

SEEDA 2019 Programme

20-22 September, 2019

[University of Piraeus](http://www.unipi.gr) (www.unipi.gr)

Address: 80, M. Karaoli & A. Dimitriou St., GR18534, Piraeus, Greece

Day 1	September 20, 2019	
14:00-18:00	Registration (Lobby)	
14:30-14:45	Opening (Main Amphitheatre)	
14:45-15:45	Keynote 1 (Main Amphitheatre-MA) Designing safe and secure cyber-physical systems Professor Dimitrios Serpanos, ISI and University of Patras, GR Chair: Christos Douligeris, University of Piraeus, GR	
15:45-16:15	Coffee Break I	
16:15-17:55	General Session (Main Amphitheatre-MA) On-going projects and considerations I Chair: Michael Dossis, University of Western Macedonia, GR	
18:00-19:15	Session A1: IoT and IoE Implementations and Approaches I Chairs: George Koufoudakis and Vasileios Komianos (Conference Room: MA)	Session B1: Computer Engineering I Chairs: Michael Dossis (Conference Room: 001)
20:00-23:00	Dinner Salty (N.A.S) Restaurant (https://www.salty.gr/)	

Day 2	September 21, 2019	
08:45-17:00	Registration (Lobby)	
09:00-10:15	Session A2: Social Media Analysis Chair: Ioannis Anagnostopoulos (Conference Room: MA)	Session B2: Smart Environments Chair: Fivos Mylonas (Conference Room: 001)
10:20-11:20	Keynote 2 (Main Amphitheater-MA) Human behavior simulation, big data analytics and applications to security, risk assessment, urban environment design and cultural heritage protection and preservation Dr. Stelios C. A. Thomopoulos, Integrated Systems Laboratory IIT, NCSR "Demokritos", GR Chair: Athanasios Kakarountas, University of Thessaly, GR	
11:20-11:50	Coffee Break II	
11:50-13:30	General Session (Main Amphitheatre MA) On-going projects and considerations II Chair: Panagiotis Kotzanikolaou, University of Piraeus, GR	
13:30-14:30	Lunch (University of Piraeus Restaurant)	
14:30-15:45	Session A3: Computer Networks and Communications Chairs: Fran Casino and Thomas Dasaklis (Conference Room: MA)	Session B3: New Trends on Security for IoT Chair: Athanasios Kakarountas (Conference Room: 001)
15:45-16:15	Coffee Break III	
16:15-17:30	Session A4: Ambient Intelligence in Critical Infrastructures Chairs: Dimitris Kallergis and Sarandis Mitropoulos (Conference Room: MA)	Session B4: Secondary and Tertiary Technological Education Chairs: Angeliki Sgora (Conference Room: 001)
17:35: 18:50	Session A5: IoT and IoE Implementations and Approaches II Chairs: George Koufoudakis and Vasileios Komianos (Conference Room: MA)	Session B5: Information Technologies Essentials in Education Chairs: Spyridon Doukakis and Theodoros Karvounidis (Conference Room: 001)
20:00-23:00	Dinner Paraga Restaurant (http://www.paragamikrolimano.gr/)	

Day 3	September 22, 2019
09:15-12:00	Registration (Lobby)
09:30-10:45	Individual face-to-face communications
10:45-13:00	Technology Museum Visit
13:00-13:30	Closing session

General Session: On-going projects and considerations I

16:15-17:55, Sept 20, Chair: Michael Dossis, Conference Room: Main Amphitheatre

Advancing Rational Exploitation of Water Irrigation Using 5G-IoT Capabilities: The AREThOU5A Project , S. K. Goudos, A. D. Boursianis, M. S. Papadopoulou, A. Liopa-Tsakalidi, P. Barouchas, G. Kalamaras, A. Gotsis, K. Maliatsos
MARS: An IoT-enabled Smart Farming Platform Using Drones , Panagiotis Sarigiannidis, George Kakamoukas, Vasilis Moisiadis, Panagiotis Radoglou-Grammatikis, Michalis Zervakis, George Livanos, Dimitris Ramnalis, Vassilis Polychronos, Thomai Karamitsou, Athanasios Folinas, and Nikos Tsitsiokas
GreenWaterDrone: Development and Implementation of an Innovative and Cost-effective System for the Precise & Dynamic Irrigation Scheduling and Crop Monitoring . Panos Philippopoulos
SYSYFOS - Development of an Integrated System for high-performance and high-reliability compression and management of hyperspectral image data , Michalis Psarakis
Building a Cyber Security Network of Competence Centres for Europe (CyberSec4Europe): The Case of Maritime Transport , Elena-Maria Kalogeraki, Spyros Papastergiou, Panos Kotzanikolaou and Christos Douligeris
TRESSPASS: robust Risk basEd Screening and alert System for PASSengers and luggage , Stelios C. A. Thomopoulos and Dimitris Kyriazanos

Session A1: IoT and IoE Implementations and Approaches I

18:00-19:15, Sept 20, Chairs: George Koufoudakis and Vasileios Komianos, Conference Room:

MA

The VISOR project: Virtual coaching Services for Older adults , Evaggelos Spyrou, Eirini Mathe, Ioannis Vernikos, Panagiotis Dedousis, Anna Vlachou and Phivos Mylonas
Structural Health Monitoring In Historical Buildings Using A Low Cost Wireless Sensor Network , Konstantinos Bezas, Vasileios Komianos, Konstantinos Oikonomou, George Koufoudakis and Georgios Tsoumanis
Constructing Minimal Maintenance Virtual Backbones over Low-Cost Wireless Networks , Alexandros Zervopoulos, Vasileios Komianos, Konstantinos Skiadopoulos, Georgios Tsoumanis, Athanassios Spiggos, Konstantinos Giannakis and Konstantinos Oikonomou
Description of the Ionian University's Campus Wireless Network Testbed Infrastructure , Asterios Papamichail, Aikaterini Georgia Alvanou, Alexandros Zervopoulos, Konstantinos Bezas, Spiridon Vergis, George Koufoudakis, Konstantinos Oikonomou and Georgios Tsoumanis

Session B1: Computer Engineering

18:00-19:15, Sept 20, Chairs: Michael Dossis, Conference Room: 001

Instruction-Based Timing Analysis in Pipelined Processors , Athanassios Tziouvaras, Georgios Dimitriou, Michael Dossis and Georgios Stamoulis
High Level Synthesis of CART , Dimitrios Amanatidis and Michael Dossis
Evaluation of on-the-fly auto-tuning of hybrid parallelization on processors with integrated graphics , Akiyoshi Wakatani
A General-Purpose Mapper Module for Adaptive OpenMP Runtime Support , Ilias K. Kasmeridis and Vassilios V. Dimakopoulos

Session A2: Social Media Analysis

09:00-10:15, Sept 21, Chair: Ioannis Anagnostopoulos, Conference Room: MA

GRATIS: A GRaph Tool for Information Systems Scientists , Vasileios Vlachos, Theodoros Siklaidis and Kyriaki Chantzi
A Hybrid Method for Sentiment Analysis of Election Related Tweets , Dimosthenis Belevelis, Christos Tjortjis, Dimitris Psaradelis and Dimitris Nikoglou
A Convolutional Neural Network for Sentiment Analysis of TripAdvisor reviews , Dimitrios Amanatidis, Michael Dossis and Ifigeneia Mylona
Evaluation of Influential Properties in Twitter , Gerasimos Razis and Ioannis Anagnostopoulos

Session B2: Smart Environments

09:00-10:15, Sept 21, Chair: Phivos Mylonas, Conference Room: 001

Mining Traffic Accident Data for Hazard Causality Analysis , Dimitrios Tasios, Christos Tjortjis and Andreas Gregoriades
A Bluetooth Based Traffic Light Time Extension System for Pedestrians with Disabilities , Pavlos Kokozidis, Iordanis Kostelidis, Myrsini Stasinou, Alexandra Salpigkti, Elpida-Vasiliki Theoxaridou, Maria Papadopoulou, Alexandra Palioura and Aikaterini Mitsopoulou
A Smart Bin Implementantion using LoRa , Dimitris Ziouzos and Minas Dasygenis
Smart Agriculture: An Open Field For Smart Contracts , Yorghos Voutos, Georgios Drakopoulos and Phivos Mylonas.

General Session: On-going projects and considerations II

11:50-13:30, Sept 21, Chair: Panagiotis Kotzanikolaou, Conference Room: Main Amphitheatre

MELITY: Development of methodologies and embedded security solutions for IoT in e-health services , V. Malamas, C. Nomikos, P. Kotzanikolaou, M.Psarakis, C. Douligeris
LOCARD: Managing the chain of custody of digital evidence , Thomas Dasaklis and Costas Patsakis
CUREX: seCure and pRivate hEalth data eXchange , Christos Xenakis
Cyber Security and Resilience in Critical Infrastructures – The case of the Maritime sector , George Kavallieratos
MARINE-EO and CIVILnEXT: Two examples of PCP (Pre-Commercial Procurement) projects: Challenges & Lessons learned , Stelios C. A. Thomopoulos, Tassos Kanellos, Adam Doulgerakis Giorgos K. Thanos

Session A3: Computer Networks and Communications

14:30-15:45, Sept 21, Chairs: Fran Casino and Thomas Dasaklis, Conference Room: MA

Experimenting on LTE-U and WiFi coexistence , Paris Charalampou, Ioannis Giannoulakis, Emmanouil Kafetzakis and Efstathios Sykas
Measurements on encrypted and non-encrypted IoT datasets stored in relational and JSONB fields , Christodoulos Asiminidis, Ioannis Georgiadis, Dimitrios Syndoukas, George Kokkonis and Sotirios Kontogiannis
Proof Systems In Blockchains: A Survey , Georgios Drakopoulos, Eleanna Kafeza and Haseena Al Katheeri
Enhanced Vendor-managed Inventory through Blockchain , Fran Casino, Constantinos Patsakis and Thomas K. Dasaklis

Session B3: New Trends on Security for IoT

14:30-15:45, Sept 21, Chair: Athanasios Kakarountas, Conference Room: 001

Intrusion Detection System for Platooning Connected Autonomous Vehicles , Dimitrios Kosmanos, Apostolos Pappas, Francisco J. Aparicio-Navarro, Leandros Maglaras, Helge Janicke, Eerke Boiten and Antonios Argyriou
Detection of abnormal behavior in smart-home environments , Georgios Spathoulas, Sokratis Katsikas, Marios Anagnostopoulos, Spyridon Evangelatos and Gerald Mema
A Machine-Learning Clustering Approach for Intrusion Detection to IoT Devices , Stefanos Papafotikas and Athanasios Kakarountas
A Comparative Assessment of Machine Learning Algorithms for Events Detection Vasileios Tsoukas, Konstantinos Kolomvatsos, Vasileios Chioktour and Athanasios Kakarountas

Session A4: Ambient Intelligence in Critical Infrastructures

16:15-17:30, Sept 21, Chairs: Dimitrios Kallergis and Sarandis Mitropoulos, Conference Room: MA

Exploiting IoT and Big-Data for Building Multi-service Capable Intelligent Transportation Systems , Theofanis Orphanoudakis, Anastasios Fanariotis, Theodoros Karachalios, Ilias Politis, Konstantinos Demestichas, Stavros Xynogalas, Ioannis Loumiotis and Eystathios Sykas
On the Security of an IoT-based Intelligent Transportation Service , Zacharenia Garofalaki and Dimitrios Kallergis
Functional and non-functional requirements of a smart triage system for Emergency Departments: the case of IntelTriage project , Antonis Billis, Evangelos Logaras, Maria Zouka, Nancy Karanasiou, Alexis Fourlis, Petros Nicopolitidis, Paraskevas Lagakis, John Gialelis, Dimitris Kallergis, Georgios Papadimitriou, Christos Douligeris, Theodosios Papavramidis, Maria Krizea and Panagiotis Bamidis
The Architecture of an Intelligent Incident Response System in Health Environments , Roza Mavropodi, Alexis Fourlis, Sarandis Mitropoulos, Nancy Karanasiou, John Gialelis, Antonis Billis, Petros Nicopolitidis, Georgios Papadimitriou, Theodosios Papavramidis, Maria Zouka, Panagiotis Bamidis, Evangelos Logaras, Paraskevas Lagakis and Maria Krizea

Session B4: Secondary and Tertiary Technological Education

16:15-17:30, Sept 21, Chair: Angeliki Sgora, Conference Room: 001

Fundamental Issues of Teachers' Training in Laboratorial Teaching , Panagiotis Makrygiannis, Dimitrios Piromalis, Michail Papoutsidakis, Dimitrios Tseles and Evangelos Papakitsos
Research On The Use of Software Specialties in Vocational Education and Training , Kosmidis Iordanis, Prekas Nikolaos, Kitsas Ilias and Kekkeris Gerasimos
Epistemologies for Technology and its Teaching: Untying the Knot of a Three-level Technological Problem , Panagiotis Makrygiannis, Dimitrios Piromalis, Michail Papoutsidakis, Dimitrios Tseles and Evangelos Papakitsos
Teaching Internet of Things (IoT) in the Electronics Specialty of Vocational Education and Training (VET) , Dimitrios Kotsifakos, George Makropoulos and Christos Douligeris
Exam Wizard: A novel e-assessment system , Duke Vomvyras, Antonios Andreatos and Christos Douligeris

Session A5: IoT and IoE Implementations and Approaches II

17:35: 18:50, Sept 21, Chairs: George Koufoudakis and Vasileios Komianos, Conference Room: MA

Bluetooth Beacon Based Accurate Indoor Positioning Using Machine Learning, Konstantinos Kotrotsios and Theofanis Orphanoudakis
Network Lifetime Extension Evaluation of Energy Harvesting and Clustering Approaches in WSNs, Alexandros Zachariadis, Konstantinos Oikonomou and Georgios Tsoumanis
Implementation of a Low-Cost Vehicle Traffic Monitoring System in the Town of Corfu, Spiros Vergis, Konstantinos Oikonomou, Vasileios Komianos, Georgios Tsoumanis and Athanassios Spiggos
A generic framework for a Peer to Peer Blockchain based Fog Architecture in Industrial Automation, Apostolos Xenakis, Efthimios Lallas and Georgios Stamoulis
A Cloud Gaming Architecture Leveraging Fog for Dynamic Load Balancing in Cluster-Based MMOs, Athanasios Tshipis, Vasileios Komianos and Konstantinos Oikonomou

Session B5: Information Technologies Essentials in Education

17:35: 18:50, Sept 21, Chairs: Spyridon Doukakis and Theodoros Karvounidis, Conference Room: 001

Scaffolding Technological Pedagogical Content Knowledge (TPACK) in Computer Science Education through Learning Activity Creation, Spyridon Doukakis and Mary-Angela Papalaskari
Kinds of loops implemented with messages in Scratch and the SOLO Taxonomy, Theodoros Karvounidis, Anastasios Ladias, Demitrios Ladias and Christos Douligeris
Designing an e-mentoring program for supporting teachers' training, Spyridon Doukakis, Evangelia Koutidou and Aspasia Oikonomou
Students' Evaluation of the "Web Technologies" Android Application for Higher Education, Eleni Seralidou, Christos Douligeris and Panagiotis Gotsiopoulos
Categorization of requests detecting in Scratch using the SOLO taxonomy, Anastasios Ladias, Demitrios Ladias and Theodoros Karvounidis