Annual Activity Report

For the period Sep. 1, 2012 - Aug. 31, 2013

Chania, Crete

Nov. 1, 2013
Chania 2013
Computer Science Division

Faculty Members:

- Georgios Chalkiadakis, Assistant Professor
- Stavros Christodoulakis, Professor
- Antonios Deligiannakis, Assistant Professor
- Minos Garofalakis, Professor
- Michail G. Lagoudakis, Associate Professor
- Katerina Mania, Associate Professor
- Euripides G. M. Petrakis, Professor
- Vasilis Samoladas, Assistant Professor (tenured)
Technical University of Crete
Department of Electronic & Computer Engineering

Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Georgios Chalkiadakis
Rank: Assistant Professor
Years in rank: 1 ½
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 2012]
  - COMP-201 Design and Development of Information Systems [Winter 2012]
  - COMP-417 Artificial Intelligence [Spring 2013]
- Updated course material/slides for all aforementioned courses taught

B – Publications

- Publications in refereed conferences (full papers, thoroughly peer-reviewed)

  Accepted/Published (full papers):
C – Awards & Distinctions

1. Editorial Board member for the Journal of Artificial Intelligence Research (JAIR) for a 3-year term: July 1, 2013-June 30, 2016.

E – Professional service

- Conference Technical Program Committee service
  - Program Committee member: the 27th AAAI Conference on Artificial Intelligence (AAAI-2013), Bellevue, WA, USA, July 2013.
  - Program Committee member: The 23rd International Joint Conference on Artificial Intelligence, Beijing, China, 2013 (IJCAI-13).
  - Program Committee member in the following international workshops:
    - The 8th Workshop on Multiagent Sequential Decision Making under Uncertainty (MSDM-2013).
    - The 4th Workshop on Cooperative Games in Multiagent Systems (CoopMAS-2013).
    - The 2013 Information Sharing in Large Scale Multiagent Systems Workshop.
    - The Machine Learning and Data Mining for Sports Analytics ECML/PKDD 2013 Workshop (MLSA@ECML/PKDD 2013)

- Conference Organization (specify role)

- 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)
  - Reviewer for The “Journal of the Brazilian Computer Society”

G – Advising

- Graduate students supervised
  - MSc theses in progress (supervisor)
    - Charilaos Akasiadis: mechanism design, and intelligent agent technologies for the Smart Grid. Defending December 2013.
    - Angelos Angelidakis (MSc student): intelligent agent technologies in the smart grid domain
• Undergraduate students supervised
  o Diploma theses completed (supervisor)
    ▪ Thanos Panagopoulos: A Novel Method for Predicting the Power Output of Distributed Renewable Energy Resources, June 2013
      • published a paper in an international conference (PAIS-2012, which was awarded the Best Student Paper Award – please see the 2012 AAR)
      • already accepted as a PhD student at the University of Southampton
  o Diploma theses in progress (supervisor)
    ▪ Konstantinos Panousis: works on reinforcement learning in multiagent game environments
    ▪ 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
    ▪ Orfeas Romaidis: works on employing reinforcement learning techniques for optimal sun-tracking Expected defence date: Spring 2014
    ▪ 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: Spring 2014
    ▪ Joseph Bitzanakis: works on developing and verifying the applicability of various pricing mechanisms and algorithms for Virtual Power Plants
    ▪ Juliana Peres Hernandez Sanches: works on the design and implementation of a Game Theory applications toolkit for handheld devices. Expected defence date: Spring 2014

Other Activities

Georgios led a group of students as the manager of the “TUCTAC” Trading Agents Competition Ad Auctions team, which represented our institution at the international TAC/Ad Auctions 2013 competition, which was held during the AAAI-2013 conference. This was the second time in the row that TUC was represented at the finals of the competition (after the TUTAC participation during 2012). You can find more information on “TUCTAC” at http://intellix.intelligence.tuc.gr/tuctac/index.html.
Technical University of Crete
Department of Electronic & Computer Engineering

Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Stavros Christodoulakis
Rank: Professor
Years in rank: 24
Full-time or part-time: Full-time
Division: Computer Science
Lab affiliation: Distributed Multimedia Information Systems & Applications Lab

A – Teaching

• Undergraduate courses taught
  o COMP 302: Data Bases (mandatory)
  o AIS 419: Development of Web Information Systems
  o AIS 512: Information, Semantics, and Services in the Web

• Graduate courses taught
  o AIS 601: Web Information Systems
    (Offered jointly with AIS 419)
  o AIS 604: Information, Semantics, and Services in the Web
    (Offered jointly with AIS 512)

B – Publications

• Book Chapters
  ▪ 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)
• Publications in conferences (submitted/accepted/published)
  ▪ Elevating Natural History Museums’ Cultural Collections to the Linked Data Cloud Publication Authors: 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.

D – Funded Projects

• Current projects:

- Project proposals submitted:
  - QONIAon, EU, Accepted, starting Oct 2013.

**F – Service to the Department and the School**

- Departmental responsibilities
  - Member of 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, in progress)
    - Makris Constantinos (M.Sc.)
    - Skevakis Yannis (M.Sc.)
    - Christoulakis Marios (M.Sc.)
    - Stylianakis Giorgos (M.Sc.)
    - Pitsiladis Andreas (M.Sc.)
    - Kalokyri Varvara (M.Sc.)
    - Trohatou Ioanna (M.Sc.)
    - Arapi Xenia (Ph.D.)

  - Ph.D. and M.Sc. Degrees (committee member)
    - Flouris Ioannis (M.Sc.)

- Undergraduate students supervised
  - Diploma theses in progress
    - Koutsouris Themistoklis
    - Makris Dimitrios – Ioannis
    - Xristodoulopoulos Christos
    - Kondogiannis Petros
    - Lidas Stefanos
    - Troulitakis Apostolos

  - Diploma theses completed (supervisor)
    - Moraiti Argiro
    - Kifonidis Charalampos
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Antonios Deligiannakis
Rank: Assistant Professor
Years in rank: 5 ½
Full-time or part-time: Full-time
Division: Computer Science
Lab affiliation: Software Technology and Network Applications (Softnet) Lab

A – Teaching

- Undergraduate courses taught
  - Comp 102: Structured Programming
  - Comp 506: Data Processing and Handling in Sensor Networks

- Graduate courses taught
  - Comp 626: Data Processing and Handling in Sensor Networks
  - Comp 622: Special Issues in Database Systems

B – Publications

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

- Published:

- Publications in refereed conferences
  - Submitted: those published/appeared (see below)
    - Stavros Papadopoulos, Graham Cormode, Antonios Deligiannakis, Minos N. Garofalakis: Lightweight authentication of linear algebraic queries on data streams. SIGMOD Conference 2013: 881-892

  - Accepted:
    - Stavros Papadopoulos, Graham Cormode, Antonios Deligiannakis, Minos N. Garofalakis: Lightweight authentication of linear algebraic queries on data streams. SIGMOD Conference 2013: 881-892

  - Published:
    - Stavros Papadopoulos, Graham Cormode, Antonios Deligiannakis, Minos N. Garofalakis: Lightweight authentication of linear algebraic queries on data streams. SIGMOD Conference 2013: 881-892

- Books and edited book chapters

**D – Funded Projects**

- Current projects:

- Project proposals submitted:

**E – Professional service**

- Conference Technical Program Committee service
  - VLDB
  - ACM SIGMOD
- Conference Organization (specify role)
  - General Chair at the First International Workshop on Big Dynamic Distributed Data, Riva del Garda, Italy, August 30, 2013.
- Reviewing activities
  - VLDB Journal

**F – Service to the Department and the School**

- Departmental responsibilities
  - Consultant in undergraduate studies (2nd semester courses)
- School-level responsibilities
  - Department’s representative to the senate (synglitos) since September 2011.

**G – Advising**

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised
    - Yannis Flouris
    - Konstantinos Tsakonas
    - Stergios Charalambopoulos
    - Antonios Igglezakis
    - Sabbas Bourdakis
  - PhD. And M.Sc. degrees awarded
    - Stelios Mammmas
- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - Yannis Papadakis
    - Yannis Xarxaros
    - Maropaki Stella
  - Diploma theses completed (supervisor)
    - Evina Zografou
    - Emmanouil Vogiatzis
    - Soylas Elefterios
    - Kostas Zarifis
    - Marina Mavrikoy
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Minos Garofalakis
Rank: Professor
Years in rank: 5
Full-time or part-time: Full-time
Division: Computer Science
Lab affiliation: Software Technology and Network Applications (Softnet) Lab

A – Teaching

- Undergraduate courses taught
  - COMP 401: Algorithms and Complexity (Mandatory)

- Graduate courses taught
  - COMP 627: Approximate Methods for Massive Databases and Data Streams

B – Publications

- Publications in refereed conferences
  - Published:
    - Stavros Papadopoulos, Graham Cormode, Antonios Deligiannakis, and Minos Garofalakis. "Lightweight Authentication of Linear Algebraic Queries on Data Streams", Proceedings of ACM SIGMOD'2013, New York, New York, June 2013. [** Invited to ACM Transactions on Database Systems **]
• Books and edited book chapters
  o 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)

• Patents

C – Awards & Distinctions

• Keynote speaker: 6th International Conference on Scalable Uncertainty Management (SUM’2012)
• Invited speaker: 2013 Information Theory and Applications (ITA) Workshop; Big Data Analytics 2013 (Microsoft Research, Cambridge); 2012 Innovative Querying of Streams (INQUEST) Workshop (U of Oxford); 2012 NII-Shonan Meeting on Large-Scale Distributed Computation.
• Board Member, Information Society S.A. (Κοινωνία της Πληροφορίας, Α.Ε.) (11/2012 – present)

D – Funded Projects

• Current projects:
  o FP7-ICT-2011 Collaborative STREP
    Project: “LEADS – Large-Scale Elastic Architecture for Data-as-a-Service”
    Total funding: 2.9Me, TUC/TSI budget: 649Ke
    Role: Principal Investigator for TUC/TSI
  o FP7-ICT-2009-FET Open Collaborative STREP
    Project: “LIFT – Using Local Inference in Massively Distributed Systems”
    Total funding: 2.5Me, TUC budget: 482Ke
    Role: Principal Investigator for TUC
  o FP7-PEOPLE-2009-RG (Marie-Curie International Reintegration Grant)
    PIRG05-GA-2009-249217
“HeisenData: Towards a Next-Generation Uncertain-Data Management System”
Role: Fellow & Scientist-in-Charge. (Total funding: 100Ke)

E – Professional service

- Associate Editor duties
  - 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)

- Conference Technical Program Committee service
  - ACM SIGMOD'2013, VLDB'2013, KDD'2013, EDBT'2013 (Research Track & Industrial Track), UAI'2013, ICDM'2013, DEBS'2013, IEEE BigData'2013, ASONAM'2013

- Conference Organization (specify role)
  - 2013 ACM International Conference on Information and Knowledge Management (CIKM'2013), San Francisco, CA: Senior PC Member (Database Track & Knowledge Management Track)
  - 2013 Workshop on Big Dynamic Distributed Data (BD^3'2013) -- in conjunction with VLDB'2013, Trento, Italy: General Chair

F – Service to the Department and the School

- Departmental responsibilities
  - ECE Department Chair

G – Advising

Undergraduate students supervised

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised (advisor, completed)
    - Kostas Athanasoglou (MSc)
    - Evangelos Vazaios (MSc)
  - Ph.D. and M.Sc. students supervised (advisor, in progress)
    - Ioakeim Perros (MSc)
    - Nikolaos Pavlakis (MSc)
- Ph.D. and M.Sc. Degrees (committee member)
  - Nikolaos Giatrakos (PhD, U of Piraeus)

- Undergraduate students supervised
  - Diploma theses in progress
    - Georgios Fragiadoulakis
    - Ioannis Demertzis
  - Diploma theses completed (supervisor)
    - Ioakeim Perros
    - Vasiliki Prokopi
    - Lefteris Soulsas
    - Georgios Komninos
Name: Michail G. Lagoudakis
Rank: Associate Professor
Years in rank: ¼
Full-time or part-time: Full-time
Division: Computer Science
Lab affiliation: Intelligent Systems Laboratory

A – Teaching

- Undergraduate courses taught
  - COMP 513 – Autonomous Agents [elective] (Fall 2012)
- Graduate courses taught
  - COMP 625 – Probabilistic Robotics (Fall 2012)
- Labs taught
  - COMP 513 – Autonomous Agents Laboratory (Fall 2012)
- Curriculum & course development
  - New courses / labs developed
    - Developed lecture slides for Probabilistic Robotics
  - Lecture notes / slides developed
    - Updated lecture slides for Theory of Computation
    - Updated lecture slides for Autonomous Agents

B – Publications

- Publications in refereed journals
- Publications in refereed conferences
  - Published:
    - Nikolaos Kofinas, Emmanouil Orfanoudakis, Michail G. Lagoudakis, “Complete Analytical Inverse Kinematics for NAO”, Proceedings of the 13th
International Conference on Autonomous Robot Systems and Competitions (ROBOTICA), Lisbon, Portugal, April 2013, pp. 1–6. [Best Paper Award]


- Book chapters

C – Awards & Distinctions

- Paper Awards
  - Best Paper Award for article co-authored with M.Sc. student N. Kofinas, ROBOTICA 2013
  - Best Student Paper Award for article co-authored with Ph.D. student I. Rexakis, ICTAI 2012

- Invited Speaker
  - RoboCup: Building a Competitive Robotic Soccer Team, Research Talk, 1st Multiagent Systems Summer School, Chania, Greece, July 2013
  - Robotics: Research, Innovation, Career, Keynote Talk, Panorama of Entrepreneurship and Career Development, Athens, Greece, April 2013

D – Funded Projects

- Current projects:

- 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
  - 17th *International RoboCup Symposium (RCS 2013)*
  - AAMAS Workshop on *Multi-Agent Sequential Decision Making 2013*
  - 6th *European Conference on Mobile Robots (ECMR 2013)*
- Reviewing activities
  - Reviewer, *IEEE Transactions on Automatic Control (TAC)*
  - Reviewer, *Journal of Machine Learning Research (JMLR)*
  - Reviewer, *Mediterranean Conference on Control and Automation 2013*

F – Service to the Department and the School

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

G – Advising

- Graduate students
  - Ph.D and M.Sc. theses completed (supervisor)
  - Ph.D. and M.Sc. theses in progress (supervisor)
    2. Eleftherios Chatzilaris (M.Sc. program), “Coordinated Action and Learning in RoboCup”, Enrollment: 2009
  - Ph.D and M.Sc. theses completed (committee member)
  - Ph.D and M.Sc. theses in progress (committee member)
    1. Anestis Fachantidis (Ph.D. program), “Knowledge Transfer in Reinforcement Learning”, Department of Informatics, Aristotle University of Thessaloniki, Greece.
Undergraduate students
  o Diploma theses completed (supervisor)
    5. Maria Karamitrou, “Local and Global State Estimation and Representation for the RoboCup SPL League”
  o Diploma theses in progress (supervisor)
    1. Stylianos Tsigdinos, “Systematic Search and Reinforcement Learning for the Board Game Backgammon”
    3. Nikolaos Makropoulos, “Hardware and Software Design for a Maze-Solving Robot”
  o Diploma theses completed (committee member)
    1. Konstantinos Spiliotis, “Methods for Automated Classification of Phono-ECGs”
    2. Andreas Liagouras, “A new location-aware Android application for automatic synchronization of business and life calendars”
    3. Emmanouil Alibertis, “Community RF Sensing”
    4. Ioakeim Perros, “Soft co-clustering in map-reduce using distributed sparse matrix regression”
    5. Chrysi Thermolia, “Prediction of the evolution of bipolar disorder using semantic web technologies”
    6. Christos Paraskeva, “Development of an eye-tracked 3D / stereoscopic interactive and photorealistic platform for spatial cognition experiments using the unreal game engine”
    7. Orestis-Stavros Loizides, “How good is your work? a new conference classification approach for judging the quality of a publication”
    8. Eleftherios Soulas, “Online machine learning algorithms for currency exchange prediction”
    10. Aris-Athanasios Panagopoulos, “A novel method for predicting the power output of distributed renewable energy resources”
    11. Grigorios Kontadakis, “Development of a 3D action role playing game”

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 2012-2013 consisted of two graduate and three undergraduate ECE students working on their master’s/diploma theses.
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Katerina Mania
Rank: Associate Professor
Years in rank: ¼
Full-time or part-time: Full-time
Division: Computer Science
Lab affiliation: Distributed Multimedia Information Systems & Applications Lab

A – Teaching

- Undergraduate courses taught
  - PLH 418 - Computer Graphics (Spring 2013)
  - PLH 101 – Introduction to Computers and Computer Science (Winter 2012)

- Graduate courses taught
  - PLH 612 – Visualization and Virtual Reality (Spring 2013)

- 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
  - Published

- Publications in refereed journals
  - Accepted
  
  - Published

- Publications in refereed conferences
  - Submitted
  
  - Published
    - Sylaiou S., Mania K., Paliokas Y., Killintzis V., Liarokapis F., Patias P. (2013). Exploring the Effect of Diverse Technologies incorporated in Virtual Museums on Visitors’ Perceived Sense of Presence, Museums and Intelligent Environments...

C – Awards & Distinctions

D – Funded Projects

- Current projects (at the Technical University of Crete, Greece):
  - ‘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, 2011-2013, Collaborators: Brighton and Sussex Medical School.

- Project proposals submitted:
  - ‘Opportunistic Mobile Gaming’ submitted to the Research for the Benefit of SME Associations call, FP7.
  - ‘UNCERTAIN 3D – Mathematical Modelling and 3D Visualization of Uncertainty’, ARISTEIA II call.
  - ‘Smart neighborhoods: energy efficient solutions in technology and design’, submitted to the Greece-Israel call 2013.

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).

- Editorial board
  - International journal of Interactive Worlds, IBIMA Publishing (since spring 2010).

- Steering Committee

- Conference Technical Program Committee service - membership
  - Games and Learning Alliance conference 2013, Paris
  - IEEE Int. Conf. in Games and Virtual Worlds for Serious Applications 2013, 2014
  - International conference on Virtual Systems and Multimedia 2012, Italy
  - International conference on Virtual Systems and Multimedia (VSMM) 2012.

- Reviewing activities
  - Various international conferences and journals

**F – Service to the Department and the School**

- Departmental responsibilities
  - Regular member of the Graduate Studies committee of ECE, 2012-2013.
  - Studies’ advisor for the Dept. of ECE, 2012-2013

**G – Advising**

- Active graduate students supervised
  - Graduate students completed (at the Technical University of Crete)
  - 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.Sc. candidate, year of enrollment July 2011).
    - Stefan Petrovski (MEng TUC, admitted 2013): ‘3D Architectural Visualization’.
    - Grigorios Kontadakis (MEng TUC, admitted 2013): ‘Pedagogically-driven Interactive 3D Applications’.
    - Evangelia Mavromixelaki (MEng TUC, admitted 2012): ‘Neuroscientific fidelity metrics for immersive simulations’.

- Undergraduate students
  - Diploma theses supervised (completed)
    - In sabbatical March 2012-September 2012
Diploma theses supervised (completed)
- Grigoris Kondadakis ‘Development of a 3D game populated by smart opponents’.
- Christos Paraskevas ‘Investigating the effect of gender on spatial cognition’.
- Stefan Petrovski ‘Implementing 3D Smart TUC Campus’.

Diploma theses supervised (in progress)
- Panagiotis Kotsarinis ‘Classification of Historical Monuments in Crete through a Web-based Scaleable 3D Platform’ (in progress).
- Kostas Ioannou ‘Development of an Indie Game on a Mobile Platform’ (in progress).
- Eleni Verikokidi ‘Development of a 3D game on Mobile Platforms with Autonomous Interactive Characters’ (in progress).
- Dimitris Gkoros ‘Extraction of building data from IFC files via BimServer platform and their processing for the generation of thermal simulation elements’ (in progress).
- Konstantinos Chatzipetrou ‘Development of a Smart Racing Game’ (in progress).
- Marianna Dimitriou ‘Interactive storytelling for pre-school children’ (in progress).
- Giannis Giakoumidakis ‘A Methodology towards the photorealistic visualization of tsunamis applied to the past tsunami in Heraklion, Crete’ (in progress).

Diploma theses (among others, committee member)
- In various committee memberships.
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  
  o Multimedia Data Management  
  o Computer Vision  
  o Data Structures and File Structures

- Graduate courses taught  
  o Computer Vision  
  o Special Topics in Information Systems

- Labs taught  
  o Multimedia Data Management  
  o Computer Vision  
  o Data Structure and File Structures

- Curriculum & course development  
  o labs developed for all courses taught  
  o slides developed/updated for all courses taught
B – Publications

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

- Publications in refereed conferences
  - Submitted: those published/appeared (see below)
  - Published:
    - George Christodoulou, Euripides G.M. Petrakis, Sotirios Batsakis, "Qualitative Spatial Reasoning using Topological and Directional Information in OWL", 24th International Conference on Tools with Artificial Intelligence (ICTAI 2012), November 7-9, 2012, Athens, Greece.
D – Funded Projects

- **Current projects:**
  - Project coordinator for “**AI-CARE, Advanced Knowledge Management Systems with Inherence Computational Intelligence and Applications in Health Care**”, (2013-2015), Ministry of Development, Greek Secretariat for Research and Technology, Project Budget €343.875, Budget for TUC €126,000.
  - Principal Investigator for “**Medical Devices Vigilance for Patient Safety**” (2012-2015), Ministry of Development, Greek Secretariat for Research and Technology, Project Budget €600,000, Budget for TUC €112,000.
  - Principal Investigator (with Prof. Zervakis): “**YPERTHEN: Computational Tools and Services for Diagnosis and Personalized Treatment of Cancer (2011-2013)**”, INTERREG, European Regional Development Fund, Project Budget €1,597,000, Budget for TUC €362,000.
  - Principal Investigator (with Prof. Zervakis) for “**RT3S: Real Time Simulation for Safer Vascular Stenting**” (2010-2013), FP7-STREP, Project Budget €4,918,000, Budget for TUC €390,000.

- Project proposals submitted: Several in FP7, Lifelong Learning: Comenius, THALIS, SYNERGASIA.

E – Professional service

- Conference Technical Program Committee service
  - Program committee member “**International Symposium on Visual Computing (ISVC)**” 2013.
  - Program committee member and Session chair - session 6 on Feature Extraction and Pattern Recognition) στο Intern. Conference on Image Analysis and Recognition (ICIAR’2013).
- Conference Organization (specify role)
- Reviewing activities
  - In several Conferences & Journal in Information Systems, Semantic Web, Computer Vision.

F – Service to the Department and the School

- Departmental responsibilities
  - Laboratory Director.
  - Member of the committee by the dean.
G – Advising

- Active graduate students supervised
  - Ph.D. and M.Sc. students
    a) A. Hliaoutakis, PhD Student, “A Framework for Handling Medical Information in the Semantic Web” (in progress)
    b) Kostantinos Stravoskoufos, PhD Student, “Service Discovery in Cloud Infrastructures”, in progress (in progress).
    c) Chryssi Thermolia, MSc Student “An Ontological-Based Monitoring System for Patients with Bipolar I Disorder” (in progress).
    d) Alexandros Preventis, MSc Student “Service Deployment on the Cloud” (in progress).

- Post Docs (all completed)
  a) Dr. Stelios Sotiriadis (2013 – 2015), Cloud Computing, PhD Dept. of Computer Science, Univ. of Durby, UK.

- Undergraduate students supervised
  o Diploma theses in progress (supervisor)
    ▪ 4 diploma theses.
  o Diploma theses completed (supervisor)
Technical University of Crete  
Department of Electronic & Computer Engineering

Annual Activity Report  
For the period: September 1, 2012 to August 31, 2013

Name: Vasilis Samoladas  
Rank: Assistant Professor (tenured)  
Years in rank: 9  
Full-time or part-time: Full-time  
Division: Computer Science  
Lab affiliation: Software Technology and Network Applications (Softnet) Lab

A – Teaching

- Undergraduate courses taught  
  o PLH 301 Operating Systems, Fall 2012 (mandatory course).

- Labs taught  
  o PLH 301 Operating Systems, Fall 2012.

On Sabbatical leave at Luxembourg Center for System Biology, Spring 2013.

B – Publications

- Publications in refereed journals  

D – Funded Projects

- Current projects:

E – Professional service

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

F – Service to the Department and the School

- TUC representative in EDET Open Source Initiative.

G – Advising

- M.S. Theses complete (supervisor)
  - Michail Argiriou, “Branch-and-bound nearest neighbor searching over unbalanced trie-structured overlays”.
- Diploma Theses complete (supervisor)
  - 5 Theses completed as main supervisor.
Electronics and Computer Architecture Division

Faculty Members:

- Costas Balas, Associate Professor
- Matthias Bucher, Assistant Professor (tenured)
- Apostolos Dollas, Professor
- Kostas Kalaitzakis, Professor
- Eftichios Koutroulis, Assistant Professor
- Ioannis Papaefstathiou, Associate Professor
- Dionisios Pnevmatikatos, Professor
- George Stavrakakis, Professor
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Costas Balas
Rank: Associate Professor
Years in rank: 11 ½
Full-time or part-time: Full-time
Division: Electronics and Computer Architecture
Lab affiliation: Electronics Laboratory

A – Teaching

• Undergraduate courses taught
  o Electronics II (Fall 12)
  o Electronics I (Spring 13)
  o Biomedical Engineering (with Prof. M. Zervakis)

• Graduate courses taught
  o Optoelectronics
  o Advanced Topics & Applications in Electronic Imaging

• Labs taught
  o Electronics I
  o Electronics II
  o Optoelectronics

• Curriculum & course development
  o Lecture notes / slides developed
B – Publications

- Publications in refereed journals
  - Published:

- Publications in refereed conferences
  - Published:

C – Awards & Distinctions

- 1st Winner of the 2013 Applied Research & Innovation Competition “Greece Innovates”, organized by the Hellenic Federation of Enterprises (SEV) & Eurobank. Particularly the evaluation committee granted to him the 1st award in applied research, in a country-scale completion and with 220 proposals submitted from almost all Academic and Industrial institutions of Greece.
D – Funded Projects

- Current projects:
  - “OncoSeed Diagnostics: Biology of Circulating Tumour Cells, Distant Metastasis & Development of Liquid Biopsy Methods”. Funding source: «COOPERATION»-SUB-ACTION II:«Large Scale Cooperative Projects».

E – Professional service

- Reviewing activities
  - Journal of Biophotonics, Optical Engineering, Optics express.

G – Advising

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised
    - Tsapras Athaniasios (PhD)
    - Papoutsoglou George (PhD)
    - Georgiou Nikos (MSc)
    - Epitropou George (MSc)
    - Kavadias Vasilis (MSc)
    - Iliou Dimitris (MSc)

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - Various Students.
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Matthias Bucher
Rank: Assistant Professor (tenured)
Years in rank: 9 ½
Full-time or part-time: Full-time
Division: Electronics and Computer Architecture
Lab affiliation: Electronics Laboratory

A – Teaching

- On Sabbatical leave at Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland.

B – Publications

- Publications in refereed journals
  - Submitted:


**Accepted:**


**Published:**

Publications in refereed conferences


Workshop presentations


D – Funded Projects

Current projects:


- Project proposals submitted:
  - Research Infrastructure project, GSRT, June 2013.

- Development of Electronics Laboratory infrastructure:
  - Cadence IC & System software.
  - Agilent ADS and ICCAP software packages.

E – Professional service

- Conference Technical Programme Committee service

- Reviewing activities
  - IEEE Trans. on Electron Devices
  - Solid-State Electronics
  - IET Journal on Circuits, Devices and Systems

- Expert for PhD examination
  - Universitat Rovira y Virgili (URV), Department of Electronic Engineering, Tarragona, Spain, February 2013.

G – Advising

- Graduate students supervised
  - Ph.D. students supervised (supervisor):
Angelos Antonopoulos, Design of nanoscale RF CMOS transceivers, Enrollment: June 2008. Phone 28210 37269. aanton “at” electronics.tuc.gr

Nikos Mavredakis, Noise in high-voltage MOSFETs (HVMOSFETs), Enrollment: July 2010. Phone 28210 37269. nmavredakis “at” isc.tuc.gr

Maria-Anna Chalkiadaki, Compact modelling of multiple gate MOS transistors, Enrollment: March 2011.

1. M.Sc. theses completed (supervisor):
   - Athanasios Dimakos, Low voltage analog design techniques, Sept. 2012.

2. M.Sc. students supervised (supervisor):

3. Undergraduate students supervised

   3.1 Diploma theses completed (supervisor):
   - Dimitris Sideris, Characterization and compact modeling of SiC JFET.
   - Yannis Deriziotis, Design of a CMOS VCO at 5-6 GHz, Sept. 2012.
   - George Gyroukis, Compact modeling of multi-gate MOSFETs, Sept. 2012.

   3.2 Diploma students (supervisor):
   - Konstantinos Fellas, Study of low-frequency noise in HVMOSFETs.
   - Xenofon Manarolis, Coding of compact HV-MOSFET model in a SPICE circuit simulator.
   - Stelios Anthoulis, System for the implementation of compact MOSFET models in SPICE circuit simulators.
   - Dimitrios Kokkonas, Experimental and analytical study of scaling in advanced CMOS technologies.
   - Nikos Pappas, TCAD investigation of analog properties of multi-gate CMOS transistors.
   - Nicolas Gegios, RF CMOS modeling.

   3.3 Diploma theses completed (committee member):
   - Philippos Ineglis, Design of a HiFi Audio amplifier, May 2013.
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Apostolos Dollas
Rank: Professor
Years in rank: 12
Full-time or part-time: Full-time
Division: Electronics and Computer Architecture
Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught
  - HRY 101 - Logic Design (mandatory)
  - HRY 203 - Advanced Logic Design (mandatory)
  - HRY 591 – Special Topics on Reconfigurable Computing (elective, cross-listed with HRY – 631)

- Graduate courses taught
  - HRY 631 – Special Topics on Reconfigurable Computing

- Labs taught
  - Supervised the labs of HRY 101
  - Supervised the labs of HRY 203, which I had completely re-written three years earlier on a different platform than the one previously used, introducing mandatory hands-on lab exercises with Xilinx Spartan FPGA’s and downloaded complete designs. The laboratory exercises were completely re-written from the previous year to discourage usage of existing codes.

- Curriculum & course development
  - Lecture notes / slides developed: Revised the HRY 203 (Advanced Logic Design) class notes, which were distributed in preliminary form through the web-based e-learning environment Webcourses.
**B – Publications**

- **Publications in refereed journals**
  - Submitted
  - Accepted
  - Published

- **Publications in refereed conferences**
  - Submitted
  - Accepted
  - Published (all papers fully refereed)

**C – Awards & Distinctions**

- First Prize in the most innovative use of FPGA category, *ALTERA Pan-European Design Competition*, project on fractal flame rendering, June, 2013, TUC Undergraduate student team G. Mantakos, D. Skarlatos, A. Stratikopoulos, Faculty Advisor: A. Dollas (Award was given at FPL in September, 2013).
D – Funded Projects

- Current projects:
  - Principal Investigator for the Project EVAGORAS: “Reconfigurable Logic Based Supercomputer for Biological, Ecological and Medical Data and Algorithms”, Interregional Cooperation Program Greece-Cyprus - INTERREG (Total Funding 779,940 Euros, TUC Funding 444,440 Euros), 2011 (2-year project).
  - Project “ROTA- Design and Development of a Novel System for the Telemangement of Ships with High-Speed Internet Bidirectional Communications”, Greek Secretariat of Research and Technology GSRT under program Synergasia, funded at 300,000 Euros (Telecommunication Systems Institute - TSI Budget 66,378 Euros), 2010 (3-year project).
  - Principal investigator for the entire Technical University of Crete in the student’s practical training program, coordinating the project “Practicum at the Technical University of Crete”, funded by the Greek Ministry of Education and Religious Affairs at 697,364 Euros for three years (2009-2012).
  - Participation in several EU and GSRT funded projects as Workpackage Leader, Scientific Collaborator, etc. (HERMES, SMART, FASTCUDA, MERIT etc.)

E – Professional service

- Conference Technical Program Committee service
  - Program Committee Member 20th IEEE Symposium on Field Programmable Custom Computing Machines (FCCM), Seattle, Washington, April 28-30, 2013.
  - Program Committee Member, IEEE/ACM 22nd International Symposium on Field Programmable Logic (FPL), Oslo, Norway, Aug. 29-31, 2012.
  - Program Committee Member, International Conference on Field Programmable Technology (FPT, IEEE Sponsored), Seoul, S. Korea, December 10-12, 2012.

- External reviewer and examiner in a Ph.D. dissertation defense (Dr. N. Alachiotis) at the Technical University of Munich, November 21, 2012.
- Member of the election board towards a faculty election (Full Professor) at the University of Peloponese, January 17, 2013.
- Member of the PhD Examination Committee (Dr. G. Athanasiou), University of Patras, May 14, 2013.
- Member of the PhD Examination Committee (Dr. P. Mathaiakis), University of Crete, July 15, 2013.

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

- Reviewing activities
  - Several international conferences, including all in which I participate in the program committee and journals, such as the IEEE Transactions on Computers,
F – Service to the Department and the School

- Departmental responsibilities
  - Member of the Student Placement Committee, supervising the examination in the subject of Logic Design for graduates from other Departments who want to enroll at ECE.
  - Member of faculty recommendation committees in faculty elections, member of the election board and participation in the election process of several faculty elections, including elections towards the rank of tenured Associate Professor.

- School-level responsibilities
  - TUC Senate – appointed, TUC-wide principal investigator for the student’s practical training program, coordinating the 697,363 Euro project “Practicum at the Technical University of Crete” for three years (2009-2012).
  - Member of Several Purchasing Committees, requiring the supervision of informal as well as national and international formal bidding processes (as applicable by Law), evaluation of the results, and recommendations to the TUC Senate.

G – Advising

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised (advisor, in progress)
    - Chrysos, Grigorios (PhD)
    - Malakonakis, Pavlos (PhD)
    - Smerdis, Miltiadis (MS)
    - Ilias, Anargyros (MS)
    - Nikoloudakis, George (MS)
    - Rousopoulos, Christos (MS)
  - PhD and M.Sc. Degrees (committee member)
    - Kornaros, George (PhD)
    - Nikitakis, Antonios (PhD)
    - Kornaros, George (PhD)
    - Agadakos, Ioannis (MS)
    - Kampianakis, Lefteris (MS)
    - Miteloudi, Konstantina (MS)
    - Vatsolakis, Charalampos (MS)

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - Drosopoulos, Andreas
    - Filos, Vasileios
    - Foteinopoulos, Giorgos
    - Gardelakos, Argyris
    - Giakoumakis, Pavlos
    - Kouinis, Konstantinos
- Koukkoulis, Andreas
- Koukousoulas, Pantelis
- Maragos, Konstantinos
- Nikolakaki, Sophia
- Rematska, Georgia
- Stratikopoulos, Athanasios
- Sotiropoulos, Andreas
- Xeni, Orestis
- Veremi, Christina

  o Diploma theses in progress (committee member)
    - (Several, in progress)

  o Diploma theses completed (committee member)
    - Charitopoulos, George
    - Gyroukis
    - Fanioudakis
    - Paganos
    - Skitsas, Marios
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Kostas Kalaitzakis
Rank: Professor
Years in rank: 10
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
  - HRY 414 - Electric Measurements and Sensors (8th semester)
  - HRY 202 – Electric Circuits Analysis (3rd semester)

- Graduate courses taught
  - HRY 602 – Special topics on Electric Measurement Systems

- Labs taught
  - HRY 414 - Electric Measurements and Sensors (8th semester)
  - HRY 202 – Electric Circuits Analysis (3rd semester)
B – Publications

- Publications in refereed conferences
  - Published:

D – Funded Projects

- Current projects:
  - “Siting study for the sustainable establishment of wind farms in the region of Crete”, contract between Region of Crete and Technical Univ. of Crete, 2012-2013.
  - “GREEN@Hospital: Web-based energy management system for the optimization of the energy consumption in hospitals”, funded by the E.U., 2012-2015.
  - “Siting study for the sustainable establishment of of Large Photovoltaics and Solar-Thermal plants in the region of Crete”, contract between Region of Crete and Technical Univ. of Crete, 2013-2014.
  - Trainer in “Training of Photovoltaic Installers in Europe (PVTRIN)”, funded by EE, 2013.

F – Service to the Department and the School

- Departmental responsibilities
  - Organization, design and purchase of equipment for the Electric Energy Laboratory
G – Advising

- Active graduate students supervised
  - PhD. And M.Sc. degrees awarded

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - Various theses in progress.
  - Diploma theses in progress (supervisor)
    - 5 Theses completed as main supervisor.
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Eftichios Koutroulis
Rank: Assistant Professor
Years in rank: 2
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 511 - VLSI and ASIC System Design (Fall semester 2012)
  - ACE 102 - Basic Circuit Theory (Spring semester 2013)

- Graduate courses taught
  - ACE 601 - VLSI and ASIC System Design (Fall semester 2012, co-taught with ACE 511)
  - ACE 635 - Special Topics in Electronic Systems for Energy Management (Spring semester 2013)

- Labs taught
  - ACE 511 - VLSI and ASIC System Design (Fall semester 2012)
  - ACE 102 - Basic Circuit Theory (Spring semester 2013)

- Curriculum & course development
  - Lecture notes / slides developed
    - ACE 511 - VLSI and ASIC System Design (Fall semester 2012): updated the existing slides (440 slides)
    - ACE 102 - Basic Circuit Theory (Spring semester 2013): updated the existing slides (442 slides)
    - ACE 635 – Special Topics in Electronic Systems for Energy Management (Spring semester 2013): developed 141 new slides
B – Publications

- Publications in refereed journals
  o Submitted:
    - C. Konstantopoulos, E. Koutroulis, “Global Maximum Power Point Tracking of Flexible Photovoltaic Modules”, *IEEE Transactions on Power Electronics*, accepted for publication.
  o Accepted:
    - C. Konstantopoulos, E. Koutroulis, “Global Maximum Power Point Tracking of Flexible Photovoltaic Modules”, *IEEE Transactions on Power Electronics*, accepted for publication.
  o Published:

- Publications in refereed conferences
  o Submitted:

- Accepted:

**C – Awards & Distinctions**

**D – Funded Projects**

- **Current projects:**

- **Project proposals submitted:**
  - FP7-SMARTCITIES-2013 call (coordinator)
  - FP7-ICT-2013-X call (coordinator)
  - GSRT “PABET 2013” call (coordinator)
  - Danish Council for Strategic Research (DSF) call (as an international partner of the Dept. of Energy Technology research team - Aalborg University, Denmark)
E – Professional service

- Associate Editor duties:
  - Member of the Editorial Board of the “Renewable Energy” journal (April 2011-present).

- Conference Technical Program Committee service

- Reviewing activities

Review 76 journal papers (including revisions) for:

- IEEE Transactions on Power Electronics
- Renewable Energy
- IEEE Journal of Photovoltaics
- IEEE Transactions on Energy Conversion
- IEEE Transactions on Sustainable Energy
- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Instrumentation & Measurement
- IET Power Electronics
- IET Renewable Power Generation
- IET Circuits, Devices & Systems
- IET Generation, Transmission & Distribution
- IET Electronics Letters
- Energy
- Microelectronics Journal

F – Service to the Department and the School

- Departmental coordinator for the ERASMUS program.
- Editing of the postgraduate program guide (in Greek).
- Undergraduate studies advisor.

G – Advising

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised
    1. Stefanos Saridakis (M.Sc. Student)
    2. Yannis Mandourarakis (M.Sc. Student)  
    3. Dimitris Christeas (M.Sc. Student)
    4. Chris Constantopoulos (M.Sc. Student)
• Undergraduate students supervised
  o Diploma theses in progress (supervisor)
    1. Nikos Petridis
    2. George Kimionis
    3. Costas Dimitriadis
    4. Eleftherios Nikolakakis
    5. Vlasios Chatzimeletiou
    6. Asimakis Giannopoulos
    7. Onoufrios Markakis
    8. Alex Paraskeuas
    9. Christos Koukouzas
   10. Nikos Vatsithianos
  
  o Diploma theses completed (supervisor)
    1. Chris Constantopoulos
    2. Nikos Achilladelis
    3. Theodore Sotiris
    4. Nikos Fanioudakis
    5. Dimitris Zografos
    6. Charalampos Paravalos (co-supervised with Assistant Professor V. Samoladas)
Name: Ioannis Papaefstathiou  
Rank: Associate Professor  
Years in rank: 2  
Full-time or part-time: Full-time  
Division: Electronics and Computer Architecture  
Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught  
  o HRY 411 – Embedded Systems Design (Fall 2012)  
  o HPY 302 – Computer Organization (Spring 2013)

- Graduate courses taught  
  o HRY 611 – Design of Special Purpose Computer Architecture (Fall 2012)

- Labs taught  
  o HRY 411 – Embedded Systems Design (Fall 2012)  
  o HPY 302 – Computer Organization (Spring 2013)

B – Publications

- Publications in refereed journals  
  o Accepted  
Published


Publications in refereed conferences

Published


C – Awards & Distinctions


D – Funded Projects

- **Current projects:**
  - European Research Grant Capacities Programme (Research for the benefit of SMEs), Title: “Open Source FPGA Accelerator & Hardware-Software Codesign Toolset for CUDA Kernels (FASTCUDA)” (2011-2013).

E – Professional service

- **Conference Technical Program Committee service**
  - IEEE FPL
  - IEEE ISWCS
  - IEEE ICEAC
  - IEEE ICNC
  - IEEE UCHPC

- **Reviewing activities**
  - Regular reviewer for *Elsevier Microprocessors and Microsystems Journal*,
  - Regular reviewer for *IEEE Transactions on Circuits and Systems for Video Technology*
  - Regular reviewer for *ACM Transactions on Reconfigurable Technology and Systems*
  - Regular reviewer for *IEEE Transactions on Parallel and Distributed Systems*
o Regular Reviewer for *IEEE Design & Test*
 o Regular Reviewer for *IEEE Transactions on Circuits and Systems for Video Technology*

**G – Advising**

- Active graduate students supervised
  
  o Ph.D. and M.Sc. students supervised
    
    ▪ Antonis Nikitakis (Ph.D.), Year of initial enrollment in program: 2008
    ▪ Kostas Fysarakis (Ph.D), Year of initial enrollment in program: 2011
    ▪ George Chatzivasilis (Ph.D), Year of initial enrollment in program: 2011
    ▪ Panagiotis Karkazis, (Ph.D.), Year of initial enrollment in program: 2010.
    ▪ Ioannis Agadakos, (M.Sc.), Year of initial enrollment in program: 2010.
    ▪ Ioannis Kartsonakis (M.Sc.), Year of initial enrollment in program: 2010.
    ▪ Konstantina Miteloudi (M.Sc.), Year of initial enrollment in program:

- Undergraduate students supervised
  
  o Diploma theses in progress (supervisor)
    
    ▪ N. Pogkas
    ▪ D. Daskalakis
    ▪ D. Tsiamasiotis
    ▪ A. Katsoulas
    ▪ P. Papantonakis
    ▪ M. Papadovasilakis

  o Diploma theses completed (supervisor)
    
    ▪ D. Tsiamasiotis, “Accelaration of Speech Recognition Algorithm Sphinx 3 with Multi-processor Graphics Card”.
    ▪ S.-D. Daskalakis, “Snort DPI on FPGA with GigE”.
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Dionisios Pnevmatikatos
Rank: Professor
Years in rank: 4
Full-time or part-time: Full-time
Division: Electronics and Computer Architecture
Lab affiliation: Microprocessor and Hardware Laboratory

A – Teaching

- Undergraduate courses taught
  - HRY 201 – Digital Computers (Fall 2012)
  - HRY 415 – Computer Architecture (Spring 2013)

- Graduate courses taught
  - HRY 613 – Parallel and Distributed Computer Architecture (Spring 2013)

- Labs taught
  - HRY 201 – Digital Computers (Fall 2012)
  - HRY 415 – Computer Architecture (Spring 2013)
  - HRY 418 – Parallel and Distributed Computer Architecture (cross-listed with graduate HRY 613, Spring 2013)

- Curriculum & course development
  - New courses / labs developed
  - Lecture notes / slides developed
    - Digital Computers (Update)
    - Computer Architecture (Update)
    - Parallel and Distributed Computer Architecture (Update)
B – Publications

- **Publications in refereed journals**
  - Published:

- **Publications in refereed conferences**
  - Published:
    - Dimitris Theodoropoulos, Polyvios Pratikakis, Dionisios N. Pnevmatikatos: Efficient runtime support for embedded MPSoCs. ICSAMOS July 2013: 164-171

D – Funded Projects

- **Current projects:**
  - Departmental Practical Training
  - Synergasia MERIT
  - FP7 FASTER
  - FP7 DESYRE

- **Project proposals submitted:**
  - PABET mCluster
E – Professional service

- Associate Editor duties

- Society Technical Committee duties

- Conference Technical Program Committee service
  - International Conference on Field Programmable Logic and Applications (FPL) 2012
  - IEEE International Conference On Computer Design (ICCD), 2013
  - International Conference on Supercomputing (ICS), 2013
  - Design and Test Europe (DATE), Architecture and Microarchitecture Track, 2013
  - Reconfig 2013

- Conference Organization (specify role)
  - General Co-Chair Workshop on Reconfigurable Computing, 2013

- Reviewing activities
  - Journal Reviewer:
    - IEEE TVLSI
    - IEEE TC
    - IJPP
    - ACM TACO
    - Journal of System Architecture
  - Conference Reviewer:
    - HiPEAC Conference 2013
  - Workshop Technical Committee Member:
    - ParaFPGA 2013

F – Service to the Department and the School

- Departmental responsibilities
  - Director, Microprocessor and Hardware (MHL) Laboratory
  - Undergraduate Program Committee Member
  - Graduate Program Committee Member
  - Responsible for the Department-wide practical training project

- School-level responsibilities
  - University Disciplinary committee
  - University Graduate committee
G – Advising

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised
    - George Kornaros Ph.D.
    - Ch. Vatsolakis M.Sc.
    - G. Charitoulos M.Sc.

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
  - Diploma theses completed (supervisor)
    - Skitsas
    - Petropoulos
    - Ntouzos
  - Diploma theses completed (committee member)
    - Deriziotis
    - Andrianakis
    - Loizidis
    - Paravolos
    - Daskalakis
    - Fanioudakis
Technical University of Crete
Department of Electronic & Computer Engineering

Annual Activity Report
For the period: September 1, 2012 to August 31, 2013

Name: George Stavrakakis
Rank: Professor
Years in rank: 18
Full-time or part-time: Full-time
Division: Electronic and Computer Architecture
Lab affiliation: Electric Circuits and Renewable Energy Sources Laboratory

A – Teaching

- Undergraduate courses taught:
  - Renewable Energy Sources (HRY 416)

- Graduate courses taught:
  - Advanced topics in Optimal Control (SYS 603)

- Labs taught:
  - Renewable Energy Sources (HRY 416)

Curriculum & course development:
- New courses / labs developed already: Renewable Energy Sources (HRY 416)
- Lecture notes / slides developed already: Renewable Energy Sources (HRY 416)

B – Publications

- Publications in refereed journals
  - Submitted: 5
  - Accepted: 3
  - Published: 3 (see below)


• Publications in refereed conferences
  o Submitted: 1
  o Accepted: 1
  o Published: 1 (see below)

• Publications in conferences on abstract review
  o Submitted: 4
  o Accepted: 4
  o Published: 4 (see below)

• Books and edited book chapters with referees:
• **Patents**: one in the national level (see below):
  - Έξυπνη μέθοδος και ολοκληρωμένη ηλεκτρονική διάταξη διαχείρισης πληροφοριών σε συστήματα εξασφάλισης εσωτερικής άνεσης με ταυτόχρονη ενεργειακή διαχείριση κτιρίων. *(OBI2004010045)*

**D – Funded Projects**

**Current projects:**

--LIFE FOREST CITIES-Local Authorities’ Alliance for Forest Fire Prevention LIFE+ funded. 1-1-2010 to 30-06-2013. Project site: [www.forestcities.gr](http://www.forestcities.gr)


**E – Professional service**

• Society Technical Committee duties: International Committee of Electrical Machines (ICEM).

• Reviewing activities: In five 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.

• Participation in National Committees (e.g., ΕΔΕΤ): one
  - “Permanent Committee of the Prefecture of Crete for the Energy Planning of Crete”.

**F – Service to the Department and the School**

• School-level responsibilities
  - Member of board of regents (Senate)
  - ΕΛΚΕ
  - Institute
  - Other: member of the Technical Council of TUC
G – Advising

- **Active graduate students supervised**
  - Committee Member of PhD thesis already defended: none
  - PhD students supervised: 1
    - Tripolitakis Evangelos
  - M.Sc Students supervised: 2
    - Panagiwtidou Natalia
    - Sytzanaki Athina
  - Committee Member of M.Sc. degrees awarded except the above: 4

- **Undergraduate students supervised**
  - Diploma theses in progress (supervisor): 7
  - Diploma theses completed (supervisor): 2
  - Diploma theses in progress (committee member): 5
  - Diploma theses completed (committee member): 5
Telecommunications Division

Faculty Members:

- Aggelos Bletsas, Assistant Professor
- Vassilis Digalakis, Professor
- George Karystinos, Associate Professor
- Polychronis Koutsakis, Assistant Professor
- Athanasios Liavas, Professor
- Michail Paterakis, Professor
- Michail Zervakis, Professor
Name: Aggelos Bletsas
Rank: Assistant Professor
Years in rank: 4
Full-time or part-time: Full-time
Division: Telecommunications
Lab affiliation: Telecommunications Laboratory

A – Teaching

- Undergraduate courses taught:
  - TEL 303 Telecommunication Systems II.
  - TEL 412 Analysis & Design (Synthesis) of Telecom Modules.
  - TEL 418 Computer Networks II.

- Graduate courses taught:
  - TEL 613 Analysis & Design (Synthesis) of Telecom Modules (meets with TEL 412).

- Labs taught
  - TEL 412 Analysis & Design (Synthesis) of Telecom Modules.

B – Publications

- Publications in refereed journals
  - Submitted:
  - Accepted:
Publications in refereed conferences
  o Published:
    ▪ P. Alevizos, N. Fasarakis-Hilliard and A. Bletsas, "Cooperative Localization in Wireless Networks under Bandwidth Constraints", Asilomar Conference on Signals, Systems and Computers (ASILOMAR), November 2012, Pacific Grove, California, USA.

C – Awards & Distinctions

  • Invited Talk:

D – Funded Projects
  • Current projects:
    o 3 Projects funded through GSRT Thalis.
    o 1 Project funded through GSRT ERC 3rd Call.
    o 1 Project funded through GSRT Synergasia.
    o 1 Project funded through Cyprus RPF.
  • Project proposal submitted:
    o 2 EU COST Proposals.

E – Professional service
  • Associate Editor duties:
    o IEEE Wireless Communication Letters.
• Conference Technical Program Committee (TPC) service:
• Reviewing activities:
  o Reviews for major Class A IEEE Journals.

F – Service to the Department and the School

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

G – Advising

• Active graduate students supervised
  o M.Sc. students supervised:
    ▪ Emmanouil Alibertis, Localization through Community RF Sensing (in progress).
    ▪ Panagiotis Alevizos, Detection and Coding for Backscatter Sensor Networks (in progress).
    ▪ Nikos Fasarakis-Hilliard, Non-parametric Estimation and Coding for Backscatter Sensor Networks (in progress).
    ▪ Konstantinos Alexandris, Non-coherent Receivers for Zero-Feedback Distributed Beamforming (in progress).

• Undergraduate students supervised
  o Diploma theses completed (supervisor):
    ▪ Manolis Alibertis, “Community RF sensing”.
    ▪ Nikos Agadakos, “Multi-Channel MACs for Wireless Sensor Networks”.
    ▪ Efthimios Vlachos, “Intelligent Scheduling for Wireless Networks”.
    ▪ Nikos Fassarakis-Hilliard, “Cooperative Localization under Bandwidth Constraints”.
    ▪ Konstadinos Alexandris, “Receivers for Zero-feedback Distributed Beamforming”.

  ▪ Panos Alevizos, “Factor Graphs in Telecommunications: Theory and Applications”.
Diploma theses in progress (supervisor):

- Manos Papagiannakis
- Konstantinos Tountas
- Spiros Daskalakis
- Michalis Bamiedakis
- Panos Oikonomakos
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name:  Vassilis Digalakis  
Rank:  Professor  
Years in rank:  13  
Full-time or part-time:  Full-time  
Division:  Telecommunications  
Lab affiliation:  Information and Computer Networks Laboratory

A – Teaching

• Undergraduate courses taught  
  o Statistical Modeling and Pattern Recognition  
  o Signals and Systems

Rector of Technical Univ. of Crete, since April 2013

D – Funding

• Current Projects (PI):  

E – Professional service

• Reviewer in several journals.  
• ICASSP Reviewer  
• Interspeech Reviewer  
• Eusipco Reviewer and TPC member
F – Service to the Department and the School

- Departmental responsibilities
  - Director, Information and Computer Networks Lab
- Director, Telecommunication Systems Institute of Crete (TSI) (until March, 2013)
- Rector, Technical University of Crete (since April, 2013)

G – Advising

- Graduate students supervised
  - Alex Georgogiannis, M.Sc.
- Undergraduate students defended
  - D. Kagiaras, “Continuous Language Models with Semantic and Syntax Information”.
- Undergraduate students supervised
  - K. Pechlivanis, “Clustering & Optimization in Continuous Language Models”.
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: George Karystinos
Rank: Associate Professor
Years in rank: 0
Full-time or part-time: Full-time
Division: Telecommunications
Lab affiliation: Telecommunications Laboratory

A – Teaching

• None (on leave).

B – Publications

• Publications in refereed journals
  o Submitted
  o Accepted: those published (see below)
  o Published
• Publications in refereed conferences
  o Submitted: those published (see below)
  o Accepted: those published (see below)
  o Published

C – Awards & Distinctions


D – Funded Projects

• Current projects
E – Professional service

- Conference Technical Program Committee service
  - IEEE Wireless Communications and Networking Conference (WCNC) 2013 - PHY Track.

- Reviewing activities
  - Reviewer for journals
    - IEEE Transactions on Communications
    - IEEE Transactions on Wireless Communications
    - IEEE Transactions on Signal Processing
    - IEEE Wireless Communications Letters
    - Entropy (MDPI)
  - Reviewer for conferences
    - IEEE WCNC 2013
    - IEEE ISWCS 2013

G – Advising

- Active graduate students supervised
  - Ph.D. and M.Sc. students supervised
  - Ph.D. and M.Sc. degrees awarded

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - Alexandros Sklikas, “An algorithm with complexity O(N^3 logN) for rank-4 quadratic form maximization with a binary vector.”
  - Diploma theses completed (supervisor)
Name: Polychronis Koutsakis
Rank: Assistant Professor
Years in rank: 5
Full-time or part-time: Full-time
Division: Telecommunications
Lab affiliation: Information and Computer Networks Laboratory

A – Teaching

- Undergraduate courses taught
  - Computer Networks I
  - Introduction in Broadband Communication Networks

- Graduate courses taught
  - Special Topics in Communication Networks
  - Queuing Theory

- Curriculum & course development
  - Lecture notes / slides developed:
    - Slides for all courses that I taught

B – Publications

- Publications in refereed journals
  - Submitted
  o Published

- Publications in refereed conferences
  o Submitted
  o Accepted

C – Awards & Distinctions

- IEEE Senior Member (July 2013)
- 2012 Exemplary Editor of the IEEE Communications Society, for his editorial work in the IEEE Communications Surveys & Tutorials journal.

D – Funded Projects

- Current projects:
  o January 2012- December 2013, Principal Investigator, Research grant from the Technical University of Crete: “Self-Policing for Energy Efficient Multimedia Traffic Transmission over Wireless Local Area Networks”, 15000 € total funding.

- Project proposals submitted:
  o ARISTEIA II (Principal Investigator)

E – Professional service

- Associate Editor duties
  o IEEE Communication Surveys & Tutorials Journal
  o Computer Communications Journal (Elsevier)
• Society Technical Committee duties
  o Voting Member of the IEEE Multimedia Communications Technical Committee (MMTC)
  o Member of the IEEE MMTC "Green Multimedia Communications" Interest Group
  o Member of the IEEE MMTC "QoE for Multimedia Communications" Interest Group
  o Member of the IEEE MMTC "Wireless Technology for Multimedia Communications" Interest Group

• Conference Technical Program Committee member
  o IEEE LCN 2013
  o IEEE GLOBECOM 2013 – Symposium on Wireless Networking
  o IEEE GLOBECOM 2013 – Ad-Hoc and Sensor Networking Symposium
  o IEEE GLOBECOM 2013 – Selected Areas in Communications Symposium, Satellite and Space Communications Track
  o IEEE GLOBECOM 2013 – Cognitive Radio and Networks Symposium
  o IEEE ICC 2013 – Wireless Networking Symposium
  o IEEE ICC 2013 - Symposium on Selected Areas in Communications (SAC)
  o IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM) 2013
  o IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) 2013
  o IEEE International Conference on Computing, Networking and Communications (ICNC) 2013 – Green Computing, Networking and Communications Symposium
  o IEEE International Conference on Computing, Networking and Communications (ICNC) 2013 – Internet Services and Applications Symposium
  o IEEE International Conference on Multimedia and Expo (ICME) 2013
  o IEEE WCNC 2013 – Network Track
  o 4th International Conference on Ambient Systems, Networks and Technologies (ANT 2013)

• Conference Organization (specify role)
  o Workshops’ Co-Chair for the 14th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), June 2013, Madrid, Spain

• Reviewing activities
  o IEEE Transactions on Multimedia
  o IEEE Communications Letters
  o Wireless Personal Communications Journal (Springer)
  o International Journal of Communication Systems (Wiley)

F – Service to the Department and the School

• Departmental responsibilities
  o Substitute Member of the Undergraduate Curriculum Committee of the ECE Department, Technical University of Crete
  o Substitute Member of the Graduate Curriculum Committee of the ECE Department, Technical University of Crete
• School-level responsibilities
  o Substitute Member of the Senate of the Technical University of Crete

G – Advising

• Active graduate students supervised
  o Ph.D. and M.Sc. students supervised
    ▪ Konstantina Dimitriou (MSc student)
    ▪ Dimitra Vasileiadou (MSc student)
    ▪ Orestis-Stavros Loizides (MSc student)

• Undergraduate students supervised
  o Diploma theses in progress (supervisor). Students’ Names:
    ▪ Greta Tzamicha
    ▪ Anna Repousi
  o Students with Diploma theses completed (supervisor)
    ▪ Evangelos Maratsolas
    ▪ Charis Stamos
    ▪ Manolis Skevakis
    ▪ Giorgos-Andreas Liagouras
    ▪ Georgia Athanasopoulou
    ▪ Orestis-Stavros Loizides
Name: Athanasios Liavas
Rank: Professor
Years in rank: 4
Full-time or part-time: Full-time
Division: Telecommunications
Lab affiliation: Telecommunications Laboratory

A – Teaching

• Undergraduate courses taught
  o Telecommunications Systems I
  o Wireless Communications

• Graduate courses taught
  o Information Theory

• Labs taught
  o Telecommunications Systems I
  o Wireless Communications
  o Information Theory and Coding

• Curriculum & course development
  o New courses / labs developed
    1. Information Theory and Coding (Lab exercises)
  o Lecture notes / slides developed
    1. A. P. Liavas, Lecture Notes on “Information Theory and Coding”
D – Funded Projects

- Current projects:
  - ΘΑΛΗΣ – SWINCOM
  - ΘΑΛΗΣ – DISCO

E – Professional service

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

F – Service to the Department and the School

- Departmental responsibilities
  - Vice Chair

- School-level responsibilities
  - Alternate Senate Member (as Department Vice Chair)

G – Advising

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - Charitakis Georgios
    - Idiadis Stylianos
    - Lourakis Georgios
    - Chatzinikolaou Panagiotis
    - Georgiopoulos Theodoros
  - Diploma theses complete (supervisor)
    - Sapountzis Nikolaos
    - Boudouris Konstantinos
Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Michael Paterakis
Rank: Professor
Years in rank: 14
Full-time or part-time: Full-time
Division: Telecommunications
Lab affiliation: Information and Computer Networks Laboratory

A – Teaching

- Undergraduate courses taught
  - Probabilities and Random Signals (TEL 202), Mandatory Undergraduate Course (Spring 2013).
  - Introduction to Modeling and Performance Evaluation of Computer Communication Networks (TEL 414), Advanced Senior Undergraduate Course (Fall 2012).

- Graduate courses taught
  - Probability Theory & Random Processes (TEL 601), Graduate Course (Fall 2012).

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 – 8/2013 by the Greek Ministry of Infrastructures, Transportation and Networks. PI: Prof. M. Paterakis, Budget: 100,000 €.
  - “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 Dept.) and UTH (CET Dept.). Prof. M. Paterakis participates in the research team. Coordinator: Prof. Leonidas

- “Design and Implementation of: (a) a software platform for the optical surveillance of the Municipal Port’s wireless network, (b) the V.P.N. for the wireless network of video cameras that will be installed in the Port of Chania, and reprogramming of the existing network equipment in the I.O.S. environment”. Funded for the period 25/06/2013 – 10/08/2013 by the Municipal Port Fund of Chania. PI: Prof. M. Paterakis.

E – Professional service

- Conference Organization:
  - Co-Chair for the 2nd IEEE WoWMoM Workshop on Video Everywhere, Madrid, Spain, June 4-7, 2013.

- Participation in National Committees:
  - Member of the Board of Greek Universities Network (GUnet), a non-profit civil company founded by all the Greek Higher Education and Academic Institutions, (June 2013 – June 2016).

F – Service to the Department and the School

- Department-level responsibilities:
  - Member of the Graduate Committee

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

G – Advising

- Undergraduate students supervised
  - Diploma theses in progress (supervisor):
    - Maria Theodorou, Thesis Title: “Cache management policies for streaming proxies supporting complete and partial video playback”.
    - Dimitris Bouzoukas, Thesis Title: “Random Multiple Packet Access with Channel Sensing for an Energy Limited Cognitive Radio System”.

Annual Activity Report

For the period: September 1, 2012 to August 31, 2013

Name: Michalis Zervakis
Rank: Professor
Years in rank: 12
Full-time or part-time: Full-time
Division: Telecommunications
Lab affiliation: 1) Digital Image and Signal Processing Laboratory
                 2) Laboratory of Automation

A – Teaching

- Undergraduate courses taught
  - EKP 414 “Computer Vision”, Fall 2012 (with Prof. E. Petrakis).

- Graduate courses taught
  - PLH 602 “Computer Vision”, Fall 2012 (with Prof. E. Petrakis).

- Labs taught
  - Digital Signal Processing.
  - Digital Image Processing.
B – Publications

- Publications in refereed journals
  - Published:

- Book Chapters
• Publications in refereed conferences
  o Published:

D – Funded Projects

• Current projects:
E – Professional service

- Reviewing activities

F – Service to the Department and the School

- Departmental responsibilities
  - Lab Director: Digital Image and Signal Processing Laboratory
  - Lab Director: Automation Laboratory

- School-level responsibilities
  - Member and vice-chair ELKE

G – Advising

- Active graduate students supervised
  - I. Feigler
  - K. Xifaras
  - S. Sfakianakis
  - A. Roniotis
  - K. Moirogiorgou
  - K. Kalantzaki

- M.S. Theses completed
  - K. Kalantzaki, “Graphical Models in Genomic Networks”.

- Undergraduate students supervised
  - Diploma theses in progress (supervisor)
    - S. Kirakosian
  - Diploma theses complete (supervisor)
    - Konstantina Bakali, “Development of Algorithms for Gene Signature Extraction in Osteoarthritis”.
    - Anastasia Pentari, “Object Identification from Multiple Cameras”.