IEEE CSS Technical Committee on Automotive Control Meeting 2016 ACC

July 7, 2016 Boston, MA

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Outline

- Summary of previous activities
 - Invited session
 - CSM
- TC website
- Upcoming activities
 - CSS Conference
 - IoT
 - Workshop

Invited Sessions

CSS TC AC and ASME ATS – Invited Sessions @ACC16

- 1. Energy Storage and Hybrid Electric Vheicle Controls
- 2. Advanced Ground Vehicle Estimation and Control Algorithms
- 3. Analysis and Control of Autonomous Vehicles Systems
- 4. IC Engine and Aftertreatment Systems Control
- 5. Advanced Turbocharged Air Path Modeling and Controls

Shahbakhti, Mahdi (Michigan Tech. Univ) Xiao, Baitao (Ford Motor Company, Wang, Yue-Yun (General Motors Company) Borhan, Hoseinali (Ali) Cummins Inc; Organizer: Hall, Carrie (Illinois Inst. of Tech); Ahmed, Qadeer (The Ohio State Univ); Naghshtabrizi, Payam (Eaton Corp. Innovation Center); Pan, Selina (Stanford Univ), Scacchioli, Annalisa (Stevens Inst. of Tech); Simona Onori (Clemson)

51 papers submitted

Invited Sessions

Invited Sessions @CDC16

- 1. Advanced Vehicle Controls Technology
- 2. Modeling and Control of Automotive Propulsion Systems

Ali Borhan (Cummins), Yue-Yun Wang (GM)

TC activity

 Column on TC activities was on the August issue 2015 of Technical Committee on Automatic Controls [Technical Activities] Publication Year: 2015, Page(s):18 – 64
 Control System Magazine

"Current research needs being faced by the TC on AC"

TC activity

CSS website re-organized

Update the TC webpage: http://automotive-controls.ieeecss.org/

NAVIGATION	HOME		
HOME			
TC MEMBERS	Message from the TC Chair		
DOCUMENTS	The scope of interests of the IEEE CSS Technical Committee (TC) on Automotive Control (AC) covers		
EVENTS	modeling, simulation, identification, estimation, control, optimization, and diagnostics of present and future automotive systems. Jessy Grizzle and Luigi Glielmo established the TC in 1999, and past chairs include Rajesh Rajamani (2003-2005), Ilya Kolmanovsky (2006-2008), Francesco Borrelli (2009-2011), and Stefano Di Cairano (2012-2014). There are currently more than 150 members of the technical committee.		
	With significant participation from both academia and industry, the committee coordinates activities towards improving the understanding of challenges, problems, and effective methods of controlling automotive systems. The TC has been very active in jointly organizing invited sessions at the American Control Conference with the ASME Automotive Transportation System TC, and invited sessions with the IFAC TC on Automotive Control at the European Control Conference.		

DOCUMENTS

TC Meeting Slides

June 2015: TC meeting at the 2015 American Control Conference in Chicago, IL. 2015 next upcoming activities. **See full meeting notes.**

June 2014: TC meeting at the American Control Conference in Portlan, OR. Q1-Q2 2014 Activities, 2014 Plan. **See full meeting notes.**

Upcoming activities: Main 2017 CSS Conference

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Conference Name and Organizers	Location	Dates
2017 Conference on Decision and Control General Chair(s): Richard H. Middleton, Dragan Nesic, Program Chair(s): Mario Sznaier	Melbourne, Australia	Dec 12 - Dec 15, 2017
2017 Conference on Control Technology and Applications General Chair(s): Stephen Yurkovich Program Chair(s): Mark W. Spong, Mario A. Rotea	Kohala Coast, United States	Aug 27 - Aug 30, 2017
2017 American Control Conference General Chair(s): Jing Sun Program Chair(s): Rajesh Rajamani	Seattle, United States	May 24 - May 26, 2017

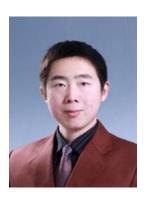
TC activity: Invited Sessions

2017 ACC – Seattle, WA (May 26-28)

- 1. Sessions will be organized with the ATS-TC ASME
 - CFP for invited sessions will be sent out on August 10th, 2016
 - Extended abstracts due September 10th to be considered for invited sessions (submission deadline Sept. 19th)

-Looking for volunteers..

2. AC TC and **IoT TC** will jointly propose invited session (connected vehicle, V2X,...)



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TC activity: Invited Sessions

2017 1st IEEE Conference on Control Technology and Applications

Kohala Coast, Hawaii, Aug 27 - Aug 30, 2017

- Invited Session Proposals Due March 1, 2017
- Contributed and Invited Papers Due March 1, 2017
- CFP for invited sessions will be sent out on early January 2017

2018 Control and Decision Conference

Melbourne, Australia Dec. 12-15 2017

- Invited Session Proposals Due March 1, 2017
- Contributed and Invited Papers Due March 1, 2017
- CFP for invited sessions will be sent out on early January 2017

2016 Workshop on Open Problems and Challenges in Automotive Control

2016 Workshop on Open
Problems and Challenges in
Automotive Control
One-day Workshop
8am-17:30pm
December 11th, 2016

Stay tuned..more to come