

*The Electrical and Computer Engineering Program presents*

# Integrated sensors

Prof. Khalid Salama  
King Abdullah University of Science and Technology (KAUST)

**Monday, 6 February 2012, 11 am - 12.15 pm**

**Lecture Hall 144**

***Light lunch will be served***

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. We will present the design and implementation of monolithic and hybrid sensors using integrated circuits, particularly in CMOS.



Dr. Salama received his bachelor's degree with honors from the Electronics and Communications Department at Cairo University in Egypt in 1997, and his master's and doctorate degrees from the Electrical Engineering Department at Stanford University in the United States, in 2000 and 2005 respectively. He was an assistant professor at RPI between 2005 and 2009. He joined KAUST in January 2009 and was the founding program chair until August 2011. 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 for \$30 million. He is the author of 90 papers and 8 patents on low-power mixed-signal circuits for intelligent fully integrated sensors and non-linear electronics specially memristor devices. He is a senior member of IEEE.

## FOR MORE INFORMATION:

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