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4<sup>th</sup> International Conference and Exhibition on

# **Mechanical & Aerospace Engineering**

October 03-04, 2016 Orlando, USA

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## **Scientific Program**



Salon 3 & 4

conference**series.com** 09:30-10:00

# Opening Ceremony

## Keynote Forum

10:00-10:30 **Title: Aiming for perfection in spacecraft jitter mitigation and vibration isolation**  
Richard W Longman, Columbia University, USA

10:30-11:00 **Title: Improved hamiltonian adaptive control of rotational mechanics**  
Timothy Sands, Air Force Institute of Technology, USA

### Networking and Refreshment Break 11:00-11:20

11:20-11:50 **Title: The evolution of functional safety methods for mech-aero cyber physical vehicle systems**  
Daniel P Schrage, Georgia Tech, USA

11:50-12:20 **Title: Using control theory to design structures, w/ tensegrity examples**  
Robert Skelton, University of California, USA

### 12:20-12:25 @ Group Photo

Sessions: Fluid Mechanics | Aerodynamics | Airship Design & Development | Flight Vehicle Navigation

Session Chair: Ahmad Ramadan, Arab Academy for Science, Technology and Maritime Transport, Egypt

### Session Introduction

12:25-12:45 **Title: Study of interaction between aluminum facing and honeycomb structure in quasi-static and impact loading**  
Gholamhossein Liaghat, Kingston University, UK

12:45-13:05 **Title: Power captured experimentally from water wave using the wave hunter system**  
Ahmad Ramadan, Arab Academy for Science, Technology and Maritime Transport, Egypt

13:05-13:25 **Title: Effect of post fuel injection timing on combustion and emissions in a direct injection diesel engine.**  
Volkan Akgül, Bartin University, Turkey

### Lunch Break 13:25-14:10

14:10-14:30 **Title: Interaction between polyurethane foam and aluminum honeycomb in quasi-static penetration**  
Gholamhossein Liaghat, Kingston University, UK

14:30-14:50 **Title: Unsteady bubbly cavitating nozzle flows**  
Zafer Baskaya, Istanbul Technical University, Turkey

14:50-15:10 **Title: Innovative design investigation of an augmented drag vertical axis wind turbine under unsteady characteristics**  
Ahmad Ramadan, Arab Academy for Science, Technology and Maritime Transport, Egypt

15:10-15:30 **Title: Performance improvement of simple and combined cycle power plants by gas turbine inlet air conditioning using absorption cooling system**  
Abdel Rahman, Alexandria University, Egypt

15:30-15:50 **Title: Experimental fatigue analysis and investigation of optimal- angle ply orientation of composite tubes under variable cyclic loading**  
Fuat Okumuş, Gediz University, Turkey

### Networking and Refreshment Break 15:50-16:05

Sessions: Bio Engineering & Bio-Mechanics | Heat Transfer Systems | Applications of Aerospace Technology | Mechanical Engineering & Management

Session Chair: Shawn A Putnam, University of Central Florida, USA

### Session Introduction

16:05-16:25 **Title: Aviation manufacturing towards to Industry 4.0: A review**  
Gustavo Franco Barbosa, Federal University of Sao Carlos, Brazil

- 16:25-16:45 **Title: QUAVER – simple quasistatic verification test approach**  
Edgardo Roggero, Universidad Tecnologica Nacional, Argentina
- 16:45-17:05 **Title: Heat transfer coefficient characterization in the thermal and hydrodynamic boundary layers of flowing fluids and evaporating thin-films.**  
Shawn A Putnam, University of Central Florida, USA
- 17:05-17:25 **Title: PROPELLER DESIGN - Software implementation and application of analytical and numerical tools for propeller design and shape optimization**  
Felix Christopher Frischmann, Technische Universitaet Muenchen, Germany
- 17:25-17:45 **Title: Micro-topography generation method using a rotating tool actuated by an electromagnetic actuator**  
Sun-Kyu Lee, Gwangju Institute of Science and Technology, Korea

**Panel Discussion @ 17:45-18:00**

**Day 2      October 04, 2016**

## **Salon 3 & 4**

### **Keynote Forum**

- 09:40-10:10 **Title: The role of infinite dimensional direct adaptive control in quantum information systems**  
Mark J Balas, Embry-Riddle Aeronautical University, USA
- 10:10-10:40 **Title: Shape optimization of supersonic bodies to reduce sonic boom signature**  
Ramesh K Agarwal, Washington University, USA

**Sessions: Design & Development of Rockets | Space Engineering | Energy Processing | Mechanics, Dynamics and Controls**

**Session Chair: Hansen A Mansy, University of Central Florida, USA**

**Session Co-Chair: Vishwas N Bedekar, Middle Tennessee State University, USA**

**Session Introduction**

- 10:40-11:00 **Title: Microsatellite propulsion systems for low earth orbit**  
Paul A Zeranski, American Public University, USA

**Networking and Refreshment Break 11:00-11:20**

- 11:20-11:40 **Title: At the cutting edge, or beyond the fringe: Does physics allow rapid spacetime transport?**  
James F Woodward, California State University Fullerton, USA
- 11:40-12:00 **Title: Digital + physical confluence – Era of intelligent & interconnected machines**  
Sanketh Bhat, GE Global Research, India
- 12:00-12:20 **Title: Design of viscoelastic dynamic vibration absorber based on a sandwich beam model**  
Yingyu Hua, Hong Kong Polytechnic University, Hongkong
- 12:20-12:40 **Title: The rayleigh method applied to a actual 30-m-high metallic pole**  
Alexandre de Macêdo Wahrhaftig, Federal University of Bahia (UFBA), Brazil
- 12:40-13:00 **Title: Numerical model of inspiratory flow in an animal lung airway tree**  
Hansen A Mansy, University of Central Florida, USA

**Lunch Break 13:00-13:45**

### **Workshop**

- 13:45-14:45 **Title: New aerospace engineering tech for our world's improved future**  
Shawn Paul Boike, Aerospace Consultant at Zodiac Aerospace, USA

**Sessions: Vehicle Systems and Technologies | Design and Modelling of Aircraft and Helicopter Engines | Robotics and Mechatronics | Material Processing**

**Session Chair: Mark N Callender, Middle Tennessee State University, USA**

**Session Introduction**

- 14:45-15:05 **Title: Finite nonlinear responses of uncertain shell structures under nonstationary random excitations**  
Cho W Solomon To, University of Nebraska, USA
- 15:05-15:25 **Title: One versus two: a different philosophy in simulated combat training**  
Antonio Dourado, Federal University of Santa Catarina, Brazil



15:25-15:45 **Title: Insta-grid & our exciting engineered future**  
Shawn Paul Boike, Aerospace Consultant at Zodiac Aerospace, USA

**Networking and Refreshment Break 15:45-16:05**

16:05-16:25 **Title: Robotics in mechanical engineering**  
Shuh Jing Ying, University of South Florida, USA

16:25-16:45 **Title: Increasing the quality in product development through process efficiency**  
Hugo d'Albert, Technical University of Munich, Germany

16:45-17:05 **Title: Multimechanism energy harvesting combining faraday's law of induction and piezoelectric effect**  
Vishwas N Bedekar, Middle Tennessee State University, USA

17:05-17:25 **Title: UAS propeller/rotor sound pressure level reduction through leading edge modification**  
Mark N Callender, Middle Tennessee State University, USA

17:25-17:45 **Title: An electromagnetic ship designed by Lie-QED- and their fermionic fock space Principles in superconducting to the Future Flights**  
Francisco Bulnes, Tecnologico de Estudios Superiores de Chalco, Mexico

**Panel Discussion @ 17:45-18:00**

**Award Ceremony**



**Bookmark your dates**

**5<sup>th</sup> International Conference and Exhibition on**

# **Mechanical and Aerospace Engineering**

**August 21-22, 2017 Canada**

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