INTERNATIONAL MICROELECTRONICS AND PACKAGING SOCIETY

San Diego Chapters

Tuesday, April 24th, 2018 at 12:00

Technical presentation and lunch

Sponsored by CST - DASSAULT SYSTEMES

Microscale Universal Sensor System (MUSS)

Presented by

Dr. Visarath In

Abstract: Recent research has demonstrated wearable portability of various devices for assessing individual psychobiological traits supporting Warfighter performance – with obvious benefits in commercial health monitoring applications as well. However, integration remains a difficult challenge for a system capable of sensing multiple disparate signals into an operational form-factor that is simultaneously sufficiently robust and lightweight while maintaining low cost. A patented, revolutionary approach for detecting extremely small electrical signals has emerged called the *Microscale Universal Sensor System* (MUSS). The MUSS is capable of serving as a platform providing unprecedented sensitivity for unobtrusively collecting a multitude of biological signals required for assessing health, cognitive performance and stress resiliency of a subject.

The MUSS system will overcome restrictions of size and energy by implementing sensing functionality via compact microchips that have sufficient precision, scalability and energy efficiency to enable long-term and robust operation from limited energy supplies **by exploiting the dynamical properties of nonlinear circuits in a novel and innovative manner**.

Biography: Founder of INF Microsensors, Inc., Dr. Visarath In is working on the coupled nonlinear systems with special emphasis on the fluxgate magnetic sensors, electric field sensors, coupled nonlinear gyroscopes for navigation, signal generation & multiple frequency generation systems, precision clock system, and Nonlinear Channelizer System for RF communication. Currently authored book titled Symmetry in Complex Network Systems: Connecting Equivariant Bifurcation Theory with Engineering Applications

Logistics:

Tuesday, April 24th at 12:00 PM. Lunch will be provided.
Location: EMD Performance Materials @ 6555 Nancy Ridge Dr, San Diego, CA 92131
RSVP required. Space is limited to 30 registrants due to room size; please sign up quickly.

$20.00 for IMAPS members. $25.00 for non-members. Free for students with an ID. Please advise if you are non-U.S. citizen when you register. To register and pay online (preferred), please click HERE, or to register via email please contact Bill Ishii ----- bill@imaps.org

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