

# **CSS Technical Committee on Discrete Event Systems**

Meeting @ ACC Philadelphia  
2019.07.12

# CSS website

<http://discrete-event-systems.ieeecss.org>

## Technical Committee On Discrete Event Systems

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### HOME

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](mailto:kai.cai@eng.osaka-cu.ac.jp)

#### Co-Chairs:

• [Eric Rutten](#)      INRIA Grenoble - Rhone-Alpes      [Eric.Rutten@inria.fr](mailto:Eric.Rutten@inria.fr)  
• [Xiang Yin](#)      Shanghai Jiao Tong University      [yinxiang@sjtu.edu.cn](mailto:yinxiang@sjtu.edu.cn)  
• [Anne-Kathrin Schmuck](#)      Max Planck Institute      [akschmuck@mpi-sws.org](mailto: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:

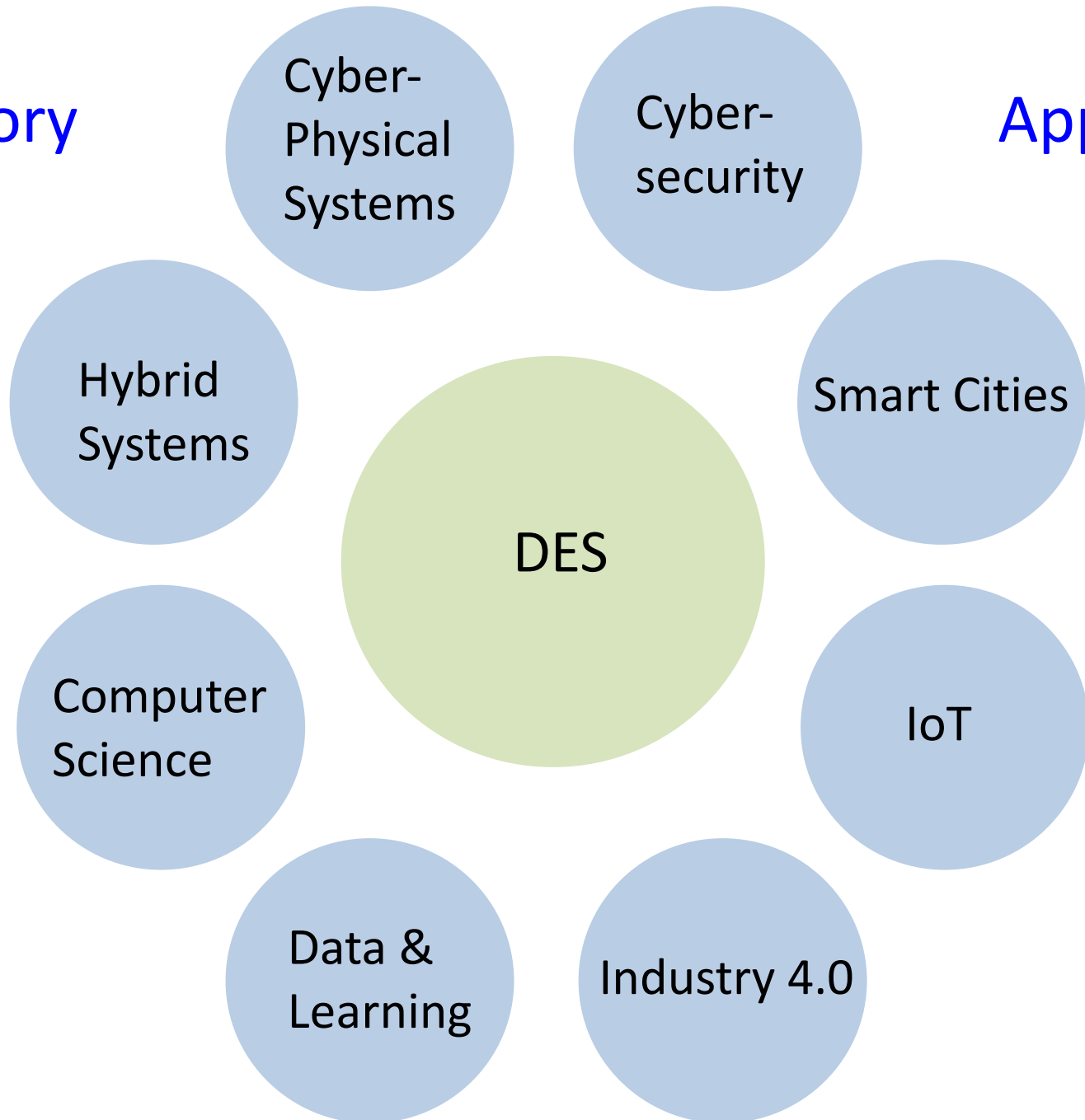
[csstcdes-list@nd.edu](mailto:csstcdes-list@nd.edu)

3. Send an email to Kai Cai:

[kai.cai@eng.osaka-cu.ac.jp](mailto:kai.cai@eng.osaka-cu.ac.jp)

Theory

Application



# 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
  - Invited session: Control for Computing Systems (Eric Rutten\*, Arzen Karl-Erik)
  - 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: Cyber-Security of Discrete-Event Systems (Xiang Yin\*, Kai Cai, Rong Su, Yin Tong): 7 submissions
  - 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 Karimodini

Alessandro Giua