

Seminar by the IEEE Ottawa Section, IEEE Instrumentation & Measurement Society (IMS) Chapter, Engineering in Medicine and Biology Society (EMBS) Chapter, Communications Society, Consumer Electronics Society, and Broadcast Technology Society Joint Chapter (ComSoc/CESoc/BTS), Reliability Society and Power Electronics Society (RS/PELS) Joint Chapter, Power and Energy Society (PES) Chapter, IEEE Ottawa Educational Activities (EA) and Algonquin College IEEE Student Branch

The IEEE Ottawa Section is inviting all interested IEEE members and nonmembers to a seminar

# **Medical Device Test Strategies**

By

## J. Max Cortner, IEEE Instrumentation and Measurement Society President

- DATE: Thursday, September 20, 2018.
- TIME: Refreshments, Registration and Networking: 6:00 p.m.; Seminar: 6:30 p.m. 7:30 p.m.
- **PLACE:** Ciena Optophotonics Lab, Room T129, T-Building, School of Advanced Technology, <u>Algonquin College</u>, 1385 Woodroffe Ave., Ottawa, ON Canada K2G 1V8.
- **PARKING:** Parking in Lots 8 and 9 after 5 p.m. is \$5 flat rate, pay at a machine and display the ticket on your dashboard. More details can be seen <u>here</u>.

### <u>Abstract</u>

Electronic medical devices challenge traditional test strategies in a number of ways. Heightened demand for quality and reliability for these life impacting electronic packages conflicts with constraints to testing including limited physical access and test times. Regulatory agencies define the boundaries of testing, but seldom provide real solutions. Current research is driving great technology which represents the frontier for successful strategies for both design validation testing and production quality control testing. Physiologic sensors make devices more effective, but are difficult to characterize and control. Lessons from battery and accelerometer testing suggest strategies for these advanced devices.

### J. Max Cortner's Bio



J. Max Cortner earned a BSEE from Iowa State University and an MSEE from the University of Minnesota. After 18 years as a Test Engineer in defense division of Sperry Corporation, Max moved to the Cardiac Rhythm Management division of Guidant, now the CRM Division of Boston Scientific. Boston Scientific CRM manufactures medical electronics including pacemakers and defibrillators. Max retired in 2016 as a Senior Fellow Engineer in Test Engineering, a group responsible for automated electronic testing of components, subassemblies and final product in manufacturing. He now consults in the areas of medical device and process validation testing.

As an active member of the IEEE Twin Cities Section since 1972, Max has held offices in the Computer Society including local chapter chair and area chair. He worked with a group

of activists who organized and successfully ran a 5 year series of multi-week technical symposia covering hot topics such as computer graphics and artificial intelligence. Max was among the founders of the Twin Cities Chapter of the Instrument and Measurement Society. He helped organize numerous local test conferences and served as General Chair for the IMTC 1998. In 1999, he served on the committee of the IEEE Sections Congress which was held in the Twin Cities. Max was Co-Chair of I2MTC held in Minneapolis in 2013. Having served as I2MTC Board Chair and VP of Education for the Instrumentation and Measurement Society Administration Committee, he now serves as President of the Society.

### Admission:

Free. Registration required. Please register by e-mail contacting: <u>branislav@ieee.org</u> or <u>almuhtadi@ieee.org</u>