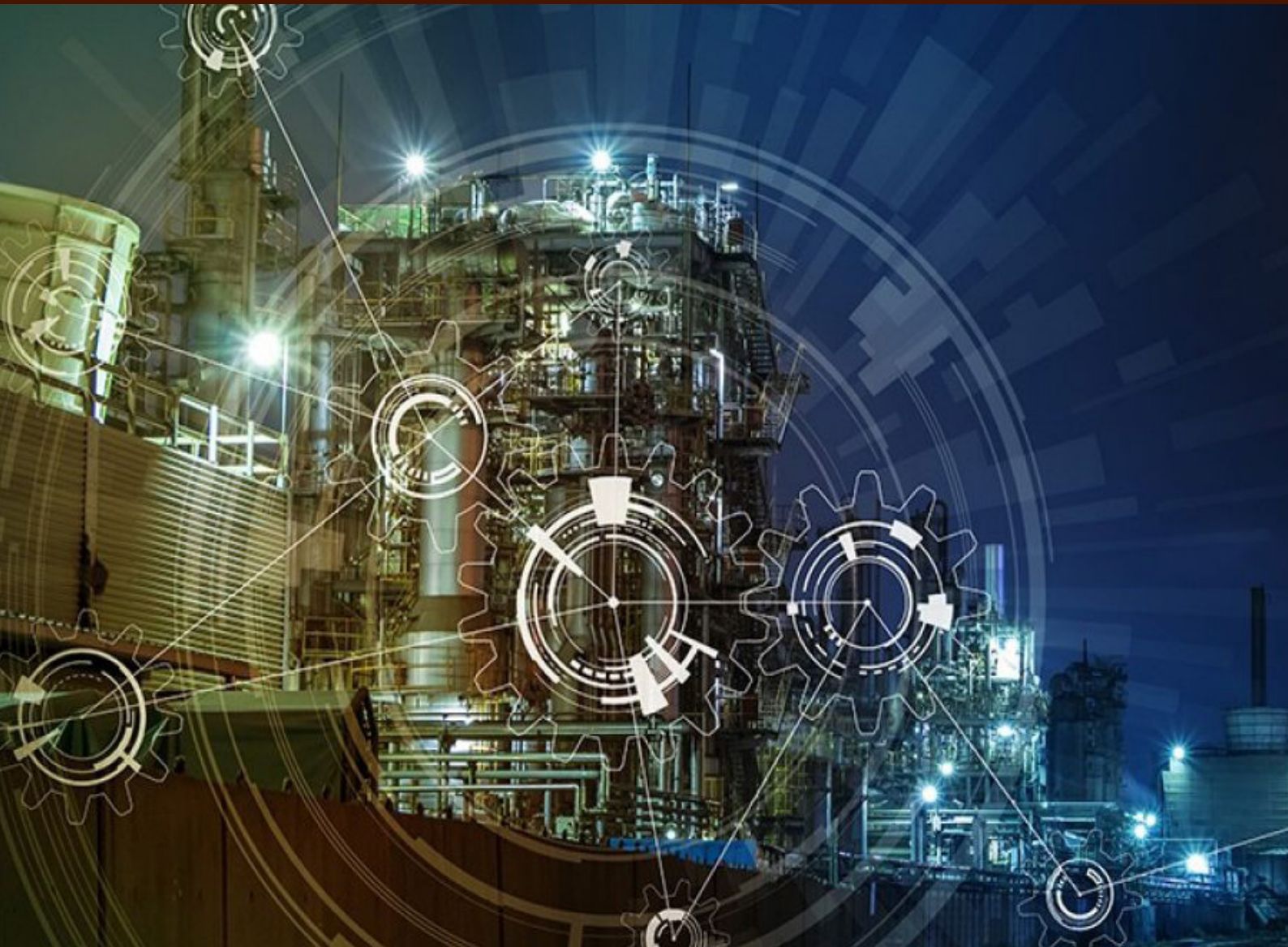


# Scientific Program

## World Congress on **Mechanical, Metallurgy and Materials Science**

March 28-29, 2019 | Milan, Italy



**Scientific Federation**

1-8-506/2/B, Begumpet, Hyderabad-500016, India

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<http://scientificfederation.com>

## Day 1 March 28, 2019

Norma

08:30-09:30 Registrations

09:30-10:00 Introduction & Opening Ceremony

### Plenary Forum

10:00-10:45 **Title: In Situ Mechanical Testing and its Application to Materials with Complex Microstructures**  
David Wilkinson, McMaster University Hamilton, Canada.

10:45-11:30 **Title: Cyanide Free Gold Recovery From Tailings Using Ionic Liquids**  
Herman Potgieter, Manchester Metropolitan University, UK

Networking & Refreshments Break 11:30-11:45 @ Foyer

11:45-12:30 **Title: Cost-Affordable Processing of Ti-Based Materials Via Thermomechanical Powder Consolidation**

Leandro Bolzoni, University of Waikato, New Zealand

12:30-13:15 **Title: Practical Aspects of Obtaining Bulk Material Property Parameters from Instrumented Indentation Data**

Bill Clyne, University of Cambridge, UK

13:15-13:30

Group Photo

Lunch Break 13:30-14:30 @ Restaurant

### Keynote Forum

Session Chair **David Wilkinson, McMaster University Hamilton, Canada**

Session Co-chair **Herman Potgieter, Manchester Metropolitan University, UK**

14:30-15:10 **Title: Simulation of Thermal Shock Cracking in Ceramics Using Bond-Based Peridynamics and Finite Elements**

Hamid Bahai, Brunel University, London, UK

15:10-15:50 **Title: Microstructure and Mechanical Properties of Heterogeneous Nano-Structures Induced by Heavy Cold Rolling of Stainless Steels**

Hiromi Miura, Toyohashi University of Technology, Japan

Networking & Refreshments Break 15:50-16:00 @ Foyer

16:00-16:40 **Title: Quo Vadis Slovak Foundry Industry**

Iveta Vaskova, Technical University of Kosice, Slovakia

16:40-17:20 **Title: Metallurgical Characterisation of Detonating Cord Alloys and the Development of Mechanical Properties During Processing**

Guangyu Liu, Brunel University London, UK

### Oral Sessions

17:20-17:50 **Title: A 3D Multiscale x-ray Microscope for in Situ Studies of the Structure of Metals**

Henning Friis Poulsen, Technical University of Denmark, Denmark

17:50-18:00

Panel Discussion

## Day 2 March 29, 2019

Norma

### Oral Sessions

Session Chair **David Wilkinson, McMaster University Hamilton, Canada**

Session Co-chair **Herman Potgieter, Manchester Metropolitan University, UK**

10:00-10:30 **Title: Atomic Resolution EDS Imaging of cation Ordering in Ternary Ti-Nb and Nb-W Metal Oxide Crystals**

Sumio Iijima, Meijo University, Japan

10:30-11:00 **Title: Evaluation of Silicon Nitride-Hexagonal Boron Nitride for Biomaterial Application**

Sachin Ganpatrao Ghalme, Sandip Institute of Technology and Research Centre, India

11:00-11:30 **Title: Effects of Titania on Phase Development and Micro-Hardness of Spark Plasma Sintered (SPS) Mullite-Carbon-SiC Ceramic Composite**

Aramide Fatai Olufemi, Tshwane University of Technology, South Africa

Networking & Refreshments Break 11:30-11:45 @ Foyer

- 11:45-12:15**    **Title: The Effect of Laser Micro-Patterning and Ceramic Conversion Treatment of Commercially Pure Titanium on Gram Positive and Negative Bacteria and SaOS-2 Cell Viability**  
Ikra Khan, University of Birmingham, UK
- 12:15-12:45**    **Title: DFT Analysis and Synthesis of Highly Stable New Organic-Inorganic Hybrid Pd-Based Perovskite: From 3D to 2D Structure**  
Xixia Liu , National University of Singapore, Singapore

**12:45-13:00**

**Panel Discussion**

**Lunch Break 13:00-14:00 @ Restaurant**

- 14:00-14:30**    **Title: The Mechanism of Extremely Early Precipitation and Abnormal Growth up of Sigma Phase in the Over-Saturated Nanocrystallized Super304H Stainless Steel**  
Qingwen Zhou, South China University of Technology, China
- 14:30-15:00**    **Title: Terrace Erosion Induced by Slip Trace on Nb(111) Surface**  
Jerome Colin, University of Poitiers, France
- 15:00-15:30**    **Title: Coke Reduction and Emission Control with a Secondary Burning Gas in the Iron Ore Sintering Process**  
Nicos Tsioutsios, University of Leoben, Austria

**Networking & Refreshments Break 15:30-15:45 @ Foyer**

- 15:45-16:15**    **Title: Electrochemical Studies of Spark Plasma Sintered (SPS) Mullite-Carbon-SiC Ceramic Composite with Varied Amounts of Titania**  
Aramide Fatai Olufemi, Tshwane University of Technology, South Africa
- 16:15-16:45**    **Title: Microstructure and Mechanical Properties of Additively Manufactured 18% Ni Maraging 300 Steel**  
Ludmila Kucerova, University of West Bohemia, Czech Republic

**Poster Presentations**

- P-001**    **Title: The Negative Effect of High-Intensity Shot-Peening on the Intergranular Corrosion Behavior of the Super304H Austenitic Stainless Steel**  
Yan Gao, South China University of Technology, China
- P-002**    **Title: Preparation and Study of High Performance La<sub>1-x</sub>Nd<sub>x</sub>CuOSe Alloy thin Film Solutions**  
Zhang Nengduo, National University of Singapore, Singapore
- P-003**    **Title: Microwave Absorbing Properties of Magnetic Composites Attached by Frequency Selective Surfaces**  
Sung-Soo Kim, Chungbuk National University, South Korea

**Closing Ceremony**

**Bookmark Your Dates**

2<sup>nd</sup> World Congress on

# **Mechanical, Metallurgy and Materials Science**

February 13-14, 2020 | Lisbon, Portugal

