Seminar series on: MICROWAVE HEATING TECHNOLOGY FOR INDUSTRIAL & FOOD APPLICATIONS
12-14 March 2019

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Abstract: Nowadays there is a lot of interest in **Microwave Heating Technology** that contains many challenges. In this workshop the technology for the daily life convenience by using Microwaves will be presented. The critical Microwave Heating parameters and the infrastructure for current (or future) research and development for a multi-billion dollar-valued industry worldwide will be explained.

The workshop will offer an introductory in Electromagnetics for non-familiar people and will go up to the Microwave Engineering. For several engineers and scientists Electromagnetics is considered to be a relatively difficult subject. Also, there is an impression that Electromagnetics is an area with a lot of mathematics, with only few applications and less engineering job prospects. Our intent is to overcome this myth and provide, in a simple way and clarity, a comprehensive survey, at a level needed to analyze, design and develop products by using microwave heating. We will explain the theory and techniques most widely used for developing the above systems. We will also discuss the ongoing state of the art in a number of application domains in which heating is truly a key to the developments.

The workshop aims to prepare the participants for a possible interest of this kind of work and to give them ideas for a future carrier.

Lecture Title	Venue
Microwave Heating Basics, Materials & Dielectric properties, Microwave Heating Uniformity	**Tuesday 12/3** 14:00-16:00 Room A-14, Research and Technology Building, University Of Nicosia
Microwave Ovens, Measurements of dielectrics, Water properties in Microwaves.	**Wednesday 13/3** 09:00-11:00 Room A-12, Research and Technology Building, University Of Nicosia
Production & properties of Foods, Packaging, Solvent free Microwave extraction, Industrial applications, Heating Market	**Thursday 14/3** 09:00-11:00 Room A-12, Research and Technology Building, University Of Nicosia

Biography:

Prof. John N. Sahalos received a BSc degree in Physics, an MSc degree in Electronic Physics, a BCE & MCE degrees in Civil Engineering and a PhD in Electronic Physics from the Aristotle University of Thessaloniki (AUTH), Greece. Prof. Sahalos is with the Radio-Communications Laboratory at the AUTH and with the Department of Engineering at the University of Nicosia. For eight years, he had been a Professor in the ECE Department, University of Thrace, Greece, and Director at the Microwaves Laboratory. He was a visiting faculty member at the Ohio State University, the University of Colorado and the Technical University of Madrid. He was also in the board of directors of the National Research & Technology Committee of Greece and in the Board of Directors of OTE S.A., the largest Telecommunications Company in Southeast Europe. For more than 10 years, Prof. Sahalos was the president of the Greek committees of URSI. He was member of the committee and internal auditor of EurAAP. He is now a Coordinator of the R&D advisory board at PELLAS Nature, a High Tech Industry. Prof. Sahalos is an IEEE Life Fellow, an Honorary Fellow of the Electronic Physics Society, a Fellow of the Physical Society and a member of the Technical Chamber of Greece. He is the author of 4 books, one in English (Wiley), and of more than 450 articles published in the scientific literature. His research interests include Antennas, Radio-communications, EMC/EMI, RFIDs, Microwaves, and Biomedical Engineering. With his colleagues he designed innovative products like the EIT, the MLS, the ORAMA simulator and the SMS-K monitoring system.