

ICAAT 2012

2012 International Conference on Advanced Aircraft Technologies

I N V I T A T I O N

Organized by

Research Center for Aircraft Parts Technology (ReCAPT)

Priority Research Institute for Advanced Technology of Aircraft Core Parts Design

Degree and Research Center for Aerospace Green Technology (DRG)

Graduate Education Program for Aerospace Engineering

The Korean for Aeronautical & Space Sciences Committee of Guidance, Navigation and Control

Supported by

National Research Foundation of Korea (NRF)

Korea Research Council of Fundamental Science & Technology (KRCF)

Gyeongsang National University

May 31(Thu) ~ June 1(Fri)

Bldg. 403, Gyeongsang National University, Jinju, 660-701, Korea
Convention Hall (2nd Fl.), Asia Lakeside Hotel, Jinju, 660-990, Korea

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It is a distinct pleasure to welcome you on behalf of the Organizing Committee to 2012 International Conference on Advanced Aircraft Technologies at Gyeongsang National University.

This conference was first began in 2010, and since that time excellent presentations were made, fruitful discussion took place, many international friendships made or renewed, all within an enjoyable venue. Certainly we hope to continue this tradition here in Chinju, Korea. I am delighted to tell you that there will be over xx presentations on virtually all aspects of aircraft technologies. I am excited about the quality and breadth of the proposed presentations. They range from very fundamental issues of advanced aerospace technologies to large scale structural applications. There exists a very nice blend of applications to very fundamental research/understanding. I hope that you find this to be a very educational.

GNU has operated Priority Research Institute (PRI) for Advanced Technology of Aircraft Core Parts Design with a support of the Korea Research foundation (KRF) since 2005 on the purpose of enhancing advanced technologies and educating skilled engineers for the aerospace industries. we also have conducted the research and education on aerospace engineering in association with the Degree and Research Center for Aerospace Green Technology (DRC) sponsored by the Korea Research Council of Fundamental Science&Technology (KRCF) since 2009. We feel very proud that through this projects, we were able to accumulate considerable research capacities and experience and also educate many engineers who are now working in the aerospace industry.

In conclusion, I welcome you again to the 2012 International Conference on Advanced Aircraft Technologies at Gyeongsang National University and wish you a simulating, rewarding and, most of all, enjoyable meeting.

Warmest greetings,

Sang-Sik Kim

Chair of the 2012 International Conference on Advanced Aircraft Technologies

P r o g r a m

May 31 (Thu)

18:30~20:30

Registration and Banquet (Convention Hall, 2nd floor, Asia Lakeside Hotel)

June 1 (Fri)

Session A-1 : Structures and materials (Rm 403-419) Chair : Prof. Jin-Hwe Kweon

09:00~09:30

Goichi Ben, Koichi Nakamura, Norio Hirayama and Hirofumi Nishioda (Nihon University, Japan), Newly Developed Molding Method of CF RTP Using In-situ Polymerizable Polyamide 6 as Matrix

09:30~10:00

Moon-Kwang Um, Sang-Bok Lee (Korea Institute of Materials Science) A Study on Resin Injection Temperature Optimization and Cure Kinetics Model Accuracy Enhancement

10:00~10:30

Yoo Jae-Seok, JangYoung-Soon (Korea Aerospace Research Institute) KSLV-II First Stage Clustered Engine Support Structure Design

10:30~11:00

Rene Roy, Jin-Hwe Kweon, Jin-Ho Choi (Gyeongsang National University) Buckling Failure Criterion for Nomex® Honeycomb Sandwich Structure Bolt Insert Allowable Pull-Out Load

11:00~11:10

Coffee Break

Plenary session (Rm 403-419) Chair : Prof. Yoon Soo Kim

11:10~11:20

Opening Remark (Prof. Tae-Hwan Cho)

11:20~11:30

Welcome Address (Prof. In-Seop Ahn, Dean of College of Engineering)

11:30~12:20

Plenary Talk

Min-Jea Tahk, Hyunchul Shim (KAIST) Vision-Based Mid-Air Collision Avoidance

12:20~14:00

Lunch

P r o g r a m

June. 1 (Fri)

Session A-2 : Structures and materials (Rm 403-419) Chair : Prof. Jin-Ho Choi

14:00~14:30	Chang-won Shul , Kwang-Ro Kim, Myung-Seog Yang (Agency for Defense Development) The Reliability of Composite Wing Structure Static Test
14:30~15:00	Ngoc-Trung Nguyen (Kangwon National University) Development of a Micromechanics-based Failure Model
15:00~15:30	Seung Un Yang (DACC Aerospace Co., Ltd) Introduction for Wind Turbine Blade
15:30~15:40	Coffee Break

Session A-3 : Structures and materials (Rm 403-419) Chair : Prof. Wook Ryol Hwang

15:40~16:10	Sang-Jun Shin , Min-Hwan Song (Korea Aerospace Industries) Toxic Gas Evaluation of Composite Materials Applied to KC-100 Aircraft
16:10~16:40	Vikas Panwar, Naveen Kumar , N. Sukavanam, Jin-Hwan Borm (Ajou University) Adaptive Neural Controller for Cooperative Multiple Robot Manipulator System Manipulating a Single Rigid Object
16:40~18:00	Poster sessions (Lobby, 4th fl. Bldg 403)
18:00~20:00	Post Conference Committee Meeting

Papers presented in ICAAT2012 are recommended to submit full papers for the publication to a special issue of IJASS(International Journal of Aeronautical and Space Science) and decision will be made after usual peer review process.



P r o g r a m

June. 1 (Fri)

Session B-1 : Aerodynamics and Control (Rm 403-411) Chair : Prof. Hyoung-Bum Kim

09:00~09:30	D. Ghose (Indian Institute of Science, India) Collision Avoidance, Task Allocation and Trajectory Planning for Multiple-UAV Applications
09:30~:10:00	Youngshin Kang, Myeong-Kyu Lee, Ohsung Ahn, Seongwook Choi, Samok Koo and Jai Moo Kim (Korea Aerospace Research Institute) Risk Mitigation Tests in Tiltrotor UAV Development
10:00~10:30	Deliang Zhang (Chinese Academy of Sciences, China) CESE Method and 3D Simulation of Shock Wave Interaction and Detonation Process
10:30~11:00	Eung Tai Kim , Kijeong Seong, Dae Sung Lee (Korea Aerospace Research Institute) Development of the Unmanned Platform for the Flight Test of Airborne Equipments
11:00~11:10	Coffee Break

Plenary session (Rm 403-419) Chair : Prof. Yoon Soo Kim

11:10~11:20	Opening Remark (Prof. Tae-Hwan Cho)
11:20~11:30	Welcome Address (Prof. In-Seop Ahn, Dean of College of Engineering)
11:30~12:20	Plenary Talk Min-Jea Tahk , Hyunchul Shim (KAIST) Vision-Based Mid-Air Collision Avoidance
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P r o g r a m

June. 1 (Fri)

Session B-2 : Aerodynamics and Control (Rm 403-411) Chair : Prof. Byoung Soo Kim

14:00~14:30	Gwangjin Kim, Jeongsook Lee, Sangchul Lee , Sangho Ko, Dongyoung Rhyu, Gwanghyeok Ju (Korea Aerospace University) A Study on Dynamic Modeling and Simulation for Korean Lunar Module
14:30~15:00	Dong-Ha Kim , Jo-Won Chang, Hark-Bong Kim (Korea Aerospace Research Institute) Aerodynamic Characteristics of a Pitching NACA 0012 Airfoil at Low Reynolds Number
15:00~15:30	Seongjim Choi , Youngmin Jo (KAIST) A High-Fidelity Conceptual Design Framework for Aerospace Vehicles
15:30~15:40	Coffee Break

Session B-3 : Aerodynamics and Control (Rm 403-411) Chair : Prof. Rho-Shin Myong

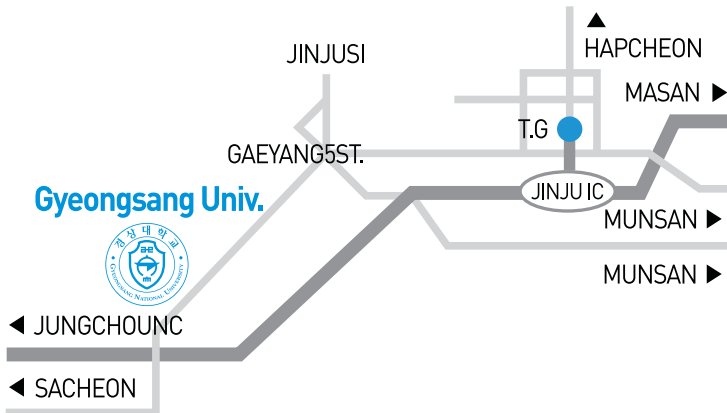
15:40~16:10	Zongmin Hu , Xiaofeng Sun, Zonglin Jiang (Chinese Academy Of Sciences, China) CFD for chemically reacting flow and it applications
16:10~16:40	Chang-Ho Nam , Eun-Seok Lee (Korea Aerospace Research Institute) A Dispersion Analysis for Non-thrust-regulated Liquid Rocket Engine
16:40~18:00	Poster sessions (Lobby, 4 th fl. Bldg 403)
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