

# Minutes of the 2016 DCC Meeting

*Of the ASME Automotive and Transportation Systems Technical Committee*

October 12<sup>th</sup>, 2016

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|---------------------|---|
| Chair               | Junmin Wang (Ohio State)                  |
| Vice Chair          | Taehyun Shim (Univ. of Michigan-Dearborn) |
| Recording Secretary | Marcello Canova (Ohio State)              |
| Session Organizer   | Mahdi Shahbakhti (Michigan Tech.)         |

The ASME Automotive and Transportation Systems Technical Committee (ASME-ATS TC) held its bi-annual meeting on October 12<sup>th</sup>, 2016 from 6:00 pm to 6:30 pm. The meeting was organized as follows:

## **6:05 Introductions**

## **6:07 The ATC-TC ACC2016 Meeting Minutes was reviewed and approved**

## **6:08 Conference Activities**

The Automotive and Transportation Systems TC organized invited sessions at the 2016 Dynamic Systems and Control Conference. The Organizing committee was led by Dr. Mahdi Shahbakhti (Michigan Tech - Lead), and included Dr. Qadeer Ahmed (Ohio State University), Dr. Ali Borhan (Cummins), Dr. Carrie Hall (Illinois Institute of Technology), Dr. Hamid-Reza Ossareh (Ford Motor Company), Dr. Selina Pan (Stanford University), Dr. Annalisa Scacchioli (Steven Institute of Technology), Dr. Ding Zhao (University of Michigan – Ann Arbor).

- The committee received a total of 23 papers and selected 18 for the proposal submission (finally submitted 3 invited session proposals);
- After the DSCC review process, all 3 invited sessions were held:
  - Modeling and Control of IC Engines (6 papers);
  - Vehicle Dynamics and Traffic Controls (6 papers);
  - Modeling and Control of Automotive Systems (4 papers)
- The acceptance rate for the conference was 89% (16/18 papers accepted)

The Automotive and Transportation Systems TC organized invited sessions at the 2017 American Control Conference. The invited sessions were co-organized with the IEEE CSS Technical Committee in Automotive Control. Led by Dr. Mahdi Shahbakhti (Michigan Tech - Lead), the committee includes Dr. Qadeer Ahmed (Ohio State University), Dr. Mehran Bidarvatan (Karma Automotive), Dr. Ali Borhan (Cummins), Dr. Carrie Hall (Illinois Institute of Technology), Dr. Pinggen Chen (Tennessee Tech. Univ.), Dr. Yan Chen (Arizona State Univ.), Dr. Nima Lotfi (Southern Illinois Univ.), Dr. Simona Onori (Clemson Univ.), Dr. Hamid-Reza Ossareh (Univ. Vermont), Dr. Selina Pan (Stanford University), Dr. Annalisa Scacchioli (Steven Institute of Technology), Dr. Yue-Yun Wang (General Motors), Dr. Cong Wang (New Jersey Inst. Tech), Dr. Baitao Xiao (Ford Motor Company), Dr. Ding Zhao (University of Michigan – Ann Arbor).

- The organizers received a total of 62 submissions and selected 52 of them, for 9 invited sessions:
  - Model predictive control of automotive systems;
  - IC Engine Modeling and Control

- Modeling, Optimization, and Control of Engine Exhaust System
- Electrochemical modeling and diagnostics of Li-ion batteries [joint session with ASME ES-TC and IEEE Smart Grids TC]
- Analysis and Control of Autonomous Vehicles and Technology
- Control of Connected Vehicles
- Vehicle Dynamics and Control
- Advanced Driver Assistance Control Systems
- Obstacle Avoidance and Accident Mitigation Systems for Ground Vehicles
- The papers are currently under review.

### **6:09 ATS-TC Automotive Industry Perspective Special Sessions**

- The ATS-TC committee will continue to organize Industry Perspective Special Sessions, and wants to increase the visibility and impact of such sessions at the following conferences.
- It was decided to create an Industry Liaison Officer position to lead these activities in collaboration with the other Officers.
- Invitation for nominations were made and five candidates selected for voting. Hoseinali (Ali) Borhan (Cummins) was selected for the new Industry Liaison.

### **6:10 ATC-TC Best Paper Award**

- The ATS-TC is currently accepting nominations for the DSCC 2015 and ACC 2016 Best Paper Awards. Requests for nominations will be sent to the ATS-TC mailing list soon.
- The best paper awards will be announced at the ACC 2017 ATS-TC meeting. Guidelines for the selection of the TC best paper award process can be found at: <http://www.asme-dscd.org/dscd-technical-committees/ats>.
- Requests for nominations will be sent out soon.

### **6:14 Officers Succession**

- Five candidates were nominated for the Session Organizer and the Industry Liaison Officer positions, respectively.
- Yan Chen (Arizona State University) is elected as the new Session Organizer.
- Hoseinali (Ali) Borhan (Cummins) is elected as the new Industry Liaison.
- Each position will be for two years.

### **6:17 Open Discussion**

- The discussion focused on organizing Special Sessions on Industry Perspectives. Key points during the discussion:
  - In order to attract industry speakers, the committee is considering the option to waive registration fees for the invited speakers. The budget allocated by DSCD to the ATS-TC

(\$2,000/year) is currently dedicated to support best paper award and refreshments for the TC meetings at ACC and DSCC.

- Another path to attract speakers from the Industry could be pursued by promoting the opportunity to recruit students. The ATS-TC could promote a networking-recruiting session on same day as special industry session.
- The frequency of the special industry sessions has also been discussed (yearly or every other year). The specific location of each DSCC conference could also affect participation from the Industry.
- Finally, it was suggested to create presentation-only sessions for the Industry, since obtaining approval for paper submission is difficult and could discourage industry participation.

**6:30 Adjourn**

*We continue to encourage anyone interested in Automotive and Transportation Systems to join us, and thank all who attended for a very productive meeting.*