranges and Low Cost with Frequency Modulators: Application on Wireless Humidity Sensing, *IEEE Sensors 2013* Conference, Nov. 2013, Baltimore, USA” was selected as one of the best papers of the conference and was invited for submission in extended form to the *IEEE Sensors Journal*.

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

E – Professional service

- Associate Editor duties
- Member of the Editorial Board of the “Renewable Energy” journal.

- Conference Technical Program Committee service
- Member of the International Scientific Committee of the 1st International Conference on Nanoelectronics, Communications and Renewable Energy, 22-23 Sept. 2013, Algeria.
- Reviewing activities
- Reviewed 73 journal papers (including revisions) for:
 - IEEE Journal of Photovoltaics
 - IEEE Transactions on Power Electronics
 - IEEE Journal of Emerging and Selected Topics in Power Electronics
 - IEEE Transactions on Industrial Electronics
 - IEEE Transactions on Energy Conversion
 - IEEE Transactions on Industry Applications
 - IEEE Transactions on Sustainable Energy
 - IEEE Transactions on Circuits and Systems II
 - Renewable Energy
 - [Electric Power Components and Systems](#)
 - IET Power Electronics
 - IET Renewable Power Generation
 - IET Generation, Transmission and Distribution
 - IET Electronics Letters
 - Energy
 - Simulation Modelling Practice and Theory
- 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)
 - Saridakis Stefanos (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Christeas Dimitrios (M.Sc.)
 - Konstantopoulos Christos (M.Sc.)
 - Loizou Constantinos (M.Sc.)
 - Mandourarakis Ioannis (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Kampianakis Eleftherios (M.Sc.)
- Undergraduate students supervised
 - Diploma theses in progress
 - Chatzimeletiou Vlasios
 - Demetriou Georgios
 - Dimitriadis Costas
 - Efthimiou Georgios
 - Giannopoulos Asimakis
 - Kosmopoulos Stefanos
 - Koukouzas Christos
 - Nikolakakis Eleftherios
 - Petsas Dimitrios
 - Tzortzis Ioannis
 - Vatsithianos Nikos
 - Diploma theses completed (supervisor)
 - Achilladelis Nikolaos
 - Grammatikos Anastasios
 - Kimionis Georgios
 - Markakis Onoufrios
 - Paraskevas Alexandros
 - Diploma theses in progress (committee member)
 - Michael Nikolaos
 - Neofytou Neofytos
 - Papapostolou Anastasios
 - Diploma theses completed (committee member)
 - Anthoulis Stylianos
 - Kompotheklas Constantinos
 - Malisovas Athanasios
 - Romaidis Georgios – Orpheus

- Tschlis Constantinos



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Ioannis Papaefstathiou

Rank: Associate Professor

Years in rank: 3

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught
 - ACE 302 : Computer Organization (mandatory)
 - ACE 411: Embedded Systems Design
 - ACE 514 : Application Specific Processor Architecture

- Graduate courses taught
 - ACE 623 : Application Specific Processor Architecture
(Offered jointly with ACE 514)

- Labs taught

- Curriculum & course development
 - New courses / labs developed

 - Lecture notes / slides developed
 - New lecture notes for Embedded Systems design covering the development of mobile systems and applications

 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Published:
 - Theocharides, A. Dollas, I. Papaefstathiou, E. Sotiriades, V.J. Promponas, G. Chrysos, A. Papadopoulos, I. Kirmizoglou, G. Petihakis, C. Rousopoulos, K. Pramataris, J. Lagnel, "Reconfiguring the Bioinformatics Computational Spectrum: Challenges and Opportunities of FPGA-Based Bioinformatics

acceleration platforms", IEEE Design & Test of Computers, doi: 10.1109/MDAT.2013.2284191 (Impact factor: 1.39)

■ Luciano Lavagno, Mihai T. Lazarescu, Ioannis Papaefstathiou, Andreas Brokalakis, Johan Walters, Bart Kienhuis, Florian Schäfer, HEAP: A Highly Efficient Adaptive multi-Processor framework, Elsevier Microprocessors and Microsystems, Available online 23 July 2013, ISSN 0141-9331 (Impact factor: 0.549)

- Publications in refereed conferences

- Published:

- Panagiotis Karkazis, Ioannis Papaefstathiou, Lambros Sarakis, Theodore Zahariadis, Terpsichori-Helen Velivassaki, Dimitrios Bargiotas, "Evaluation of RPL with a Transmission Count-Efficient and Trust-Aware Routing Metric", IEEE International Conference on Communication (ICC), Jun 10-14, 2014, Sydney, Australia.

- Hatzivasilis, G.; Papaefstathiou, I.; Manifavas, C.; Papadakis, N., "A Reasoning System for Composition Verification and Security Validation," 2014 6th International Conference on New Technologies, Mobility and Security (NTMS), March 30 2014-April 2 2014, Dubai. U.A.E.

- [C65] Nikitakis, A.; Paganos, T.; Papaefstathiou, I., "A novel embedded system for vision tracking," Design, Automation and Test in Europe Conference and Exhibition (DATE), 2014, 24-28 March 2014, Dresden, Germany

- [C64] Panos Papantonakis, Charalampos Manifavas, Dionisios Pnevmatikatos, Ioannis Papaefstathiou, "Fast, FPGA-based Rainbow Table Creation for Attacking Encrypted Mobile Communications", IEEE International Conference on Field Programmable Logic and Applications (FPL), Sept. 2-4, 2013, Porto, Portugal, Books and edited book chapters

- Patents

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
 - "HERMES : Innovative, Highly Efficient Road Surface Measurement and Control System", Funding Source : "European Commission, SEVENTH FRAMEWORK PROGRAMME, SME", Total Funding : € 346.286,40, Duration : Aug. 2012 – Jul. 2014

- “FASTCUDA : Open Source FPGA Accelerator & Hardware-Software Codesign Toolset for CUDA Kernels”, Funding Source : “European Commission, SEVENTH FRAMEWORK PROGRAMME, SME”, Total Funding : € 436.400,00, Duration : Nov. 2011 – Oct. 2013
- “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 – Aug. 2014
- “Intelligent Vehicle Intercommunication System for Increased Security in Highways and Urban Environments”, Funding Source : “COOPERATION” - General Secretariat for Research and Technology Grant, Budget : € 57.699,26, Duration : Mar. 2011 – Jun. 2014
- “R3-COP : Robust & Safe Mobile Co-operative Autonomous Systems”, Funding Source : “ARTEMIS Joint Undertaking / Advanced Research and Technology for Embedded Intelligence and Systems JU”, Total Funding : € 92.000,00, Duration : May 2010 – Oct. 2013
- Project proposals submitted:
 - o COSSIM, H2020, Budget : € 312.000, Duration : Feb. 2015 – Jan. 2018 (Accepted)
 - o HyperYgeia, H2020, Budget : € 246.000, Duration : Feb. 2015 – Jan. 2018 (Rejected)

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
 - IEEE FPL today
 - IEEE ISWCS
 - IEEE
 - ICEAC
 - IEEE ICNC
 - IEEE UCHPC
 - Conference Organization (specify role)
 - IEEE WRC general co-chair
- Reviewing activities
 - IEEE Micro
 - IEEE Design & Test
 - IEEE Transactions on Networking
 - IEEE Communication Letters
 - IEEE Wireless Communications
 - IEEE Transactions on Circuits and Systems for Video Technology
 - IEEE Transactions on Reconfigurable Technology and Systems
 - Elsevier Journal on "Microprocessors and Microsystems"
 - International Journal of Control, Automation, and Systems

F – Service to the Department and the School

G – Advising

Undergraduate students supervised

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Nikitakis Antonios (PhD)
 - Karkazis Panagiotis (PhD)
 - Agadakos Ioannis (M.Sc.)
 - Tampouratzis Nikolaos (M.Sc.)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Brokalakis Andreas (phD)
 - Fyssarakis Konstantinos (phD)
 - Hatzivassilis Georgios (phD)
 - Miteloudi Konstantina (M.Sc.)
 - Savvakos Charalambos (M.Sc.)
 - Strataki Eleni (M.Sc.)
 - Ph.D. and M.Sc. Degrees (committee member)
 - Kornaros Georgios (phD)
- Undergraduate students supervised
 - Diploma theses in progress
 - Chondroulis Ioannis
 - Farantos Georgios
 - Karatzaferis Efstathios – Alexandros
 - Kontos Nikolaos
 - Papadopoulou Sofia
 - Surlantzis Sotirios
 - Diploma theses completed (supervisor)
 - Anastasopoulos Phoebus
 - Krommydas Theodoros
 - Diploma theses in progress (committee member)
 - Bozikas Dimitrios
 - Drosopoulos Andreas
 - Fotinopoulos Georgios
 - Gardelakos Argyrios – Alexandros
 - Kalaitzis Constantinos
 - Pialoglou Alexandros
 - Sotiropoulos Antonios
 - Varsamidis Harisis
 - Veremi Christina
 - Diploma theses completed (committee member)
 - Douzos Georgios

- Koukouli Andreas
- Maragos Konstantinos
- Nikolakaki Sofia – Maria
- Rematska Georgia
- Skarlatos Georgios
- Stratikopoulos Athanasios
- Trilyraki Ekaterini
- Xenis Orestis



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Dionisios Pnevmatikatos

Rank: Professor

Years in rank: 5

Full-time or part-time: Full-time

Division: Electronics and Computer Architecture

Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught
 - ACE 201 : Digital Computers (mandatory)
 - ACE 415 : Computer Architecture
 - ACE 418: Parallel and Distributed Computer Architecture
- Graduate courses taught
 - ACE 613 : Parallel and Distributed Computer Architecture
(Offered jointly with ACE 418)

B – Publications

- Publications in refereed journals
 - Published:
 - Ioannis Sourdis, Christos Strydis, A. Armato, Christos-Savvas Bouganis, Babak Falsafi, Georgi Nedeltchev Gaydadjiev, Sebastian Isaza, Alirad Malek, R. Mariani, Dionisios N. Pnevmatikatos, Dhiraj K. Pradhan, Gerard K. Rauwerda, Robert M. Seepers, Rishad A. Shafik, Kim Sunesen, Dimitris Theodoropoulos, Stavros Tzilis, Michalis Vavouras: “DeSyRe: On-demand system reliability”, *Microprocessors and Microsystems - Embedded Hardware Design* 37(8-C): 981-1001, 2013.
 - George Kornaros, Dionisios N. Pnevmatikatos, “A survey and taxonomy of on-chip monitoring of multicore systems-on-chip”, *ACM Transactions on Design Automation of Electronic Systems* 18(2): 17 (2013)
- Publications in refereed conferences
 - Published:

- Vassilis Papaefstathiou, Manolis Katevenis, Dimitrios S. Nikolopoulos, Dionisios N. Pnevmatikatos: Prefetching and cache management using task lifetimes. ICS, June 2013: 325-334
- Dimitris Theodoropoulos, Polyvios Pratikakis, Dionisios N. Pnevmatikatos: Efficient runtime support for embedded MPSoCs. ICSAMOS July 2013: 164-171
- Panagiotis Papantonakis, Dionisios N. Pnevmatikatos, Ioannis Papaefstathiou, Charalampos Manifavas: Fast, FPGA-based Rainbow Table creation for attacking encrypted mobile communications. FPL September 2013: 1-6
- Ioannis Sourdis, Christos Strydis, A. Armato, Christos-Savvas Bouganis, Babak Falsafi, Georgi Nedeltchev Gaydadjiev, Sebastian Isaza, Alirad Malek, R. Mariani, Samuel N. Pagliarini, Dionisios N. Pnevmatikatos, Dhiraj K. Pradhan, Gerard K. Rauwerda, Robert M. Seepers, Rishad Ahmed Shafik, Georgios Smaragdos, Dimitris Theodoropoulos, Stavros Tzilis, Michalis Vavouras: DeSyRe: On-Demand Adaptive and Reconfigurable Fault-Tolerant SoCs. ARC 2014: 312-317
- Dionisios N. Pnevmatikatos, Tobias Becker, Andreas Brokalakis, Georgi Nedeltchev Gaydadjiev, Wayne Luk, Kyprianos Papadimitriou, Ioannis Papaefstathiou, D. Pau, Oliver Pell, Christian Pilato, Marco D. Santambrogio, Donatella Sciuto, Dirk Stroobandt: Effective Reconfigurable Design: The FASTER Approach. ARC 2014: 318-323
- F. Spada, Alberto Scolari, Gianluca C. Durelli, Riccardo Cattaneo, Marco D. Santambrogio, Donatella Sciuto, Dionisios N. Pnevmatikatos, Georgi Gaydadjiev, Oliver Pell, Andreas Brokalakis, Wayne Luk, Dirk Stroobandt, D. Pau: FPGA-Based Design Using the FASTER Toolchain: The Case of STM Spear Development Board. ISPA 2014: 134-141
- Dionisios N. Pnevmatikatos, Stavros Tzilis, Ioannis Sourdis: The DeSyRe Runtime Support for Fault-Tolerant Embedded MPSoCs. ISPA 2014: 197-204
- Antonis Psathakis, Vassilis Papaefstathiou, Manolis Katevenis, Dionisios N. Pnevmatikatos: Design space exploration for fair resource-allocated NoC architectures. ICSAMOS 2014: 141-148
- Catalin Bogdan Ciobanu, Dionisios N. Pnevmatikatos, Kyprianos D. Papadimitriou, Georgi Nedeltchev Gaydadjiev: FASTER run-time reconfiguration management. ICS 2013: 463-464 (Poster)

C – Awards & Distinctions

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.

- Project proposals submitted:
- mHarvest: A Software Framework for Low-Cost Cloud Services Based on Harvesting Mobile Devices Computing Power, H2020 Budget: €337.875
- Sardendes: Secure, Adaptive, Real-time, Dependable and Energy-efficient (body-) Networked Systems, H2020 Budget: €401.875

E – Professional service

- Conference Technical Program Committee service
- DATE, FPL, IC-SAMOS, ICCD, Reconfig, RAW, VLSI-Soc
- Conference Organization (specify role)
- General Co-chair, HIPEAC Workshop on Reconfigurable Computing (WRC), 2013
- Reviewing activities
- Technical expert: Corallia Microelectronics Cluster
- Technical expert: Artemis June 2013, June 2014
- Proposal Evaluator: Eurostars 2013, 2014

F – Service to the Department and the School

- Departmental responsibilities
- Microprocessor and Hardware Laboratory, Director
- School – level responsibilities
- Internal Evaluation Committee (OMEA)
- Undergraduate Practical Training School responsible
- Undergraduate advisor
- Member of faculty election bodies

G – Advising

Undergraduate students supervised

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, completed)
 - Kornaros Georgios (Ph.D.)
- Ph.D. and M.Sc. students supervised (advisor, completed)
 - Iosif Koidis (M.Sc.)
 - Georgios Charitopoulos (M.Sc.)
 - Mpampis Vatsolakis (M.Sc.)
- Ph.D. and M.Sc. degrees awarded (committee member)
 - Nikitakis Antonios (Ph.D.)
 - Karkazis Panagiotis (Ph.D.)
 - Tampouratzis Nikolaos (M.Sc.)

- Ph.D. and M.Sc. Degrees (committee member)
- Undergraduate students supervised
- Diploma theses in progress
 - Katsinelis Constantinos
 - Pouli Christina
- Diploma theses completed (supervisor)
 - Douzos Georgios
 - Makropoulos Nikolaos
 - Skarlatos Dimitrios
- Diploma theses in progress (committee member)
 - Boukoros Spyridon
 - Bozikas Dimitrios
 - Didyniotis – Ventouris Georgios
 - Evangeliou Nikolaos
 - Fotinopoulos Georgios
 - Kalaitzis Constantinos
 - Kazantzis Polychronis – Georgios
 - Kousanakis Emmanouil
 - Petronikolos Constantinos
 - Pialoglou Alexandros
 - Sotiropoulos Antonios
 - Souris Anastasios
 - Veremi Christina
- Diploma theses completed (committee member)
 - Anastasopoulos Phoebus
 - Koukoulis Andreas
 - Maragos Konstantinos
 - Rosos Christos
 - Xenis Orestis



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: George Stavrakakis

Rank: Full Professor

Years in rank: 19

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
 - ENE 301 : Introduction to Power Systems
 - ENE 511 : Renewable Energy Sources
- 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

- Publications in refereed journals
 - Submitted : 4
 - Accepted : 3
 - Published : 2 (see below)
- Yannis A. Katsigiannis and George S. Stavrakakis
 - “Estimation of wind energy production in various sites in Australia for different wind turbine classes: A comparative technical and economic assessment”.

Renewable Energy, 67 (July 2014), pp 230-236.

- A. Tsikalakis, D. Routsis, A. Pafilis, K. Kalaitzakis, G. Stavrakakis
“A methodology exploiting geographical information systems to site a photovoltaic park inside a sustainable community”
International Journal of Sustainable Energy, 2014, in press
(DOI:10.1080/14786451.2013.873799).
- Publications in refereed conferences
 - Submitted : 2
 - Accepted : 2
 - Published : 2 (see below)
- A. G. Tsikalakis, A. Antoniou, N. Theodorou, K. Kalaitzakis, G. Stavrakakis
“Impact of the Euro-Asia Interconnector project on the economic operation of Crete and Cyprus power systems”
2nd Conference on the Power Options for the Eastern Mediterranean Region (POEM 2013), 7-9 Oct 2013, Nicosia, Cyprus.
- S. D. Kaminaris, E. Tripolitakis, G. S. Stavrakakis, Chr. Diakaki
“An Intelligent Data Acquisition and Transmission Platform for the development of voyage and maintenance plans for ships”
IISA 2014-IEEE 5th International Conference on Information, Intelligence, Systems and Applications, Chania, Crete-Greece, 7-9 July 2014.
- Publications in conferences on abstract review
 - Submitted : none
- Patents
 - One in national level (see below)
 - Method and integrated electronic circuit for energy management subject to comfort level constraints 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.egreenship.com, Partner
 - Local Partnerships for Greener Cities and Regions-Green Partnerships-MED OPERATIONAL PROGRAMME 2007-2013, Partner
- Project proposals submitted: 1

E – Professional service

- Associate Editor duties : none
- Society Technical Committee duties
 - 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
- Other
 - Participation in National Committees
 - “Permanent Committee of the Prefecture of Crete for the Energy Planning of Crete”

F – Service to the Department and the School

- Departmental responsibilities : none
- School – level responsibilities
 - Member of Board of Regents
 - TUC Research Committee
 - Telecommunications Institute of Technology
 - Member of the Technical Council of TUC

G – Advising

Undergraduate students supervised

- Active graduate students supervised

- Committee Member of PhD thesis already defended : 2
- PhD students supervised : none
- M.Sc Students supervised : 4
 - Panagiwtidou Natalia
 - Sytzanaki Athina
 - Blazakis Konstantinos
 - Viskadouraki Evaggelia
- M.Sc. degrees awarded : 1
 - Panagiwtidou Natalia
- Committee Member of M.Sc. degrees awarded except the above : 6
- Undergraduate students supervised
 - Diploma theses in progress (supervisor): 6
 - Diploma theses completed (supervisor) : 2
 - Diploma theses in progress (committee member): 5
 - Diploma theses completed (committee member): 5

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, 2013 to Aug. 31, 2014

Name: Aggelos Bletsas

Rank: Associate Professor (since spring of 2014)

Years in rank: 0.5

Full-time or part-time: Full-time

Division: Telecom

Lab affiliation: Telecom Lab

A – Teaching

- Undergraduate courses taught
 - TEL 303 : Telecommunication Systems II
 - TEL 418 : Computer Networks II
- Graduate courses taught
 - TEL 613 : Introduction to Probabilistic Graphical Models & Inference Algorithms (new class)

B – Publications

- Publications in refereed journals
 - Published:
 - E. Alibertis, N. Fasarakis-Hilliard and **A. Bletsas**, "Community RF Sensing for Source Localization", *IEEE Wireless Communications Letters (WCL)*, Vol. 3, No. 4, pp. 393 – 396, Aug. 2014.
 - A.G. Dimitriou, S. Siachalou, **A. Bletsas** and J.N. Sahalos, "A Site-Specific Stochastic Propagation Model for Passive UHF RFID", *IEEE Antennas & Propagation Letters (APL)*, Vol. 13, pp. 623-626, March 2014.
 - J. Kimionis, **A. Bletsas** and J.N. Sahalos, "Increased Range Bistatic Scatter Radio", *IEEE Transactions on Communications (TCOM)*, Vol. 62, No. 3, pp. 1091 – 1104, March 2014.
- Publications in refereed conferences
 - Published:
 - A. Igglezakis, A. Deligiannakis and **A. Bletsas**, "Geometric Monitoring for CSI Reduction in Amplify-and-Forward Relay Networks", *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, May 2014, Florence, Italy.

- S.D. Assimonis, E. Kampianakis and **A. Bletsas**, "Microwave Analysis and Experimentation for Improved Backscatter Radio", *IEEE European Conference on Antennas & Propagation (EUCAP)*, April 2014, Hague, Netherlands.
- E. Kampianakis, S.D. Assimonis and **A. Bletsas**, "Network Demonstration of Low-cost and Ultra-low-power Environmental Sensing with Analog Backscatter", *IEEE Radio Wireless Week Conference*, January 2014, Newport Beach CA, USA.
- S.D. Assimonis and **A. Bletsas**, "Energy Harvesting with a Low-Cost and High Efficiency Rectenna for Low-Power Input", *IEEE Radio Wireless Week Conference*, January 2014, Newport Beach CA, USA.
- J. Kimionis, **A. Bletsas** and J.N. Sahalos, "Bistatic Backscatter Radio for Power-limited Sensor Networks", *IEEE Global Communications Conference (GLOBECOM)*, December 2013, Atlanta, USA.
- C. Konstantopoulos, E. Kampianakis, E. Koutroulis and **A. Bletsas**, "Wireless Sensor Node for Backscattering Electrical Signals Generated by Plants", *IEEE Sensors Conference*, November 2013, Baltimore, USA.
- E. Kampianakis, I. Kimionis, K. Tountas, C. Konstantopoulos, E. Koutroulis, **A. Bletsas**, "Backscatter Sensor Network for Extended Ranges and Low Cost with Frequency Modulators: Application on Wireless Humidity Sensing", *IEEE Sensors Conference*, November 2013, Baltimore, USA. **Selected among the best papers of the conference.** 🏆
- E. Kampianakis, J. Kimionis, K. Tountas, **A. Bletsas**. "A Remotely Programmable Modular Testbed for Backscatter Sensor Network Research", *Fifth Workshop on Real-World Wireless Sensor Networks (REALWSN)*, September 2013, Como Lake, Italy.

C – Awards & Distinctions

- E. Kampianakis, I. Kimionis, K. Tountas, C. Konstantopoulos, E. Koutroulis, A. Bletsas, "Backscatter Sensor Network for Extended Ranges and Low Cost with Frequency Modulators: Application on Wireless Humidity Sensing", *IEEE Sensors Conference*, November 2013, Baltimore, USA.
Selected among the best papers of the conference. 🏆
- 2013 Technical Univ. of Crete Research Excellence Award. 🏆

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.

E – Professional service

- Associate Editor duties
 - IEEE Wireless Communication Letters
- Conference Technical Program Committee service

- Conference Technical Program Committee (TPC) service:
TPC Member of various major IEEE conferences, including ICC, Globecom, RFID-TA etc.
- Reviewing activities
- Reviews for major Class A IEEE Journals.

F – Service to the Department and the School

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

G – Advising

Undergraduate students supervised

- Active graduate students supervised
- M.Sc. students supervised (advisor, completed)
 - Emmanouil Alibertis, “Smart Sensors of RF and Backscatter Signals with Localization”, M.S. Thesis completed in summer of 2014, School of ECE Department, Technical Univ. of Crete.
 - Nikos Fasarakis-Hilliard, “Coherent detection and channel coding for backscatter sensor networks”, M.S. Thesis completed in summer of 2014, School of ECE, Technical Univ. of Crete.
 - Eleftherios Kabanakis, “Scatter radio sensor network with analog frequency modulation principles”, Thesis completed in summer of 2014, School of ECE Department, Technical Univ. of Crete.
 - Konstantinos Alexandris, “Non-coherent Receivers for Zero-Feedback Distributed Beamforming in Wireless Sensor Networks of Limited Connectivity”, M.S. Thesis completed in fall of 2013, School of ECE, Technical Univ. of Crete.
- M.Sc. students supervised
 - Various other students supervised
- Undergraduate students supervised
- Diploma theses supervised as principal advisor (completed thesis)
 - M. Papagiannakis
- Diploma theses in progress (principal advisor)
 - Several students



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Vassilis Digalakis

Rank: Full

Years in rank: 14

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:

- Vassilis Tsiaras, Ranniery Maia, Vassilis Diakouloukas, Yannis Stylianou, **Vassilios Digalakis**, Linear dynamical models in speech synthesis, 2014 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), May 2014

- 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, in progress)
 - Dougiakis Lazaros (M.Sc.)
- Ph.D. and M.Sc. degrees awarded (committee member)
- Ph.D. and M.Sc. Degrees (committee member)
 - Eliou Dimitrios (M.Sc.)
- Undergraduate students supervised
- Diploma theses in progress
 - Sideris Panagiotis
- Diploma theses completed (supervisor)
 - Dougiakis Lazaros
 - Georgiadou Despina
 - Kagiaras Dimitrios

- Karalas Konstantinos
- Papakostas Michael
- Pechlivanis Konstantinos

o Diploma theses completed (committee member)



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: George Karystinos

Rank: Associate Professor

Years in rank: 1

Full-time or part-time: Full-time

Division: Telecommunications

Lab affiliation: Telecommunications Laboratory

A – Teaching

- Undergraduate courses taught
 - TEL 201 : Signals and Systems (mandatory – Fall 2013)
 - TEL 415 : Statistical Signal Processing for Communications (elective – Spring 2014)
- Graduate courses taught
 - TEL 611 : Coding Theory (Fall 2013)
- Labs taught
 - TEL 201 : Signals and Systems (Fall 2013)
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Lecture notes for Tel 415 – Statistical Signal Processing for Communications
 - Lecture notes for TEL 611 – Coding Theory
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Submitted: those published (see below)
 - Accepted: those published (see below), plus
 - 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*, accepted May 2014.
 - P. P. Markopoulos, **G. N. Karystinos**, and D. A. Pados, “Optimal algorithms for L1-subspace signal processing”, *IEEE Transactions on Signal Processing*, accepted June 2014.

- Published:
 - A. Kyriallidis and **G. N. Karystinos**, “Fixed-rank Rayleigh quotient maximization by an MPSK sequence”, *IEEE Transactions on Communications*, vol. 62, pp. 961-975, Mar. 2014.
 - M. Asteris, D. S. Papailiopoulos, and **G. N. Karystinos**, “The sparse principal component of a constant-rank matrix” *IEEE Transactions on Information Theory*, vol. 60, pp. 2281-2290, Apr. 2014.
- Publications in refereed conferences
- Submitted: those published (see below)
- Accepted: those published (see below)
- Published:
 - P. P. Markopoulos, N. Tsagkarakis, D. A. Pados, and **G. N. Karystinos**, “Direction finding with L1-norm subspaces,” in *Proc. SPIE Compressive Sensing Conference*, SPIE Defense, Security, and Sensing (DSS 2014), Baltimore, MD, May 2014.
- Books and edited book chapters
- **G. N. Karystinos**, “Optimal algorithms for binary, sparse, and L1-norm principal component analysis,” in *Mathematics Without Boundaries: Surveys in Interdisciplinary Research*, 2014, pp. 339-382, Springer, P. M. Pardalos and T. M. Rassias (eds).
- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - PI (%effort: 33%), “DISCO - Distributed Wireless Communications”, Funding Source: National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Education and Lifelong Learning, Budget: € 600.000, Duration: Jan. 2, 2012 - Sept. 30, 2015.
 - Participant, “RFID-CORE - Development of RF/RFID systems for control and registration of goods and personnel,” Funding Source: National Strategic Reference Framework (NSRF 2007 - 2013), Sectoral Operational Programmes, Education and Lifelong Learning, led by Prof. J. N. Sahalos.
 - Participant, “AQUANET: Water management for a city with an intelligent, autonomous and low-cost wireless sensor network,” 2011 Cooperation Program, General Secretariat for Research and Technology, Greece, led by Prof. A. Bletsas.

E – Professional service

- Conference Technical Program Committee service
 - IEEE Wireless Communications and Networking Conference (WCNC) 2014 - PHY Track.
- Reviewing activities
 - Reviewer for journals
 - IEEE Transactions on Communications

- IEEE Transactions on Signal Processing
- IEEE Transactions on Vehicular Technology
- IEEE Wireless Communications Letters
- The Journal of the Acoustical Society of America
- Wireless Communications and Mobile Computing
- Journal of The Institution of Engineers (India): Series B
- Reviewer for conferences
- IEEE Wireless Communications and Networking Conference (WCNC) 2014
- 2014 International Symposium on Communications, Control, and Signal Processing

F – Service to the Department and the School

- Departmental responsibilities
- *Undergraduate Studies Committee*, School of Electronic and Computer Engineering, Technical University of Crete, 2013 - present.

G – Advising

Undergraduate students supervised

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, completed)
 - (None)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Dimitris Koupsiaris (Ph.D.)
 - Yannis Fountzoulas (M.Sc.)
- Ph.D. and M.Sc. degrees awarded (committee member)
 - _____
- Ph.D. and M.Sc. Degrees (committee member)
 - Alexandris Constantinos (M.Sc.)
 - Fasarakis Chilliard Nikolaos (M.Sc.)
 - Kimionis Ioannis (M.Sc.)
- Undergraduate students supervised
- Diploma theses in progress
 - Kosta Angela, “Coding for the wiretap channel.”
- Diploma theses completed (supervisor)
 - Sklikas Alexandros, “Maximization of a rank-4 quadratic form by a binary vector with complexity $O(N^3 \log N)$,” awarded July 2014.
- Diploma theses in progress (committee member)
 - Chatzinikolaou Panagiotis
 - Georgiopoulos Theodoros

- Leonidakis Stylianos
- Magounaki Theoni

- o Diploma theses completed (committee member)
- (None)



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Polychronis Koutsakis

Rank: Associate Professor

Years in rank:

Full-time or part-time: Full – time

Division: Telecommunications

Lab affiliation: Information & Networks Laboratory

A – Teaching

- Undergraduate courses taught
 - TEL 401 : Computer Networks I (mandatory)
 - TEL 420 : Broadband Communication Networks

- Graduate courses taught
 - TEL 615 : Special topics in Communication Networks

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

- Lecture notes / slides developed
 - Notes/slides for the undergraduate courses taught

B – Publications

- Publications in refereed journals
 - Published:
 - E. Maratsolas, P. Koutsakis and A. Lazaris, “Activity-Based Video Traffic Policing: A New Paradigm”, IEEE Transactions on Multimedia, Vol. 16, No. 5, 2014, pp. 1446-1459.
 - G.-A. Liagouras, A. A. Sayegh and P. Koutsakis, “A New Location-Aware Calendar-Based Application for Dynamic Minimum Path Trip Planning”, Wireless Personal Communications Journal, Springer Publ., Vol. 78, No. 1, 2014, pp. 29-44.

- Books and edited book chapters

- T. Kouskouli and P. Koutsakis, “Scheduling for Efficient Telemedicine Traffic Transmission over Next Generation Cellular Networks”, in “Resource Management in Mobile Computing Environments” handbook, 2014, pp. 399-418, Springer-Verlag Publ., C. X. Mavromoustakis, E. Pallis, G. Mastorakis (eds).

C – Awards & Distinctions

- *2013 Exemplary Editor of the IEEE Communications Society*, for his editorial work in the IEEE Communications Surveys & Tutorials journal.

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)
- Conference Technical Program Committee service
 - IEEE GLOBECOM 2014 – Symposium on Wireless Networking
 - IEEE GLOBECOM 2014 – Selected Areas in Communications Symposium, Satellite and Space Communications Track
 - IEEE ICC 2014 - Symposium on Selected Areas in Communications (SAC)
 - IEEE ICC 2014 – Ad-Hoc and Sensor Networking Symposium
 - IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM) 2014
 - IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) 2014
 - IEEE INFOCOM 2014 Workshop on Mobile Cloud Computing
 - IEEE Vehicular Technology Conference – fall 2014
 - IEEE WCNC 2014 – Network Track
 - IEEE Canadian Conference on Electrical and Computer Engineering (CCECE) 2014
 - International Conference on Computer, Information and Telecommunication Systems (CITS) 2014
 - 2014 International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2014)
 - International Conference on Wireless Information Networks and Systems (WINSYS) 2014
 - International Conference on Wireless Communications and Mobile Computing (IWCMC) – Wireless Networks Symposium 2014
 - ACM VideoNEXT 2014 Workshop

- Conference Organization (specify role)
 - Co-Chair for the 3rd International IEEE Workshop on Video Everywhere (VidEv 2014), part of the 15th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June 2014, Sidney, Australia.
- Reviewing activities
 - IEEE Transactions on Multimedia
 - IEEE Transactions on Mobile Computing
 - IEEE Transactions on Cloud Computing
 - Wireless Personal Communications Journal (Springer)
 - Cognitive Computation (Springer)

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)
 - Chorianopoulou Arodami (M.Sc.)
 - Palogiannidi Elisavet (M.Sc.)
 - Vasileiadou Dimitra (M.Sc.)
 - Loizidis Orestis-Stavros (M.Sc.)
 - Dimitriou Konstantina (M.Sc.)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - _____
 - Ph.D. and M.Sc. Degrees (committee member)
- Undergraduate students supervised
 - Diploma theses in progress
 - Boukoros Spyridon
 - Kalampogia Athena
 - Paliatsa Dimitra
 - Diploma theses completed (supervisor)
 - Chorianopoulou Arodami
 - Repousi Anna
 - Tzamicha Greta
 - Diploma theses in progress (committee member)

- Kostoulas Georgios
- Kyriazis Athanasios

- Diploma theses completed (committee member)
 - Kaloumenos Nikolaos – Alexandros



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Athanasios P. Liavas

Rank: Professor

Years in rank: 5

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 413 : Convex Optimization
- Graduate courses taught
 - TEL 612 : Convex Optimization
(Offered jointly with TEL 413)
- Curriculum & course development
 - New courses / labs developed
 - Projects in Convex Optimization
 - Lecture notes / slides developed
 - Convex Optimization (Lecture Notes in Greek)

B – Publications

- Publications in refereed journals
 - Submitted
 - A. P. Liavas and N. D. Sidiropoulos, “Parallel algorithms for constrained tensor factorization via the Alternating Direction Method of Multipliers” submitted to the *IEEE Transactions on Signal Processing*, Aug. 2014.
 - Accepted:
 - Published:
- Publications in refereed conferences

- Submitted:
 - A.P. Liavas and N.D. Sidiropoulos, “Parallel Algorithms for large scale constrained tensor decomposition”, submitted to *IEEE ICASSP 2015*.
- Accepted:
- Published:

- 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 € 512.000,00, Duration : Apr. 2011 – Mar. 2015

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
- 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)
 - (None)

- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - (None)

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

- Ph.D. and M.Sc. Degrees (committee member)
 - Roniotis Alexandros (phD)
 - Alexandris Constantinos (M.Sc.)
 - Kimionis Ioannis (M.Sc.)
 - Livanos Georgios (M.Sc.)
 - Piperakis Stylianos (M.Sc.)

- Undergraduate students supervised

- Diploma theses in progress
 - Charitakis Georgios
 - Chatzi Nikolaou Panagiotis
 - Christodouleas Dimitrios
 - Georgiopoulos Theodoros
 - Iliadis Stylianos
 - Kostoulas Georgios
 - Leonidakis Stylianos
 - Lourakis Georgios
 - Magounaki Theoni

- Diploma theses completed (supervisor)
 - Boundouris Constantinos
 - Sapountzis Nikolaos

- Diploma theses in progress (committee member)
 - Chondroulis Ioannis

- Diploma theses completed (committee member)
 - Alexandris Constantinos
 - Kimionis Ioannis
 - Livanos Georgios
 - Piperakis Stylianos



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Michael Paterakis

Rank: Professor

Years in rank: 15

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 414: *Introduction to Modeling and Performance Evaluation of Computer Communication Networks*, Advanced Senior Undergraduate Course

- Graduate courses taught
 - TEL 606: *Introduction to Modeling and Performance Evaluation of Computer Communication Networks*, Graduate Course (Offered jointly with TEL 414)

- Labs taught
 -

- Curriculum & course development
 - New courses / labs developed
 -
 - Lecture notes / slides developed
 - Developed a complete set of notes in Greek for the senior undergraduate / graduate course “*Introduction to Modeling and Performance Evaluation of Computer Communication Networks*” (TEL 414 and TEL 606).

B – Publications

- Publications in refereed journals
 - Published:
 -

- Publications in refereed conferences
- Published:
 - M. Theodorou and M. Paterakis, “Efficient Cache Management Policies for Streaming Proxies Supporting Complete and Partial Video Playback”, in Proc. Of the 5th International Conference on Next Generation Networks and Services (NGNS’14), May 2014, Casablanca, Morocco.
- Books and edited book chapters

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - “Provision of Techno - Economic Advisory Services for the National Project: Open Access, Optical Fiber based Broadband Network to the Home”. Funded for the period 7/2011 – 10/2013 by the Greek Ministry of Infrastructures, Transportation and Networks. PI: Prof. M. Paterakis, Budget: € 100.000.
 - “Consolidation of the Broadband Communication Infrastructure of the Municipal Port Fund of Chania”. Funded for the period 5/03/14 – 28/03/2014 by the Municipal Port Fund of Chania. PI: Prof. M. Paterakis. Budget: € 15.000.
 - “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.
- Project proposals submitted:
 -

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
- Society Technical Committee duties
- Conference Technical Program Committee service
- Conference Organization (specify role)
 - Co-Chair for the 3rd International IEEE Workshop on Video Everywhere (VidEv 2014), part of the 15th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June 2014, Sidney, Australia.
- Reviewing activities
 - Computer Communications Journal, Elsevier Publ.

F – Service to the Department and the School

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

G – Advising

- Active graduate students supervised
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - 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.
- Undergraduate students supervised
 - Diploma Theses completed (supervisor):
 - Maria Theodorou, Thesis Title: “Cache management policies for streaming proxies supporting complete and partial video playback”.
 - Kaloumenos Nikolaos, Thesis Title: “Distributed Algorithms for Maximizing Transmission Rate in Cognitive Radio Networks”
 - Diploma theses in progress (supervisor):
 - Kyriazis Athanasios
 - Vlahantonis Georgios
 - Petrakis Emmanouil
 - Diploma Theses completed (committee member):
 - Voudouris Konstantinos
 - Dougiakis Lazaros
 - Georgiadou Despina
 - Kagiaras Dimitrios
 - Karalas Konstantinos
 - Papakostas Michail
 - Pechlivanis Konstantinos
 - Diploma Theses in progress (committee member):

- Boukoros Spyridon
- Michailidis Stavros
- Kalampogia Athina
- Paliatsa Dimitra



Technical University of Crete
School of Electronic & Computer Engineering

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Michalis Zervakis

Rank: Professor

Years in rank: 14

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)
 - SYS 401 : Linear Systems (mandatory)
 - TEL 312 : Digital Image Processing
 - ACE 513 : Biomedical Technology
 - AIS 414 : Computer Vision
- Graduate courses taught
 - TEL 610 : Special Topics in Digital Image Processing (offered jointly with TEL 312)
 - COMP 613 : Computer Vision (offered jointly with AIS 414)
- Labs taught
- Curriculum & course development
 - New courses / labs developed
 - Lecture notes / slides developed
 - Biomedical Signal Processing for ACE 513
 - Authored textbooks

B – Publications

- Publications in refereed journals
 - Published
 - Ioannis N. Dimou, Michalis E. Zervakis “On the analogy of classifier ensembles with primary classifiers: Statistical performance and optimality”, *International Journal of Pattern Recognition Research*, Vol. 1, pp. 98-122, Nov. 2013.

- Kalantzaki KD, Bei ES, Garofalakis M, Zervakis M. "Biological Interaction Networks Based on Nonparametric Estimation". *International Journal of Biomedical Engineering and Technology*, Vol. 13, No. 4, Oct. 2013.
 - Maria Papadogiorgaki, Panagiotis Koliou, Xenofon Kotsiakos and Michalis Zervakis, "Mathematical modelling of spatio-temporal glioma evolution", *Theoretical Biology and Medical Modelling*, Vol. 10:47, BioMed Central, Aug 2013.
 - I. Barbounakis, P. Askordalakis, M. Zervakis, D. Akoumianakis, "A Best Fit Mathematical Model for Maximizing GridFTP Throughput Based on Real and Simulated Network Conditions" *IJCSN International Journal of Computer Science and Network*, Vol. 3, No. 2, April 2014.
 - K. Kalantzaki, E. Bei, K. Exarchos, M. Zervakis, M. Garofalakis, and D. Fotiadis, "Nonparametric Network Design and Analyses of Disease Genes in Oral Cancer Progression", *IEEE Journal of Biomedical and Health Informatics*, Vol. 18, No. 3, pp. 562-573, March 2014. doi: 10.1109/JBHI.2013.2274643.
 - Sfakianakis S, Bei ES, Zervakis M, Vassou D, Kafetzopoulos D (2014): On the Identification of Circulating Tumor Cells in Breast Cancer. *IEEE Journal of Biomedical and Health Informatics*, May 2014, Vol. 18, Nr.3, pp. 773-782. doi: 10.1109/JBHI.2013.2295262.
 - Skreti G, Bei ES, Kalantzaki K, Zervakis M (2014): Temporal and Spatial Patterns of Gene Profiles during Chondrogenic Differentiation. *IEEE Journal of Biomedical and Health Informatics*, May 2014; Vol. 18, Nr. 3, pp. 799-809. doi: 10.1109/JBHI.2014.2305770.
- Publications in refereed conferences
 - Published:
 - G.Livanos, M.Zervakis,G.Giakos, "Automated analysis of immunohistochemical images based on curve evolution approaches" IEEE Intl Conf. on Imaging Systems and Techniques (IST2013), Beijing ,22-23 Oct. 2013, Page(s): 112 - 115,Print ISBN: 978-1-4673-5790-6
 - Suman Shrestha, George Giakos, George Livanos, Michael Zervakis, "Statistical Analysis on Polarimetric Study of Lung Cancer Cells", Imaging Systems and Techniques (IST), 2013 IEEE International Conference, Beijing, 22-23 Oct. 2013, Page(s): 121 - 126,Print ISBN: 978-1-4673-5790-6
 - K. Kalantzaki, L. Koumakis, E. S. Bei, M. Zervakis, G. Potamias and D. Kafetzopoulos. "Experimental Model Construction and Validation of the ErbB Signaling Pathway". In *Proceedings of the 13th IEEE International Conference on Bioinformatics and BioEngineering (BIBE 2013)*, Chania, Greece; November 10 - 13, 2013
 - N.K. Chlis, S. Sfakianakis, E.S. Bei, M. Zervakis, "A Generic Framework for the Elicitation of Stable and Reliable Gene Expression Signatures", *Proceedings of IEEE BIBE 2013*, DOI 10.1109/BIBE.2013.6701527
 - Antonakakis, M., Giannakakis, G., Tsiknakis, M., Micheloyannis, S., Zervakis, M., "Synchronization coupling investigation using ICA cluster analysis in resting MEG signals in reading difficulties, "Bioinformatics and Bioengineering (BIBE), 2013 IEEE 13th International Conference on , vol., no., pp.1,5, 10-13 Nov. 2013
 - Maria Papadogiorgaki and Michalis Zervakis, "Visualization and Modeling of Cancer Progression", 2013 IEEE International conference on Imaging Systems and Techniques (IST 2013), Beijing, China, 22-23 October 2013.
 - M. G. Kounelakis, M. Papadogiorgaki, M. E. Zervakis, "An in-silico Model for Solid Tumor Growth based on the Concept of Glycolysis", presented at the 13th IEEE Int. Conf. on Bioinformatics and Bioengineering (BIBE 2013), Chania, Greece, 10-13 November 2013.

- Books and edited 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*, Springer Science + Business Media, New York 2014. DOI: 10.1007/7657_2014_70
 - 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", CRC Press, Acc. Aug. 2014
 - T. Farrahi, T. Quang, K. S. Valluru, G. Livanos, Yinan Li, A. Deshpande, M. Zervakis, and G. Giakos, "Nanooncology: Molecular Imaging, Omics, and Nanoscale Flow-mediated Medicine Tumors Strategies", CRC Press, Accepted Aug. 2014

- Patents

C – Awards & Distinctions

D – Funded Projects

- Current projects:
 - *RT3S - Real Time Simulation for Safer vascular Stenting*, Funding Source 7th Framework Programme, Cooperation, Information and Communication Technologies, Budget : € 389.700,00, Duration : Jan. 2011 – May. 2014
 - *OASYS: Osteoarthritis: Integrated Systemic Analysis for targeted Biological Treatment*”, 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 : € 96.000,00, Duration : Jan. 2011 – Jun. 2014
 - *YPERTHEN: Clinical Research Infrastructure and methodology for personalized tumor diagnosis and therapy*, Funding Source : National Strategic Reference Framework (NSRF 2007 - 2013), European Territorial Cooperation, Greece – Cyprus 2007 – 2013, Budget : € 359.725,00, Duration : Jun. 2011 – Nov. 2013
 - *“e-Training for wellness in spa services”*, Funding Source : European Commission, Budget : € 39.280,00, Duration : Dec. 2011 – Dec. 2013
 - *“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 €

- Participation in “*Active Deformable micro-Cutters with Nano-Abrasives – ADCnano*”, GSRT, Cooperation II, National Strategic Reference Framework (NSRF) Sept 2012-Sept 2015
- Project proposals submitted:
 - H2020, PHC-26-2014: FIRMA- Future Internet Applications for Omics Data Management, Integration and Infor**MA**tion Mining for Clinical Research
 - H2020, PHC-26-2014: ACID-Application to optimize the Care for Individuals with Reflux Disease
 - H2020, PHC-20-2014: PATHOS- Prevention and care of Alzheimer’s disease Through ICT H**O**me-based Support Services

E – Professional service

- Associate Editor duties
- Society Technical Committee duties
- Conference Technical Program Committee service
 - IEEE BIBE 2013: International Committee Chair and Intl Program Committee
 - IEEE IST 2013: Program Co-Chair
- Conference Organization (specify role)
- Reviewing activities
 - Journals: IEEE Transactions on Biomedical Engineering, IEEE Transactions on Human-Machine Systems, Journal of Visual Communication and Image Representation, Artificial Intelligence in Medicine
 - Conferences: IEEE BIBE 2013, IEEE EMBC 2014, IEEE ICIP 2014, IEEE IST 2013, 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)

- Roniotis Alexandros (ph.D.)
- Livanos Georgios (M.Sc.)

- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Livanos Georgios (ph.D.)
 - Moirogiorgou Kwnstantia (ph.D.)
 - Antonakakis Marios (M.Sc.)
 - Bacharidis Constantinos (M.Sc.)
 - Chlis Nikolaos Cosmas (M.Sc.)
 - Jaohar Osman (M.Sc.)
 - Vourlaki Ioanna (M.Sc.)
 - Karalas Constantinos (M.Sc.)
 - Pentari Anastasia (M.Sc.)

- Ph.D. and M.Sc. Degrees (committee member)
 - Joseph Elias (phD)
 - Nikitakis Antonios (phD)
 - Kavadias Vasilios (M.Sc.)
 - Manataki Meropopi (M.Sc.)
 - Perakis Georgios (M.Sc.)

- Undergraduate students supervised

- Diploma theses in progress
 - Barberakis Stelios
 - Chalepakis Dellis Dimitrios – Apostolos
 - Kotronia Maria
 - Kouloumentas Panagiotis
 - Leska Valsamo
 - Paravididakis Vasilios
 - Tsakaneli Stavroula

- Diploma theses completed (supervisor)
 - Antonakakis Marios
 - Asimakopoulos Ioannis
 - Bacharidis Constantinos
 - Chlis Nikolaos Cosmas
 - Jaohar Osman
 - Kalaitzakis Georgios
 - Karvelas Kalogerakis Michael
 - Kyrousis Eleftherios
 - Tsepapadakis Michael

- Diploma theses in progress (committee member)
 - Farantos Georgios
 - Gardelakos Argyrios – Alexandros
 - Kalampogia Athena
 - Karatzaferis Efsthathios – Alexandros
 - Katsinelis Constantinos

- Kontos Nikolaos
 - Liverios Marinos – Ioannis
 - Papadopoulou Sofia
 - Trigkakis Dimitrios
 - Savva Androula
 - Varsamidis Harisis
- Diploma theses completed (committee member)
- Ampatzi Fanny
 - Anastasopoulos Phoebus
 - Chatzitzanos Evangelos
 - Chiou Eleni
 - Koutsoukos Ioannis
 - Krommydas Theodoros
 - Meliopoulos Aristides
 - Rematska Georgia
 - Theodoropoulos Michael

Sciences Division

Faculty Members

- Angelakis Dimitrios, 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, 2013 to Aug. 31, 2014

Name: Dimitris Angelakis

Rank: Assistant Professor

Years in rank:

Full-time or part-time:

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
 - Physics 1 (Mechanics and Thermodynamics) (FYS 101)
 - Quantum Technology (FYS 411)
- Graduate courses taught
 - Quantum Technology (FYS 411) (crosslisted)
- Curriculum & course development
 - New courses / labs developed
 - Quantum Technology (FYS 411)

B – Publications

- Publications in refereed journals
 - Submitted: those published/appeared (see below)
 - E. Compagno, G. De Chiara, **D. G. Angelakis**, and G. M. Palma, "Tunable Polarons in Bose Einstein Condensates", submitted Phys. Rev. Let
 - Accepted:
 - Changyoun Lee, Amit Rai, Changsuk Noh, **Dimitris G. Angelakis**. " Photonic lattice simulation of dissipation-induced correlations in bosonic systems", to appear in "Nature Scientific Reports"
 - R. Keil, C. Noh, A. Rai, S. Stutzer, S. Nolte, **D. G. Angelakis**, A. Szameit "Experimental simulation of charge conservation violation and Majorana dynamics", <http://arxiv.org/abs/.5444544>, to appear in "Optica"
- Published

- o Hyunseok Jeong, Changsuk Noh, [Seunglee Bae](#), **Dimitris G. Angelakis**, Timothy C. Ralph, "Detecting the degree of macroscopic quantumness using an overlap measurement", *Jour. of Opt. Soc. Of America B*, Vol. 31, Issue 12, pp. 3057-3066 (2014)
- o Peter A. Ivanov, Naoum I. Karchev, Nikolay V. Vitanov, **Dimitris G. Angelakis**, "Quantum simulation of superexchange magnetism in linear ion crystals", [Phys. Rev. A 90, 012325](#)
- o Changyoun Lee, Amit Rai, Changsuk Noh, **Dimitris G. Angelakis**. "Probing the effects of interaction in Anderson localization using linear photonic lattices", [Physical Review A 89, 023823 \(2014\)](#).
- o Priyam Das, Changsuk Noh, **Dimitris G. Angelakis** "Realizing the driven non-linear Schrodinger equation with stationary light", [Europhysics Lett. 103 34001 \(2013\)](#).
- o **Dimitris G. Angelakis**, C. Noh. "Beyond Dirac physics with photons:A quantum simulation of the Jackiw-Rebbi model". *Nature Scientific Reports* 4, 6110 (2014)
- o N. Schetakis, Tom Gruzic, Stephen R. Clark, Dieter Jacksh **Dimitris G. Angelakis**. "Frozen photons in coupled cavity arrays", [J. Phys. B: At. Mol. Opt. Phys. 46 \(2013\) 224025](#)
- o J. Ryu, C. Lee, Y. Zhi, R. Rahaman, **D. G. Angelakis**, J. Lee, M. Żukowski. "Multi-setting Greenberger-Horne-Zeilinger theorem", [Phys. Rev. A 89, 024103 \(2014\)](#)
- o Changhyoun Lee, Mark Tame, Changsuk Noh, James Lim, Stefan A. Maier, Jinhyoung Lee, **Dimitris G. Angelakis**. "Robust-to-loss entanglement generation using a quantum plasmonic nanoparticle array" [New J. Phys. 15 083017 \(2013\)](#)
- o **Dimitris G. Angelakis**, C. Noh. "Towards topological effects with coupled QED cavity arrays". [Int. J. Mod. Phys. B 28, 1441003 \(2014\)](#).

C – Awards & Distinctions

D – Funded Projects

E – Professional service

- Associate Editor duties
 - o Member of the editorial board of *European Physical Journal: Quantum Technology* (Springer)
 - o Member of the editorial board of *Journal of Atomic and Molecular Physics* (Hindawi)
 - o Principal guest editor for special issue “Quantum Simulations” *European Physical Journal: Quantum Technology* (Springer)
 - o Main editor of a invited volume from Springer entitled “Strongly correlated photons and quantum simulations”
- Conference Technical Program Committee service
 - o Program committee member, **International Conference on Quantum Communication, Measurement and Computing (QCMC) 2016**
- Conference Organization (specify role)
 - o Organizer of the symposium on “Many body quantum optics: Merging condensed matter with AMO physics” within the 9th International Conference on Computational Physics (ICCP9), Singapore January 2015
<http://www.physics.nus.edu.sg/iccp9/iccp9/minisym.htm#C13>
- Reviewing activities

- Referee for proposals submitted to: the ERC Consolidator Grant scheme, Research Council of Cyprus, and the FET open Proactive Call H2020

- Reviewer for the international journals
 - Science
 - Nature Physics,
 - Nature Photonics
 - Nature Communications
 - Physical Review Letters
 - Physical Review A
 - New Journal of Physics
 - European Physical Journal: Quantum Technology

F – Service to the Department and the School

- School – level responsibilities
- Member of the Staff Committee of ECE

G – Advising

- Active graduate students supervised

- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Nikos Schetakakis, (PhD)
 - Markela Tsafantaki (MSc)



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Demosthenes Ellinas

Rank: Professor

Years in rank:

Full-time or part-time:

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
- MATH 201 : Linear Algebra (mandatory)
- MATH 208 : Discrete Mathematics
- MATH 302 : Applied Mathematics

- 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

○ *GRANTED*

1.

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

○ Ph.D. and M.Sc. students supervised (advisor, completed)

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



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Daphne Manoussaki

Rank: Assistant Professor

Years in rank: 8

Full-time or part-time: Full

Division:

Lab affiliation:

A – Teaching

- Undergraduate courses taught
 - MATH 101 : Mathematics I (mandatory)
 - MATH 202 : Numerical Analysis
 - MATH 203 : Ordinary Differential Equations

B – Publications

- Publications in refereed journals
 - Submitted:
 - What drives lamellipod protrusion? D. Manoussaki, W. Shin, C. Waterman, R. Chadwick, submitted to Scientific Reports (Journal)

C – Awards & Distinctions

D – Funded Projects

E – Professional service

- Society Technical Committee duties
 - Board Member, European Society for Mathematical and Theoretical Biology
- Conference Organization (specify role)
 - Mechanics of Hearing, Athens 2014, Local organizing committee

F – Service to the Department and the School

- Departmental responsibilities

- Undergraduate program committee member _
- School – level responsibilities
- Member of the panel reviewing offers prior to the purchasing of scientific equipment

G – Advising

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. student Nikos Papadakis (Advisor: George Stavroulakis, DPEM)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Triantafyllia Kili (M.Sc., in progress)
 - Anthi Kokkinaki (M.Sc., in progress)
- Undergraduate students supervised
- Diploma theses in progress (committee member)
 - (1) Advisor: Yiannis Papaefstathiou
- Diploma theses completed (committee member)
 - Katerina Asimoglou (Advisor: Vasilis Samoladas)



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Apostolos Pantinakis

Rank: Assistant Professor

Years in rank: 20

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
 - Techniques for detecting electromagnetic fields and radiation
- Curriculum & course development
 - New courses / labs developed
 - Techniques for detecting electromagnetic fields and radiation
 - Lecture notes / slides developed
- Authored textbooks
 - Physics Elements for scientists and engineers II Electromagnetics, Optics (with Modern Physics) 3rd ed.

B – Publications

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

- Patents
- *GRANTED*

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
- Postgraduate Studies Committee, Member

G – Advising

- Active graduate students supervised
- Ph.D. and M.Sc. students supervised (advisor, completed)
- Ph.D. and M.Sc. students supervised (advisor, in progress)
 - E. Batsaki, Ph.D. student
 - P. Pantzekos, Ph.D. student
 - E. Violakis, Ph.D. student
- Ph.D. and M.Sc. degrees awarded (committee member)
- 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)



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

Annual Activity Report

For the period: Sep. 1, 2013 to Aug. 31, 2014

Name: Minos Petrakis

Rank: Associate Professor

Years in rank: 6 months

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
 - Fourier series and Complex Analysis
 - Applied Functional Analysis
- 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
 - Ph.D. and M.Sc. students supervised (advisor, completed)
 - Ph.D. and M.Sc. students supervised (advisor, in progress)
 - Ph.D. and M.Sc. degrees awarded (committee member)
 - Ph.D. and M.Sc. Degrees (committee member)
- Undergraduate students supervised
 - Diploma theses in progress
 - Diploma theses completed (supervisor)
 - Diploma theses in progress (committee member)
 - Diploma theses completed (committee member)