**Fourth Annual IEEE / Temple University / NYU-Poly**

**IEEE Signal Processing in Medicine and Biology Symposium (SPMB14)**

**Saturday, December 13, 2014**

**Temple University, Philadelphia, Pennsylvania**

Signal processing plays a vital role in applications ranging from simple measurement equipment to sophisticated devices such as prosthetics. Advances in small low power processors and wireless communications are enabling a new generation of implantable and wearable devices that will allow subjects to be continuously monitored and controlled. The enormous amounts of data that can be acquired from such devices are in turn supporting a new generation of technology based on big data.

IEEE SPMB14 is a regional symposium intended to provide a highly interactive forum where bioengineering and signal processing researchers can collaborate on emerging trends in signal processing. We expect approximately 125 researchers to attend. We specifically encourage graduate students to attend and present their thesis or dissertation research.

The symposium will consist of two plenary talks, two oral sessions and two poster sessions. Exhibits and demonstrations are encouraged as well. The symposium is sponsored by IEEE‑USA, IEEE Region 2, IEEE Region 2 Philadelphia Section, Temple University, the Neural Engineering Data Consortium and NYU Polytechnic School of Engineering.

**Plenary Talks:**

* Victor Krauthamer, Ph.D.  
  Food and Drug Administration  
  “Emerging Directions in Medical Devices and Technology”
* Professor Lyle Ungar  
  University of Pennsylvania  
  “Spectral Methods for Text Analysis and Brain Imaging”

**Symposium Topics:**

* Signal analysis (e.g., EEG, ECG, EMG)
* Medical imaging (e.g., MRI, fMRI)
* Machine learning, data mining and classification
* Big data resources and applications
* Signal processing methods in bioinformatics
* Linear, nonlinear, and adaptive filtering and prediction
* Time-frequency and non-stationary signal analysis
* Brain-computer interfaces
* Biomedical nanosensors and wireless technologies
* Security and reliability in wireless medical technologies
* Biomedical instrumentation and electrical stimulation
* Emerging medical devices, technologies and applications

**Paper/Abstract Submission:**

Presenters may choose to submit either:

1. An original four to six-page paper for peer review. If accepted, it will be submitted to IEEE Xplore and presented at the symposium.
2. A one-page abstract describing recent or ongoing work. If accepted will be presented at the symposium in a poster session.

Papers/abstracts can be submitted via email to [submit@ieeespmb.org](mailto:submit@ieeespmb.org). Papers must be prepared using the standard IEEE conference paper template (see [IEEE Templates](http://www.ieee.org/conferences_events/conferences/publishing/templates.html) for information about the format of your submission).

**Important Dates:**

Submission Sept. 1, 2014

Notification Oct. 15, 2014

Early Registration Nov. 15, 2014

**Organizing Committee:**

General Chairs:

Joseph Picone (Temple)

Ivan Selesnick (NYU-Poly)

Conference Co-Chair:

Charles Rubenstein (Pratt)

Program Chairs:

Iyad Obeid (Temple University)

Mike Mayor (Systems Science)

Gail Rosen (Drexel University)

Publications Chair:

Georgios Lazarou (NYCT-MTA)

Local Arrangements:

Walt Wolansky (Temple University)

**Web**:<http://www.ieeespmb.org/2014>

**Contact:** [help@ieeespmb.org](mailto:biomedsigproc@poly.edu?subject=SPMB13)