

Electronics Laboratory of Physics Department, University of Patras, invites you to the lecture of Prof. Khaled Nabil Salama, King Abdullah University of Science and Technology (KAUST), Saudi Arabia, with subject:

«Integrated Biosensors»

which will take place on **Thursday, October 22, 2015**, at **13:00**, **Classroom Φ3** of Physics Dept.

Below, you can find a lecture summary and a bio of the lecturer.

Summary: Over the past few years, we have witnessed a significant increase in research on biological systems by engineers for environmental and biomedical diagnostics. Despite efforts to develop chips for biological assay detection, there continues to be a need to improve implementations of micro-scale detection and processing systems for further convenience, scaling and portability. These devices will lead to a significant cost-savings, throughput increases, and enable heretofore infeasible biological assays making “in the field” biological testing a reality. Thus infectious diseases can be detected rapidly and accurately onsite potentially averting the spread of illnesses or tainted foodstuffs. We will present the design and implementation of monolithic and hybrid sensors using integrated circuits, particularly in CMOS.

Bio: Khaled Nabil Salama received the B.S. degree (with honors) from the Department Electronics and Communications, Cairo University, Cairo, Egypt, in 1997, and the M.S. and Ph.D. degrees from the Department of Electrical Engineering, Stanford University, Stanford, CA, USA, in 2000 and 2005, respectively. He was an Assistant Professor at Rensselaer Polytechnic Institute, NY, USA, between 2005 and 2009. He joined King Abdullah University of Science and Technology in January 2009 and was the founding Program Chair. He is a Senior Member of IEEE and serves on several technical committees. His work on CMOS sensors for molecular detection has been funded by the National Institutes of Health (NIH) and the Defense Advanced Research Projects Agency (DARPA), awarded the Stanford Berkeley Innovators Challenge Award in biological sciences and was acquired by Lumina Inc. He is the author of 130 papers and eight patents on low-power mixed-signal circuits for intelligent fully integrated sensors and non-linear electronics specially memristor devices.

<https://scholar.google.com/citations?user=wRUKAMMAAAJ&hl>
<http://sensors.kaust.edu.sa>

On behalf of Electronics Laboratory,
Prof. Costas Psychalinos