

December 2017 Activity Report

From: Hiroshi Ito, Technical Committee Chair (hiroshi@ces.kyutech.ac.jp)

Date: December 2017

Details of Meetings

A meeting of the Technical Committee on Nonlinear Systems and Control was held on May 25, 2017 in ACC 2017. Six people attended. Update of TC members and activities during the six months were reported. Possibility of nominating new members, possible cooperation between this committee and IFAC Technical Committee of Non-Linear Control Systems, and the process of nominating CEB members from the TC were discussed. The status of updating the TC Web site was reviewed. TC members were asked to submit updates of their information if necessary, including research keywords. Ideas of posting useful information on the website for TC members as well as non-experts and normal people were exchanged. The members were encouraged to continuously pursue possibilities to organize invited sessions, special issues and workshops in major IEEE conferences, IFAC and other meetings sponsored or cosponsored by IEEE. As a general policy, all participants agreed with the idea of being inclusive instead of exclusive. The most recent meeting was held during the CDC 2017 in Melbourne, Australia, jointly with the International Federation of Automatic Control (IFAC) Technical Committee on Nonlinear Control Systems (IFAC TC 2.3). Among forty-three people who attended the meeting, eighteen were from this committee.

Membership

The TC has 43 members in total at the time of this writing. Three new members joined the TC in this half year period. In the TC meeting at CDC 2017, we are planning to welcome four new members.

Awards and Recognition

- **Zhong-Ping Jiang** was elected Fellow of the Chinese Association of Automation.

Activities

- A member gave a plenary talk about singularly perturbed hyperbolic systems in the AC3E Summer Workshop on Automatic Control.
- A member gave a plenary talk about low gain feedback design at the 2017 International Automatic Control Conference and a plenary speech about saturation nonlinearities and Lyapunov functions at the 13th IEEE International Conference on Control and Automation.
- Another member gave a plenary talk about data-driven adaptive optimal control and nonlinear control based on adaptive dynamic programming at the Int. Workshop on Intelligent Systems and Control and the TCCT Workshop on Nonlinear Systems and Control.

Conference and Workshops

- A member has organized a workshop at the IEEE Decision and Control 2017 about Economic model predictive control.
- A member is acting as a general co-chair of the MTNS 2018.
- Another member is acting as the program chair, 2018 American Control Conference.
- A member served as the program chair of the 2017 Chinese Control and Decision Conference.
- A member co-organized the 12th International Conference on Fixed Point Theory and Its Applications.
- Other TC members served as chairs and members of committees for IEEE CSS and IFAC meetings and other international workshops and conferences.

Invited Sessions

- Several members organized invited sessions in IEEE sponsored or cosponsored meetings such as IEEE Conf. Decision and Control 2017, IFAC World Congress. SICE Annual Conference 2017.
- Several members proposed invited session in 2018 American Control Conference.
- A member organized an open invited track on advances in nonlinear observers at 20th IFAC World Congress.

Journal Special Issues

We have not yet reached any concrete plan of proposing a journal special issue in the near future.

Material Added to TC Webpage

- New TC members are added.
- New events and useful links were added.
- Keywords, e-mail addresses and affiliation information were updated.
- Activity reports are updated.
- Information about the research interests of TC members was also updated.

Wikipedia

We are still looking for volunteers in the TC for checking and editing pages of related topics in Wikipedia.

Other Activities

None