

9th International Workshop on Microsystems

Alexander Campus, International Hellenic University, 11 December 2024

Preliminary Programme

Department of Industrial Engineering and Management 

9th International Workshop on Microsystems

Alexander Campus, Sindos
International Hellenic University,
11 December 2024

This workshop brings together research and development from a large spectrum of science and engineering fields related to the implementation of microsystems in the new era of distributed information technologies. As cloud computing services and smart portable systems are becoming ubiquitous and more advanced, new possibilities for interdisciplinary research emerge. The microsystems that comprise the so-called Internet of things will encompass a wide range of technologies including new energy sources, energy and information electronics, sensor systems, smart and energy efficient control and computing, telecommunications and networking, and also nanotechnology and micro-electro-mechanical systems. Continuing eight successful workshops between 2015 and 2023, the 9th International Workshop on Microsystems aims at bringing together related research and development advancements from the academic community and the industry. Scientific topics include but are not limited to:

- Microelectronics and nanoelectronics
- Embedded systems
- Sensors and sensor electronics
- Integrated Circuits and Systems
- Industrial automation and control
- Micro-electro-mechanical systems
- Computing for microsystems
- Energy microsystems

Conference website: microengineering.iem.ihu.gr/WoMGREECE

Registration:
Please register your intention to participate by e-mail to: jaf@microengineering.iem.ihu.gr
The registration is free of charge
Venue: Lecture Theater, Automation and Informatics Building, Sindos Campus, I.H.U., Greece

Abstract submission:
Style and format: Authors can choose between a 300-word abstract with figure or a IEEE style 2-4 page digest
Abstract submission deadline: 4th November 2024
All abstracts should be e-mailed to: jaf@microengineering.iem.ihu.gr
A best paper award will be granted, sponsored by Ioannidis Electronics, Marassi 78, Thessaloniki
All submissions should be accompanied by a statement of originality, confirming that the full content of this abstract is original and has been created exclusively by the authors

Preliminary programme

09:00-09:30 Registration	09:30-09:45 Welcome and Introduction	09:45-11:00 Oral session	11:00-11:30 Coffee break	11:30-11:45 Poster session	11:45-12:00 Best Paper Award / Summary
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Organizer
Michail E. Kiriakidis, Industrial Eng. & Management, IHU

Session Chairs
To be confirmed

Technical Programme Committee

A. Antzou	D. Bekris	A. Rafailopoulos	M. E. Kiriakidis	T. Karamanis	S. Papadopoulos	K. Sotiropoulos	F. Stamatopoulos	N. Tzafarakis	D. Triantafyllidis	D. Tzioumis	A. Tsagaris	C. Yfantis
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sponsors:

  

Preliminary Programme

08:45-09:00: Registration

Please check-in or register at the front desk.

09:00-09:15: Welcome and introduction

09:15-11:00: First Oral Session (Session Chair: Vasilis F. Pavlidis, AUTH)

09:15-10:00: FPGA Acceleration for Vision-Based Navigation in Space Applications: Algorithms & Use Cases, *D. Soudris, National Technical University of Athens, Greece* 23WOM-01 ([Invited](#))

10:00-10:30: PeakSat OBC design & Environmental Testing Results. *I. Tatsoglou, P. Vamvakas, K. Andronikos, Th. Mpalsis and V. P. Moustakas, Spacedot Ltd,* 24WOM-02 ([Invited](#))

10:30-10:45: Energy-Efficient FPGA Framework for Non-Quantized Convolutional Neural Networks, *A. Athanasiadis, N. Tampouratzis, I. Papaefstathiou,* 24WOM-03

10:45-11:00: Smart-Irrigation Monitoring System using IoT Technology, *G. Xenofontos, Ch. Koumides, K. Tsiakmakis, A. T. Hatzopoulos and M. S. Papadopoulou,* 24WOM-04

11:00-11:30: Coffee Break and Poster Session (Session Chair: To be confirmed)

P1. Analyzing Trends and Focus Areas in Neuromodulation Research, *M. Michailidou, Ch. Inglezos and E. Rouka,* 24WOM-05 (withdrawn)

P2. Study of Vegetation Health Indicators: GNDVI and Leaf Area Index in Precision Agriculture Applications, *D. Lianos, K. Tsiakmakis, A. T. Hatzopoulos, V. Vassios and M. Papadopoulou,* 24WOM-06

P3. The geometry of smart building blocks and its programming, *J. Nikolaidis,* 24WOM-07

11:30-12:45: Second Oral Session (Session Chair: Eirini Aivazidou, IHU)

11:30-12:00: Micro-Electro-Mechanical Systems for high frequency implementations, *L. Michalas,* 24WOM-08 ([Invited](#))

12:00-12:15: Development of a Data Acquisition and Data Logging Platform, *V. Terzis and N. Tapoglou,* 24WOM-09

12:15:-12:30: Acoustic Power Transfer Through Solid Surfaces, *I. Kochliaridis and M. E. Kiziroglou,* 24WOM-10

12:30-12:45: Emerging Technologies for Effective Humanitarian Crisis Management, *A. Ntabizas, M. Drakaki and P. Tzionas,* 24WOM-11

...Continued overleaf !

12:45-13:00: Best Paper Award by Ioannidis Electronics.

13:15 Third Oral Session (Session Chairs: Th. Kosmanis and D. Tziourtzioumis, IHU)

13:15-13:30: Development of a data acquisition system for underwater environmental measurements, *A. Antoniadou, Th. Kosmanis and D. Tziourtzioumis, 24WOM-12*

13:30-13:45 Design and construction of a data recording system for the powertrain of an electric vehicle, *A. Kyriazopoulou, Th. Kosmanis and D. Tziourtzioumis, 24WOM-13*

13:45-14:00 Design and construction of a data acquisition device for a gasoline internal combustion engine management system, *E. Meimaroglou, D. Tziourtzioumis and Th. Kosmanis, 24WOM-14*

14:00-14:15 Implementation of a single beam echosounder sonar for the generation of bathymetric maps, *K. M. Soulaki, D. Tziourtzioumis and Th. Kosmanis, 24WOM-15*