

The 25th Chinese Control and Decision Conference

GENERAL INFORMATION

The 25th Chinese Control and Decision Conference (2013 CCDC) was successfully held in Guiyang, China during May 25-27. 2013 CCDC was co-organized by Northeastern University, China, the Industrial Electronics (IE) Chapter of the IEEE Singapore Section and IEEE Harbin Section Control Systems Society Chapter. The local organizer was Guizhou University, China. The conference was technically co-sponsored by IEEE Control Systems Society (CSS); Systems Engineering Society of China (SESC), Chinese Association for Artificial Intelligence (CAAI); and Technical Committee on Control Theory of Chinese Association of Automation.

TECHNICAL PROGRAM

The 2013 CCDC received 1513 full paper submissions from authors from 26 countries and regions. After going through a rigorous reviewing process during which all the members in the Technical Program Committee worked professionally, timely, responsibly and diligently, 998 papers were included in the technical program for presentation in 99 oral sessions and 9 interactive sessions in the conference. 650 delegates attended the conference.

In addition to the normal technical sessions, the technical program also included 5 keynote addresses and 7 distinguished lectures covering the state-of-the-art in both theory and applications in control, decision, automation, robotics and emerging technologies. The 5 keynotes were as follows:

1. *“Perception-Enabled Control---A new paradigm for biomimetics and machine autonomy”* by John Baillieul, Boston University, USA.
2. *“Recursive Approach to System Identification”* by Han-Fu Chen, Chinese Academy of Sciences (CAS), China.
3. *“Science, Technology and Industry, Quo Vadis?”* by Okyay Kaynak, Bogazici University, Turkey.
4. *“Signal Processing via Sampled-data Control - Beyond Shannon”* by Yutaka Yamamoto, Kyoto University, Japan.
5. *“Hardware-in-loop Simulation”* by Zicai Wang, Harbin Institute of Technology, China.

Distinguished lectures were delivered by Xiaohua Xia of University of Pretoria, South

Africa on “*Applications of Model Predictive Control in Operation Efficiency Optimisation*”, Ji-Feng Zhang of Chinese Academy of Sciences (CAS), China on “*How Much Information Is Needed for A Given Control Task*”, Jagannathan Sarangapani of Missouri University of Science And Technology, USA on “*Optimal Adaptive Control of Uncertain Nonlinear Dynamic Systems*”, Jun Wang of The Chinese University of Hong Kong, China on “*Neurodynamic Optimization Approaches to Robust Pole Assignment*”, Jie Chen of City University of Hong Kong, China on “*When is a time-delay system stable and stabilizable?*”, Guoxiang Gu of Jiangnan University, China on “*New Perspectives of Consensus Control for Multiagent Systems*”, Jiafu Tang of Northeastern University, China on “*Weight Vehicle Routing Problems and Beam Search Combined Max-Min Ant System*”.

All sessions, including keynote address sessions, distinguished lectures sessions, oral sessions and interactive sessions, were well attended and produced active discussions. The conference banquet, which included entertainment, was held in the evening of May 26, 2013.

A CD-ROM, containing all the papers presented at the conference, was provided to each registered delegate. The official conference proceedings has been published by IEEE and included in the IEEE Xplore Database.

ZHANG SI-YING (CCDC) OUTSTANDING YOUTH AWARD

The Zhang Si-Ying (CCDC) Outstanding Youth Paper Award serves to recognize Academician Zhang Si-Ying’s highly-regarded perseverance, character and academic contribution. It also serves to inspire, motivate and encourage young scholars in their research. For a paper to be eligible for the award, the first author of the paper must not be older than 35 on the day of award presentation at the conference. The award is 3000 RMB with a certificate.

The Award Committee for the 2013 CCDC was composed of five members: Zhong-Ping Jiang of USA, John Baillieul of USA, Changyun Wen of Singapore, Xin He Xu of China and Guang-Hong Yang of China.

For the 2013 CCDC, 133 papers were selected for consideration for the “Zhang Si-Ying Outstanding Youth Paper Award” based on reviewers’ comments, nominations, and the evaluations of the Technical Program Committee members. These papers were sent to famous experts including some members of the International Advisory Committee for further evaluation. Based on their evaluations and recommendation, the Technical Program Committee shortlisted the following five papers as the finalists for the Award:

1. “*Exponential Stability of a Coupled Heat-ODE System*” by Dong-Xia Zhao and Jun-Min Wang of Beijing Institute of Tech.;
2. “*Global Exponential Stability of Nonlinear Impulsive Discrete System with Time Delay*” by Kexue Zhang and Xinzhi Liu of University of Waterloo;
3. “*Non-linear oscillations in TCP networks with Drop-Tail buffers*” by Nizar Malangadan, Haseen Rahman and Gaurav Raina of Indian Institute of Tech.;
4. “*Globally Adaptive Path Tracking Control of Underactuated Ships*” by Wei Wang and Jiangshuai Huang of Tsinghua University;
5. “*Finite Time Containment Control of Nonlinear Multi-agent Networks*” by Di Yu, Lijuan Bai and Weijian Ren of Northeast Petroleum University.

During the conference, all the Award Committee members attended the oral presentations of the 5 finalist papers. Each member independently assessed their originality, technical quality and written and oral presentations. On the basis of these assessments, the 2013 CCDC Zhang Si-Ying Outstanding Youth Paper Award was awarded to Wei Wang from Tsinghua University.

The International Advisory Committee Chair of 2013 CCDC, Si-Ying Zhang presented Certificate of Finalist to all the finalists and also presented the award with a certificate to the winner during the banquet.

The 26th CHINESE CONTROL AND DECISION CONFERENCE

The 26th Chinese Control and Decision Conference (2014 CCDC) will be held will be held in Changsha, China during 31 May to 2 June 2014. Keynote addresses on the state-of-the-art of the theories and applications in control and decision will be delivered by Alessandro Astolfi of Imperial College, UK, Daizhan Cheng of Chinese Academy of Sciences (CAS), Jay A. Farrell of University of California, Riverside, USA. The Organizing Committee will invite prominent professors/academicians as distinguished lectures for the 2014 CCDC. Information for the 2014 CCDC will consistently be updated on the conference website: <http://www.ccdc.neu.edu.cn>.

International Technical Program Chairs

Changyun Wen,
Zhong-Ping Jiang

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Caption: Opening ceremony of 2013 CCDC



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Caption: Prof John Baillieul delivering his keynote address



Figure 3: ccdc13_ Keynote Address Session _Prof Han-Fu Chen
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Caption: Prof Yutaka Yamamoto delivering his keynote address



Figures 6: ccdc13_Award
Caption: 2013 CCDC Award Committee Members and Finalists of ZHANG SI-YING Outstanding Youth Award



Figures 7: ccdc13_Banquet

Caption: Banquet of 2013 CCDC