

OPEN SEMINAR

Speaker: Prof. David Gracias

Department: Chemical and Biomolecular Engineering, Johns Hopkins University

Title: Hybrid devices at the interface of biology and microelectromechanical systems

Date: 10th, January, 2017

Time: 05:15 PM

Place: L1

Abstract: Bridging the interface between biology and electromechanical systems represents one of the most important future frontiers of science and engineering. In this talk, strategies that bridge this gap including the creation of bionic devices, single cell sensors, biomolecular hydrogel microstructures and miniaturized surgical devices will be discussed. In each case, integration was achieved via a number of techniques including conventional wafer scale photopatterning or 3D printing. In order to highlight utility, applications in electronics, medicine and surgery will be detailed

Brief bio: David Gracias is a Professor and has been Principal Investigator of an interdisciplinary laboratory at the Johns Hopkins University in Baltimore, USA since 2003. He received his undergraduate degree from IIT Kharagpur, his PhD degree from UC Berkeley, did post-doctoral research at Harvard University and was a Senior Engineer in R&D at Intel Corporation before launching his independent laboratory. His research interests are in biosensing, self-folding, interfacial/thin film/smart materials science, miniature robots, and 3D/hybrid fabrication with about 150 technical publications and 28 issued US / international patents in these areas