

ICCAS 2012

2012 12th International Conference on Control, Automation and Systems

October 17(Wed.)-21(Sun.), 2012; ICC, Jeju Island, Korea

<http://2012.iccas.org>



ICCAS 2012 will be held on October 17-21, 2012 at International Convention Center (www.iccjeju.co.kr), Jeju Island, Korea. Jeju Island is a beautiful place with a mild oceanic climate. Jeju Island was designated as one of the New 7 Wonders of Nature in the world. The aim of ICCAS 2012 is to bring together professors, researchers, engineers and students worldwide to present their recent works and discuss the state-of-the-art technologies related to control, automation, robotics and systems. **Topics** of the conference include but are not limited to

General Chair

Nam-Suk Hur (President of ICROS, Korea)

Organizing Chair

Chul-Goo Kang (Konkuk Univ., Korea)

Advisory Council

Wook Hyun Kwon (SNU/DGIST, Korea)
Hyung Suck Cho (KAIST/DGIST, Korea)
Sangchul Won (POSTECH, Korea)
Toshiaki Shirai (SICE, Japan)
Christos G. Cassandras (IEEE CSS, USA)
David Orin (IEEE RAS, USA)
Gerard-Andre Capolino (IEEE IES, France)
Ju-Jang Lee (IEEE IES, Korea)
Yugeng Xi (ACA, China)
Deyi Li (CAAI, China)

Program Chair

Euntai Kim (Yonsei Univ., Korea)

Regional Program Co-Chairs

Hajime Asama (The Univ. of Tokyo, Japan)
Ji-Feng Zhang (CAS, China)
William Singhose (Georgia Tech, USA)
Detlef Zuehlke (DFKI, Germany)
Kai-Tai Song (NCTU, Taiwan)
Taworn Benjanarasuth (KMITL, Thailand)

International Relation Co-Chairs

Kang-Hyun Jo (Univ. of Ulsan, Korea)
Jay H. Lee (KAIST, Korea)

Organized Session Co-Chairs

Dong Hwan Kim (Seoul Tech, Korea)
Kyung-Soo Kim (KAIST, Korea)

Finance Co-Chairs

Kang-Bak Park (Korea Univ., Korea)
Soohee Han (Konkuk Univ., Korea)

Workshops & Tutorials Co-Chairs

Young-bong Bang (Seoul Nat'l Univ., Korea)
Sangkyung Sung (Konkuk Univ., Korea)

Publication Co-Chairs

Hyoun Jin Kim (Seoul Nat'l Univ., Korea)
Sungsu Park (Sejong Univ., Korea)

Publicity Co-Chairs

Seul Jung (Chungnam Nat'l Univ., Korea)
Kyoungchul Kong (Sogang Univ., Korea)

Exhibition Co-Chairs

Sooyong Lee (Hongik Univ., Korea)
Jinwoo Jung (Dongguk Univ., Korea)
Chintae Choi (RIST, Korea)

Local Arrangement Co-Chairs

Ho-Chan Kim (Jeju Nat'l Univ., Korea)
Kyung Yeon Kim (Jeju Nat'l Univ., Korea)

Secretariat

Jin Young You (ICROS, Korea)
Youngin Shin (ICROS, Korea)

Control Theory and Applications

- Linear/Nonlinear Control
- Adaptive/Robust Control
- Identification and Estimation

Control Devices and Instruments

- Power Electronics
- Hydraulic/Pneumatic Systems
- MEMS and Nano Technologies

Industrial Applications of Control

- Automotive Systems
- Power Systems
- Communication Systems
- Manufacturing Systems and Automation

Sensors and Signal Processing

- Sensors and Instrumentation
- Signal Processing and Sensor Fusion
- Fault Diagnosis

Intelligent Systems

- Artificial Neural Networks
- Fuzzy Systems

Robot Mechanism and Control

- Kinematics and Dynamics of Robots
- Manipulation and Motion Planning
- Mobile Robots and Navigation

Robot Vision

- Robot Vision and Visual Servoing
- Object/Human Visual Recognition

Human-Robot Interaction

- Human-Robot Interaction
- Speech Recognition
- Haptics and Virtual Presence
- Virtual Reality based Simulation

Robotic Applications

- Biorobotics and Medical Robots
- Service and Field Robots
- Humanoid Robots
- Automations

Unmanned Vehicle Systems

- Unmanned Aerial Vehicles
- Unmanned Ground Vehicles
- Unmanned Underwater Vehicles

Navigation, Guidance and Control

- Navigation Algorithms
- Guidance Technologies
- GPS

Process Systems

- Process Control and Monitoring
- Process Design and Optimization
- Process Automation

Biomedical Systems

- Biomedical Instrumentation
- Biomedical Signal Processing
- Bio-Systems and Control

Information and Networking

- Real-Time and Embedded Systems
- Network-Based Control Systems
- Networked/Ambient Intelligence

Multimedia Systems

- Database and Data Fusion
- Computer Animation

Civil and Urban Systems

- Environmental Engineering
- Structural Control and Health Monitoring
- Smart Structures

Paper Submission

You are cordially invited to submit full papers (3 to 6 pages) to <http://2012.iccas.org>. Paper template file can be downloaded from the website. Accepted papers will be published in the ICCAS 2012 Proceedings that will be indexed in **IEEE Xplore**, **SCOPUS** and **EI compendex**, and will be submitted for indexing in Thomson Reuters **Conference Proceedings Citation Index (ISI Web of Science)**. If authors have any questions, please feel free to contact the secretariat. E-mail: conference@icross.org, Tel: +82-32-234-5801(Ext.3)

Important Dates

April	13, 2012	: Submission of organized session proposals
April	27, 2012	: Submission of papers
June	1, 2012	: Notification of paper acceptance
June	29, 2012	: Submission of final camera-ready papers

Organized by

Institute of Control, Robotics and Systems (ICROS)

Technically Co-Sponsored by

IEEE Industrial Electronics Society
IEEE Robotics and Automation Society
IEEE Control Systems Society
The Society of Instrument and Control Engineers (SICE)
Asian Control Association (ACA)
The Instrumentation, Systems and Automation Society (ISA)
Chinese Automatic Control Society (CACS)
The Chinese Association of Automation (CAA)
The Chinese Association for Artificial Intelligence (CAAI)

Domestically Sponsored by

The Korean Society of Mechanical Engineers (KSME)
The Korean Institute of Electrical Engineers (KIEE)
The Institute of Electronics Engineers of Korea (IEEK)
The Korean Society for Aeronautical and Space Sciences (KSAS)
The Korean Institute of Chemical Engineers (KICChE)



Awards Committee

Euntai Kim (Yonsei Univ., Korea)
Kee-Ho Yu (Chonbuk Nat'l Univ., Korea)
Kyung-Soo Kim (KAIST, Korea)
Sangyoon Lee (Konkuk Univ., Korea)

Youngjin Park (KAIST, Korea)
SungHyun Han (Kyungnam Univ., Korea)
Mihoko Niizuma (Chuo Univ., Japan)
Asli Celikyilmaz (Microsoft, USA)

International Program Committee

Yousef Ibrahim (Monash Univ., Australia)
Clarence W. de Silva (Univ. of British Columbia, Canada)
Dong Eui Chang (Univ. of Waterloo, Canada)
Tom Lee (Quanser/UW, Canada)
Tongwen Chen (Univ. of Alberta, Canada)
Guangren Duan (Harbin Institute of Technology, China)
Wei Wang (Dalian Univ. of Technology, China)
Zengqi Sun (Tsinghua Univ., China)
Anna Friesel (Copenhagen Univ., Denmark)
Balan Pillai (Helsinki Univ. of Technology, Finland)
Silviu Niculescu (CNRS-Supelec, France)
Frank Allgower (Stuttgart Univ., Germany)
Nikos A. Aspragathos (Univ. of Patras, Greece)
Daniel Ho (City Univ. of Hong Kong, Hong Kong)
Jie Huang (The Chinese Univ. of Hong Kong, Hong Kong)
Sam Kwong (City Univ. of Hong Kong, Hong Kong)
Vinay Kumar Kariwala (ABB, India)
Vishvijit K. Thakar (A.D.Patel Institute of Technology, India)
Ahmad Fakharian (Islamic Azad Univ., Iran)
S. Mohammad Bozorg (Yazd Univ., Iran)
Marco Liserre (Politecnico di Bari, Italy)
Hideki Hashimoto (Chuo Univ., Japan)
Hideyuki Sawada (Kagawa Univ., Japan)
Hiroshi Ito (Kyushu Institute of Technology, Japan)
Joo-Ho Lee (Ritsumeikan Univ., Japan)
Jun'ich Yamaguchi (Kagawa Univ., Japan)
Kazuhito Yokoi (AIST, Japan)
Kazuo Kiguchi (Saga Univ., Japan)
Kazuya Yoshida (Tohoku Univ., Japan)
Keigo Watanabe (Okayama Univ., Japan)
Makoto Mizukawa (Shibaura Institute of Technology, Japan)
Seiichi Shin (The Univ. of Electro-Communications, Japan)
Shigeki Sugano (Waseda Univ., Japan)
Shigeyasu Kawaji (Kumamoto Univ., Japan)
Shuichi Nishio (ATR, Japan)
Toshio Fukuda (Nagoya Univ., Japan)
Xin Xin (Okayama Prefectural Univ., Japan)
Yasuaki Kuroe (Kyoto Institute of Technology, Japan)
Yoichi Hori (The Univ. of Tokyo, Japan)
Yoshinori Kuno (Saitama Univ., Japan)
Yoshiyuki Yamashita (TUAT, Japan)
Yosuke Kinoue (Hosei Univ., Japan)
Byung-Wook Choi (KITECH, Korea)
Choon-Young Lee (Kyungpook Nat'l Univ., Korea)
Chul-Hee Lee (Inha Univ., Korea)
DaeEun Kim (Yonsei Univ., Korea)
Dong-il Dan Cho (Seoul Nat'l Univ., Korea)
Gon-Woo Kim (Wonkwang Univ., Korea)
Hyun Myung (KAIST, Korea)
Jaebyung Park (Chonbuk Nat'l Univ., Korea)
Jae Weon Choi (Pusan Nat'l Univ., Korea)

Jahng Hyon Park (Hanyang Univ., Korea)
Jangmyung Lee (Pusan Nat'l Univ., Korea)
Jeong Yon Shim (Kangnam Univ., Korea)
Ji-Hyung Lee (Hyundai Heavy Industries Co., Korea)
Jin Bae Park (Yonsei Univ., Korea)
Jong Hyeon Park (Hanyang Univ., Korea)
Joongsun Yoon (Pusan Nat'l Univ., Korea)
Ju Hyun Park (Yeongnam Univ., Korea)
Keum-Shik Hong (Pusan Nat'l Univ., Korea)
Kwang Soon Lee (Sogang Univ., Korea)
Kwang-Hyun Cho (KAIST, Korea)
Kyoung Taik Park (KIMM, Korea)
Myung-Chul Han (Pusan Nat'l Univ., Korea)
Nak Yong Ko (Chosun Univ., Korea)
Se-Kyo Chung (Gyeongsang Nat'l Univ., Korea)
TaeWon Seo (Yeungnam Univ., Korea)
Woong Kwon (Samsung Electronics Co., Ltd., Korea)
Youngbo Shim (Samsung Electronics Co., Ltd., Korea)
Youngbok Kim (Pukyong Nat'l Univ., Korea)
Khairiyah Mohd-Yusof (Universiti Teknologi Malaysia, Malaysia)
Siguard Skogestad (Norwegian Univ. of Sci. & Tech., Norway)
Tommy Gravdahl (Norwegian Univ. of Sci. & Tech., Norway)
Luís Gomes (Nova de Lisboa Univ., Portugal)
Woon Jong Yoon (Qatar Univ., Qatar)
Gade Pandu Rangaiah (Nat'l Univ. of Singapore, Singapore)
Yongki Go Tiau Hiong (Nanyang Technological Univ., Singapore)
Josep M. Fuertes (Technical Univ. of Catalonia, Spain)
Lazaros Nalpanitidis (Royal Institute of Technology, Sweden)
Brad Nelson (ETH Zurich, Switzerland)
Feng-Li Lian (Nat'l Taiwan Univ., Taiwan)
Li-Chen Fu (Nat'l Taiwan Univ., Taiwan)
Ren C. Luo (Nat'l Taiwan Univ., Taiwan)
Tesheng Hsiao (Nat'l Chiao Tung Univ., Taiwan)
Tzue-Hseng Steve Li (Nat'l Cheng Kung Univ., Taiwan)
Alessandro Astolfi (Imperial College, UK)
Jongrae Kim (Univ. of Glasgow, UK)
C.S. George Lee (Purdue Univ., USA)
Daniel J. Pack (Air Force Academy, USA)
Eric Matson (Purdue Univ., USA)
Jongeun Choi (Michigan State Univ., USA)
Masayoshi Tomizuka (Univ. of California, USA)
Mathukumail Vidyasagar (Univ. of Texas at Dallas, USA)
Milos Manic (Idaho Univ., USA)
Mo-Yuen Chow (North Carolina State Univ., USA)
Paul Oh (Drexel Univ., USA)
Sheng-Guo Wang (UNC at Charlotte, USA)
Tariq Samad (Honeywell Labs, USA)
Tzyh Jong Tarn (Washington Univ., USA)
Won-jong Kim (Texas A&M Univ., USA)
Nguyen-Vu Truong (Vietnam Academy of Sci. & Tech., Vietnam)

About Jeju Island

Jeju Island is located in the far south of Korea (1 hour by airplane from Seoul). Jeju Island is a land of peace with fabulous cultural and natural settings. It is the largest island in Korea and a famous tourist destination and recreational area of Northeast Asia. Blessed with spectacle of nature created by volcanic activities, Jeju Island was designated to World Natural Heritage, Global Geopark, and Biosphere Reserve by UNESCO, and recently selected as one of the New 7 Wonders of Nature by the N7W Foundation in Zurich.

