

Technical Committee on Healthcare and Medical Systems (TC-HMS)

First semi-annual meeting 2016

ACC 2016 Boston

Preliminaries

- Introductions
- Collect attendance

Activities Dec. 2015-May 2016

- *TC-sponsored activities during the 54rd IEEE CDC 2015 in Osaka*

The TC has co-organized with the TC on Systems Biology an invited Session titled “Biological Oscillators” (TuA17) to celebrate 50 years of Goodwin’s Oscillator. Proposers are Alexander Medvedev, Uppsala University Sweden, and Ming Cao, University of Groningen, the Netherlands. The workshop focused on clocks, rhythms, and cycles that are ubiquitous at all

Activities Dec. 2015-May 2016

- *TC-sponsored activities organized for the ACC 2016 in Boston*

This TC has organized two invited sessions.

Mathematical modeling of diseases and medical intervention effects. (WeB12) Organizers: Caterina Scoglio, Kansas State University, and Alexander Medvedev, Uppsala University Sweden. The proposed invited session is aimed at demonstrating the diversity of mathematical techniques that are applied in modeling of diseases as well as the assessment of intervention therapies and strategies.

Application of control theory in legged locomotion. (ThC10) Organizers: Robert D. Gregg, University of Texas at Dallas, and Koushil Sreenath, Carnegie Mellon University. Co-Endorsed by the TC on Manufacturing Automation & Robotic Control. The goal of this invited session is to bring together leaders in control of legged locomotion, from the controls, dynamics and robotics communities, to foster a single session for exchanging ideas to enable complex experimental systems to exhibit dynamic legged locomotion.

Activities Dec. 2015-May 2016

- *TC-sponsored activities organized for the **ACC 2016** in Boston*

This TC has also organized a special session

Role of controls and systems science in health-related research.

Organizers: Caterina Scoglio, Kansas State University, and Fahmida N. Chowdury, National Science Foundation. This session will consist of one introduction, four presentations, and a panel discussion with audience participation.

Activities Dec. 2015-May 2016

- *TC-sponsored activities organized for the **CDC 2016, Las Vegas***

This TC has submitted one invited session proposal.

Automatic Control of Therapies. Proposers: Alexander Medvedev, Uppsala University Sweden, Pasquale Palumbo, CNR-Italy, Caterina Scoglio, Kansas State University. This invited session on automatic control of medical procedures has attracted papers that deal with theoretical as well as practical challenges of the field.

Activities planned for July 2016 –Dec. 2016

- Special Issue: System identification and control in biomedical systems. Guillaume Mercere.
- Organizing session at ACC 2017
 - Invited
 - Special
 - Topics
 - **Deadline ??**
- More content on our webpage
 - Books
 - Videos
 - Links to important articles

Other Activities

- Video contest
- Wikipedia project
- Develop special issues for journals
- Organize summer school
- Organize workshops

Next meeting CDC 2016 Las Vegas

- Minutes of ACC 2016 meeting will be available on TC webpage soon
- Other activities likely to be reported?