DEPARTMENT OF MECHANICAL ENGINEERING SEMINAR SERIES

TREATING CARDIAC RHYTHM DISORDER WITH IMPLANTABLE DEVICES

Wednesday, April 18, 2018 | 2:00pm
2164 Martin Hall, DeWALT Seminar Room

Guest Speaker
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ABSTRACT
Cardiac disease remains a major threat to public health. One method to categorize the disease is based on the failing system within the heart. The disease be therefore subdivided into vascular (coronary artery disease), structural (valve disease), heart (pump) failure and arrhythmias (conduction system disease). Cardiac arrhythmias can be treated in one of two ways. First mapping of the arrhythmia and subsequent ablation can cure abnormal conduction pathways within the heart. Second Implantable electronic devices can supplement conduction system failure. These devices can be classified into Pacemakers, Implantable Cardiac Defibrillators (ICD), Cardiac Resynchronization Therapy (CRT) devices and implantable monitors or also called loop recorders (ILRs). Reliability engineering is of the utmost importance in these life sustaining continuously powered implantable devices.

BIO
Dr. Mouchawar has a BS in Computer and Electrical Engineering from Northeastern University and a MS/Ph.D. in Electrical Engineering with Biomedical emphasis from Purdue University. For the past 26 years he was involved in development of various implantable medical devices (Defibrillators, pacemakers, monitors and Neurostimulators). He is a member of the standard working groups on interactions between MRI and active implantable devices. He has > 40 issued or pending patents and 5 publications. He joined Abbott through the acquisition of St. Jude Medical. He has led a variety of projects like Fortify/Ellipse ICDs and Assurity Pacemakers. He is currently responsible for research and development of cardiac rhythm management of implantable products.