Scientific Program

OMICS Group Conferences
Accelerating Scientific Discovery

International Conference and Exhibition on
Mechanical & Aerospace Engineering

September 30-October 02, 2013 Hilton San Antonio Airport, TX, USA



"Organize your Events at OMICS Group Conferences"

Proposals are invited for organizing Symposia/Workshops at OMICS Group Conferences or OMICS Group will sponsor small events at your universities in related areas under the title of your own. These proposals can be sent to respective conference mail ids or to *symposia@omicsonline.org*

OMICS Group Conferences
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Email: *aerospace2013@omicsonline.net*

09:00-09:30 **Registrations**

Texas D

OMICS Group Conferences
Accelerating Scientific Discovery

09:30-10:00 **Opening Ceremony**

Keynote Forum

10:00-10:05 **Introduction**

10:05-10:30 **David C. Hyland**
Texas A&M University, USA

10:30-10:55 **Weidong Zhu**
University of Maryland, USA

Coffee Break 10:55-11:10 @ Foyer

11:10-11:35 **Yongsheng Ma**
University of Alberta, Canada

11:35-12:00 **Yu-Lung Lo**
National Cheng Kung University, Taiwan

Track 1: Applied Mechanics & Fluid Dynamics

Session Chair: Guillermo Araya, Texas Tech University, USA
Session Co-Chair: Luc Rolland, Memorial University of Newfoundland, Canada

Session Introduction

12:00-12:20 The importance of turbulent inflow conditions on unsteady numerical simulations of spatially-developing boundary layers
Guillermo Araya, Texas Tech University, USA

12:20-12:40 Solving the forward kinematics of parallel robots, a review of available methods
Luc Rolland, Memorial University of Newfoundland, Canada

Lunch Break 12:40-13:25 @ Texas E

13:25-13:45 Numerical simulation of low reynolds number flows using transition models
Mustafa Serdar Genc, Erciyes University, Turkey

13:45-14:05 Numerical impact on behavior of drop on smooth hydrophilic and hydrophobic surfaces
Alla Hocine, University of Sciences and Technology of Oran, Algeria

Young Researchers Forum

14:05-14:15 Energetic analysis on a turbulent channel flow with spatial blowing/suction perturbation
Can Liu, Texas Tech University, USA

14:15-14:25 Numerical assessment of the blowing ratio on film cooling
Suranga Dharmarathne, Texas Tech University, USA

14:25-14:35 Numerical and experimental study on low reynolds number flows over NACA245 aerofoil
Halil Hakan Acikel, Erciyes University, Turkey

14:35-14:45 Numerical study on the performance of anode supported tubular SOFC
Gamze Genc, Erciyes University, Turkey

14:45-14:55 The effect of microporous layer in phosporic acid doped polybenzimidazole polymer membrane fuel cell
Muhammet Celik, Erciyes University, Turkey

14:55-15:05 Aerodynamics design of a micro scaled wind turbine based on wind potential of kayseri-pinarbasi
Mustafa Serdar Genc, Erciyes University, Turkey

Track 2: Electronic and Mechanical Engineering

Session Chair: O.Yu. Sergiyenko, Universidad Autonoma de Baja California, Mexico
Session Co-Chair: Lars lindberg, KTH Royal Institute of Technology, Sweden

Session Introduction

15:05-15:25 Use of a new continuous temperature measurement technique in optimizing oven profiles during polymer product manufacturing
Anand P. Roday, Garlock Sealing Technologies, USA

15:25-15:45 Coordination of models and activities for rapid factory layout development
Lars lindberg, KTH Royal Institute of Technology, Sweden

Coffee Break 15:45-16:00 @ Foyer

16:00-16:20 Navigation of robot on another planet using TVS with variable scanning step by electromechanical transmission in Laser Positioning System
O.Yu. Sergiyenko, Universidad Autonoma de Baja California, Mexico

16:20-16:40 Transient temperature distribution on gas metal arc welded plate caused by moving tilted volumetric heat source
Nirmal Kumar Singh, Indian School of Mines, India

16:40-17:00 Manipulation engineering of mechanical properties, band gap, crystal lattice, chemical bonding and optical properties in a novel class of COFs with promising of experimental accessibility
Li-Ming Yang, Korea Institute of Science and Technology, South Korea

17:00-18:00	**Workshop on "Aerospace's Industry our World's Future"** by Shawn Paul Boike, American Industrial Consultants, USA
18:20-19:20	Cocktails Sponsored by **Journal of Aeronautics & Aerospace Engineering @ Rio Grande**

Day 2 October 01, 2013

Texas D

Track 4: Heat Transfer Systems

Session Chair: Luciano Castillo, Texas Tech University, USA
Session Co-Chair: Nesreen Ghaddar, American University of Beirut, Lebanon

Session Introduction

09:00-09:20	**On large scales of turbulence in the energy entrainment of wind farms** **Luciano Castillo,** Texas Tech University, USA
09:20-09:40	***In-situ* thermoelectric property measurements for ZT enhancement of glassy materials by annealing** **Qing hao,** University of Arizona, USA
09:40-10:00	**Dependence of SLS parameters on thermal properties of composite material of cement with polyamide12** **S.A. Aldahsh,** Riyadh College of Technology, Saudi Arabia
10:00-10:20	**Human thermal response with improved modeling of cold-induced vasodilation** **Nesreen Ghaddar,** American University of Beirut, Lebanon

Coffee Break 10:20-10:35 @ Foyer

Track 5: Vehicle Systems and Technologies
Track 6: Mechanics, Dynamics and Controls

Session Chair: Elżbieta Jarzebowska, Warsaw University of Technology, Poland
Session Co-Chair: Inderjit Chopra, University of Maryland, USA

Session Introduction

10:35-10:55	**Hovering micro air vehicles: Challenges and opportunities** **Inderjit Chopra,** University of Maryland, USA
10:55-11:15	**Unmanned aircraft systems test site selection and UAV for next generation** **Dugan Um,** Texas A&M University, USA
11:15-11:35	**Aircraft control system simulation using a model based system and embedded software engineering workflow** **Vincent Delafosse,** ANSYS Inc, USA
11:35-11:55	**New design of model reference adaptive control systems** **M. P. R. V. Rao,** University of Ulster, UK
11:55-12:15	**Dynamics-Based control strategy for constrained systems** **Elżbieta Jarzebowska,** Warsaw University of Technology, Poland
12:15-12:35	**Measuring aerodynamic characteristics using high performance low speed wind tunnel at UniversitiTeknologi Malaysia** **Alias Mohd Noor,** UniversitiTeknologi Malaysia, Malaysia

Lunch Break 12:35-13:20 @ Texas E

Track 11: Advances in Aerospace Technology
Track 12: Applications in Aerospace Technology

Session Chair: David Hyland, University of Texas(A &M), USA
Session Co-Chair: Wen S. Chan, University of Texas at Arlington, USA

Session Introduction

13:20-13:40	**Enhancement and protection of the global commons in air and space** **David Hyland,** University of Texas(A &M), USA
13:40-14:00	**A unified analysis for composite laminates to composite beam structures** **Wen S. Chan,** University of Texas at Arlington, USA
14:00-14:20	**Challenges in adoption of composites in aerospace** **Sanjeev Gaikwad,** Cytec Aerospace Materials, USA
14:20-14:40	**Searching for near-earth asteroids from space** **Neha Satak,** Texas A&M University, USA
14:40-15:00	**Development of highly reconfigurable and maneuverable ground and aerial unmanned vehicles for confined spaces** **Alex Ramirez-Serrano,** University of Calgary, Canada
15:00-15:20	**New design approach for very light jet aircraft** **Prasetyo Edi,** King Fahd University, Saudi Arabia
15:20-15:40	**Efficient rubble pile dynamics simulation using constraint projections** **Abdullah Ibrahim Alghalaiqah,** King Abdulaziz City for Science and Technology, Saudi Arabia

Coffee Break 15:40-15:55 @ Foyer

15:55-16:15	**Kinetic impact simulation of asteroid apophis 99942** **Khaled I. Alfozan,** King Abdulaziz City for Science and Technology, Saudi Arabia
16:15-16:35	**Optimization of the cutting parameters for the cutting forces and surface roughness in inconel 625 super alloy based on the taguchi method** **Abdullah ALTIN,** Yuzuncu Yıl University, Turkey
16:35-16:55	**Economics of asteroid mining** **Shen Ge,** University of Texas(A &M), USA
16:55-17:55	**Poster Presentations @ Texas-C**
17:55-18:55	Cocktails Sponsored by **Journal of Applied Mechanical Engineering @ Rio Grande**

Day 3 October 02, 2013

Texas D

Track 8: Aerodynamics & Compressible Aerodynamics
Track 9: Aeronautics and Astronautics

Session Chair: Yongsheng Ma, University of Alberta, Canada
Session Co-Chair: Shaaban Abdallah, University of Cincinnati, USA

Session Introduction

09:00-09:20 **CFD tool for analysis and design of ranque-Hilsch vortex tube**
Shaaban Abdallah, University of Cincinnati, USA

09:20-09:40 **Transverse wind effect on a slender beam with variable cross-section and its vibration control using smart materials**
Nan Wu, University of Manitoba, Canada

09:40-10:00 **Aerospace industry a world view & America's future**
Shawn Paul Boike, American Industrial consultants, USA

10:00-10:20 **Characterizing optical fiber for designing a new free-space fiber coil gyroscope**
Yu-Lung Lo, National Cheng Kung University, Taiwan

Coffee Break 10:20-10:35 @ Foyer

10:35-10:55 **Bridging aeronautics and aerospace (A&A) industrial practice and academic research via systematic product lifecycle management**
Yongsheng Ma, University of Alberta, Canada

10:55-11:15 **Attitude dynamics and control of a charged spacecraft**
Yehia A. Abdel-Aziz, National Research Institute of Astronomy and Geophysics, Egypt

11:15-11:35 **Revolutionary adaptive aerostructures, changing flight via nature's analogs for dramatic fuel savings**
Ronald Barrett-Gonzalez, The University of Kansas

Track 13: Human and Space Travel

Session Chair: Balwant Rai, Kepler Space Institute, USA
Session Co-Chair: Jasdeep Kaur, Kepler Space Institute, USA

Session Introduction

11:35-11:55 **Salivary oral microbial and oral immunity: Space exploration analog and simulation space mission**
Balwant Rai, Kepler Space Institute, USA

11:55-12:15 **Space dentistry: Needs to explore**
Jasdeep Kaur, Kepler Space Institute, USA

12:15-12:35 **Infrastructure for civilian space tourist training facilities**
Marshall Gardner, Dii Aerospace Laboratories, Aic International Corporation, USA

12:35-12:55 **Dental emergencies during space mission: Proposed models**
Balwant Rai, Kepler Space Institute, USA

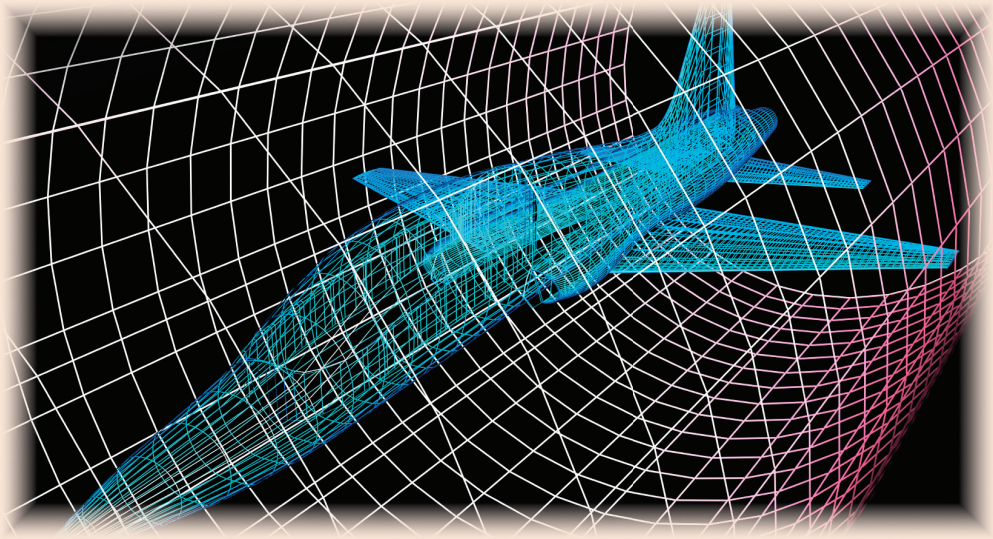
Award Ceremony

Lunch Break 12:55-13:40 @ Lone Star West

Bookmark your dates

OMICS Group Conferences
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2nd International Conference and Exhibition on
Mechanical & Aerospace Engineering
September 08-10, 2014 Philadelphia, USA



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