

*Athena*

Summer School

July 3 - 8, Pyrgos, Greece, 2011

Wireless Technologies & Applications

[www.athenasch.gr](http://www.athenasch.gr)

## PROGRAM GUIDE

Pyrgos, Ileias, HELLAS

July 3-8, 2011

# ATHENA 2011 Summer School



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## GENERAL CHAIR'S WELCOME MESSAGE



**Nicolas Sklavos**

General Chair, ATHENA Summer School 2011

**Dear ATHENA 2011 Summer School Participants,**

On behalf of the organizing committee, I am happy to welcome you to the 2nd ATHENA Summer School, on Wireless Technologies and Applications. It is a matter of great honor for me, that this year we had the chance to take the responsibility of the organization, and to offer you the hospitality of the birth region of Olympic Games, and especially in the city of Pyrgos, Ileias.

One year after, more or less, of the first organization, ATHENA has been adopted by the IEEE Greece GOLD Affinity Group. This year, first time for ATHENA, the proceedings of the school will be published as a special volume of IEEE Transactions of Latin America, and will also be available on IEEEExplore digital library.

The international program committee board has prepared an exciting program. The technical lectures include scientific talks in wireless, mobile, networks applications, modern technologies, as well as demos, industry visits and exhibits by professionals and experts, both from industry and academia. I am sure that there is enough for everybody, but only for five days of training!

I will like to thank our sponsors, the Technological Educational Institute of Patras, the Municipality of Pyrgos, as well as the Technological Educational Institute of Messologhi, and especially the Informatics & MM Dept. and the Telecommunications Systems and Networks Dept. An army of volunteers of Security and Systems Design Research Group (SeSyDeG) has worked hard, to prepare everything as professional as possible.

During ATHENA 2011 days, I would like to invite you to take the chance of staying at Western Greece, which is full of sightseeing's, monuments, holy monasteries, lakes, rivers and beaches and only just a few kilometers from Ancient Olympia.

Finally, I would like to thank you all very much, for coming. I wish you to enjoy both technical and social programs, but most of all to have great time at Pyrgos.

**With Kind Regards,**

**Nicolas Sklavos**



### General Chair



**Nicolas Sklavos,**  
Informatics & MM Dept.,  
Technological Educational Institute of Patras, Hellas  
e-mail: nsklavos@ieee.org

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### General Co-Chairs



**Spyros Louvros,**  
Telecommunications Systems and Networks Dept.,  
Technological Educational Institute of Messologhi, Hellas  
e-mail: slouvros@teimes.gr



**Vassileios Triantafyllou,**  
Telecommunications Systems and Networks Dept.,  
Technological Educational Institute of Messologhi, Hellas  
e-mail: triantaf@teimes.gr

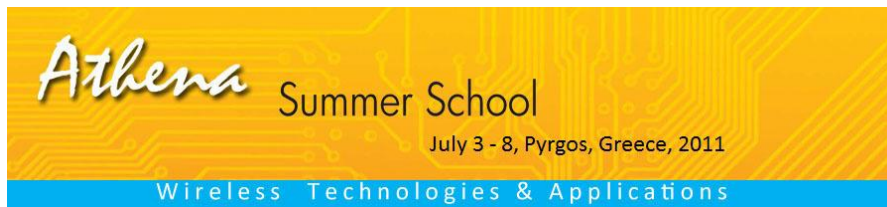
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### Honory Chair



**Socrates Kaplanis,**  
Technological Educational Institute of Patras, Hellas  
e-mail: kaplanis@teipat.gr

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#### Local Chairs

- **Athanasios Koutras**, Technological Educational Institute of Patras, Hellas
  - **Ioannis Kougias**, Technological Educational Institute of Messologhi, Hellas
- 

#### Publication Chair

- **Mirela Sechi Moretti Annoni Notare**, Sao Jose Municipal University, Brazil
- 

#### Steering Committee

- **Panayiotis Alefragis**, Technological Educational Institute of Messologhi, Hellas
  - **George Ashmakopoulos**, Technological Educational Institute of Messologhi, Hellas
  - **Tasos Dagiuklas**, Technological Educational Institute of Messologhi, Hellas
  - **George Hgoumenakhs**, Technological Educational Institute of Patras, Hellas
  - **Afroditi Ralli**, Technological Educational Institute of Patras, Hellas
  - **Ioannis Zaharakis**, Technological Educational Institute of Patras, Hellas
- 

#### International Program Committee

- **Regina B. Araujo**, Federal University of S Carlos, Brazil
  - **Joan Figueras**, Universitat Politecnica de Catalunya, BarcelonaTech, Spain
  - **Apostolos Fournaris**, University of Patras, Hellas
  - **Dimitrios Kalamatianos**, National University of Ireland, Ireland
  - **Odysseas Koufopavlou**, University of Patras, Hellas
  - **Maryline Laurent**, Institute Telecom, Telecom Sud Paris, France
  - **Javier Lopez**, University of Malaga, Spain
  - **Maja Matijasevic**, University of Zagreb, Croatia
  - **Nikolay Moldovyan**, St. Petersburg Institute for I.A.F. Academy of Sciences, Russia
  - **Amar Mukherjee**, University of Central Florida, USA
  - **Athanasios Milidonis**, Nokia-Siemens Networks, Hellas
  - **Kamesh Namuduri**, University of North Texas, USA
  - **Mirela Sechi Moretti Annoni Notare**, Sao Jose Municipal University, Brazil
  - **Vassilis P. Plagianakos**, University of Central Greece, Hellas
  - **Aggeliki Pragiati**, Hellenic Telecommunications & Post Commission, Hellas
  - **Rodrigo Roman**, University of Malaga, Spain
  - **Athanassios Skodras**, Hellenic Open University, Hellas
  - **Cristina Alcaraz Tello**, University of Malaga, Spain
  - **Theocharis Theocharides**, University of Cyprus, Cyprus
  - **Sherali Zeadally**, University of the District of Columbia, USA
  - **Yan Zhang**, Simula Research Laboratory & University of Oslo, Norway
- 





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#### Technical Assistantship

- **Anestis Bechtsoudis**, University of Patras, Hellas
- **Irene Ioannidou**, Technological Educational Institute of Patras, Hellas

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#### Press Office

- **Roula Kostakopoulou**, Technological Educational Institute of Patras, Hellas
  - **Katerina Padinaki**, Technological Educational Institute of Patras, Hellas
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## Sponsors



Municipality of Pyrgos

## Technically Co-Sponsored



IEEE Greece GOLD  
Affinity Group



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**ATHENA 2011 Summer School**

**TECHNICAL PROGRAM**





**DAY 1<sup>st</sup> : Sunday 3, July 2011**

**THEMATIC AREA: “Opening Ceremony”**

**Central Hall, Latseio Town Hall, 19:00**

**Session Chair(s) :** Nicolas Sklavos, Technological Educational Institute of Patras, Hellas

Spyros Louvros, Techn. Educational Institute of Messologhi, Hellas

**18:30 Registrations**

**19:00 Opening: Welcome Messages**

**19:30 2<sup>nd</sup> ATHENA 2011 Summer School Presentation**

Nicolas Sklavos, Technological Educational Institute of Patras, Hellas

**19:45 Researchers Awards**

**20:00 Sunday Plenary Talk:**

**“Education in Academia and the Challenges in the New World Order”**

Socrates Kaplanis, Technological Educational Institute of Patras, Hellas

**DAY 2<sup>nd</sup> : MONDAY 4<sup>th</sup>, July 2011**

**THEMATIC AREA: "Networks & Communications"**

**Central Hall, Latseio Town Hall, 9:00**

**Chair(s) :** Vassileios Triantafyllou, Techn. Educational Institute of Messologhi, Hellas  
Sherali Zeadally, University of the District of Columbia, USA

**9:00 "Advanced LTE Network Presentation"**

Spyros Louvros, Technological Education Institute of Messologhi, Hellas

**10:00 "Deflection and Wormhole Routing: Issues & Problems"**

Vassileios Triantafyllou, Techn. Education Institute of Messologhi, Hellas

**11:00 30 minutes Break**

**11:30 "Wireless Ad Hoc Sensor Networks: A Programming View"**

George Ashmakopoulos, Techn. Education Institute of Messologhi, Hellas

**12:30 "Elliptic Curve Cryptography as a Security Enhancement on Modern Network Systems"**

Apostolos P. Fournaris, University of Patras, Hellas

**13:30 "Digital Signal Processing Applications for Wireless Communication Systems"**

Athanasios Koutras, Technological Educational Institute of Patras, Hellas

**14:30 Exams of the Day**



**DAY 2<sup>nd</sup> : TUESDAY 5<sup>th</sup>, July 2011**

**THEMATIC AREA: “Wireless & Mobile Technologies”**

**Central Hall, Latseio Town Hall, 9:00**

**Chair(s) :** Tasos Dagiuklas, Technological Education Institute of Messologhi, Hellas  
Aggeliki Pragiati, Hellenic Telecommunications & Post Commission, Hellas

**9:00 “Wireless Technologies in Greek reality – Europe Digital Agenda”**

Aggeliki Pragiati, Hellenic Telecommunications & Post Commission, Hellas

**10:00 “Wireless Technology Applications in Public Sector, Environment & Health”**

Aggeliki Pragiati, Hellenic Telecommunications & Post Commission, Hellas

**11:00 30 minutes Break**

**11:30 “Mobile Video Delivery Across Heterogeneous Wireless Networks”**

Tasos Dagiuklas, Technological Education Institute of Messologhi, Hellas

**12:30 “Android & You”**

Panayiotis Alefragis, Technological Education Institute of Messologhi, Hellas

**13:30 “A Competitive Sizing of Stand Alone PV Systems Powering DC Loads”**

E. Kaplani, S. Kaplanis, Technological Educational Institute of Patras, Hellas

**14:30 Exams of the Day**

**DAY 3<sup>rd</sup> : WEDNESDAY 6<sup>th</sup>, July 2011**

**THEMATIC AREA: “Embedded Systems Design: Mobile & Wireless”**

**Central Hall, Latseio Town Hall, 9:00**

**Chair(s) :** Kamesh Namuduri, University of North Texas, USA

Mirela Sechi Moretti Annoni Notare, Sao Jose Municipal University, Brazil

**9:00 “Ubiquitous Computing – A Multidisciplinary Endeavour”**

I.D. Zaharakis, Technological Educational Institute of Patras, Hellas

**10:00 “Space and Satellite Value Added Services”**

George Kostopoulos, ARATOS Technologies S.A., Hellas

**11:00 30 minutes Break**

**11:30 “SAE/LTE MME, P/S-GW Ericsson Technology Presentation”**

Harris Palaskonis, Teledrom AB

**12:30 “Lawful Interception”**

Athanasios Milidonis, Nokia-Siemens Networks, Hellas

**13:30 “Mapping Optimisation and Dynamic Memory Management for Distributed On-Chip Multi-Core ARchiTecture: The MOSART Approach”**

Iraklis Anagnostopoulos, Alexandros Bartzas, Dimitrios Soudris,

National Technical University of Athens, Hellas

**14:30 Exams of the Day**

## **DAY 4<sup>th</sup> : THURSDAY 7<sup>th</sup>, July 2011**

### **THEMATIC AREA: “Demos & Exhibitions”**

**Central Hall, Latseio Town Hall, 9:00**

**Chair(s) :** Spyros Louvros, Technological Educational Institute of Messologhi, Hellas  
Yan Zhang, Simula Research Laboratory & University of Oslo, Norway

#### **9:00 “COSMOTE Mobile Services, Focus on Internet on The Go”**

Ioannis Niarchos, Cosmote Mobile Communications S.A., Hellas

#### **10:00 “Mobile Telephony Networks – International Recommendations & Greek Legislation Limits for EMF Safety.”**

Christos Raptis, P. Risvas, Cosmote Mobile Communications S.A., Hellas

#### **11:30 Industry Visit**

Attendants will visit COSMOTE premises at Pyrgos. Site visit includes visit into GSM-WCDMA switches (MSC, Media Gateway, BSC, RNC), Base Station of WCDMA and GSM technology, Transmission equipment (PCM, Optical network, Radio network), Antenna for MW & GSM, and also a visit into the headquarters of COSMOTE to listen a lecture on radiation, safety regulations and GSM-WCDMA compatibility to the human interactions.

The visit includes two different sections of the COSMOTE premises.

#### **21:00 Farewell Party**

Drinks & Music

**DAY 6<sup>th</sup> : FRIDAY 8<sup>th</sup>, July 2011**

**THEMATIC AREA: “Applications & Demos”**

**Central Hall, Latseio Town Hall, 9:00**

**Chair(s) :** Mirela Sechi Moretti Annoni Notare, Sao Jose Municipal University, Brazil  
Nicolas Sklavos, Technological Educational Institute of Patras, Hellas

**9:00 “Aiming at Higher Network Security Levels Through Extensive Penetration Tests”**

Anestis Bechtsoudis, University of Patras, Hellas

Nicolas Sklavos, Technological Educational Institute of Patras, Hellas

**10:00 “Using Arduino and XBee for 802.15.4 Wireless Communication”**

Vasileios Georgitzikis, Ioannis Chatzigiannakis, University of Patras, Hellas

**11:00 30 minutes Break**

**11:30 “Windows Phone 7 – Operating System Overview”**

K. Diamanti, N. Rontogiannis, Microsoft Student Partners Community, Hellas

**12:30 “Windows Phone 7 – Overview and Introduction to developing Apps and Games”**

K. Diamanti, N. Rontogiannis, Microsoft Student Partners Community, Hellas

**13:30 “IEEE Content After First Degree, Academia Vs Industry: The Chariots of Fire”**

Nicolas Sklavos, Technological Educational Institute of Patras, Hellas

**14:30 Conclusions & Remarks –Certifications Ceremony**



## **ATHENA Summer Schools Proceedings:**

Technical presentations will be invited to be published in a Special Issue of IEEE Latin America Transactions Journal. (Aggregates IEEE Xplore, Qualis, ISI and DOI).

All, invited papers will undergo review process, like regular submissions before publishing.



## **ATHENA Summer School 2011 Contact Details:**

### **General Chair:**

**Dr. Nicolas Sklavos,**

General Chair, ATHENA Summer School 2011

Informatics & MM Dept, Technological Educational Institute of Patras, HELLAS

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Homepage: [www.nsklavos.gr](http://www.nsklavos.gr)

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### **ATHENA 2011 Website:**

[www.athenasch.gr](http://www.athenasch.gr)

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Thematic Area:

## Wireless Technologies & Applications

Organized by:

