IEEE Control Systems Society Technical Committee on Medical and Health Care Systems Report

Submitted by Daniel E. Rivera, Chair November 30, 2014

The IEEE CSS Technical Committee on Medical and Healthcare Systems (TC-MHCS) is one of the most recent technical committees in CSS, having become effective on Jan. 1, 2013. I am pleased to report on activities for the six-month period of June to November, 2014.

TC membership update:

The TC has approximately 40 members at this time. We continue to make an open call to CSS members to join during our semi-annual meetings at the ACC and IEEE CDC meetings.

Activities during the reporting period / upcoming activities:

1. *TC-sponsored activities during the 2014 ACC in Portland.*

TC members Antonius Armaou and Ryan Zurakowski organized a session on *Modeling, Analysis and Treatment of HIV Infection* (**ThB12**). Meanwhile, two invited sessions organized in conjunction with the TC for Manufacturing Automation and Robotic Control (F. Zhang, chair) were very well attended. These were **FrA12**: *Applications of Control Theory in Medical Rehabilitation: Assistive Devices* and **FrB12**: *Applications of Control Theory in Medical Rehabilitation: Therapeutics*. Session organizers for these invited sessions were R. Gregg, D.E. Rivera, and F. Zhang.

The TC meeting held during the 2014 ACC on Wednesday, June 4th had 14 members in attendance

2. TC-sponsored activities during the 53rd IEEE CDC in Los Angeles.

In conjunction with Diego Regruto (chair of the TC for System Identification and Adaptive Control) and TC member Frank Doyle, the TC has co-organized a preconference workshop entitled, "Recent advances in modeling and control for diabetes treatment." The workshop will bring together leading academics along with industrial speakers to provide some up-to-date information on this important topic.

A meeting of the TC will be held on Monday, December 15, from 1:45 - 2:45 pm in the Platinum A room of the IEEE-CDC conference hotel.

This concludes our second semi-annual report for 2014. Looking to the future, the TC seeks to 1) create greater awareness of its existence and recruit additional members, 2) write an article for the *IEEE Control System Magazine* introducing the TC to the general CSM membership, and 3) pursue high profile activities, such as workshop organization and proposing special issues of IEEE CSS journals.