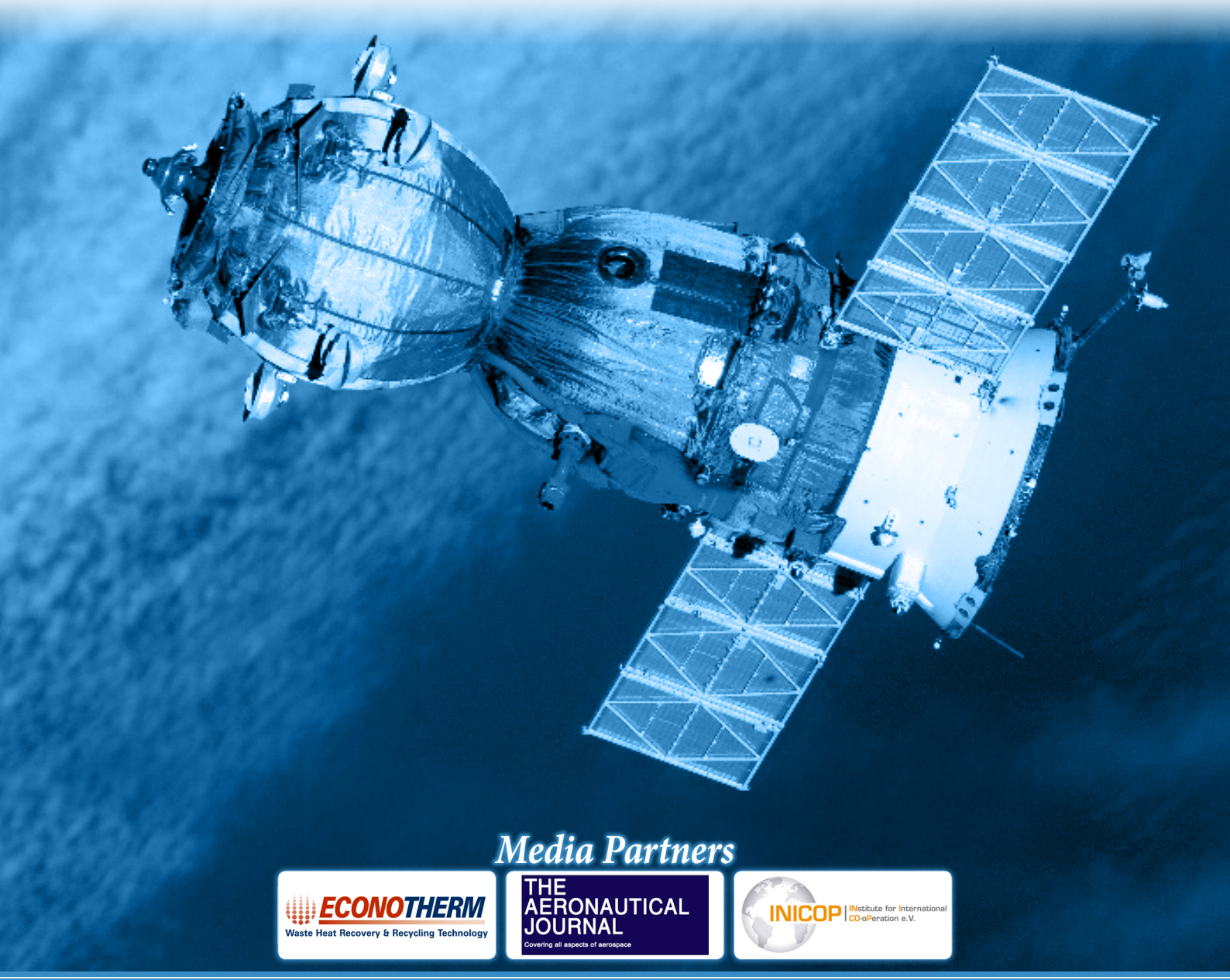
202nd OMICS Group Conference

Scientific Program

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference and Exhibition on
Mechanical & Aerospace Engineering

September 08-10, 2014 Hilton Philadelphia Airport, USA



Media Partners

ECONOTHERM
Waste Heat Recovery & Recycling Technology

THE AERONAUTICAL JOURNAL
Covering all aspects of aerospace

INICOP | INstitute for International CO-oPeration e.V.

"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
5716 Corsa Ave., Suite 110, Westlake Los Angeles, CA 91362-7354, USA
Phone: +1-650-268-9744, Fax: +1-650-618-1414, Toll free: +1-800-216-6499
Email: *mechaero2014@omicsgroup.us*

Day 1 September 08, 2014

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

Independence B

09:30-09:55

Opening Ceremony

Keynote Forum

09:55 -10:00 **Introduction**

10:00-10:25 **G E Mattingly**
The Catholic University of America, USA

10:25-10:50 **David Hyland**
Texas A&M University, USA

Coffee Break 10:50-11:10 @ Ball Room Foyer

11:10-11:35 **Richard Longman**
Columbia University, USA

11:35-12:00 **Weidong Zhu**
University of Maryland, USA

Track 1: Fluid Mechanics
Track 2: Aerodynamics
Track 3: Airship Design and Development
Track 4: Flight Vehicle Navigation
Track 5: Design and Development of Aircrafts

Session Chair: Shabaan Abdallah, University of Cincinnati, USA
Session Co-Chair: Mark G Turner, University of Cincinnati, USA

Session Introduction

12:00-12:20 **Trusted autonomy uses in disaster resilience**
Jeffrey Hauser, Indiana State University, USA

12:20-12:40 **Feature-based ERP system for the integration of design and manufacturing**
Yongsheng Ma, University of Alberta, Canada

12:40-13:00 **Realistic approaches to boundary conditions and load path evaluation in predicting modes of structural failure in airframe components**
Dave Hodges, Phoenix Engineering and Consulting, Inc., USA

13:00-13:20 **The birth of the airplane**
Charles H Marston, Villanova University, USA

13:20-13:40 **A review on nano fluid heat pipe**
Maryam Shafahi, California State Polytechnic University, USA

Lunch Break 13:40-14:25 @ Benjamin's

14:25-14:45 **VOF/PLIC model applied to dynamics wetting on rough surfaces**
Hocine Alla, University of Sciences and Technology (USTO) Oran, Algeria

14:45-15:05 **Stratospheric airship design and hi sentinel results**
I Steve Smith, Southwest Research Institute, USA

15:05-15:25 **A comparative study on machining parameters effects according to taguchi design method by turning nickel based super alloys Inconel 600 and Hastelloy X**
Abdullah ALTIN, Yuzuncu Yil University, Turkey

15:25-15:45 **Accurate numerical solution for the incompressible flow equations**
Shabaan Abdallah, University of Cincinnati, USA

15:45-16:05 **Active control of vortex shedding from a circular cylinder at Reynolds number 170**
Resat S Keles, Fordham University, USA

Coffee Break 16:05-16:25 @ Ball Room Foyer

16:25-16:45 **CC blowing to add range with stol capability to a cessna 310**
John L Loth, West Virginia University, USA

16:45-17:05 **The effects of surface roughness and paint quality on flight condition**
Pooya Kabiri, Leading Edge Aviation Services, USA

17:05-17:25 **Revolutionary geometries of mobile hydro-kinetic turbines for renewable energy applications**
Mark G Turner, University of Cincinnati, USA

17:25-17:45 **Virtual mass effects of submerged bodies in flowing liquids**
Abdullah Abbas Kendoush, Augusta Technical College, USA

17:45-18:05 **Evaluating aircraft abnormal conditions using an artificial dendritic cell mechanism**
Dia Al Azzawi, West Virginia University, USA

18:05-18:25 **Low cost autopilot system for an autonomous unmanned aerial system**
Andreas Perez, Embry-Riddle Aeronautical University, USA

Panel Discussion

19:00-20:00 Cocktails sponsored by **Journal of Aeronautics & Aerospace Engineering @ Ball Room Foyer**

Day 2 September 09, 2014

Independence B

09:00-10:30 Workshop on **"Space Solar Power & Worlds Future Workshop"**
Shawn Paul Boike, American Industrial Consultants, USA

Coffee Break 10:30-10:50 @ Ball Room Foyer

Track 10: Bioengineering and Bio-mechanics
Track 11: Material Processing
Track 13: Mechanics, Dynamics and Controls
Track 14: Heat Transfer Systems
Track 15: Applications in Aerospace Technology

Session Chair: Corina S Drapaca, Pennsylvania State University, USA
Session Co-Chair: Emmanuel C Nsofor, Southern Illinois University, USA

Session Introduction

10:50-11:10 **Global prosperity through space-based solar power**
David Hyland, Texas A&M University, USA

11:10-11:30 **Guided wave sensor technology for monitoring aircraft structure for fatigue failure**
Glenn Light, Southwest Research Institute, USA

11:30-11:50 **The use of orthogonal arrays in optimum conditions for drogue re-fueling of unmanned aerial vehicles**
Ian R McAndrew, Embry Riddle Aeronautical University, UK

11:50-12:10 **The mechanics and ergonomics of golf putting: A novel approach to reduce the golf putt handicap**
K S Chang, Korea Advanced Institute of Science and Technology, South Korea

12:10-12:30 **A tracking controller design for a manipulator after its actuator failure**
Elzbieta Jarzebowska, Warsaw University of Technology, Poland

12:30-12:50 **Sustainable 'green' aviation: Challenges and opportunities**
Ramesh K Agarwal, Washington University, USA

Lunch Break 12:50-13:35 @ Benjamin's

13:35-13:55 **Neuro-mechanics of hydrocephalus**
Corina S Drapaca, Pennsylvania State University, USA

13:55-14:15 **Synthesis and characterization of high energy density piezoelectric ceramic composition for vibration energy harvesting**
Vishwas N Bedekar, Middle Tennessee State University, USA

14:15-14:35 **A symmetric angle-ply composite flywheel study for high-speed energy storage**
Emmanuel C Nsofor, Southern Illinois University, USA

14:35-14:55 **Nanostructured phase-changeable fluids and their applications in heat transfer**
Jiajun Xu, University of the District of Columbia, USA

14:55-15:15 **Recycle pipe location upstream of compressor inlet to avoid flow-induced vibration**
Andrew Hunter, Atlas Copco Comptec, USA

15:15-15:35 **Progressive failure of shear web reinforced glass-fabric composite wind blade under static loads**
T Y Kam, National Chiao Tung University, Taiwan

Coffee Break 15:35-15:55 @ Ball Room Foyer

Session Introduction

15:55-16:15 **Space solar power & the world's future?**
Shawn Paul Boike, America Industrial Consultants, USA

16:15-16:35 **INTERSPACE Mars analog based on proposed settlement level criteria**
Mark Homnick, 4 Frontiers, USA

16:35-16:55 **Space architecture: Design aspects for extended space travel**
Antoine G Faddoul, Tony Sky Design Group, USA

16:55-17:15 **Macho mengi: Many eyes on the Universe**
Michael McCullar, Seal of Valor, USA

17:15-17:35 **Twinkle, twinkle little star arts and humanities take us far**
Adrienne Provenzano, STEAM Educator, USA

17:35-17:55 **Investigation of banding pattern of non-colloidal monodisperse suspension in a partially filled coquette flow**
Parisa Mirbod, Clarkson University, USA

15:30-16:30 Poster Presentations @ Ball Room Foyer

Panel Discussion

18:30-19:30 Cocktails sponsored by **Journal of Aeronautics & Aerospace Engineering @ Ball Room Foyer**

Day 3 September 10, 2014

Independence B

Session Introduction

09:00-10:00 Workshop on **"Space Exploration Engineering"**
Gerard (Jake) Szatkowski, United Launch Alliance, USA

Track 6: Design and Modelling of Aircraft and Helicopter Engines
Track 7: Robotics and Mechatronics
Track 8: Design and Development of Rockets
Track 9: Space Engineering

Session Chair: Gerard (Jake) Szatkowsk, United Launch Alliance, USA
Session Co-Chair: Sebastien BEGOC, Centre National d'Etude Spatiales (CNES), France

10:00-10:20 **CARMECA - A tool for pre-design, and optimization of liquid-propellant engines during preliminary phases**
Sebastien BEGOC, Centre National d'Etude Spatiales (CNES), France

10:20-10:40 **A novel geometrical method for the determination of reachable workspace of a planar stewart platform**
Serdar Ay, Turkish Air Force Academy, Turkey

Coffee Break 10:40-11:00 @ Ball Room Foyer

11:00-11:20 **Simulation and validation on vapor core in the impeller center of vapor core pump**
Bin Wang, Nanjing University of Aeronautics and Astronautics, China

11:20-11:40 **ULA SmallSat rideshare for interplanetary missions**
Gerard (Jake) Szatkowski, United Launch Alliance, USA

11:40-12:00 **Human travel into deep space using current, or imminently, available technology**
David Hyland, Texas A&M University, USA

12:00-12:20 **Hierarchical compact piezoelectric tripod manipulator based on ribbon shaped amplification mechanisms**
Tae-Won Na, Korea Advanced Institute of Science and Technology, Korea

12:20-12:40 **Quadrotor helicopter control using vanes**
Khaled Asfar, Jordan University of Science and Technology, Jordan

12:40-13:00 **Fabrication and characterization of living porous structures and their use in emerging bioengineering applications**
Ali Tamayol, Massachusetts Institute of Technology, USA

Lunch Break 13:00-13:45 @ Benjamin's

13:45-14:05 **Recent developments of vertical axis wind turbines**
Jim S-J Chen, Temple University, USA

14:05-14:25 **Combustion of alternative and renewable fuels in trapped vortex combustor**
Chaouki Ghenai, Florida Atlantic University, USA

14:25-14:45 **Is "Engineering management" an oxymoronic concept?**
Dwight Carey, Temple University, USA

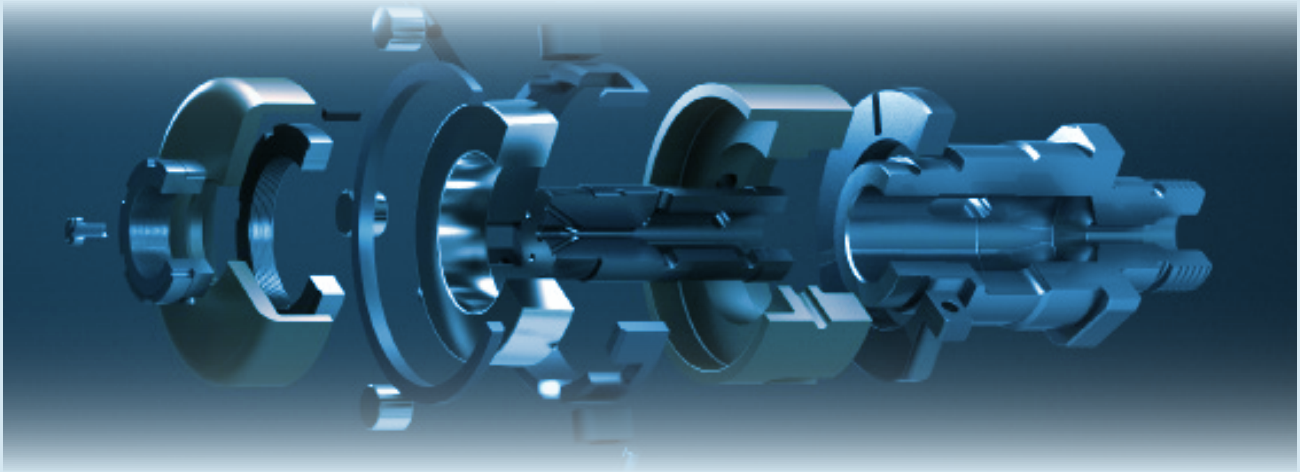
Award Ceremony

Bookmark your dates

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Conference and Exhibition on
Mechanical & Aerospace Engineering

October 19-21, 2015 San Francisco, USA



OMICS Group Inc.
2360 Corporate Circle, Suite 400
Henderson, NV 89074-7722, USA
Ph: +1-888-843-8169
Fax: +1-650-618-1417
contact@omicsgroup.com

OMICS Publishing Group
5716 Corsa Ave., Suite 110, Westlake
Los Angeles, CA 91362-7354, USA
Ph: +1-650-268-9744
Fax: +1-650-618-1414
contact.americas@omicsonline.org

OMICS Group
SEZ Unit, Building No. 20, 9th Floor
APIIC Layout, HITEC City
Hyderabad-500081, Telangana, INDIA
Ph: 040-40131823, 040-47482222
contact.asiapacific@omicsonline.org

Toll free
USA & Canada: +1-800-216-6499
Australia: +1-800-651-097
Europe: 0805-080048