FEATURED STORY

STEM group Campers showcasing their projects during the virtual session by Camp Adonai and our own Mark Soffa, the IEEE Philadelphia Section STEM Education Chair.
UPCOMING EVENTS

October 8
Acousto Bioelectronics by Dr. Albert Kim

October 12
The 5th Annual Mulford Classics

October 13
Administrative Committee Meeting

October 19
2021 Philadelphia Section Officer Elections

October 20
Webinar: Intellectual Property Fundamentals for the Engineer

October 27
Estimating Parameters of Chaotic Systems in Pharmacology
SAVE THE DATE!

IEEE PHILADELPHIA CHAPTER OF CSS/CASS/SMCS
PRESENTS

ACOUSTO BIOELECTRONICS
by
DR. ALBERT KIM

DIRECTOR OF ALBERT µBIOELECTRONICS LAB AND ASSISTANT PROFESSOR
ELECTRICAL AND COMPUTER ENGINEERING
TEMPLE UNIVERSITY

Date: Thursday, October 08, 2020; Time: 7:00 pm to 8:00 pm; Location: Online Webinar (link provided to registrants)

Abstract:

Power transfer, size, and form factor are three critical design factors for the next generation of implantable biomedical microdevices. Traditional powering methods such as batteries and inductive power transfer cannot satisfy conflicting requirements of deep penetration, omni-directionality, and small size required for many emerging applications. One promising approach is the use of ultrasound. Ultrasonic waves in the body offer superior energy-conversion efficiency at millimeter-scale dimensions, deeper penetration depth, and omni-directionality as compared to the traditional inductive powering method. This makes ultrasound an attractive candidate for powering deep-seated implantable medical devices. In this talk, I will focus on the acousto-bioelectronics, a branch of electrical engineering that studies the use of ultrasonic waves in the biomedical microelectromechanical system (BioMEMS) and nanotechnology. In particular, I will elaborate on some of our recent works towards developing in situ generations of chemotherapy agents or light for cancer treatments.

Biography:

Albert Kim received a Ph.D. degree in Electrical and Computer Engineering from Purdue University, West Lafayette, IN, USA in 2015. During his Ph.D. training, he also founded a startup company, SmartGait LLC, based on one of his research projects. The company was funded by a Small Business Innovation Research grants from the National Science Foundation. From 2015 to 2017, he was an R&D engineer at the Intel Corp. Since July 2017, he has been with the Department of Electrical and Computer Engineering at Temple University, Philadelphia, USA, where he is currently an Assistant Professor. His research interests include clinical applications of MEMS and microsystems, mobile health, and biomimetic sensors and actuators. He collaborates closely with physicians and biologists in order to transfer the technology to the clinic. He has been contributing over 50 publications in prestigious journals, international conferences, and patents. His research has been funded by the National Science Foundation.

REGISTER ON-LINE at: https://meetings.vtools.ieee.org/m/239550
(Please provide your email for meeting link notification)
The 5th Annual MULFORD Classic

Philadelphia Engineering Foundation’s/Engineers’ Club of Philadelphia’s 21st Annual Scholarship Charity Golf Outing

OUTING DETAILS

DATE: Monday, October 12, 2020

TIME: Registration - 12 Noon
      Shotgun Start - 12:30 PM
      Four (4) Outdoor Food and Beverage
      Stations on the Course

LOCATION: Bala Golf Club
          2200 Belmont Avenue
          Philadelphia, PA 19131

AFFILIATE CHALLENGE
- Putting Contest
- Hole-in-one Contests
- Prizes
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