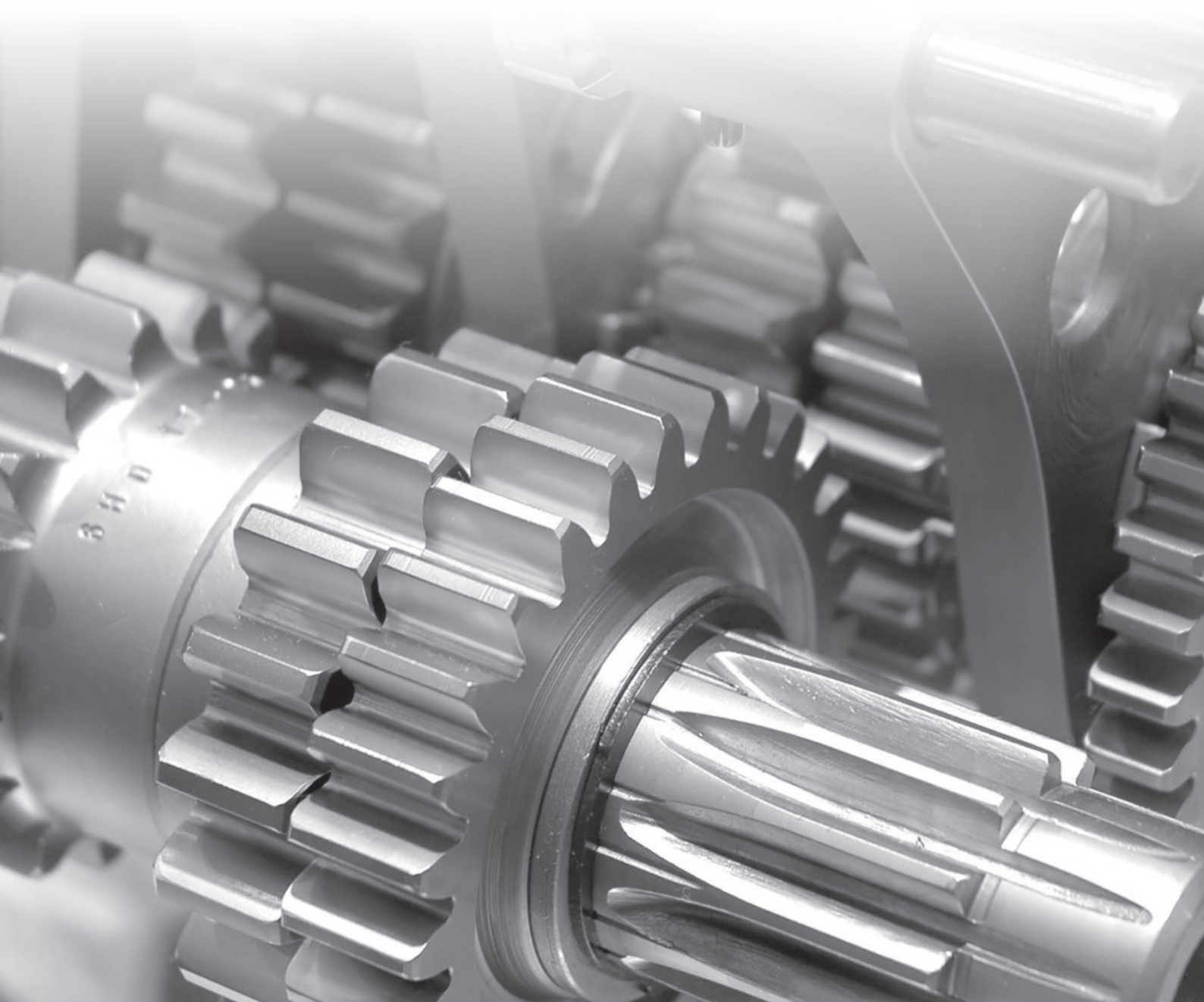


6<sup>th</sup> International Conference and Exhibition on

# **Mechanical & Aerospace Engineering**

November 07-08, 2018 | Atlanta, Georgia, USA



**Conference Series LLC Ltd**

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# Day 1 November 07, 2018

## Conference Hall: Parliament

08:45-9:15 Registrations

09:15-09:30 Opening Ceremony

### Keynote Forum

#### Introduction

09:30-10:00

**Title: Modeling rotating fiber jets and application in forcespinning**

**Daniel N Riahi**, University of Texas Rio Grande Valley, USA

10:00-10:30

**Title: Supercritical fluid and applications in propulsion systems**

**Bruce Chehroudi**, Arkansas Tech University, USA

### Panel Discussion

**Networking and Refreshment Break 10:30-10:45 @ Foyer**

10:45-11:15

**Title: Metal forming technologies for aerospace and automobile parts**

**Kuniaki Dohda**, North Western University, USA

11:15-11:45

**Title: Era of robotics**

**Shuh Jing Ying**, University of South Florida, USA

11:45-12:15

**Title: Innovations in design, materials and manufacturing of turbine blades for jet-engines**

**Ramamurthy Prabhakaran**, Old Dominion University, USA

12:15-12:45

**Title: On the mechanistic modeling of fluid flow and heat transfer in supercritical-pressure systems**

**Michael Z Podowski**, Rensselaer Polytechnic Institute, USA

12:45-13:15

**Title: Modal vibration analysis of thick visco-elastic annular cylinders**

**Hamid R Hamidzadeh**, Tennessee State University, USA

### Panel Discussion

**Group Photo 13:15-13:20**

**Lunch Break 13:20-14:00 @ Foyer**

14:00-14:30

**Title: Advanced Proper Orthogonal Decomposition (POD) tools for geometric modal analysis of big dynamics-datasets of complex structural systems in engineering**

**Ioannis T Georgiou**, Purdue University, USA

14:30-15:00

**Title: Biomimicry: The case of morphing blades**

**Asfaw Beyene**, San Diego State University, USA

### Panel Discussion

**Sessions: Mechanical Engineering and Management | Space Engineering | Aerodynamics | Material Processing | Mechanics, Dynamics and Controls**

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

**Session Introduction**

15:00-15:20

**Title: Global diversity and inclusion practices are key to the advancement of mechanical and aerospace engineering**

**Judi Brown Clarke**, Michigan State University, USA

### Panel Discussion

**Networking & Refreshment Break 15:20-15:40 @ Foyer**

15:40-16:00

**Title: Forced response study of an embedded compressor rotor**

**Robert Kielb**, Duke University, USA

16:00-16:20

**Title: Enhanced processing and hybridization of silica aerogel composites**

**Sunil ChandraKant Joshi**, Nanyang Technological University, Singapore

- 16:20-16:40**      **Title: SmallSats rational design**  
**Mykola Nickolay Zosimovych**, Shantou University, China
- 16:40-17:00**      **Title: Design and development of nanoscale materials for sensing and energy harvesting applications**  
**Vishwas N Bedekar**, Middle Tennessee State University, USA
- 17:00-17:20**      **Title: Experimental investigation of a lab-scaled flameless combustion system with thermal recuperation**  
**Seyed Ehsan Hosseini**, Arkansas Tech University, USA
- 17:20-17:40**      **Title: Nonlinear extended least squares adaptive feedforward control of a disturbed satellite across multiple maneuvers**  
**Matthew A Cooper**, Air Force Research Laboratory, USA

**Panel Discussion**

**Day 2      November 08, 2018**

**Conference Hall: Parliament**

**Keynote Forum**

- 09:30-10:00**      **Introduction**  
**Title: Advances in gas turbine aerodynamics, heat transfer and performance research**  
**Meinhard T Schobeiri**, Texas A&M University, USA
- 10:00-10:30**      **Title: Aerodynamics of a transonic airfoil in ground effect**  
**Ramesh K Agarwal**, Washington University in St Louis, USA

**Panel Discussion**

**Networking and Refreshment Break 10:30-10:45 @ Foyer**

- 10:45-11:15**      **Title: Research topics in dynamics, vibration, and control of engineering systems**  
**Hamid R Hamidzadeh**, Tennessee State University, USA
- 11:15-11:45**      **Title: Multi-scale modeling of particle-laden flow with shocks**  
**Gustaaf Jacobs**, San Diego State University, USA
- 11:45-12:15**      **Title: Investigation of bat flight aerodynamics**  
**Danesh Tafti**, Virginia Tech, USA
- 12:15-12:45**      **Title: Tuning wave propagation in soft phononic crystals via large deformation and multi-field coupling effect**  
**Weiqiu Chen**, Zhejiang University, China

**Panel Discussion**

**Group Photo 12:45-12:50**

**Lunch Break 12:50-13:30 @ Foyer**

- 13:30-14:00**      **Title: Advancements in human heart modeling and simulations based on computational fluid dynamics**  
**Dean Vucinic**, Vrije Universiteit Brussel, Belgium
- 14:00-14:30**      **Title: The lowest vibration spectra of high-contrast composite structures**  
**Danila Prikazchikov**, Keele University, UK

**Panel Discussion**

**Sessions: Aerodynamics | Mechanical Engineering and Management | Mechanics, Dynamics and Controls | Applications of Aerospace Technology | Bioengineering and Bio-Mechanics**

**Session Chair: Dean Vucinic, Vrije Universiteit Brussel, Belgium**

**Session Introduction**

**14:30-14:50** Title: **Newly proposed multi stream turbofan engine with built in regenerative heat exchanger**

Essam E Khalil, Cairo University, Egypt

**14:50-15:10** Title: **Functional Safety Management (FSM) for complex engineered systems**

Daniel P Schrage, Georgia Institute of Technology, USA

**15:10-15:30** Title: **Eddy current signal processing applied to aircraft fuel tubes maintenance**

Luiz Antonio Negro Martin Lopez, Mauá Institute of Technology, Brazil

### Panel Discussion

Networking and Refreshment Break 15:30-15:50 @ Foyer

**15:50-16:10** Title: **Bio-mechanics in virtual and mixed reality for computer assisted surgery**

Abed Malti, University of Tlemcen, Algeria

**16:10-16:30** Title: **Modeling and applications of FGMs in aerospace structures**

Karam Y Maalawi, National Research Centre, Egypt

**16:30-16:50** Title: **New central and central DG-type methods on overlapping cells for solving MHD equations on triangular meshes**

Yingjie Liu, Georgia Institute of Technology, USA

**16:50-17:10** Title: **Numerical analysis for smoke spread in an aircraft hangar**

Essam E Khalil, Cairo University, Egypt

**17:10-17:30** Title: **The optimized PV-UPFC hybrid network for power quality improvement load by an improved distribution algorithm: A best performances from combination of the proposed PV systems and unified power quality controllers**

Wassila Issaadi, University of Bejaia, Algeria

### Panel Discussion

Thanks Giving & Closing Ceremony

