The Department of Mechanical Engineering Science, Faculty of Engineering and the Built Environment is pleased to host

THE FIRST INTERNATIONAL CONFERENCE ON “SUSTAINABLE MATERIALS PROCESSING AND MANUFACTURING”

Skukuza, Kruger National Park, South Africa | January 23-25, 2017

CONFERENCE ORGANISING COMMITTEE:

South Africa:
- Tian-Chen Jen (Conference Chair), University of Johannesburg, South Africa
- Rudolf Laubscher (Co-Chair), University of Johannesburg, South Africa
- Dimitar Dimitrov (Co-Chair), Stellenbosch University, South Africa
- André Nel, University of Johannesburg, South Africa
- Esther Akinlabi, University of Johannesburg, South Africa
- Bola Ikorun, UNISA, South Africa
- Brendon Shongwe, TUT, South Africa
- Sisa Pityana, CSIR, South Africa
- API Popoola, TUT, South Africa
- Sunir Hassan, WITS, South Africa
- Claudia Polese, Wits, South Africa
- Mounamme Tloutengo, CSIR, South Africa
- Peter Olubami, University of Johannesburg, South Africa
- Johan de Koker, University of Johannesburg, South Africa
- Kapil Gupta, University of Johannesburg, South Africa
- Daniel Madirya, University of Johannesburg, South Africa
- Sunita Kruger, University of Johannesburg, South Africa
- Barend Botha, University of Johannesburg, South Africa
- Bhamjee Muaaz, University of Johannesburg, South Africa
- Francisco Pieterse, University of Johannesburg, South Africa
- Stephen Ekolu, University of Johannesburg, South Africa
- Nkosinathi Madushule, University of Johannesburg, South Africa
- Mike Shuma, University of Johannesburg, South Africa
- Vic Lawrence, Eskom, South Africa
- David Taylor, Epsilon, South Africa
- Charles Anderson, Product One, South Africa
- Maleo Chaba, Resolution Circle, South Africa

International:
- Wilson Chiu (Co-Chair), University of Connecticut, USA
- Jeytina Dutta Majumdar (Co-Chair), IIT, Kharagpur India
- Paul Matvenenga (Co-Chair), University of Manchester, UK
- Kamakar Rajurkar, University of Nebraska, Lincoln, USA
- Pradeep Menezes, University of Nevada, Reno, USA
- Chris Yuan, University of Wisconsin, Milwaukee, USA
- Sathis V. Kailas, IISC, Bangalore
- Nicholas Perry, AEMP, France
- Junying Min, Ruhr-Universität Bochum, Germany
- Steven Liang, Georgia Tech, USA
- Edson Muwenda, BIUST, Botswana
- Subha Kumapty, MSOE Milwaukee, USA
- Lars-Erik Lindgren, Luleå University of Technology, Sweden
- N. Murugan, CIT, Coimbatore India
- Sylvanus Wusu, University of Pittsburgh, USA
- Lin Zhu, Anhui Agriculture University, China
- Qinghua Chen, Chong-Qing University, China
- MOH Amuda, University of Lagos, Nigeria
- Gbenga Johnson, University of Namibia, Namibia
- Rasheeda Mahamood, University of Ilorin, Nigeria

CONFERENCE KEYNOTE SPEAKER LIST:
1. Professor Lars-Erik Lindgren (Sweden)
2. Professor J. Dutta Majumdar (India)
3. Professor K. P. Rajurkar (USA)

CONFERENCE REGISTRATION FEES:

<table>
<thead>
<tr>
<th>PARTICIPANT TYPE</th>
<th>COST</th>
<th>OPENING DATE</th>
<th>CLOSING DATE</th>
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<tr>
<td>Participant (Early bird)</td>
<td>R7,500.00</td>
<td>23 May 2016</td>
<td>19 September 2016</td>
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<td>Participant</td>
<td>R8,500.00</td>
<td>20 September 2016</td>
<td>NA</td>
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<tr>
<td>Student</td>
<td>R7,000.00</td>
<td>23 May 2016</td>
<td>NA</td>
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I. Important Deadlines:

<table>
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<tr>
<th>ACTIVITY</th>
<th>DATE</th>
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<tbody>
<tr>
<td>Call for Papers advert date</td>
<td>15 February 2016</td>
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<tr>
<td>Abstract closing date</td>
<td>15 May 2016</td>
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<tr>
<td>Acceptance of Abstracts (Not more than 300 words) Notification to Participants</td>
<td>22 May 2016</td>
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<td>Early bird registration open</td>
<td>23 May 2016</td>
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<tr>
<td>Submission of Initial Full Draft of Papers</td>
<td>17 July 2016</td>
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<tr>
<td>Acceptance of Initial Full Draft of Papers Notification to Participants</td>
<td>31 July 2016</td>
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<td>Submission of Final Papers</td>
<td>2 September 2016</td>
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<tr>
<td>Acceptance of Final Paper Notification to Participants</td>
<td>18 September 2016</td>
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<tr>
<td>Close of early bird registration</td>
<td>19 September 2016</td>
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II. Conference Themes:

I. Environmental Policies, Standards and Education for Sustainable Engineering
- Environmental management and ISO standards
- Legislation, education and corporate-social factors
- Awareness for sustainability in public and government
- Role of academia in sustainable engineering and development
- Engineering education for sustainable development

II. Life Cycle Engineering
- Product life cycle and various phases in sustainable product developments
- Life cycle activities, life phases and life cycle decision making
- Life cycle thinking and assessment
- Life cycle assessment tools and techniques
- Case studies in life cycle engineering

III. Sustainable Manufacturing Systems and Techniques
- Sustainable production systems
- Process automation for sustainable manufacturing
- Advanced and hybrid manufacturing for sustainability
- Additive manufacturing
- Laser-assisted machining
- Ultrasonic-assisted machining
- Green Machining: sustainability in conventional and advanced machining
- Environment-friendly lubricants and lubrication techniques
- Minimum quantity lubrication (MQL)
- Cryogenic cooling
- Dry cutting
- Low impact manufacturing
- Energy and resource-efficient manufacturing
- Role of digital and intelligent manufacturing in sustainability
- Optimization strategies for sustainability
- Sustainability in precision engineering and micro-machining

IV. Sustainable Materials and Processing
- Sustainability in material deposition and processing
- Green material processing technologies
- Sustainable use of materials
- Sustainable polymer recycling and processing
- Recycling of critical metals

V. Sustainable Product Design and Development
- Sustainable design, innovation and services
- Sustainable product design services
- Design for the environment
- Zero- and near-zero landfill designs for manufacture
- Design for disassembly/re-use/re-manufacturing/ recycling and serviceability

VI. Sustainable Supply Chain and Business Models
- Green supply chain and logistics
- Sustainable supply chain management
- Sustainable materials management
- Maintenance strategies for sustainable manufacturing
- Strategies and business models for sustainable development
- Business strategy and climate change
- Investment options in sustainable manufacturing

VII. Renewable Energy and Sustainability
- Bio gas production and processing
- Solar energy
- Wind energy
- Fuel cell technology
- Hydrogen generation and storage
- Energy storage technology
- Sustainable materials management

VIII. Other Important aspects
- Eco tribology
- Ecological engineering
- Technology and degrowth
- Waste treatment and management
- Lean manufacturing
- Recycling and reuse
- Disassembly and remanufacturing
- Cleaner production
- Industrial case studies

OTHER IMPORTANT INFORMATION:

- All the manuscripts submitted to the conference will go through double blind peer review process.
- The conference proceeding will have an ISBN number.
- The Proceeding will be published by Elsevier in Procedia Manufacturing.
- The conference will be EI index and will appear on Scopus.
- Two ISI-listed journals will be accepting the best papers from this conference.

For enquires, please contact
Tien-Chien Jen (Conference Chair)
Email: tjen@uj.ac.za | Tel: +27 11 559-4208
Conference website: https://www.etouches.com/smpm
Abstract Submission: https://www.eiseverywhere.com/eSites/165114/Homepage