



CGNCC 2014

2014 CHINESE GUIDANCE, NAVIGATION AND CONTROL CONFERENCE

August 8-10, Yantai, China

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The Chinese Guidance, Navigation and Control Conference (CGNCC) is a biennial event, which is also one of the leading events in Guidance, Navigation and Control (GNC). It provides a forum for scientists and engineers over the world to present their new theoretical results and techniques in the fields of GNC. The conference consists of pre-conference tutorials, plenary talks, panel discussions, invited sessions, oral sessions and poster sessions etc. for academic exchanges. The conference proceedings will be included in the IEEE Conference Publications Program [Pending for final approve], and selected best papers will be recommended to SCI or SCI-Expanded journals.

CGNCC2014 will be held in **Yantai**, a beautiful seaside city in the eastern part of Shandong province on **August 8-10, 2014**, following the successes of previous five events. It is sponsored by **Technical Committee on Guidance, Navigation and Control (TCGNC)**, **Chinese Society of Aeronautics and Astronautics (CSAA)**, and **Science and Technology on Aircraft Control Laboratory**. It is technical co-sponsored by **IEEE Control Systems Chapter, Singapore**, **IEEE Control Systems Chapter, Nanjing, China**, and **Technical Committee on Control Theory (TCCT)**, **Chinese Association of Automation (CAA)**. CGNCC2014 is locally organized by **Naval Aeronautical and Astronautical University, Beihang University (BUAA)**, and **AVIC Xi'an Flight Automatic Control Research Institute**.

Topics of interests are in the broad areas of GNC, including but not limited to:

A Survey and Discussion

A1 Development Trends of Navigation, Guidance and Control
 A2 Informatization of Moving Objects Applied in Aviation, Aerospace, Marine and Land

B Control Theory and Analysis

B1 Robust/Nonlinear/Optimal/Multi-Variables/Adaptive Control
 B2 Estimation/Filtering and System Identification
 B3 Fault Diagnosis and Fault Tolerant Control
 B4 New Analysis and Multidisciplinary Optimization Technique

C Intelligent Computing, Communication and Control

C1 Nature-Inspired Computing
 C2 Artificial Intelligence and Machine Learning
 C3 Distributed and Parallel Computing
 C4 Pattern Recognition
 C5 Hybrid System Modeling and Control

D New Methods of Navigation, Estimation and Tracking

D1 Optimization and Estimation Theory
 D2 Nonlinear Filtering and Smoothing
 D3 Visual Navigation
 D4 Integrated Navigation
 D5 Integrated Detection and Tracking

E Navigation, Guidance and Control of Aircraft

E1 Stabilization and Autopilot
 E2 Large Angle-of-Attack and Wide Envelop Fight Control
 E3 Flight Quality and Man-Machine Environment
 E4 Situation Awareness and Decision Support
 E5 Structure Control and Flutter Suppression Control

F Navigation, Guidance and Control of Spacecraft

F1 Attitude and Orbit Determination and Control
 F2 Power Control
 F3 Task Load Control
 F4 Remote Measurement and Control

G Navigation, Guidance and Control of Other Moving Objects

G1 Missile
 G2 Aerospace Vehicle and Aerostat

G3 Navigation Devices

G4 Moving Objects on Land

H Control of Multiple Moving Objects

H1 Coordination Control of Multiple Moving Objects
 H2 Multi-Agent Coordination Perception and Decision
 H3 Coordination Task Allocation and Trajectory Optimization
 H4 Formation and Reconfiguration
 H5 Assembly/Cluster Behavior and Control
 H6 New Technology for GN&C concept in Air Traffic Management

I Man and Autonomous Unmanned Systems

I1 UAV control
 I2 Human-Computer Interaction
 I3 Intelligent Control
 I4 Tasks and Trajectory Planning
 I5 Real-Time Re-Planning Task
 I6 Flight Safety
 I7 Collaborative Distributed Decision Making
 I8 Interconnection

J Guidance, Navigation and Control of Miniature Aircraft

J1 Low Reynolds Number Flight Mechanics and Flight Control
 J2 New Sensors and Data Fusion
 J3 Navigation in Complex Environment and Flight Trajectory Optimization
 J4 Energy Conversion and Management

K Sensor Systems for Guidance, Navigation and Control

K1 Advanced Monitoring and Control
 K2 Multi-Sensor Information Fusion
 K3 Smart Sensors
 K4 Data Chaining

L Advanced Design / Simulation Software

L1 Simulation Modeling and Simulation Algorithm
 L2 Artificial Life and Intelligent Simulation
 L3 Analysis and Design Tools
 L4 Virtual Reality and Virtual Prototyping
 L5 System Safety, Reliability, Maintainability and Supportability
 L6 System Airworthiness Design
 L7 Specification and Standards

Conference Language: English / Chinese

Important Dates:

Paper submission deadline April 20, 2014
Special session proposals deadline March 20, 2014
Paper acceptance notification date May 20, 2014
Final paper submission deadline June 15, 2014
Registration June 15, 2014

Secretariat of Program Committee

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