

October 13-15, 2018

Crowne Plaza Orlando-Downtown

Orlando, USA



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## 2018 5th International Conference on Mechanical, Materials and Manufacturing

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## Welcome Message

It is our great pleasure to welcome you to the Fifth (5th) International Conference on Mechanical, Materials and Manufacturing (ICMMM 2018), which is being held in Orlando, Florida (USA) during 13-15 October 2018.

The objective of ICMMM 2018 has always been bringing together a large group of researchers, scientists, academics, and engineers in this related area from all over the world, who are excited to have a positive exchange of cutting-edge knowledge and developments in these inter-related fields.

The proceedings of ICMMM 2018 presents papers submitted to the conference from universities, research institutes and industries from around the world. The papers were selected based upon their quality and their relevancy to the conference. The volume tends to present to the readers the recent advances in the fields of composites, metal alloy materials and materials physics and chemistry, advances in manufacturing process and techniques, materials testing, building materials, new materials, environmental friendly materials, mechanical systems, etc.

We would like to thank all the authors who have contributed to the volume and also to reviewers, speakers, chairpersons, sponsors, conference secretaries and staff, and all the conference participants for their hard work making ICMMM 2018 the best so far in this series.

Prof. Brian Vlcek

Conference Chair

Chairman of Mechanical Engineering Department, Georgia Southern University, USA

14 October 2018

# Instructions

## Registration Guide:

Arrive at the Conference Venue→Inform the conference staff of your paper ID→Sign your name on the Participants List→Check your conference materials.

## Checklist:

1 receipt, 1 name card, 1 printed conference abstract, 1 lunch coupon, 1 dinner coupon, 1 computer bag, 1 USB stick (paper collection).

## Devices Provided by the Conference Organizer:

Laptops (with MS-Office & Adobe Reader)

Projectors & Screen

Laser Sticks

## Materials Provided by the Presenters:

PowerPoint or PDF files

## Duration of each Presentation:

Regular Oral Session: 15 Minutes of Presentation including 2-3 Minutes of Q&A

## Notice:

\*Certificate of Listener can be collected in the registration counter.

\*Certificate of Presentation can be collected from the session chair after each session.

\*The organizer will not provide accommodation, so we suggest you make an early reservation.

\*One best presentation will be selected from each session. The best one will be announced when each session ends and will be awarded by the session chair after each session in the meeting room.

## Contact:

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## Agenda Overview

### Saturday, Oct. 13, 2018

**10:00-17:00**     **Participants check-in & Materials Collection—Hotel Front Door**

### Sunday, Oct. 14, 2018

**Venue: Concord Room-1F**

**08:50-09:00**     **Opening Remark**

**Prof. Brian Vlcek, Georgia Southern University, USA**

**Speaker I**

**09:00-09:40**     **Prof. Young B Moon, Syracuse University, USA**

*Speech Title: Cyber-Manufacturing System Testbed for Cyber-Physical Attack Investigations*

**Speaker II**

**09:40-10:20**     **Prof. Brian Vlcek, Georgia Southern University, USA**

*Speech Title: Reduced Total Program Test to Failure Time with Weibull-Johnson Sudden Death Testing*

**10:20-10:50**     ***Coffee Break and Group Photo***

**Speaker III**

**10:50-11:30**     **Prof. Vladoiu Rodica, Ovidius University of Constanta, Romania**

*Speech Title: Titanium-based Thin Films for Protective Coatings Prepared by TVA (Thermionic Vacuum Arc) Technology*

**Speaker IV**

**11:30-12:10**     **Prof. Brian Burns, Animax Designs in Nashville, USA**

*Speech Title: Advancements in Animatronic Design and Manufacturing*

**12:10-13:30**     ***Lunch at Bite and Bistro Restaurant (1F)***

### Parallel Sessions

**Session 1: Metals and alloys**

**13:30—16:00**     **(Concord Room-1F)**

M015, M057, M074-A, M039, M041, M045, M066, M067, M072, M046

**13:30—16:00**    **Session 2: Mechanical Engineering and Automation  
(Highland Room-1F)**  
M002, M009, M028-A, M042, M063, M064, M004, M007, M056-A, M069

**16:00—16:15**    *Coffee Break*

**16:15—19:15**    **Session 3: Material Science and Chemical Engineering  
(Concord Room-1F)**  
M010, M024, M026, M027, M043, M044, M065, M050, M068, M079, M038, M014

**16:15—19:00**    **Session 4: Material Processing and Manufacturing  
(Highland Room-1F)**  
M040 (invited speaker), M078, M016, M054, M011, M036, M018-A, M080, M037, M075

**16:15—19:00**    **Poster Session**

**19:15—21:00**    *Dinner at Bite and Bistro Restaurant (1F)*

## **Monday, Oct. 15, 2018**

**09:00-18:00**    **One-day tour**  
Onsite payment for tour is not acceptable. (Registration deadline for tour is Sep. 15, 2018)