

# IEEE/CSAA GNCC2018

2018 IEEE/CSAA GUIDANCE, NAVIGATION AND CONTROL CONFERENCE

August 10–12, 2018, Xiamen, China

<http://gncc.buaa.edu.cn>



## Call for Papers

IEEE/CSAA Guidance, Navigation and Control Conference (IEEE/CSAA GNCC) 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, chief designer forum, panel discussions, invited sessions, oral sessions and poster sessions for academic exchanges. The conference papers in English will be included in the IEEE CPP (Conference Publications Program) and selected best papers will be recommended to SCI or SCI-Expanded journals.

IEEE/CSAA GNCC2018 will be held in Xiamen in August 10-12, 2018, following the successes of previous seven events. It is sponsored by Technical Committee on Guidance, Navigation and Control (TCGNC), Chinese Society of Aeronautics and Astronautics (CSAA), Science and Technology on Aircraft Control Laboratory and IEEE Control System Society (CSS) Chapter, Nanjing, China. It is co-sponsored by Technical Committee on Control Theory (TCCT), Chinese Association of Automation (CAA). IEEE/CSAA GNCC2018 is locally organized by Xiamen University. We sincerely welcome our colleagues worldwide to join us for this conference.

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 Movement 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 Flight 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 Assembly/Cluster Behavior and Control
- H5 Formation and Reconfiguration
- 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 Dynamics 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 Controls
- 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 Reliability, Maintainability, Safety and Supportability
- L6 System Airworthiness Design
- L7 Specification and Standards

Conference Language: English / Chinese

Important dates

- Special session proposals deadline: **March 18, 2018**
- Paper submission deadline: **March 18, 2018**
- Paper acceptance notification date: **April 15, 2018**
- Final paper submission deadline: **May 13, 2018**
- Early registration: **May 13, 2018**

### Secretariat of the Program Committee

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