



**February 15-17, 2019**

**Venue: Radisson Blu Hotel & Residence**

Address: 22 Riebeek Street Cape Town South Africa

<https://www.radissonblu.com/en/hotel-capetown-residence>

**2019 IEEE 10th International Conference on Mechanical and  
Intelligent Manufacturing Technologies**

***ICMIMT 2019***

*With the workshop*

**2019 5th International Conference on Information Management and  
Industrial Engineering**

***ICII 2019***

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# 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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ICII 2019

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## Welcome Message

World is witnessing major changes in mechanical, manufacturing and industrial engineering. 2019 Cape Town conferences are welcoming researchers, scientists, engineers, technologists, professionals from industry, and regulators from government as well as technology providers to join our event in Cape Town, South Africa on February 15-17, 2019. The conferences will provide opportunities for discussions about methods, technologies, systems and best practices in the different areas of mechanical and intelligent manufacturing technologies, information management and industrial engineering from different places around the world. The conferences provide opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business cases or research relations and to find global partners for future collaboration.

We are welcoming you all at the conferences and wish you a pleasant stay in Cape Town and fruitful discussions in the different sessions. The Technical Programme Committee of the conferences have assembled an excellent programme comprising of 3 excellent Keynote Speeches, 2 Plenary Talks and 1 Invited Talk from renowned scientists from the world, 5 parallel technical sessions comprising of 4 oral sessions and 1 poster session. A total of 44 papers were selected from 72 original contributions after a rigorous review process reflecting the acceptance rate of 61.1%.

On behalf of the Organizing Committees, we wish to thank our keynote speakers, Prof. Ramesh Kuppaswamy from University of Cape Town, South Africa; Prof. Ing. Jonathan C. Borg from University of Malta, Malta; Prof. Khaled Abou-El-Hossein from Nelson Mandela Metropolitan University, South Africa; Our plenary speakers, Dr. Mardé Helbig from University of Pretoria, South Africa; Assoc. Prof. Gianluca Percoco from Politecnico di Bari, Italy; Our invited speaker Dr. Patrick Mubiayi from University of Johannesburg, South Africa and authors of selected papers for their outstanding contributions. We would also like to thank members of the organizing committees, all reviewers and volunteers for their great efforts. Without their contribution, dedication and commitment, we would not have achieved so much. We sincerely hope that you will find the Cape Town conferences beneficial and fruitful for your professional development. We also hope that you will enjoy our hospitality and will have an enjoyable and memorable time in Cape Town.

**Conference Committees**



## Conference Committees

### International Advisory Committees

Raid Al-Aomar, Abu Dhabi University, UAE  
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### Conference Chairs

Khaled Abou-El-Hossein, Nelson Mandela Metropolitan University, South Africa  
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Nasim Ullah, University of Engineering and Technology, Pakistan  
Javad khamisabadi, Islamic Azad University, Tehran, Iran



## Agenda Overview

### Friday, February 15, 2019

10:00-17:00 Participants check-in & Materials Collection-*Lobby*

### Saturday, February 16, 2019

*Venue: Calima, 1<sup>st</sup> Floor*

09:00-09:05 **Opening Remark**  
**Prof. Ramesh Kuppuswamy, University of Cape Town, South Africa**

09:05-09:45 **Speaker I**  
**Prof. Khaled Abou-El-Hossein, Nelson Mandela Metropolitan University, South Africa**  
*Speech Title: Advances in Ultra-High Precision Manufacturing of Optics*

09:45-10:25 **Speaker II**  
**Prof. Ing. Jonathan C. Borg, University of Malta, Malta**  
*Speech Title: Emotional Products Exploiting the Merger of Industrial & Engineering Design*

10:25-10:45 **Coffee Break and Group Photo-Foyer**

10:45-11:25 **Speaker III**  
**Prof. Ramesh Kuppuswamy, University of Cape Town, South Africa**  
*Speech Title: An Overview of High-speed Machining Technology for Processing Aero-Engine Components*

11:25-12:05 **Speaker IV**  
**Prof. Gianluca Percoco, Politecnico di Bari, Italy**  
*Speech Title: 3D Printing of Sensors: a focus on Filament Freeform Fabrication*

12:05-13:30 **Lunch at Stratus Room Restaurant, 2<sup>nd</sup> floor**



## Parallel Sessions

- 13:30-16:00**      **Session 1: Material and Mechanical Engineering**  
**Speaker V: Dr. Mardé Helbig, University of Pretoria, South Africa**  
*Calima,*      *Speech Title: Dynamic Multi-objective Optimization: Challenges, Applications and Opportunities*  
*1<sup>st</sup> Floor*
- Oral Presentation Papers:** MT003, MT007, MT029, MT008, MT046-A, MT0026, MT009, MT023
- 13:30-16:00**      **Session 2: Communication and Information Technology**  
**Speaker VI: Dr. Patrick Mubiayi, University of Johannesburg, South Africa**  
*Alize,*      *Speech Title: Current Trends on Friction Stir Welding and Friction Stir Spot Welding of*  
*1<sup>st</sup> Floor*      *Aluminium/Copper Alloys*
- Oral Presentation Papers:** MT048, MT051, MT0003, MT0009-A, MT0022, MT0023, MT0025, MT0011
- 16:00-16:15**      **Coffee Break-Foyer**
- 16:15-18:00**      **Session 3: Mechanical and Electronic Engineering**  
*Calima,*      **Oral Presentation Papers:** MT006, MT030, MT041-A, MT045, MT047, MT0005-A, MT036  
*1<sup>st</sup> Floor*
- 16:15-18:00**      **Session 4: Vehicle and Manufacturing Engineering**  
*Alize,*      **Oral Presentation Papers:** MT020, MT021, MT022, MT049, MT050, MT0002, MT0024  
*1<sup>st</sup> Floor*
- 13:30-18:00**      **Poster Session**  
*Calima,*      **Presentation Papers:** MT018, MT034, MT055, MT1002, MT1003  
*1<sup>st</sup> Floor*
- 18:00-20:00**      *Restaurant*

**Sunday, February 17, 2019**

**One Day Tour in Cape Town**