**2017 TCCT Workshop on Cooperative Control and Multi-Agent Systems ­**

**Organized by**

**Technical committee on Control Theory, Chinese Association of Automation**

**School of Automation, Beijing Institute of Technology**

**State Key Laboratory of Intelligent Control and Decision of Complex Systems**

**Beijing Advanced Innovation Center for Intelligent Robots and Systems**

**Sponsored by**

**National Natural Science Foundation of China**

**IEEE SMC Beijing Chapter**

**Beijing Institute of Technology**

**Chair:** Jie Chen

**Date:** July 21-24, 2017

**Location:** Beijing Friendship Hotel（北京友谊宾馆瑞宾楼二层会议室）

Supported by Foundation for Innovative Research Groups of the National Natural Science Foundation of China (61621063), and Projects of Major International (Regional) Joint Research Program of the National Natural Science Foundation of China, the 2017 TCCT Workshop on cooperative control and multi-agent systems will be held on July 21-24 2017, Beijing, China. The workshop will provide a forum for exchanging ideas, discussing frontiers and emerging advances related to distributed cooperative control and multi-agent systems. The goal of this workshop is to bring together leading researchers and students who are working on or are interested in exploring novel approaches and innovative applications of multi-agent systems, facilitating personal interactions and discussions on various aspects of multi-agent systems. Flocking, formation, swarming, consensus, connectivity preservation, optimization method of multi-agent systems are all within the scope of the workshop.

The workshop will invite several academicians as plenary speakers and has invited 11 world-class experts as speakers. Jie Huang（Chinese University of Hong Kong ), Zongli Lin (University of Virginia), Zhongping Jiang (New York University), Gang Feng (City University of Hong Kong), Lihua Xie (Nanyang Technological University)，Benmei Chen (National University of Singapore), Wei Ren  (University of California, Riverside), Lu Liu (City University of Hong Kong), Daizhan Cheng (Institute of Systems Science, AMSS), Jifeng Zhang  (Institute of Systems Science, AMSS), Yiguang Hong (Institute of Systems Science, AMSS), will present their latest research results to the audience.

The workshop has been held for four years and attracts more and more researchers’ attention. The workshop is **free of charge** and open for everyone interested. You and your colleagues are all warmly welcomed. **Free lunch** is provided for all registral participants. We are looking forward to your attendance and will appreciate it if you could circulate this message to your members.

**GENDA**

**Registration**

Time: 15:00-18:00 July 21

08:00-11:00 July 22

Location: Beijing Friendship Hotel（北京友谊宾馆瑞宾楼二层会议室）

**Day 1: Saturday July 22**

8:30-9:00 Opening Ceremony

Plenary Talk 1

9:00-9:50 TBD

Plenary Talk 2

9:50-10:40 TBD

10:40-11:00 Tea break & Photo

Plenary Talk 3

11:00-11:50 TBD

11:50-13:30 Lunch

13:30-18:15 Session 1 Chair: Yiguang Hong Co-Chair: Ben M Chen

13:30-14:15 Ben M. Chen (National University of Singapore, Singapore, IEEE Fellow)

Operation of Drones for Search and Rescue in Indoor Chemical Disaster

14:15-15:00 Lihua Xie (Nanyang Technological University, Singapore, IEEE Fellow, IFAC Fellow)

Existence, convergence and efficiency analysis of Nash equilibrium and Its Application to Traffic Networks

15:00-15:45 Daizhan Cheng (Chinese Academy of Sciences, China, IEEE Fellow, IFAC Fellow)

Game Theoretic Control on Networked Systems

15:45-16:00 Tea break

16:00-16:45 Yiguang Hong (Chinese Academy of Sciences, China, IEEE Fellow)

Distributed optimization and game of continuous-time multi-agent systems

17:45-17:30 Zhong-Ping Jiang (New York University, USA, IEEE Fellow, IFAC Fellow)

Robust Adaptive Dynamic Programming: A New Tool for Data-Driven Adaptive Optimal Control

17:30-18:15 Ji-Feng Zhang (Chinese Academy of Sciences, China, IEEE Fellow, IFAC Fellow)

TBD

**Day 2: Sunday July 23**

8:00-12:30 Session 2 Chair: Wei Ren Co-Chair: Lu Liu

8:00-8:45 Jie Huang (The Chinese University of Hong Kong, China, IEEE Fellow, IFAC Fellow)

Distributed Control of Multiple Uncertain Euler-Lagrange Systems subject to Switching Network Topologies

8:45-9:30 Lu Liu (City University of Hong Kong, Hong Kong, China)

Cooperative Output Regulation of Heterogeneous Nonlinear Multi-Agent Systems with Uncertainties

9:30-10:15 Gang Feng (City University of Hong Kong, Hong Kong, China, IEEE Fellow)

Consensus of Single Integrator Multi-Agent Systems With Unbounded Transmission Delays

10:15-10:30 Tea break

10:30-11:15 Zongli Lin (University of Virginia, USA, IEEE Fellow, IFAC Fellow)

Connectivity Building Coordinated Tracking Control of Multi-agent Systems with a State-dependent Jointly-connected Dynamic Interaction Topology

11:15-12:00 Wei Ren (University of California at Riverside, USA, IEEE Fellow)

Distributed Continuous-Time Convex Optimization with Time-Varying Cost Functions

12:00-12:15 Closing and evaluation

**Local Contact**

Hao Fang (+86 13126693283 fangh@bit.edu.cn [)](mailto:fangh@bit.edu.cn)%20)

Zhihong Peng (+86 13910437979 [peng@bit.edu.cn)](mailto:peng@bit.edu.cn)%20)

Jian Sun (+86 13581767825 [sunjian@bit.edu.cn](mailto:sunjian@bit.edu.cn))

Bin Xin (+86 13691577572 [brucebin@bit.edu.cn](mailto:brucebin@bit.edu.cn))

Jia Zhang (+86 13641293589 zhangjia@bit.edu.cn)

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| **会议回执** | | | | | | | | |
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(Send an e-mail to: zlm9559@163.com )