

IEM SEMINAR SERIES

TUESDAY
March 21st, 2017

Develop New ECG Algorithm with the Bio-Computing Modeling and Clinical Databases



Institute for
Engineering in Medicine
UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Dr. Joel Xue
Principal Scientist
GE Healthcare



FREE event, no registration
required.

Pizza and Beverages will be
provided from 11:45 am

12:00PM - 1:00PM
Nils Hasselmo Hall
Room 4-101

For additional information on
Dr. Xue's presentation
please contact:
scot0353@umn.edu

The Institute for Engineering in Medicine (IEM) is pleased to announce a seminar by Dr. Joel Xue, "Develop New ECG Algorithm with the Bio-Computing Modeling and Clinical Databases".

Detecting electrical signals of the human heart from the body surface electrodes can be done by a simple smartphone based device. However, to make the diagnostic information out of the device can involve a series of quite challenge tasks. This presentation will describe some key tasks in this process including signal detection, feature extraction, bio-computing modeling verification and final clinical database validations. The targeted application of this study is to predict possible adverse effect of cardiac safety for new drug development, linking new ECG features to the possible risk on the heart, verifying the correlation with the heart model, and the actually sampled signals of clinical database.

Dr. Joel Q. Xue, currently a principal scientist in GE Healthcare, has been conducting research and development in healthcare industry for more than 20 years. Dr. Xue obtained his PhD in Electrical engineering and Biomedical engineering from University of Wisconsin-Madison in 1991. He has been working on ECG, EEG and image processing, physiological modeling and patient monitoring since then. He has been a key contributor of several GE/Marquette's leading algorithms. He has more than 80 publications and 30 awarded patents in those fields (another 15 patents pending). Dr. Xue leads the Signal Processing Council cross all divisions of GE Healthcare, and he is also an adjunct professor of University of Wisconsin.

For more information on the IEM Seminar Series, visit
www.iem/umn.edu/SeminarsLectures/Seminars_index.html

