CSS Technical Committee on
Discrete Event Systems

Meeting @ ACC Philadelphia
2019.07.12
Welcome to the Technical Committee on Discrete Event Systems (DESTC), a part of the IEEE Control Systems Society Technical Activities Board. The DESTC was established on June 1, 1999, and subsumes the activities of the Working Group on Discrete Event Systems.

Chair:
- Kai Cai  Osaka City University  kai.cai@eng.osaka-cu.ac.jp

Co-Chairs:
- Eric Rutten  INRIA Grenoble - Rhone-Alpes  Eric.Rutten@inria.fr
- Xiang Yin  Shanghai Jiao Tong University  yinxiang@sjtu.edu.cn
- Anne-Kathrin Schmuck  Max Planck Institute  akschmuck@mpi-sws.org
How to submit an item to newsletter

1. Use the following website:
https://www.control.eng.osaka-cu.ac.jp/miscellaneous/css-tc-des/submission

- Topic
  Select a topic within newsletter

- Your Name

- Your Email Address

- Message
  Please edit your message here
How to submit an item to newsletter

2. Send an email to our group mailinglist:
   csstcdes-list@nd.edu

3. Send an email to Kai Cai:
   kai.cai@eng.osaka-cu.ac.jp
DES

Theory

- Cyber-Physical Systems
- Hybrid Systems
- Computer Science
- Data & Learning

Application

- Cyber-security
- Smart Cities
- IoT
- Industry 4.0

DES (Distributed Embedded Systems)
Topics to promote

• Anne-Kathrin Schmuck:
  Connections with formal methods, reactive synthesis

• Xiang Yin:
  Cyber-physical systems, cybersecurity

• Eric Rutten
  Computing/software systems, applications of DES

• Kai Cai:
  Collaborations with Hybrid Systems TC and Smart Cities TC
This year 2019

• **ACC**: one regular session
  - Regular session: Discrete Event Systems
  - Related invited session: Security and Privacy of Cyber-Physical Systems (Justin Ruths*, Henrik Sandberg, David Umsonst)

• **CCTA**: one invited session + a few papers
  - 2 papers in regular session: Manufacturing Systems and Processes
  - Related invited session: Regulating Traffic in Smart Cities (Fumin Zhang*, Rong Su, Samuel Jia)
  - Related workshop: Smart Cities: Connectivity, Mobility, and Trust (Samuel Jia*, Rong Su, Fumin Zhang)
This year 2019

• **CASE**: one special session
  - Special session: Supervision and Estimation of Automated Systems using Discrete-Event Systems (Xiang Yin*, Yin Tong, Ziyue Ma, Zhou He)

• **CDC**: 2~3 invited sessions + 1~2 regular sessions
  - Invited session: Resilient Discrete-Event Systems (Rong Su*): 12 submissions
This year 2019

• **J-DEDS**: journal special issues
  - Smart Manufacturing (Rong Su* and Bengt Lennartson): under review
  - Theory-2020: under review
  - Applications-2020: under review
  - Smart Cities (Samuel Jia*, Mariagrazia Dotoli, Qianchuan Zhao): call for papers, submission deadline Oct. 2019
Next year 2020 (plans)

• Major conferences
  ➢ ACC: invited sessions on Cyber-Security
  ➢ CCTA: invited sessions on DES Applications
  ➢ CDC: invited sessions on Cyber-Security and Cyber-Physical Systems
  ➢ WODES: special sessions on Security of DES
  ➢ IFAC WC: invited sessions on Cyber-Physical Systems and DES Applications/Tools
Next year 2020 (plans)

• Journal special issue
  ➢ J-DEDS: Security of DES

• Schools
  ➢ DES school before WODES
  ➢ Dagstuhl Seminar (topic on the connections of Supervisory Control Theory, Reactive Synthesis, and Formal Methods)
Discussions

• Special issue for IEEE Control Systems Magazine?
  ➢ Topics preferred: emerging topics within TC or across TCs
  ➢ Benefit: visibility in the whole IEEE CSS

• TC mainly offers monthly newsletters and meetings at ACCs/CDCs. What other things you would like TC to offer?

• TC has ~$2K annual budget to sponsor events. You are welcome to write an event proposal (1-2 pages) describing the event and how to spend the money and providing brief rationale on why this event will benefit TC as well as CSS.
Thank you for attending this meeting.

Participants:
Yin Tong
Lan Yang
Raphael Frik
Romelo Meira Goes
Joao Carlos Basilio
Anuradha Annaswamy
Bo Wu
Zhe Xu
Ali Karimoddini
Alessandro Giua