

# PCI 2014

18<sup>th</sup> Panhellenic Conference  
in Informatics

Harokopio  
University

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Organized by



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GREEK COMPUTER  
SOCIETY



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PROGRAM

2014

# Program Brief

## Friday 3/10

- Amphitheater
- Room B1
- Room B2

08:30 - 09:30	Registration	
09:30 - 10:30	<b>Keynote:</b> Prof. Panagiotis Metaxas	
10:30 - 11:00	Coffee Break	
11:00 - 13:00	Social Networks	MDSO <small>(Special Session)</small>
13:00 - 14:00	Lunch Break	
14:00 - 16:00	Software & Security	SECRET_DIDWE <small>(Special Session)</small>
16:00 - 16:30	Coffee Break	
16:30 - 18:30	Algorithms	Research Project Results
18:30 - 19:30	Exhibition: Arduino applications for drone development & programming	
21:00	Conference Dinner	

## Thursday 2/10

13:00 - 14:00	Registration	
14:00 - 15:00	<b>Conference Opening</b> <b>Invited Speaker:</b> E. Christofilopoulou	
15:00 - 15:30	Coffee Break	
15:30 - 17:30	Data Mining	HAT <small>(Special Session)</small>

## Saturday 4/10

10:30 - 11:45	<b>Keynote:</b> Prof. Joseph Sifakis		
11:45 - 12:15	Coffee Break		
12:15 - 13:30	NGAHN <small>(Special Session)</small>	eGD <small>(Special Session)</small>	Hardware
13:30 - 14:30	Lunch Break		
14:30 - 15:15	SPCC <small>(Special Session)</small>	BDMK <small>(Special Session)</small>	
15:15 - 15:45	Coffee Break		
15:45	Conference Closing		

# Conference Agenda

## Thursday 2/10

13:00 - 14:00	Registration
14:00 - 15:00 Amphitheater	<b>Conference Opening</b> <b>Invited Speaker</b> E. Christofilopoulou, Vice Minister of Administrative Reform & e-Governance
15:00 - 15:30	Coffee Break

15:30 - 17:30

<b>Data Mining</b> Amphitheater	<b>HAT: Hardware design tools &amp; Technologies (Special Session)</b> Room B1
<p><i>Chair:</i> <i>Christos Douligeris</i></p> <p>An automatic wrapper generation process for large scale crawling of news websites <i>Iraklis Varlamis, Nikos Tsirakis, Vasilis Pouloupoulos, Panagiotis Tsantilas</i></p> <p>An intelligent tool for expediting and automating data mining steps <i>Ourania Hatzi, Nikolaos Zorbas, Mara Nikolaidou, Dimosthenis Anagnostopoulos</i></p> <p>A Proposed Methodology for e-Business Intelligence Measurement using Data Mining Techniques <i>Stavros Valsamidis, Ioannis Kazanidis, Sotirios Kontogiannis, Alexandros Karakos</i></p>	<p><i>Chairs:</i> Georgios Syrakoulis, Yiorgos Tsiatouhas &amp; Minas Dasygenis</p> <p>Solving AI problems with memristors: A case study for optimal "bin packing" <i>Dimitrios Stathis, Ioannis Vourkas, Georgios Ch. Sirakoulis</i></p> <p>Timing Error Tolerance in Pipeline Based Core Designs <i>Stefanos Valadimas, Angela Arapoyanni</i></p> <p>Designing optimized forward residue number systems IP blocks converters from a network interface <i>Ioannis Petrousov, Minas Dasygenis</i></p>

Full papers are allocated 25 minutes for presentation and discussion, while short papers are allocated 10 minutes.



## Thursday 2/110

16:00 - 18:00

Rating Systems Vs Machine Learning on the context of sports <i>George Kyriakides, Kyriacos Talattinis, George Stephanides</i>	Stealth Assessment of Hardware Trojans in simple Processors <i>Ioannis Nikopoulos, Athanassios Milidonis, Costas Efstathiou, Cleo Sgouropoulou, Ioannis Voyiatzis</i>
Evaluating Low Interaction Honeypots and On their Use against Advanced Persistent Threats (short paper) <i>Dimitris Fronimos, Emmanouil Magkos, Vassilios Chryssikopoulos</i>	Design, Implementation and Verification of a Customizing IP Soft Core with FPU Support (short paper) <i>Angelos Ntasios;Minas Dasygenis</i>
	Automated Generation of the Register Set of a SOC and its Verification Environment (short paper) <i>Konstantinos Poulos, Konstantinos Adaos, George P. Alexiou</i>
	Implementation of a Low Leakage Standard Cell Library based on materials from UMC 65nm technology (short paper) <i>Theodoros Simopoulos, Themistoklis Haniotakis, George Alexiou</i>

## Friday 3/10

08:30 - 09:30	Registration
09:30 - 10:30 Amphitheater	<b>Keynote</b> Prof. Panagiotis Metaxas, Wellesley College, USA <i>"Why Prediction is Hard: Progress and Obstacles in Computational Social Science"</i> <i>Chair: Theodora Varvarigou</i>
10:30 - 11:00	Coffee Break

## Friday 3/10

11:00 - 13:00

Social Networks Amphitheater	MDSO: Mobile Device and Web Software Development-Small-systems development (Special Session) Room B1
<p><i>Chair:</i> <i>Mara Nikolaidou</i></p> <p>The evolution of privacy-by-default in Social Networks <i>Alexandra Michota, Sokratis Katsikas</i></p> <p>A scalable solution for personalized recommendations in large-scale social networks <i>Christos Sardonos, Iraklis Varlamis</i></p> <p>A Study of Multiple Social Media Use in the European Parliament from an Innovation Perspective <i>Euripidis Loukis, Yannis Charalabidis, Aggeliki Androutsopoulou</i></p> <p>Predicting Tie Strength with the Facebook API <i>Tasos Spiliotopoulos, Diogo Pereira, Ian Oakley</i></p> <p>Towards digital materiality: Imbrication of Services and the re-configuration of agencies (short paper) <i>George Ktistakis, Demosthenes Akoumianakis</i></p> <p>Achieving Autonomicity in IoT systems via Situational-Aware, Cognitive and Social Things (short paper) <i>Orfefs Voutyras, Spyridon V. Gogouvitis, Achilleas Marinakis, Theodora Varvarigou</i></p>	<p><i>Chairs:</i> <i>Nikitas Karanikolas &amp; Ioannis Voyiatzis</i></p> <p>Implementation-agnostic instantiation schemes for ubiquitous, synchronous multi-user interfaces <i>George Vellis, Dimitrios Kotsalis, Demosthenes Akoumianakis, Jean Vanderdonckt</i></p> <p>A Mobile Shopping Assistant to Support Product Domesticity in Consumer Decisions <i>Sotirios-Foivos Stamopoulos, Andreas Komninos, John Garofalakis</i></p> <p>Wireless Personnel Safety System (WPSS), a Baseline towards Advance System Architecture <i>Md. Fasiul Alam, Eleni Adamidi, Stathes Hadjiefthymiades</i></p> <p>A Marketing Tool Based on Games for Smart Devices (short paper) <i>Pantelis Chistodoulou, Ioannis Diamantis, Stamatis Dragoumanos, Athanasios Kakarountas</i></p> <p>Students' Experiences from the use of MIT App Inventor in classroom (short paper) <i>Katerina Perdikuri</i></p> <p>A-Class: a novel classification method for mobile devices (short paper) <i>Ioannis Tsoulos, Alexandros Tzallas, Evripidis Glavas</i></p>

13:00 - 14:00

Lunch Break

## Friday 3/10

14:00 - 16:00

Software and Security Amphitheater	SECRET_DIDWE: Secure Retrieval and Dissemination of Information in Distributed and Wireless Specific Purpose Environments (Special Session) Room B1
<p><i>Chair:</i> <i>Iraklis Varlamis</i></p> <p>A cross country comparison on the factors determining OSS diffusion <i>Spyridoula Lakka, Teta Stamati, Christos Michalakelis</i></p> <p>Formal Specification of Open Standards and the Case of RSS v2.0 <i>Konstantinos Barlas, Eleni Berki, Iulia Adomnita, Thrushna Nalam, Golnaz S. Nejad, Jari Veijalainen, Petros Stefaneas, George Koletsos</i></p> <p>Designing and developing a free Data Loss Prevention system <i>Dimitrios Koutsourelis, Sokratis K. Katsikas</i></p> <p>Real-time information about public transport's position using crowdsourcing <i>Nikos Souliotis, Anargyros Tsadimas, Mara Nikolaidou</i></p> <p>Bypassing Antivirus Detection with Encryption (short paper) <i>Vasilis Tasiopoulos, Sokratis Katsikas</i></p>	<p><i>Chairs:</i> <i>Christos Skourlas, Eleni Galiotou, Petros Belsis</i></p> <p>Uncovering Languages from written documents <i>Nikitas Karanikolas, Panagiotis Ouranos</i></p> <p>A holistic approach for quality assurance and advanced decision making for academic institutions using the balanced scorecard technique <i>Ioannis Chalaris, Manolis Chalaris, Petros Belsis, Stefanos Gritzalis</i></p> <p>A Preliminary Investigation into the Automatic EuroVoc Indexing of Greek Documents <i>Eleni Galiotou</i></p> <p>A Surveillance System for Preventing Suicide Attempts in Urban Metro Stations <i>Theodoros Anagnostopoulos</i></p> <p>Comparison of E-Gif Ontology for Greek Public Sector with W3C Core Vocabularies (short paper) <i>Pavlina Fragkou</i></p> <p>Investigating the impact of supply chain management practices on delivery dependability (short paper) <i>Catherine Marinagi, Panagiotis Trivellas</i></p> <p>Towards Improving Classification of Real World Biomedical Articles (short paper) <i>Kostas Fragos, Christos Skourlas</i></p>

16:00 - 16:30

Coffee Break

## Friday 3/10

16:30 - 18:30

Algorithms	Research Project Results
Amphitheater	Room B1
<p><i>Chair:</i> <i>Christos Michalakelis</i></p> <p>Geometric multigrid methods based on Generic Approximate Sparse Inverses <i>George Gravvanis, Christos Filelis-Papadopoulos</i></p> <p>Higher Order Finite Difference Scheme for solving 3D Black-Scholes equation based on Generic Factored Approximate Sparse Inverse Preconditioning using Reordering Schemes <i>Eleftherios-Nektarios Grylonakis, Christos Filelis-Papadopoulos, George Gravvanis</i></p> <p>Hybrid Parallelization of Standard Full Tableau Simplex Method with MPI and OpenMP <i>Basilis Mamalis, Marios Perlitis</i></p> <p>Evaluating modern parallelization techniques on block matching algorithms <i>Minas Dasygenis, Panagiotis Michailidis</i></p> <p>An adaptive score model for a policy-making education game (short paper) <i>Anna Xenaki, Konstantinos Tserpes, Theodora Varvarigou</i></p>	<p><i>Chairs:</i> <i>Konstantinos Tserpes, George Dimitrakopoulos</i></p> <p>GEN6 EU-project – Greek Pilot: “IPv6 upgrade of Energy Efficiency in School Networks” <i>Aristotelis Kretsis, Panagiotis Kokkinos, Emmanouel Varvarigos, Vasilis Nikolopoulos, Eirini Gkioxi, Ilias Hatzakis</i></p> <p>Securing Legacy Code with the TRACER Platform <i>Konstantinos Stroggylos, Dimitris Mitropoulos, Zacharias Tzermias, Panagiotis Papadopoulos, Fotios Rafailidis, Diomidis Spinellis, Sotiris Ioannidis, Panagiotis Katsaros</i></p> <p>Developing Public Transport Network systems: The DIANA approach <i>Dimitrios Kosmopoulos, Mihalis Kalohristianakis, Sotirios Chatzis, Athanasios Malamos, Moshoula Pternea, Kostas Kepaptsoglou, Matthaios Karlaftis</i></p> <p>The OpenScienceLink architecture for novel services exploiting open access data in the biomedical domain <i>Efstathios Karanastasis, Vassiliki Andronikou, Efthymios Chondrogiannis, George Tsatsaronis, Daniel Eisinger, Alina Petrova</i></p> <p>Clustering Documents using the 3-Gram Graph Representation Model <i>John Violos, Konstantinos Tserpes, Athanasios Papaoikonomou, Magdalini Kardara, Theodora Varvarigou</i></p>

18:30 - 19:30 Amphitheater Exhibition: Arduino applications for drone development & programming  
*Panagiotis Papadopoulos, George Goulis, George Tsagkrinos*

21:00 Conference Dinner

## Saturday 4/10

Keynote	
9:30 - 10:30 Amphitheater	<p>Prof Joseph Sifakis, (ACM Turing Award 2007), EPFL, President of NCRT “The Internet of Things - A Revolution not to Miss” <i>Chair: Socratis Katsikas</i></p>
Hardware	QET: Special Session in Quality in Education Technologies (Special Session)
Amphitheater	Room B1
<p><i>Chair:</i> <i>Ioannis Voyiatzis</i></p> <p>A Floating-Point Paradigm for High-level Synthesis <i>Michael Dossis</i></p> <p>FPGA Implementations for Volterra DFEs <i>Andreas Emeretlis, George Theodoridis</i></p> <p>Cost Efficient Adaptive Technologies for High Rate Optical Transmission Systems <i>Maki Nanou, George-Othon Glentis, Kristina Georgoulakis, Chris Matrakidis, Christina (Tanya) Politi, Alexandros Stavdas</i></p>	<p><i>Chairs:</i> <i>Kiriakos Patriarcheas &amp; Michalis Xenos</i></p> <p>Working Groups Analysis via Text-Based Computer-Mediated Communication – Case study <i>Kiriakos Patriarcheas, Michalis Xenos</i></p> <p>Course opinion mining methodology for knowledge discovery, based on web social media <i>Sotirios Kontogiannis, Ioannis Kazanidis, Stavros Valsamidis, Alexander Karakos</i></p> <p>Strengthening Training to Employment Pathways through competence-based IT services <i>Cleo Sgouropoulou, Katerina Georgouli</i></p>
11:45 - 12:15	Coffee Break
12:15 - 13:30	
NGAHN: Enabling technologies for next generation access & home networks (Special Session)	eGD: e-Game Development (Special Session)
Amphitheater	Room B1
<p><i>Chair:</i> <i>Thomas Kamalakis</i></p> <p>Coherent Optical Wireless Systems for High Speed Local Area Networks with Increased Resilience <i>Katerina Margariti, Thomas Kamalakis</i></p>	<p><i>Chairs:</i> <i>Georgios Lepouras, Simos Retalis, Maria Roussou</i></p> <p>Design Principles for Serious Games in Mathematics <i>Konstantinos Chorianopoulos, Michail Giannakos, Nikos Chrisochoides</i></p>



## Saturday 4/10

Photonic Technologies for Next Generation Home and Office Networks

*Thomas Kamalakis, Georgia Dede, Katerina Margariti, Panagiotis Kanakis, Dimitris Alexandropoulos, Nikos Vainos*

Slow Light in Photonic Crystal Waveguides as a Key Enabler for Future Optical Network Technologies

*Panagiotis Kanakis, Thomas Kamalakis, Adonis Bogris*

Adapting an Animation TV Special to Games in a Games Design University Course

*Panagiotis Kyriakoulakos, Spyros Vosinakis*

Digital Gaming for Co-Creativity in Learning: Theory-Framed Co-Design with School Communities

*Pavlos Koulouris, Evangelia Dimaraki*

13:30 - 14:30

Lunch Break

14:30 - 15:15

**SPCC:** Security and privacy issues in the Cloud Computing Era (Special Session)  
Amphitheater

*Chair:*

*Panagiotis Rizomiliotis*

The Rainy Season of Cryptography

*Aikaterini Latsiou, Panagiotis Rizomiliotis*

A cloud-based architecture to crowdsource mobile app privacy leaks

*Dimitrios Papamartzivanos, Dimitrios Damopoulos, Georgios Kambourakis*

Directions for Raising Privacy Awareness in SNS platforms

*Konstantina Vemou, Maria Karyda, Spyros Kokolakis*

**BDMK:** Big Data, Metadata & Knowledge (Special Session)

Room B1

*Chairs:*

*Christos Papatheodorou & Manolis Gergatsoulis*

Distributed evaluation of XPath queries over large integrated XML data

*Matthew Damigos, Manolis Gergatsoulis, Eleftherios Kalogeros*

Integrating library and cultural heritage data models: the BIBFRAME - EDM case

*Sofia Zapounidou, Michalis Sfakakis, Christos Papatheodorou*

Intelligent Clouds: A Middleware Architecture Supporting Business Elasticity

*Vasileios Anagnostopoulos, Vrettos Moulos, Andreas Menychtas, Dora Varvarigou, Anna Gatzoura*

15:15 - 15:45

Coffee Break

15:45

Conference Closing

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