

5TH AFRICAN INTERNATIONAL CONFERENCE on Industrial Engineering and Operations Management

Pretoria, South Africa

ORGANIZER



IEOM Society
INTERNATIONAL

HOST UNIVERSITY

UNISA



April 23–25, 2024

Sponsors and Partners



Organizer



Industrial Engineering and Operations Management Society International

IEOM Society International, a 501(c)(3) non-profit organization, 21411 Civic Center Dr., Suite 205, Southfield, Michigan 48076, USA, Phone: 1-248-450-5660, Email: info@ieomsociety.org

Welcome

to the

**The Fifth African International Conference on
Industrial Engineering and Operations
Management 2024**

**CSIR Conference Centre,
Pretoria, South Africa**

23-25 April 2024

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Message from Prof LenkaBula

Principal and Vice-Chancellor of the University of South Africa

The Department of Operations Management as well as Industrial Engineering at the University of South Africa focuses on all aspects of operations management and engineering; serving industry, government, and non-governmental organisations to advance the expansion of engineering and operations management knowledge and practice into the continent and beyond, in line with the African Union Agenda 2063, which aims to pursue inclusive growth and sustainable development on the African continent, in an inclusive and integrated fashion.

To that end, the University of South Africa believes that mutually beneficial partnerships and projects across the African continent and beyond, at local, national, continental and global level, will empower and develop communities through shared knowledge, improved levels of industrialisation and economic diversification, towards increased self-sufficiency, profitability and operational efficiencies. The Fifth African International Conference on Industrial Engineering and Operations Management aims to enable growth in this context, and the University of South Africa is proud to be hosting this event.

The integrated approach to the Conference will see stakeholders from diverse backgrounds and experiences across the African continent and beyond meeting to share their knowledge, experience and best practice across a range of engineering and operations management topics. In the true spirit of Ubuntu/Batho I am delighted to extend to you a warm University of South Africa welcome to the Fifth African International Conference on Industrial Engineering and Operations Management. Please accept my very best wishes for an exciting and enriching conference experience. I trust that you will all return home invigorated and enthused and even more committed to the advancement of engineering and operations management on the African and global arenas.

Prof LenkaBula



Message from Dr MT MaseTshaba

*Acting Executive Dean, College of Economic and Management Sciences
University of South Africa*

As the Acting Executive Dean of the College of Economic and Management Sciences at the University of South Africa (Unisa), it is my profound honour and pleasure to extend a warm welcome to each one of you attending The Fifth African International Conference on Industrial Engineering and Operations Management, hosted in collaboration with the Society of Operations Management in Africa (SOMA).

This conference, set against the vibrant backdrop of Pretoria at the CSIR International Convention Centre, is a testament to our collective commitment to advancing the field of Industrial Engineering and Operations Management across our continent and beyond. It aligns with the African Union Agenda 2063's vision for inclusive growth and sustainable development, emphasising the importance of cross-continental collaboration for knowledge sharing, industrialisation, and economic diversification.

We are gathered here not just as professionals but as visionaries, looking to forge pathways for operational excellence, innovation, and resilience in our industries and academic institutions. The conference presents an unparalleled platform for delegates to delve into a diverse array of topics, from supply chain management to the transformative impacts of the Industry 4.0 revolution.

I encourage each of you to fully engage in the rich tapestry of discussions, presentations, and networking opportunities that this conference offers. It is your insights, research, and collaborations that will spearhead the growth and transformation of our field, particularly in the context of the dynamic and evolving African landscape.

Let us use this platform to share our knowledge, challenge our perspectives, and build enduring partnerships that will continue to enrich our disciplines and contribute to the prosperity of our continent.

Once again, welcome to The Fifth African International Conference on Industrial Engineering and Operations Management. May your participation be fruitful, your connections meaningful, and your experiences enriching.

Dr MT MaseTshaba

Message from Dr. Ahad Ali and Prof. Don Reimer

On behalf of the IEOM Society International, we would like to welcome you to the 5th African International Conference on Industrial Engineering and Operations Management, April 23-25, 2024, hosted by University of South Africa (UNISA). This unique international conference provides a forum for academics, researchers, and practitioners from many industries to exchange ideas and share recent developments in the fields of industrial engineering and operations management. This diverse international event provides an opportunity to collaborate and advance the theory and practice of major trends in industrial engineering and operations management. There were more than 250 papers/abstracts submitted from 29 countries. The program includes many cutting-edge topics of industrial engineering and operations management.

The 2024 IEOM South Africa conference has a global participation from the following countries and territories:

- | | | | |
|---------------|---------------|------------------|-------------------|
| 1. Australia | 9. Germany | 17. Oman | 25. UAE |
| 2. Austria | 10. Ghana | 18. Peru | 26. UK |
| 3. Bangladesh | 11. India | 19. Philippines | 27. United States |
| 4. Botswana | 12. Indonesia | 20. Russia | 28. Zambia |
| 5. Brazil | 13. Kuwait | 21. Saudi Arabia | 29. Zimbabwe |
| 6. Egypt | 14. Namibia | 22. Sierra Leone | |
| 7. Ethiopia | 15. Nepal | 23. South Africa | |
| 8. France | 16. Nigeria | 24. Turkey | |

The IEOM Society extends its appreciation to the conference chair from University of South Africa, Dr. Anthea Amadi-Echendu. The IEOM Society also expresses its sincere thanks to our sponsors, university partners, authors, reviewers, keynote speakers, panelists, the local committee, and the numerous volunteers whose dedicated contributions of time and talent have played a pivotal role in ensuring the success of this distinctive international conference.

Wishing you a wonderful and enriching experience in South Africa!



Dr. Ahad Ali
Conference Co-Chair

Associate Professor and Director of Industrial Engineering Program
Lawrence Technological University, Southfield, Michigan, USA
Executive Director, IEOM Society International



Prof. Don Reimer
Program Co-Chair
Chief Operating Officer
IEOM Society International
Southfield, Michigan, USA



CITY OF TSHWANE

IGNITING EXCELLENCE

proudly carries the status of South Africa's intellectual capital. More than 85% of all research and development work in South Africa is conducted in Tshwane. A total of four universities and seven of the eight government statutory councils are based here.

In the heart of Tshwane stands a monument that transcends mere architecture; it embodies the spirit of a nation and the resilience of its people. This is the majestic Union Buildings that has for long been a symbol of governance and democracy in South Africa. In the beautiful gardens the towering statue of Nelson Mandela, gazes out over the city to encapsulate the significance of this landmark.

The Mandela statue serves as a powerful reminder of the values and principles that guided Mandela's life and leadership – forgiveness, reconciliation, and the pursuit of justice.

With a blend of modernity and tradition, this dynamic city offers a plethora of experiences that captivate the senses and enrich the soul. From the tranquil waters of *The Blyde Lagoon* at Silver Lakes to the bustling streets of Mamelodi township, from the roaring sounds of untampered wildlife at Dinokeng Nature Reserve to the glittering diamonds of Cullinan, Tshwane beckons visitors into its tapestry of cultural experiences.

Menlyn Maine stands as an example of modernity and sophistication. Indulge in a gourmet meal at one of the many fine restaurants, catch the latest blockbuster at the cinema, or shop for designer fashions at upscale boutiques - there's no shortage of ways to enjoy Menlyn Maine's vibrant atmosphere.

Those who seek a more laid-back vibe can take a leisurely stroll through *The Village* in Brooklyn's tree-lined avenues, stop to browse the boutiques and art galleries along the way, or enjoy a lazy brunch at one of Hazelwood's cozy cafes.

Tshwane is the place to network, to experience, and to evolve.

We look forward to seeing you!

Tourism Regards

Dear IEOM 2024 Delegates!

Tshwane welcomes you to the capital of South Africa where innovation, culture, a cosmopolitan vibe, and international events create unforgettable experiences.

Tshwane is the official seat of government and houses the offices of President Cyril Ramaposa. Tshwane is the largest metro in South Africa and the third largest city in the world in terms of land mass, after New York and Tokyo/Yokohama. It is home to the second largest number of embassies (134) in the world following on Washington DC.

One of Tshwane's defining characteristics is its high concentration of academics, researchers, and scientists, and the city

Message from the Organising Committee

The Fifth African International Conference on Industrial Engineering and Operations Management

Dear Participants,

It is with a great sense of pride that the University of South Africa (Unisa) and the Society of Operations Management in Africa (SOMA) is hosting the Fifth African International Conference on Industrial Engineering and Operations Management. We set out to ensure that we put together an engaging, collaborative environment for the conference with thought-provoking presentations of papers and lively discussions to stimulate further works. All papers were rigorously scrutinised and submitted to a double-blind peer review.

We thank all keynote addresses, authors, presenters, partners, reviewers, session chairs and delegates for participating in the conference.

We look forward to a stimulating conference that is filled with critical and engaging conversations and interactions and hope that you will enjoy the conference.

Organising Committee

General Information

Conference venues

23 April 2024

* Ruby auditorium - plenary room

* Amber rooms 1 and 2/Onyx room - breakaway sessions

24 April 2024

* Ruby auditorium

* Crystal/Garnet/Onyx room - breakaway sessions

25 April 2024

* Ruby auditorium

* Crystal/Garnet/Onyx room - breakaway sessions

Foyer: Lunch

Amber: Gala dinner

Registration and Information desk

The registration desk will be open every day from 07:30.

Presentations

Presenters should load their presentations on the laptop in the room where they will be presenting at the following times:

Morning presentations: between 07:30 and 08:00

Afternoon presenters: During lunch break

Mobile phones

Please switch off your mobile phone when entering the lecture halls.

Name badges

Please wear your nametag at all times in order to get access to the Conference venues and functions.

Refreshments and lunches

Refreshments and lunch will be served in the foyer. Please note that drinks and food consumed outside the conference times will be for your own account.

Smoking

In accordance with Government Legislation regarding smoking in public areas, you are requested to adhere to the regulations of the CSIR Conference venue.

Functions

Thursday night: Networking, Gala dinner and Awards in Amber room

Beverages during the dinner functions *only* will include local wine, bottled water and soft drinks. *All other beverages* will be for your own account.

Dress code

| | |
|--------------|-------------------------------|
| Conference: | Office wear |
| Gala dinner: | Smart/traditional/office wear |

Contact detail

| | |
|----------------------|--------------|
| Anthea Amadi-Echendu | 082 556 2767 |
| CSIR | 012 841 3388 |

We wish you an enjoyable Conference!

Information for Speakers and Chairs

Speakers

Before your presentation slot:

- The programme is divided into sessions with themes according to which presentations are grouped.
- Please load your presentation on the laptop in the room where you will be presenting early morning or during the break before your session.
- An assistant has been allocated to the room to assist you with loading your presentation.
- If you want to use your own laptop, please test it during the break to make sure that it is working properly with the projection equipment.
- Introduce yourself to the Session Chair before the session commences.

During the presentation:

- Keep your presentation to 10 minutes and use the remainder of the time to respond to questions and do the change-over between speakers.
- Please keep to the allocated time. If a session runs late, it disrupts all the other parallel sessions as well.

Session Chairs

Firstly, thank you for agreeing to be a session chair. Your role will be to keep the session on track and to facilitate a short discussion at the end of the session. Chairs are encouraged to make connections between papers and facilitate a meaningful debate or discussion that enhances the experience of the audience within the time provided.

Before the presentation:

- Meet the speakers during the break before the session.
- Start each presentation exactly on time. This is to allow delegates who may want to swap between tracks to enter the room. (Do not start early).
- If a presenter is not present, please use the time slot for discussions and start with the next presentation at the time indicated on the programme.
- Introduce the speaker.

During the presentation:

- Allow the speaker 10 minutes for presentation and 5 minutes for Q&As and indicate when the time has expired.
- If the speaker seems uncertain during questions, please assist him/her with facilitation.

After the presentation:

- Thank the speaker
- Allow delegates to leave the room should they wish to attend another session.
- Start with the next speaker on time.

We would like to acknowledge the following partners for their generous support to The Fifth African International Conference on Industrial Engineering and Operations Management (IEOM) Conference

Sponsors and Partners



Organizer



Industrial Engineering and Operations Management Society International

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Keynote Speakers



Dr Menghestab Haile

Regional Director for Southern Africa - World Food Programme

Dr. Menghestab Haile is WFP's Regional Director for Southern Africa. In this role, he provides strategic guidance, supervision and support to WFP's country operations southern Africa and the Indian Ocean states.

Prior to his appointment on 1 July 2021, Dr. Haile served as WFP's Representative & Country Director in Egypt. He joined WFP in 1999 and has served in a variety of country office, regional and headquarter positions often with continental or global remit. Dr. Haile has worked in Sudan leading WFP's food security and early warning systems development. He moved to WFP's Headquarters in Rome, Italy, and led the organization's Geographic Information System (GIS) and Remote Sensing department. He later served as Senior Policy Advisor to then WFP Deputy Executive Director for Hunger Solutions and latterly, as Deputy Director of the WFP Africa office in Addis Ababa, Ethiopia. In this role, he was responsible for liaising with the African Union Commission (AUC), New Partnership for Africa's Development (NEPAD) and United Nations Economic Commission for Africa (UNECA). He also served as WFP's Deputy Country Director in Egypt.

Before WFP, Dr. Haile occupied diverse professional roles ranging from university lecturer in Ethiopia, Research Scientist in the United Kingdom (UK), government civil servant in Ethiopia, and international private sector consultant in Intergovernmental Authority on Development (IGAD).

Dr. Haile has a PhD in Meteorology from the University of Reading, UK, and has published several papers. He is regularly invited to speak at international forums in the areas of food security monitoring, climate change and geospatial applications. Dr. Haile is passionate about innovation and capacity building of national governments and developing strategic partnerships with regional blocs in the areas of Early Warning and Vulnerability Assessment and Mapping (VAM), Disaster Reduction and Risk Management, including emergency response and applications of GIS and remote sensing.

Dr. Haile is a strong believer and advocate for innovative Public Private Partnerships and working with governments to achieve the Sustainable Development Goals and change the lives and livelihoods of the millions of underprivileged and marginalized communities.

Dr. Haile is a British National of Ethiopian descent.



Ms Portia Nkuna

Managing Director at Fazi Rail

Post-Graduate Diploma: Management Practice (Henley Business School) *Cum laude*; Bachelor of Technology: Electrical Engineering (UNISA).

Ms Portia Nkuna is a seasoned and dedicated director with proven senior managerial and technical experience in the railway industry. She thrives in high-paced environments and is a strategic- & exponential thinker, experienced in turning around low-performing organisations. Ms Nkuna is passionate about building new organisations and offers an engaging and pleasant personality to improve stakeholder relationships. She is experienced in managing multiple projects simultaneously with a high degree of accuracy.



Dr Thuli N Khumalo

Executive Manager: Council for Geoscience

Dr Khumalo is the Executive Manager, Council for Geoscience. She had held various positions previously, including being the Chief Operations Officer of the Presidential Climate Commission, having joined the PCC in its infancy stage in 2021.

Dr Khumalo is a sustainability expert and formerly a Deputy Director-General responsible for Climate Change and Air Quality in the Department of Forestry, Fisheries, and the Environment (DFFE). Before then, she served as the Chief Director: Air Quality Management and National Air Quality Officer for eight (8) years. She joined the Department of Environmental Affairs in 2009 as Director: Atmospheric Policy, Regulation and Planning, and had previously been a Senior Environmental Scientist at the Council for Scientific and Industrial Research (CSIR). She holds a PhD in Environmental Science from the University of the Witwatersrand and has recently completed a Master of Philosophy in Corporate Strategy from the Gordon Institute of Business Science, among others. Dr Khumalo has considerable experience in organizational leadership and team management; strategy development and implementation; stakeholder management and co-ordination; as well as policy development and implementation.



Prof Ertunga C. Ozelkan

**Professor of Industrial and Systems Engineering
The University of North Carolina at Charlotte, USA**

Dr. Ertunga C. Ozelkan is a Professor of Industrial and Systems Engineering, and the Associate Director of the Center for Lean Logistics and Engineered Systems at the University of North Carolina at Charlotte. He is also the President and Founder of Operational Excellence Professionals, LLC, which provides Lean Six Sigma and continuous productivity improvement solutions to the industry. Before joining academia, Dr. Ozelkan worked for i2 Technologies, a leading supply chain software vendor and for Tefen USA, a systems design and industrial engineering consulting firm. Dr. Ozelkan holds a Ph.D. degree in Systems and Industrial Engineering from the University of Arizona. He teaches courses on production control systems, lean six sigma practice and management, lean supply networks, decision and risk analysis, designed experimentation, and systems design and optimization. His current research interests include flexible production systems planning and optimization, and optimal group purchasing decisions in supply chains. Dr. Ozelkan has been actively serving in leading roles in several national and international professional societies over the years including the Institute of Industrial and Systems Engineer's (IISE), American Society of Engineering Management (ASEM), the Institute for Operations Research and the Management Sciences (INFORMS) and the American Society of Engineering Education (ASEE). He has published over 90 articles in international journals and conferences, and he has received multiple awards, including the Institute of Industrial and Systems Engineer's (IISE's) Operational Excellence Division's (former Lean Division) excellence in teaching award, the Merl Baker Award for outstanding service and contribution from the Engineering Management Division of the ASEE and the Meritorious Service Award from the ASEM.



Mr Talifhani Banks

Founder and Group CEO of AnalyticsX

Meet Talifhani Banks, the visionary founder and Group CEO of AnalyticsX, a technology conglomerate transforming industries through data & software innovations.

With a background in Statistics and Econometrics from the University of Pretoria, Talifhani Banks honed his expertise at leading corporations like Massmart and Pick n Pay before launching his entrepreneurial journey. His ventures include the multi-award-winning Analytics Advertising and the sought-after Spaza Eats.

Known for pioneering the application of the TIPS framework in service delivery, Talifhani has earned accolades such as Top Entrepreneur 2022, Best Tech CEO in Africa, and BRICS Entrepreneur of the Year 2022.

Join us as he shares insights from his remarkable career and the future of tech-driven innovation.



Prof Ahmed Mahmoud Deif

Associate Professor of Industrial Technology at California Polytechnic State University

Dr. Deif is an Associate Professor of Industrial Technology at California Polytechnic State University. He received his MS and PhD in Industrial & Manufacturing Systems from the University of Windsor, Canada. His current research interests are in supply chain innovation and social sustainability as well as lean and green manufacturing/service systems. He has more than 85 publications, some of which have won best paper awards. Dr. Deif has a diverse portfolio in his industrial experience ranging from automotive industry where he worked at the R&D center at Chrysler Canada to steel industry to electronic industry and finally assembly industry at various engineering and consultancy capacities. As an operation and supply chain expert, Dr. Deif helped various industries in improving their production performance and is engaged with development efforts of various national and international organizations in North America, Africa and Asia over the last 20 years. He serves as a faculty fellow at the center of innovation and entrepreneurship (CIE) at Cal Poly and as an active member in many professional societies including IEOM since 2016.



Prof James J Cochran

Professor of statistics and the Mike & Kathy Mouron Research Chair with the University of Alabama's Culverhouse College

James J. Cochran is professor of statistics and the Mike & Kathy Mouron Research Chair with the University of Alabama's Culverhouse College. He is also a Research Associate with the Alabama Transportation Institute. He has been a Visiting Scholar with Stanford University, University of South Africa, Universidad de Talca, Pôle Universitaire Léonard De Vinci, University of Limpopo, University of Namibia, and University College London.

Dr. Cochran's research focuses on problems at the interface of statistics and operations research. He has published eighteen book chapters, over fifty research articles, and almost 100 other articles. He has taught a wide range of statistics and operations courses from the introductory undergraduate level through PhD seminars in both statistics and operations research, and he is coauthor of eight textbooks in statistics, operations research, analytics, and data visualization. He has served on the editorial boards for eighteen journals and as Editor-in-Chief of INFORMS Transactions on Education from 2007-2012.

Dr. Cochran is the founding Editor-in-Chief of the Wiley Encyclopedia of Operations Research and the Management Sciences, Wiley Series in Operations Research and Management Science, Oxford Anthology of Statistics in Sports series, and INFORMS Analytics Body of Knowledge. He has served as a consultant to a wide variety of corporations, government agencies, and not-for-profit organizations around the world.

Dr. Cochran established an international teaching effectiveness colloquium series and has organized these events in Uruguay, South Africa, Colombia, India, Tanzania, Argentina, Kenya, Nepal, Cameroon, Croatia, Cuba, Estonia, Fiji, Mongolia, Moldova, Bulgaria, Tunisia, Grenada, and Sri Lanka. He was a founding co-chair of Statistics without Borders and a founding committee member for the INFORMS Pro Bono Analytics initiative. He has delivered keynote addresses to conferences in twenty-seven nations.

Dr. Cochran has received the INFORMS Prize for the Teaching of OR/MS Practice, Mu Sigma Rho Statistical Education Award, Waller Distinguished Teaching Career Award, ASQ's William G. Hunter Award, and Karl E. Peace Award for outstanding statistical contributions for the betterment of society. He is a three-time finalist for the Innovative Applications in Analytics Award and a finalist for the Melbourne Business School Practice Prize for Achievement in Business Analytics. He is also a Fellow of the American Statistical Association and a Fellow of INFORMS, and he has received both the American Statistical Association's Founders Award and the INFORMS President's Award.



Prof Rene Pellissier

Head of Climate Change, Southern African regional association of universities

‘If you try to predict the future, know that you will be wrong. The trick is to be as least wrong as possible and be ready.’

René Pellissier is an international consultant, strategic and research specialist. She headed SARUA’s Climate Change and Sustainable Development programme including the development of the transdisciplinary curriculum for the master’s programme in Climate Change and Sustainable Development for the SADC. She also heads the German Industrialisation Organisation’s Industrial Pharmacy Fellowship across the SADC. She is involved in the design and development of several EU grants.

In her other work, she heads the Cape Higher Education Leadership Academy, where she designs and facilitates leadership development programmes in Higher Education and presents the following workshops: Operational Excellence in Higher Education, Human-centric Leadership in Higher Education, Knowledge co-production and mode 3 thinking and Systems Thinking in Higher Education. Rene supervises doctoral students in Digital Transformation and Complexity and regularly offers research design and research methods workshops. She currently leads a large EU funded programme on participatory approaches for knowledge co-production towards implanting the SDGs and oversees an IDRC-funded project on societally impactful research in the Southern African Development Community.

She works as strategist, researcher, and systems engineer in the international arena based on her extensive international experience across the globe at universities in the United States, the United Kingdom, France and across Africa and sees herself as an international traveller and transdisciplinary innovator. Her specialisations are technology and innovation and complex adaptive systems.

She is a futurist and consultant specializing in the world of future work based on the evolution of technology and the resultant societal changes and needs. She is Professor of Research and Innovation (SA) and Professor of Information Management (UK). René holds an MSc in Mathematical Statistics, an MBA and a PhD in Systems Engineering.

Committees

Organising Committee

Dr Anthea Amadi-Echendu, Chair
Prof Don Reimer
Prof Ahad Ali
Prof Olufemi Adetunji
Prof Pule Kholopane
Prof Sarma Yadavalli
Ms Nonhlanhla Seoe
Ms Charle Hodgkiss
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Dr Sebonkile Thaba
Prof Kemlall Ramdass
Ms Matshidiso Tsholetsane
Dr Khumbulani Mpofu
Dr Oludolapo Akanni Olanrewaju
Dr Paul A. Ako, formerly Ozor
Dr Taufiqul Islam
Dr. Mizanur Rahman
Ms Rocksana Ahmed

Reviewers

| FIRST NAME | LAST NAME | AFFILIATION |
|-----------------|---------------------|---|
| A. B. M. Mainul | Bari | Bangladesh University of Engineering and Technology |
| Abdul Talib | Bon | Universiti Tun Hussein Onn Malaysia |
| Ahad | Ali | Lawrence Technological University |
| Ahmad | Elshennawy | University of Central Florida |
| Akinlo | Mogbojuri | Durban University of Technology |
| Aldy | Gunawan | Singapore Management University |
| Alfred | Sithole | UNISA |
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| Anele | Sithole | Durban University of Technology |
| Anthea | Venter | University of Pretoria |
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| Asef | Shahriar | Khulna University of Engineering & Technology |
| Asela | Kulathunga | University of Exeter |
| Ayanda | Sibiya | University of Johannesburg |
| Ayub | Nabi Khan | BGMEA University of Fashion & Technology |
| Bhaskar | Bhandarkar | Institute For innovation, Industrial Engineering and Entrepreneurship |
| Bongumenzi | Mncwango | Durban University of Technology |
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| Brian | Selowa | University of Johannesburg |
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| Chandan | Jha | Indian Institute of Management Ranchi |
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| Dr Peter | Onu | University of Johannesburg |
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| Eno | Udoh | Auburn University |
| Eric Mikobi | Bakama | University of Johannesburg |
| Eveth Nkeiruka | Nwobodo-Anyadiiegwu | University of Johannesburg |
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| Gbeminiyi | Oyewole | University of the Witwatersrand |
| Genevieve | Bakam Fotso | University of Johannesburg |
| George | Pappas | LTU |
| Giulio | Galie' | Alma Mater Studiorum Università di Bologna |
| Guilherme | Frederico | Federal University of Paraná |
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| Hamit Metin | Örnek | Bahçeşehir University |
| Hassan | Hijry | University of Tabuk |
| Henrique | Ewbank | Hewbank Consulting |
| Hesham | Alfares | King Fahd University of Petroleum and Minerals |
| Hilda Kundai | Chikwanda | University of Pretoria |

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| Ignatio | Madanhire | University of Zimbabwe |
| Jacob Ngoy | Masiala | UNISA |
| Jan | Swanepoel | Tshwane University of Technology |
| Jiří | Tupa | University of West Bohemia |
| Joseph Babatunde | Akinbile | McPherson University |
| Jürgen | Lenz | Technical University of Applied Sciences Augsburg |
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| Kemlall | Ramdass | University of South Africa |
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| Lawrance | Seseni | University of Johannesburg |
| Leonie | Louw | University of South Africa |
| Lesego | Serwadi | UNISA |
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| Nayan | Chakrabarty | University of Arkansas |
| Ndivhuwo | Nemtajela | UNISA |
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| Nita | Sukdeo | University of Johannesburg |
| Nkosilathi | Nkomo | Vaal University of Technology |
| Noha | Mostafa | Zagazig University |
| Ntomboxolo | Faku | UNISA |
| Olasumbo | Makinde | University of Johannesburg |
| Olufemi | Adetunji | University of Pretoria |
| Patrick | Nziu | Vaal University of Technology |
| Pius | Oba | University of the Witwatersrand |
| Pule | Kholopane | Vaal University of Technology |
| R.R.K. | Sharma | Indian Institute of Technology |

| | | |
|-----------------|------------|---|
| Razzaqul | Ahshan | Sultan Qaboos University |
| RiaanDirkse van | Schalkwyk | UNISA |
| Richard | Olawoyin | Oakland University |
| Rocksana N | Ahmed | LTU |
| Rosemary | Seva | De La Salle University |
| Sadia Nawsheen | Nijhum | Bangladesh University of Engineering and Technology |
| Sadman Sakib | Tushan | Bangladesh University of Textiles |
| Saleh | Alghamdi | King Khalid University |
| Sambil Charles | Mukwakungu | University of Johannesburg |
| Sebonkile | Thaba | University of Johannesburg |
| Seeung | Oh | South Carolina State University |
| Shahram | Taj | Florida Polytechnic University |
| Shalini | Singh | Durban University of Technology |
| Shubhangi | Gautam | Chandigarh University |
| Shyaka | Gilbert | University of Rwanda |
| Sinakhokonke | Mpanza | University of South Africa |
| Sizile | Makola | UNISA |
| Steadyman | Chikumba | UNISA |
| Steven | Butt | Western Michigan University |
| Tamer | Khalaf | King Saud University |
| Thomas | Munyai | Tshwane University of Technology |
| Timothy | Greene | Western Michigan University |
| Tshifhiwa | Nenzhelele | Tshwane University of Technology |
| Tshinangi | Kapya | University of Pretoria |
| Tugba | Danaci | Kirikkale University |
| Vidya | Jagunandan | UNISA |
| Vikas | Kumar | Birmingham City University |
| Vincent | Ongero | Makerere University Business School |
| Vishnu | C Rajan | Indian Institute of Technology Tirupati |
| Vitor | Caldana | Instituto Federal de São Paulo |
| Walid | Al Saad | University of Derby |
| Waqar Ahmed | Khan | KFUPM |
| Xuemin | Chen | Texas Southern University |
| Zakaria | Yahia | Nile University |

Programme Overview

22 April 2024

09:00-15:30 Online student competitions and student colloquiums via Zoom

23 April 2024

07:00-08:30 Registration in the foyer
08:30-10:30 Welcome addresses and Keynotes
10:30-11:00 Refreshment break
11:00-13:00 Workshops
13:00-13:45 Lunch
13:45-15:00 Paper presentations
15:00-15:30 Refreshments
15:30-17:00 Paper presentations

24 April 2024

08:30-08:45 Welcome
08:45-09:45 Keynote addresses
09:45-10:30 Paper presentations
10:30-11:00 Refreshment break
11:00- 12:00 Panel sessions
11:15- 13:15 SAIE special session
11:15-13:00 Paper presentations
13:00-13:45 Lunch
13:45-15:00 Paper presentations
15:00-15:30 Refreshments
15:30-17:00 Paper presentations
18:00 Networking, Gala dinner and Awards

25 April 2024

08:30-08:50 Welcome
08:50-10:50 Keynote addresses
10:50-11:20 Refreshment break
11:20- 13:05 Paper presentations
13:05-13:45 Lunch
13:45-15:15 Paper presentations
15:15-15:30 Refreshment break
15:30-17:00 Paper presentations

Pre-Conference Workshops

Workshop 1: Do we still matter? Maximizing the contribution of humans in an automated world



Presenter: Dr Barbara Louw

This workshop presents an application of a Wholistic Wellness Model in the context of developing valuable human capital by embracing the elements that make them unique. The Wholistic Wellness Model was developed as part of Dr Barbara Louw's PhD studies and unlike many academic products, the model is the product of practical, industry involvement. Maximising human contributions in an automated world, require addressing wellness and wholeness in a manner that empowers people to harness their potential.

Kokt (2019) indicates that “artificial intelligence is not about replacing jobs rather about creating a new world of collaboration between humans and machine”. The changes we are faced with in the world of work make it more important than ever to comprehend and respond to the way humans work from a social sciences perspective. This required collaboration between humans and machine creates an opportunity to highlight and embrace the elements that make humans unique, irreplaceable and successful.

This workshop will cover the following topics:

- Redefining employee wellness
- Aspects influencing employee wellness
- Employee wellness strategies
- Creating work-life strategies
- Ten elements of the Wholistic Wellness Coaching Model
- Practical implementation of the Wholistic Wellness Model

Workshop 2: Foundations of Structural Equation Modelling (SEM)



Presenter: Prof Olufemi Adetunji

The workshop will present an introduction to Multivariate analysis, emphasising regression analysis as foundation for Structural Equation Modelling (SEM); present the SEM modelling paradigms (CB and PLS SEM, with emphasis on PLS SEM); discuss fundamentals of SEM model development (including notations, representations, and development of different types of structural and measurement models). It also discusses the overarching SEM research process (theorising, hypothesising, design, data collection, model testing and research discussion process), mentions some SEM application programs and packages (with emphasis on SMART PLS), and presents one or two cases for illustration.

Workshop 3: From knowledge co-production to participatory approaches



Presenter: Prof Rene Pellissier

Introduction

- Overview of the workshop
- Objectives and expected outcomes
- Brief introduction to knowledge co-production and its relevance

Section 1: Understanding Knowledge Co-Production

- Reflection questions on participants' prior experience with knowledge co-production.

- Group discussion on the shifting raison d'être of research and the move towards participatory approaches.

Section 2: Calls to Action and The AI Spring

- Reflect on the impact of AI developments on participants' work and research fields.
- Group debate on potential solutions for keeping pace with the rate and scale of problems and challenges humanity faces.

Section 3: The Value of Trans-Disciplinarity and Mode 3 knowledge co-production

- Case studies analysis on how trans-disciplinarity can enhance efficiency, innovation, and problem-solving.
- Role-playing exercise to explore collaborative problem-solving in a transdisciplinary context.

Section 4: Operationalizing Knowledge Co-Production

Exploring the challenges and strategies of knowledge co-production in the context of operations management and industrial engineering.

- Participants outline a collaborative project idea, incorporating elements of trans-disciplinarity and participatory research.

Section 5: Participatory Research Approaches

- Design a participatory research project, integrating stakeholders and outlining objectives, methods, and expected outcomes.
- Analyze different participatory research approaches and their applicability in various contexts.

Section 6: Implementing Knowledge Co-Production

- Develop a plan to integrate knowledge co-production in an existing research project or organizational process.
- Create a roadmap for fostering a culture of collaboration and continuous learning within a team or organization.

Section 7: Reflection and Action Planning

- Participants reflect on key takeaways and how they can apply the concepts of knowledge co-production in their work.
- Develop a personal action plan to implement knowledge co-production strategies.

Closing

- Summary of key insights from the workshop
- Mental model.

Workshop 4: Six sigma



Presenter: Prof Ahad Ali

This lean six sigma workshop will provide an overview of lean manufacturing and six sigma processes. It will address value added and non-value-added activities of any operations, processes, systems, plants and enterprises. Toyota Production System (TPS) will be highlighted for the lean part and DMAIC (Define, Measure, Analyze, Improve and Control) will be highlighted for the six sigma part. Waste reduction and perfection will be the key for lean system and variation reduction and defect reduction will be the key for six sigma processes. Participants will learn how to use lean six sigma to solve real life problem. Companies may have defect issues, variations in part production, service level issues, etc. The workshop should help how to solve those kinds of problem from the scratch. Two case studies will be highlighted during the workshop. Interactive learning will be used during workshop.

Post-Graduate Colloquium

Masters & Doctoral candidates will be able to present their studies to a qualified panel of reviewers at a colloquium in order to help these students improve their studies. The colloquium will take place in parallel with the Workshops and students will not have to pay the Workshop fee to participate.

Panel members:

| Name and Surname | Area of expertise |
|--------------------------|---|
| 1. Dr Ndivhuwo Nemtajela | Operations Management |
| 2. Dr Phil Mathane | Sustainable Urban Planning & Development and Digital Business |
| 3. Prof Pule Kholopane | Operations Management |
| 4. Dr Nita Sukdeo | Quality Management |

Online Zoom sessions

Monday 22 April 2024

| 08:45 - 09:00 | Welcome by Ms Sebonkile Thaba University of Johannesburg | |
|---------------------|---|--|
| | Doctoral dissertation | Graduate student paper |
| 09:00 - 09:15 | <p>Digitisation and Automation of photographic records of Zimbabwe's women of the liberation struggle</p> <p style="text-align: center;">Paper ID: 200</p> <p style="text-align: center;">Presenter: Amos Bishi Harare Polytechnic</p> | <p>Unveiling a Student Exam Verification System that Enables Secure and Efficient Access Control Using AI Technologies</p> <p style="text-align: center;">Paper ID: 108/205</p> <p style="text-align: center;">Presenter: Penjani Hopkins Nyimbili University of Zambia</p> |
| 09:15 - 09:30 | <p>Experts' Consensus on Critical Success Factors for Contract Manufacturing Companies</p> <p style="text-align: center;">Paper ID: 232</p> <p style="text-align: center;">Presenter: Trust Mahove Stellenbosch University</p> | <p>Lumen Depreciation in LEDs from a Product Lifecycle Standpoint</p> <p style="text-align: center;">Paper ID: 222</p> <p style="text-align: center;">Presenter: Fakir Zihad Lamar University</p> |
| 09:30 - 09:45 | <p>How can Self-Development Improve the Relationship between Human Error and Service Effectiveness in the Public Sector?</p> <p style="text-align: center;">Paper ID: 218</p> <p style="text-align: center;">Presenter: Ahmad Rizali Universitas Sriwijaya</p> | <p>The Integration of Material Recycling and Green Building Concepts in Civil Engineering</p> <p style="text-align: center;">Paper 227</p> <p style="text-align: center;">Presenter: FAKIR ZIHAD Lamar University</p> |
| 09:45 - 10:00 | <p>Implications of Informality on Acquisition of 4IR Technological Innovations in the Metal Fabrication Industry: A Literature Review</p> <p style="text-align: center;">Paper ID: 31/181</p> <p style="text-align: center;">Presenter: Onias Sanangura University of Zambia</p> | <p>Utilizing the potential of Artificial intelligence to enhance agriculture productivity and sustainability in the Sub-Saharan region.</p> <p style="text-align: center;">Paper ID: 93</p> <p style="text-align: center;">Presenter: Mutsa Chirasha Mclink</p> |
| 10:00 - 10:15 | <p>Understanding Value Creation in the Public Sector Through the Application of Lean</p> <p style="text-align: center;">Paper ID: 17</p> <p style="text-align: center;">Presenter: Unathi Thango University of South Africa</p> | <p>Design of a smooth flat plate solar air heater for neonatal intensive care unit using Grey-wolf Algorithm.</p> <p style="text-align: center;">Paper ID: 94</p> <p style="text-align: center;">Presenter Mutsa Chirasha Mclink</p> |
| 10:15 - 10:45 | COMFORT BREAK | |

| | | |
|------------------------------|---|---|
| <p>10:45 – 11:00</p> | <p>Willingness to pay for second generation bioethanol: a contingent valuation approach</p> <p>Paper ID 167</p> <p>Presenter: José Antonio Taquíá Gutiérrez Universidad de Lima</p> | <p>Universidad de Lima</p> <p>Computational Fluid Dynamic Analysis of Biomimetic Supercritical Airfoils Inspired by Sharks: A Bionic Performance Optimization Approach</p> <p>Paper ID: 236</p> <p>Presenter: Nicholas Xavier University of Johannesburg</p> |
| <p>11:15 – 11:30</p> | <p>Lean Warehousing, 7S and SLP tools to improve productivity in the inspection and storage process in a Spare Parts Warehouse of an Automotive Retail Company</p> <p>Paper ID: 203</p> <p>Presenter Juan-Carlos Quiroz-Flores Universidad de Lima</p> | <p>Modeling and Analysis of the interaction of Chemokines in wound healing</p> <p>Paper ID: 262</p> <p>Presenter: Adolf Ndlovu National University of Science and Technology, Zimbabwe</p> |
| <p>11:30 – 11:45</p> | <p>Improving Inventory Management in Peruvian Supermarkets through the Implementation of FEFO, SARIMA, and EOQ Tools to Reduce Non - Conforming Product Index</p> <p>Paper ID 215</p> <p>Presenter: Juan -Carlos Quiroz - Flores Universidad de Lima</p> | <p>SUPPLY CHAIN</p> <p>Supply Chain Resilience Strategies for Managing Disruptions in the Food Supply Chains: A Literature Review Approach</p> <p>Paper ID: 234</p> <p>Presenter: Chisungo Chisungo Chinhoyi University of Technology</p> |
| <p>11:45 – 12:00</p> | <p>Improvement in a flexible packaging company through standardization and preventive maintenance</p> <p>Paper ID: 189</p> <p>Presenter: Mayerli Arenas University of Lima</p> | <p>RFID-Technologies in Warehousing: State of the Art and Future Prospectives</p> <p>Paper ID: 239</p> <p>Presenter: Manuel Woschank</p> |
| <p>12:00 – 12:15</p> | <p>Analysis of Filipino Consumer Perception on Shopping Using Credit Cards in the Philippines: A Multi Regression Approach</p> <p>Paper ID: 212</p> <p>Presenter: Andrea Marie Nolido University of Santo Tomas</p> | <p>Autonomous Transportation Systems in Manufacturing Enterprises: A Comprehensive Analysis of the State of the Art in Driverless Transport Systems</p> <p>Paper ID: 240</p> <p>Presenter: Manuel Woschank</p> |
| <p>12:15 – 12:30</p> | <p>Operational Management Model to Increase the Performance of an SME in the Coffee Shop Sector: Puku Puku Case</p> <p>Paper ID: 244</p> <p>Presenter: Marco Aurelio Gaviño del Valle Universidad de Lima, Peru</p> | <p>Study of reliability centered maintenance and failure mode effect analysis (FMEA) in textile manufacturing industries (case at spinning section of Bahir Dar textile share company)</p> <p>Paper ID: 270</p> <p>Presenter: Befekadu Asfaw Amhara Bureau of Industry and Investment Ethiopia</p> |
| <p>12:30 – 12:45</p> | <p>A Brewing Solution: Utilizing Spent Coffee Grounds as an Alternative Biomass Fuel</p> <p>Paper ID: 256</p> <p>Presenter: Andre Louis Ollica University of Santo Tomas Philippines</p> | <p>Supply Chain Resilience Strategies for managing impact and recovery: A Literature Review Approach</p> <p>Paper ID: 64/193</p> <p>Presenter: Chisungo Chisungo Chinhoyi University of Technology</p> |

| | | |
|------------------------------|---|---|
| <p>12:45 - 13:00</p> | <p>Lab-Tested: How Laboratory Design Affects the Performance of UST Chemical Engineering Students</p> <p>Paper ID: 258</p> <p>Presenter: Therese Adrienne Macawile University of Santo Tomas Philippines</p> | <p>MASTERS THESIS</p> <p>Energy Management Practices at Fourah Bay College Using systems dynamics</p> <p>Paper ID: 194/199</p> <p>Presenter: Mohamed Koroma Fourah Bay College, University of Sierra Leone</p> |
| <p>13:00 - 14:00</p> | <p>LUNCH on the Deck</p> | |
| <p>14:00 - 14:15</p> | <p>Analysis of the Determining Factors Toward the Adoption of Near-Field Communication (NFC) Tag-Based Fare Collection System in the Marikina Heights UV Express Terminal</p> <p>Paper ID: 261</p> <p>Presenter: Jayvee Acosta University of Santo Tomas Philippines</p> | <p>Methods of Energy Management at Institutes of Higher Learning in Least Developed Countries</p> <p>Paper ID: 196</p> <p>Presenter: Mohamed Koroma Fourah Bay College, University of Sierra Leone</p> |
| <p>14:15 - 14:30</p> | <p>Identifying Significant Variables of Poverty Within Indonesia Using Principal Component Regression</p> <p>Paper ID: 265</p> <p>Presenter: Reyza Rahmatsyah Binus UniversityIndonesia</p> | <p>Causes of construction delay in developing countries: A theoretical review</p> <p>Paper ID:190</p> <p>Presenter: Bashar Ahmad Ummaru Ali Shinkafi Polytechnic Sokoto</p> |
| <p>14:30 - 14:45</p> | <p>Determining Environmental Factors Affecting Academic Performance of 4th Year Industrial Engineering Students: An Experimental Study</p> <p>Paper ID: 257</p> <p>Presenter: Carl Joaquin Campos University of Santo Tomas, Philippines</p> | <p>CHALLENGING IN WASTE MANAGEMENT IN KENEMA</p> <p>Paper ID: 149</p> <p>Presenter: Kepia Conteh University of Sierra Leone</p> |
| <p>14:45 - 15:00</p> | <p>A Blockchain-Based Patient Portal for A Mental Health Institution</p> <p>Paper ID: 251</p> <p>Presenter: Belinda Mutunhu Ndlovu, National University of Science and Technology Bulawayo, Zimbabwe</p> | <p>Design of a Machine to Convert Municipal Solid Waste to Gas</p> <p>Paper ID: 150</p> <p>Presenter: Kepia Conteh University of Sierra Leone</p> |
| <p>15:00 - 15:15</p> | <p>Predictive model for hospital readmission of diabetic patients</p> <p>Paper ID: 252</p> <p>Presenter: Belinda Mutunhu Ndlovu National University of Science and Technology Zimbabwe</p> | <p>LEAN</p> <p>Optimizing Efficiency and Standardization: A Lean Six Sigma Approach in US Small and Medium-Sized Manufacturing—A Case Study of Magnelab Inc.</p> <p>Paper ID 176</p> <p>Presenter: Hossein Soltani Nejad Roodabadi Minnesota State University</p> |

| Parallel session - IEOM student chapter session | |
|--|---|
| 9:00 - 9:05 | <p align="center">Presentation on Current STEM Projects</p> <p align="center">Overview of current STEM projects, achievements, ongoing activities, and their impact</p> <p align="center">Presenter: Sebonkile Thaba</p> |
| 9:05 - 9:20 | <p align="center">Progress of the STEM High School Project in South Africa</p> <p align="center">Detailed insights into the progress, milestones, challenges, and future plans of the STEM high school project in South Africa</p> <p align="center">Dr Talent Chingono</p> |
| 9:20 - 9:40 | <p align="center">Current Projects on Social Impacts and Entrepreneurship</p> <p align="center">Overview of projects focusing on social impacts and entrepreneurship, including contributions to societal development and the fostering of entrepreneurial skills</p> <p align="center">University of Johannesburg Students</p> <p align="center">Presenters: Dr Lawrence Seseni</p> |
| 9:40 - 10:00 | <p align="center">Student Chapter Introductions</p> <p align="center">Brief introductions by the executive team of each student chapter, highlighting their chapters and main activities. Given the tight time constraint, it might be best to prepare a concise, collaborative presentation that encapsulates the essence of each chapter's work.</p> <p align="center">Various presenters</p> |
| 10:00 - 10:15 | <p align="center">Roadmap of Student Chapters in Southern Africa</p> <p align="center">Future plans for student chapters, including expansion plans, upcoming projects, and collaboration opportunities</p> <p align="center">Presenter: Sebonkile Thaba</p> |
| 10:15 - 10:30 | <p align="center">Executive Team Introductions</p> <p align="center">University of Johannesburg Durban University of Technology University of South Africa Tshwane University of Technology University of Pretoria Vaal University of Technology</p> |
| 10:30 - 11:00 | <p align="center">Closing remarks</p> |

| STUDENT COLLOQUIUM | |
|---------------------|--|
| 12:00 - 12:30 | An investigation into the use of blockchain technology as a central food traceability system in the South African FMCG industry Presenter: Malente Modungwa |
| 12:30 - 13:00 | An exploration of the integration of technological systems in insurance call centres to enhance interoperability Presenter: Michael Berning |
| 13:00 - 14:00 | Machine learning predictive model as a tool to determine the impairment losses for the underground big diameter steel pipeline using the Condition assessment data: A case study on South African bulk water distribution utilities Presenter: Mthunzi Lushozi |
| 14:00 - 14:30 | TCoQ 4.0: The development of a modernized total cost of quality model Presenter: Robert Mupazviriwo |

TUESDAY 23th APRIL 2024

REGISTRATION AND WELCOMING

| THE FOYER | |
|------------------|---------------------------------------|
| 07:00 | REGISTRATION (In the Foyer) |
| - 08:30 | Tea and Coffee |

| THE MAIN HALL | |
|----------------------|--|
| 08:30 - 08:45 | Facilitator: Prof Nita Sukdeo University of Johannesburg WELCOME ADDRESS Prof Ahad Ali: Director IEOM Director Dr Anthea Amadi-Echendu: Conference chair |
| 08:45 - 09:00 | Welcome by Tshwane Executive Mayor of Tshwane Mr Cilliers Brink |
| 09.00 - 09:30 | OPENING ADDRESS Prof LenkaBula Principal and Vice-Chancellor of the University of South Africa Introduction by Dr MT MaseTshaba Acting Executive Dean of the College of Economic and Management Sciences University of South Africa |
| 09:30 - 10:00 | KEYNOTE ADDRESS Dr Menghestab Haile World Food Programme Regional Director |
| 10:00 - 10:30 | KEYNOTE ADDRESS Prof Rene Pellissier – Southern African Regional Universities Association (SARUA) Activating mode 3 knowledge co-production |
| 10:30 - 11:00 | REFRESHMENT BREAK IN THE FOYER |

TUESDAY 23th APRIL 2024

WORKSHOPS (2 HOURS)

11:00-13:00

| Venue 1: | Venue 2: | Venue 3: | Venue 4: |
|--|--|---|---|
| WORKSHOP 1 | WORKSHOP 2 | WORKSHOP 3 | WORKSHOP 4 |
| Do we still matter? Maximizing the contribution of humans in an automated world Facilitator: Dr Barbara Louw Kailo Training Institute (Pty) Ltd | Quantitative research session Facilitator: Prof Olufemi Adetunji University of Pretoria | From knowledge co-production to participatory approaches Facilitator: Prof Rene Pellissier SARUA | Six sigma Facilitator: Prof Ahad Ali Lawrence Technological University |
| 13:00 - 13:45 | LUNCH on the Deck | | |

TUESDAY 23 APRIL 2024

AFTERNOON SESSION

| | Venue 1: Ruby | Venue 2: Amber 1 | Venue 3: Amber 2 | Venue 4: Onyx |
|-----------------------------------|--|--|---|--|
| | LEAN MANAGEMENT | EDUCATION MANAGEMENT | RISK MANAGEMENT | OPERATIONS |
| | SESSION CHAIR: Prof Kemlall Ramdas | SESSION CHAIR: Prof Sugandren Naidoo | SESSION CHAIR: Dr Bronwyn Swartz | SESSION CHAIR: Dr Manduth Ramchander |
| 13:45 - 14:00 | Proposal for the Application of Lean Manufacturing for the Standardization of the Canned Chicken Production Process in a Company of the Food Sector Paper ID: 136 | Environmental constraint amongst the higher learning institution: Policy emendation with critical areas and society emerging. Paper ID: 225 | Reliable redundancy allocation in thermal power plants Paper ID: 207 Presenter: Paul Amaechi Ako University of Johannesburg | Effects of Exposure to Vibration on the Worker Paper ID: 131 Presenter: Abdulelah Ali Jazan University |

| | | | | |
|----------------------|--|--|---|--|
| | Presenter: Richard Meza University of Lima | Presenter: Bantubenzani Nelson Mdlolo University of South Africa | | |
| 14:00 - 14:15 | Production model based on Lean-TPM to increase the efficiency of the finishing process in textile companies. Paper ID: 120 Presenter: Martin Callao-Diaz Universidad de Lima | A Literature Review on Process Modelling Tools That Are Usable Within a Tertiary Educational Setting Paper ID: 30 Presenter: Matthew Bladwin University of Pretoria | The Impact of Strategic Management in Implementing a Risk Management Framework Paper ID: 65 Presenter: Ngaka Mosia University of South Africa | Enhancing Post-disaster Relief Management Through Aerial Edge Computing: A Systematic Literature Review Paper ID: 33 Presenter: Manduth Ramchander Durban University of Technology |
| 14:15 - 14:30 | Towards a Conceptual Lean Communication Protocol to Guide Decision Making Paper ID:188 Presenter: Mia Kusel North-West University | Mathematics Education in South African Schools (Grades 1-12): A Systems Dynamics Approach from an Engineering Education Perspective Paper ID: 38/143 Presenter: Thabang Ngwenya University of Pretoria | Review of Risks Associated with Six Sigma Deployment in South Africa: A Laboratory Perspective Paper ID: 32 Presenter: Thuletu Mbita Cape Peninsula University of Technology | SOMA SPECIAL SESSION |
| 14:30 - 14:45 | Optimization of Production Quality using Lean Six Sigma Paper ID: 59 Presenter: Zanele Mpanza University of South Africa | Showcasing good practices in OER-based effective teaching and learning methods Paper ID: 67/74 Presenter: Ngaka Mosia University of South Africa | Analysis of Risks Associated with Laboratory Error Rates of Covid-19 Testing at The NHLS Paarl Laboratory Paper ID: 34 Presenter: Natasha Singh Cape Peninsula University of Technology | |
| 14:45 - 15:00 | Optimizing Work Processes: A Comparative Study of Lean and Work Study Principles Paper ID: 57 Presenter: Koketso Masenya University of South Africa | A disruptive technologies strategy for enhancing learner’s experience in Teaching and learning Paper ID: 68 Presenter: Ngaka Mosia University of South Africa | Anomaly Detection on the high throughput network of the ATLAS TDAQ system Paper ID: 274 Presenter: Mitchell Phiri University of Johannesburg | |

**BREAK FOR TEA in the foyer
15:00 - 15:30**

| | Venue 1: Diamond | Venue 2: Amber 1 | Venue 3: Amber 2 | Venue 4: Onyx |
|---------------------|--|---|--|---|
| | QUALITY MANAGEMENT | AGRICULTURE | SMART TECHNOLOGY | PROCESSES |
| | SESSION CHAIR: Prof N Sukdeo | SESSION CHAIR: Prof Pule Kholopane | SESSION CHAIR: Dr Ndivhuwo Nemtajela | SESSION CHAIR: Dr Anthea Amadi-Echendu |
| 15:30 - 15:45 | The Dynamics of Quality Management System (QMS) in Maintenance Operations Paper ID: 51 Presenter: Ngaka Mosia University of South Africa | Covid-19 lockdown and food waste management: the hospitality industry of Gauteng Paper ID: 201 Presenter: Thobile Bhila University of Johannesburg | Solar Thermal Chilled Machine for High-Value Crop Cultivation on Lowland Areas Paper ID: 250 Presenter: Qiniso Malinga University of Johannesburg | Determining the Advantages of using Integrated Systems in Call Centres Paper ID: 20 Presenter: Michael Berning University of South Africa |
| 15:45 - 16:00 | Exploiting Sharepoint Capabilities to Improve Document Control as per ISO9001:2015 and Incident Reporting for Effective Business Intelligence Paper ID: 58 Presenter: Zanele Mpanza University of South Africa | Cattle handling facility designs for improved flow Paper ID: 39 Presenter: Rojanette Coetzee North-west University | Investigating the Intersection of Employee Voice and Resilient Healthcare Systems Paper ID: 164 Presenter: Ilse Doyer University of Pretoria | A Decision Support Tool for the Improved Processing of Yellowfin Sole fillets at a Namibian Seafood Production Company Paper ID: 19 Presenter: Maria Van Zyl North-West University |
| 16:15 - 16:30 | The application of ISO 9001:2015 principles in Soweto's textile and clothing production SMEs Paper ID: 268 Presenter: Mary Kgabi University of Johannesburg | Investigating low retention of sheep shearers in South Africa Paper ID: 43 Presenter: Rojanette Coetzee North-West University | The impact of food traceability on food supply chain performance. A systematic literature review Paper ID: 102 Presenter: Benson Ruzive Modern College of Business and Science | Exploring The Influence of Project Efficiency on Service Delivery Paper ID: 50 Presenter: Ngaka Mosia University of South Africa |
| 16:30 - 16:45 | Clothing And Textile Industry of South Africa: A Competitive Advantage Through ISO9001:2015 Certification Paper ID: 113 Presenter: Desiree Jaftha Cape Peninsula University of Technology | An integrated climate-economy model of the Brazilian soybean production chain Paper ID: 110 Presenter: Lucila Campos Universidade Federal de Santa Catarina | Beyond Good Intentions: A Game Theoretic Analysis of the Supply Chain Due Diligence Regulations Paper ID: 96 Presenter: Ali Shantia Toulouse Business School | Application of Machine Learning for the Optimization of Nonlinear Cost Functions in the Inverse Modelling of Cam Designs Paper ID: 5 Presenter: Vishal Ramnath University of South Africa |

| | | | | |
|--|---|---|---|--|
| <p>16:45 - 17:00</p> | <p>Negotiating Quality in curriculum development Paper ID: 76 Presenter: Yale Moetanalo University of South Africa</p> | <p>Management Strategies for Food Waste Conversion into Valuable Products Paper ID: 128 Presenter: Omojola Awogbemi University of Johannesburg</p> | <p>Development of an Agile Supply Chain Networks [A technology driven supply chain framework] Paper ID: 69 Presenter: Ngaka Mosia University of South Africa</p> | <p>Investigation Into Lime Optimisation and Control in Gold Recovery Paper ID: 4/144 Presenter: Kemplall Ramdass University of South Africa</p> |
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END OF DAY 1

WEDNESDAY 24th APRIL 2024
MORNING SESSION

| MAIN HALL | |
|---------------------|---|
| 08:30 - 08:45 | WELCOME + RECAP OF PREVIOUS DAY: Facilitator: Prof Manduth Ramchander Durban University of Technology |
| 08:45 - 09:15 | KEYNOTE ADDRESS Ms Portia Nkuna Fazi Rail Title: The application of renewable energy in the context of railway technology evolution |
| 09:15 - 09:45 | KEYNOTE ADDRESS: Prof Ahmed Mahmoud Deif Title: Integrating Social and Solidarity Economy (SSE) into Supply Chain: An African Perspective |

| | Venue 1: Ruby | Venue 2: Crystal | Venue 3: Garnet | Venue 4: Onyx |
|---------------------|---|--|---|---|
| | Lean Management | Smart technologies | Operations | Maintenance |
| | SESSION CHAIR: Prof Hilda Chikwanda | SESSION CHAIR: Oluwafemi Oni | SESSION CHAIR: Dr Bronwyn Swartz | SESSION CHAIR: Prof Pule Kholopane |
| 09:45 - 10:00 | Evaluation of Continuous Improvement efforts in the South African coal mining industry: The case for The Theory of Constraints and Lean Thinking Paper ID: 168 Presenter: Hilda Kundai Chikwanda | Resilient manufacturing through smart technologies strategies Paper ID: 100 Presenter Siyasanga Sandi University of South Africa | Using and Implementing Advanced Information and Communication Technologies in Construction Environments: A Case Study in Ekurhuleni Local Municipality Paper ID: 223 Presenter: Morena William Nkomo University of Johannesburg | Maintenance management benefits measurement model for public infrastructure Paper ID: 221 Presenter: Khotso Dithebe University of South Africa |
| 10:00 - 10:15 | Designing a lean communication protocol to guide decision-making Paper ID: 41/45 Presenter: Rojanette Coetzee North-west University | Smart Crowd Management and Seat Allocation System Paper ID: 141 Presenter: Timoteus Iiyambo Timoteus University of Johannesburg | Performance management at Air Force Base Ysterplaat Paper ID: 63 Presenter: Bronwyn Swartz Cape Peninsula University of Technology | Roadway geometric design and roadway accidents: a correlation study using analysis of variance Paper ID: 271 Presenter: Dharleen Mae Gako Department of Engineering, Cebu Technological Campus- Main Campus |
| 10:15 - 10:30 | Applying Lean to The Supply Chain in The Railway Industry Paper ID: 147 Presenter Kemlall Ramdass University of South Africa | Collision-free Autonomous Navigation of an Unmanned Aerial Vehicle in a Dynamic Environment Using an Event Camera Paper ID: 36 Presenter Ibrahim Akanbi University of Pretoria | Social and Solidarity Economy Impact on Local African SCM Paper ID:107 Presenter: Ahmed Deif California Polytechnic State University | Assessing drill rig availability through maintenance and rig time to repair Paper ID: 158 Presenter: Simon Phuluwa University of South Africa |
| 10:30 - 11:00 | REFRESHMENT BREAK IN THE FOYER | | | |

| 11:00 - 12:00 | Venue 1: Ruby | Venue 2: Crystal | Venue 3: Garnet | Venue 4: Onyx |
|---------------------|---|---|--|---|
| | PANEL SESSION 1 | PANEL SESSION | SAIIE SPECIAL SESSION | SUSTAINABILITY |
| | SESSION CHAIR: Ms L Louw | SESSION CHAIR: Prof N Sukdeo | SESSION CHAIR: Dr Sebonkile Thaba | SESSION CHAIR: Dr Peter Onu |
| | Safety and risk management in the context of 4IR and 5IR – African challenges and opportunities Facilitator: Ms Leonie Louw | Women in academia Facilitator: Prof Nita Sukdeo | Southern African Institute for Industrial Engineering (SAIIE) Introduction to SAIIE Representative from SAIIE 10 minutes SAIIE AgriSIG Presenter: Rojanette Coetzee 40 minutes SAIIE HealthSIG Presenter: Ngaka Mosia 40 minutes | Sustainable Production in 3D Printing: Understanding the interplay between surface roughness and tribology in Additive Manufacturing Paper ID: 178 Presenter: Peter Onu University of Johannesburg Ecotribology: A review of Eco-frictional Materials for Sustainable Engineering Paper ID: 177 Presenter: Peter Onu University of Johannesburg Environmental Impact of Blended Cement Produced with Ground-Granulated Blast Furnace Slag Substitution in the South African Cement Industry Paper ID: 179 Presenter: Oluwafemi Ezekiel Ige University of Johannesburg |
| | ENERGY | RISK MANAGEMENT | | SMART TECHNOLOGY |
| 12:00 - 12:15 | Optimizing Solar Drying Systems: A Comprehensive Study on Innovative Design, Simulation, and Performance Assessment | A Literature Review on Airborne Pathogen Detection Systems at Airports Paper ID: 213 | | Design of the Zimbabwe National Sports Stadium Solar District Water Heating System Paper ID: 186 |

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|---------------------|--|--|--|--|
| | Paper ID: 220 Presenter: Chibuzo Ikwuagwu University of Nigeria, Nsukka | Presenter Tawanda Mushiri University of Johannesburg | | Presenter Nelson Shati University of Zimbabwe |
| 12:15 - 12:30 | Use of data acquisition systems to compare solar receptions from different directions Paper ID: 229 Presenter: Nkateko Mabunda, University of Johannesburg | Navigating Compliance Challenges: Integrating Risk Management for Sustainable Citrus Exports to the EU Market Paper ID: 29 Presenter: Samantha Phologane Cape Peninsula University of Technology | | Automation and Robotics for Digital Economy: A Survey Paper ID: 210 Presenter: Peter Onu University of Johannesburg |
| 12:30 - 12:45 | Review of the design of high voltage transmission conductors Paper ID: 230 Presenter: Liada Madida University of Johannesburg | An Evaluation of a Maintenance Strategy Using Risk-based Inspection (RBI) Paper ID: 52 Presenter: Ngaka Mosia University of South Africa | | The Evolution of Electrocardiogram (ECG) Monitoring Systems in Home Based Cardiac Care: A Literature Survey. Paper ID: 208 Presenter: Tawanda Mushiri University of Johannesburg |
| 12:45 - 13:00 | Power Station Fly Ash Production System and Beneficiation Material Balance: A Case Study for Cement Industry and the Need for Green Energy Production Paper ID: 217 Presenter: Asser Letsatsi Tau University of Johannesburg | Application of a proactive workplace risk management strategy Paper ID: 66/185 Presenter: Ngaka Mosia University of South Africa | | Advancements in Orthopaedic Surgery Planning: A Comprehensive Review of 3D Reconstruction from 2D X-rays Paper ID: 209 Presenter: Tawanda Mushiri University of Johannesburg |

LUNCH on the Deck
13:00 - 13:45

| | Venue 1: Ruby | Venue 2: Crystal | Venue 3: Garnet | Venue 4: Onyx |
|---------------------|--|---|--|---|
| | LEAN MANAGEMENT | OPERATIONS | AUTOMOTIVE INDUSTRY | SMART TECHNOLOGY |
| | SESSION CHAIR: Ronjanette Coetzee | SESSION CHAIR: Prof Olufemi Adetunji | SESSION CHAIR: Desiree Jaftha | SESSION CHAIR: Prof Anup Pradhan |
| 13:45 - 14:00 | The Production Model based on Lean Manufacturing and TPM to increase the level of efficiency in a company in the Manufacturing Sector Paper ID: 117 Presenter: Martin Callao-Diaz Universidad de Lima | Parcel Lockers as a Logistic Concept: A Systematic Review of Implementation Strategies and Outcomes Paper ID: 238 Presenter: Manuel Woschank Montanuniversitaet Leoben Leoben, Austria | Application of Lean Principles to a Waxing Process in Automotive Manufacturing Paper ID: 6 Presenter: Kemlall Ramdas University of South Africa | Comparison of battery chemistries for electric vehicle applications Paper ID: 159 Presenter MM Mostafa Almadani University of Johannesburg |
| 14:00 - 14:15 | A Comparative Study Between an Alternative Whiteboard Marker Ink Made of Pulverized Chicken Bones and Industrial Whiteboard Marker Ink Paper ID: 259 Presenter: Rcrizthian Lao University of Santo Tomas | An Integer Programming Model for Intermodal Transportation Resilient to Disaster Impact Paper ID: 1 Presenter: Benhur Satir Çankaya University | Creating Value Using Toyota Production Systems in A Leading Automotive Manufacturer Paper ID: 61 Presenter: Zanele Mpanza University of South Africa | The Implementing Quality Control to Improve Quality in The Metal Fabrication Industry Paper ID: 154 Presenter: Nita Sukdeo University of Johannesburg |
| 14:15 - 14:30 | Improving Productivity through the Implementation of Lean Manufacturing and SLP Tools in a Footwear SME Paper ID: 116 Presenter: Marley Giuliana Vidal-Gonzalez Universidad de Lima | Modeling Distracted Pedestrian Crossing Behavior in Kuwait with Logistic Regression Paper ID: 83 Presenter: Sharaf AIKheder Kuwait University | Assembling To Order and Customer Satisfaction Correlation in The South African Automobile Supply Chain Industry Paper ID: 112 Presenter: Polycarpe Feussi University of Johannesburg | Exploring Organisational personality Implications on Technopreneurial behaviour of industrial engineering companies in the Fourth Industrial era Paper ID: 22 Presenter: Shepherd Murebwa Chinhoyi University of Technology |
| 14:30 - 14:45 | Using Lean to Optimize Processes in Paint Manufacturing to Meet Demand Deadlines Paper ID: 60 | The impact of Business Process Re-engineering on Organizational strategy Paper ID: 103 | The effect of process parameters on the quality of needle punched nonwoven components used in the automotive industry Paper ID: 115 | Perceived Adotion Behavior of Filipinos to the Utilization of Online Banking and E-Wallet Payment Transactions |

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| | Presenter Zanele Mpanza University of South Africa | Presenter: Polycarpe Feussi University of Johannesburg | Presenter Desiree Jaftha Cape Peninsula University of Technology | Paper ID: 266 Presenter: Avienne Halabaso University of Santo Tomas |
| 14:45 - 15:00 | Talent acquisition – A lean recruitment process design Paper ID: 44 Presenter Ronjanette Coetzee North-west university | A review of application of artificial intelligence and machine learning in lot sizing Paper ID: 148 Presenter: Ivanesu Nyamayaro University of Pretoria | A Sensor-Aided Pneumatic Bumper Activation System to Reduce the Impact Force During a Vehicle Crash Paper ID: 87 Presenter Gbeminiyi Oyewole University of the Witwatersrand | Digital Economy and e-Governance: A Review of Nigerian Preparedness Paper ID:153 Presenter: Idris Yusuf Texas Southern University |

TEA BREAK in the foyer
15:00 – 15:30

| | Venue 1: Ruby | Venue 2: Crystal | Venue 3: Garnet | Venue 4: Onyx |
|----------------------|---|---|--|--|
| | EDUCATION | SUSTAINABILITY | OPTIMISATION | ENERGY |
| | SESSION CHAIR: Dr Sebonkile Thaba | SESSION CHAIR: Dr Nelson Madonsela | SESSION CHAIR: Dr Bupe Mutono Mwanza | SESSION CHAIR: Prof Anup Pradhan |
| 15:30 - 15:45 | The Future of an Engineering Technology graduate. Paper ID: 73 Presenter: Yale Moetanalo University of South Africa | An Evaluation of the Strategies to Combat Cable Theft in the South African Railway Industry Paper ID: 99 Presenter: Bheki Makhanya University of Johannesburg | Challenges of Budget Underspending on Infrastructure Development in the South African Built Environment Paper ID: 166 Presenter: Murendeni Liphadzi University of Johannesburg | Advanced Thermodynamic Analysis Based on Endogenous and Exogenous Exergy Destruction of A Combined Biomass-Fired ORC System (BFOS) Using Different Working Fluids Paper ID: 118 Presenter: Paul Amaechi Ako University of Johannesburg |

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| <p>15:45 - 16:00</p> | <p>Application of Quality Evaluation Tools for Learning Objects in Engineering Education</p> <p>Paper ID: 75</p> <p>Presenter: Yale Moetanalo University of South Africa</p> | <p>Effect of single stage and multistage mandrel forming of metal bellow type expansion joints</p> <p>Paper ID: 62</p> <p>Presenter: Agraja Magesh Purdue University</p> | <p>Integration of productivity improvement techniques and their relevance to a printing industry</p> <p>Paper ID: 9</p> <p>Presenter: Kgashane Nyakala Tshwane University of Technology</p> | <p>Charting the Course for Sustainable Energy Development: The State of Energy Storage in South Africa's Decarbonization Efforts</p> <p>Paper ID: 125</p> <p>Presenter: Gbenga Apata University of Johannesburg</p> |
| <p>16:00 - 16:15</p> | <p>Enhancing Student Engagement and Learning Outcomes: An Investigation into the Impact of Interpretability Techniques in Personalised Learning Environments</p> <p>Paper ID: 88</p> <p>Presenter: Zvinodashe Revesai Reformed Church University</p> | <p>How does Information Sharing benefit CE Implementation and Financial Resilience? Moderation Role of SC Innovation</p> <p>Paper ID: 135</p> <p>Presenter: Matloub Hussain University/Company</p> | <p>An alternative method for estimating reliability of service producing systems considering improvement factor under imperfect repair</p> <p>Paper ID: 206</p> <p>Presenter: Paul Amaechi Ako University of Johannesburg</p> | <p>Exploring Renewable Energy for Industrial Applications</p> <p>Paper ID: 127</p> <p>Presenter: Omojola Awogbemi University of Johannesburg</p> |
| <p>16:15 - 16:30</p> | <p>Barriers of Transitioning through a Curriculum Delivery Grid in DE: An ODL readiness experiment for Industrial Engineering students</p> <p>Paper ID: 98</p> <p>Presenter: Siyasanga Sandi University of South Africa</p> | <p>The Threat of Climate Change to Strategic Planning in Zimbabwean Commercial Banks: A Literature Review</p> <p>Paper ID: 21</p> <p>Presenter: Napoleon Kokera FBC Holdings Limited</p> | <p>Using business process reengineering to improve and optimise project</p> <p>Paper ID: 54</p> <p>Presenter Koketso Masenya University of South Africa</p> | <p>Development of High Insulating Properties of Epoxy-Based Nanocomposites using Sustainable Materials for High-Voltage Applications</p> <p>Paper ID: 132</p> <p>Presenter: Victor S. Aigbodion University of Nigeria Nsukka</p> |
| <p>16:30 - 16:45</p> | <p>Relationship between Education and Economic growth: a case study of Nigeria</p> <p>Paper ID: 124</p> <p>Presenter: Farouk Madaka Sule Lamido University</p> | <p>Analysing Green Logistics in Small and Medium Logistics Service Providers in Johannesburg</p> <p>Paper ID: 269</p> <p>Presenter: Sebonkile Thaba University of Johannesburg</p> | <p>Exploring Corporate Governance System for Monitoring Organizational Performance: A Real-time Information and Control System Perspective</p> <p>Paper ID: 23</p> <p>Presenter: Barbara Hambaba Coca-Cola Beverages Zambia</p> | <p>Performance Analysis of a 10kW Solar PV Embedded Generation (System Efficiency Analysis)</p> <p>Paper ID: 152</p> <p>Presenter: Oluwafemi Oni Durban University of Technology</p> |

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|-----------------------------------|---|---|---|--|
| 16:45 - 17:00 | Trends Of Emerging Technology in Online Learning Paper ID: 97 Presenter: Siyasanga Sandi University of South Africa | Thermodynamic and Sustainability Analysis of a Novel Solar-Powered ORC System Integrated with Single-Effect Absorption-VCP Refrigeration Cycles for Domestic Electricity/Cooling Supply Paper ID: 27 Presenter: Fidelis Abam University of Calabar Sustainability | Developing production planning solutions for new production companies in South Africa Paper ID: 42 Presenter: Rojanette Coetzee North-west University | Comparison of study of the three phase Z source inverter under control of maximum boost control, constant boost control, simple boost control and PWM techniques on standalone PV system Paper ID: 172 Presenter: PB Mhlongo Durban University of Technology |
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END OF DAY 2
NETWORKING, GALA DINNER AND AWARDS – at 18:00
Dress code: Office wear or Traditional

THURSDAY 25th APRIL 2024

MORNING SESSION

| Main Hall | |
|---------------------|---|
| 08:30 - 08:50 | WELCOME + RECAP OF PREVIOUS DAY: Facilitator: Prof Pule Kholopane Vaal University of Technology |
| 08:50 - 09:20 | KEYNOTE ADDRESS: Prof James J. Cochran Title: Cleverness: An Underappreciated Characteristic of the Academic Researcher |
| 9:20 - 9:50 | KEYNOTE ADDRESS: Dr. Ertunga C. Ozelkan Title: How does/can AI play a Role in Supply Chains? |
| 9:50 - 10:20 | KEYNOTE ADDRESS: Dr Thuli Khumalo Title: Climate Change Impacts and Associated Responses on Business and Society |
| 10:20 - 10:50 | KEYNOTE ADDRESS: Mr Talifhani Banks Title: How data science support businesses to make informed decisions |

| 10:50 - 11:20 | | | | | REFRESHMENT BREAK IN THE FOYER | | | | |
|---|--|--|--|--|--------------------------------|---|--|--|--|
| Venue 1: Ruby | | Venue 2: Crystal | | Venue 3: Garnet | | Venue 4: Onyx | | | |
| SMART TECHNOLOGY | | OPERATIONS | | PROJECT MANAGEMENT | | LEAN | | | |
| SESSION CHAIR: Dr Anthea Amadi-Echendu | | SESSION CHAIR: Dr Ndivhuwo Nemtajela | | SESSION CHAIR: Simon Phuluwa | | SESSION CHAIR: Rojanette Coetzee | | | |
| 11:20 - 11:35 | | Impact of Anthropogenic Activities on Urban Inland Valley Swamps (IVSs) in Bo City, Southern Sierra Leone Paper ID: 275 Presenter: Junisa Joshua Sallu Njala University | | Mixed Model Assembly Line Balancing: A Case Study Paper ID: 121 Presenter: Ertunga Ozelkan The University of North Carolina at Charlotte | | The Impact of Failed Infrastructure Projects in Municipalities: The Impact of Failed Infrastructure Projects in Municipalities Paper ID: 101 Presenter: Bheki Makhanya University of Johannesburg | | Improving document flow at cattle auctions: Industry 4.0 meets lean 5S Paper ID: 40 Presenter: Rojanette Coetzee North-West University | |
| 11:35 - 11:50 | | Identification of Ergonomic Conditions of the attention service in the Booths of a service company Paper ID: 184 Presenter: Fiorella Soto, Universidad de Lima Lima, Peru | | Investigation into lime optimisation and control in gold recovery Paper ID: 253 Presenter: Humbulani Simon Phuluwa Unisa | | Causes of delay in construction projects during the Fourth Industrial Revolution: A South African Perspective Paper ID: 104 Presenter: Eric Mikobi Bakama University of Johannesburg | | Implementing lean principles in a feedlot's commodity shed Paper ID: 28 Presenter: Rojanette Coetzee North-West University | |
| 12:50 - 12:05 | | An Investigation into the Feasibility of Using Blockchain Technology as a Platform for Land Registration System in South Africa Paper ID: 13 Presenter: Ntomboxolo Faku University of South Africa | | Network analysis. Decision making under deep uncertainty Paper ID: 80 Presenter: Fuad Aleskerov HSE University | | Promoting Project Management Skills in Technical Curriculums Paper ID: 173 Presenter: E Shirl Donaldson University of Michigan Flint | | Lean inventory control system for a cosmetic company Paper ID: 46 Presenter: Rojanette Coetzee North-West University | |

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| <p>12:05 – 12:20</p> | <p>Design of a Data Management System for Pharmaceutical Stock Management at Public Primary Healthcare Clinics in the Northwest Province, South Africa</p> <p>Paper ID: 26</p> <p>Presenter: Maria van Zyl North-West University</p> | <p>Reentrant flowshop scheduling problem with deteriorating schedule</p> <p>Paper ID: 71</p> <p>Presenter: Olufemi Adetunji University of Pretoria</p> | <p>Quality Control and Reduced Construction Disruptions for Enhanced Sustainability in Gauteng Projects</p> <p>Paper ID: 226</p> <p>Presenter: Thandi Dikhoba University of Johannesburg</p> | <p>The Use of Innovative Mechanical Solutions to Implement Lean Methodologies in a Meat Manufacturing Factory</p> <p>Paper ID: 106</p> <p>Presenter: Tamer A. Mohamed The British University in Egypt</p> |
| <p>12:20 – 12:35</p> | <p>Analyzing Driver and Pedestrian Behaviors at Urban Roads Crossing Areas in Desertic Countries using Artificial Intelligence Techniques</p> <p>Paper ID: 126</p> <p>Presenter: Sharaf AlKheder Kuwait University</p> | <p>Mediating Role of Knowledge Sharing Between Transformational Leadership and Innovative Service Delivery Among Nurses in The Federal Medical Centers of Northeast Nigeria</p> <p>Paper ID: 105</p> <p>Presenter: Maryam Tijjani Abba Federal Polytechnic Bauchi</p> | <p>Investigating the impact of Lean Sigma on Construction Industry Project Performance: Quality Enhancement</p> <p>Paper ID: 10</p> <p>Presenter: Simon Phuluwa University of South Africa</p> | <p>Production Model Based on Lean Manufacturing and SLP to Increase Efficiency for a Company in the Metal Mechanical Sector</p> <p>Paper ID: 111</p> <p>Presenter: Martin Collao-Diaz Universidad de Lima</p> |
| <p>12:35 – 12:50</p> | <p>Design of an improved project schedule and procedure in the construction of a solar energy plant.</p> <p>Paper ID: 245</p> <p>Presenter: Akingbola Akinbowal University of Johannesburg</p> | <p>Design of a Small-Scale Wheat Grain Dehuller</p> <p>Paper ID: 254</p> <p>Presenter: Sikelela Motha University of Johannesburg</p> | <p>A Review of Critical Success Factors for Turnaround Maintenance Projects in the Petrochemical Industry</p> <p>Paper ID: 48</p> <p>Presenter: Flavia Masubelele University of South Africa</p> | <p>Optimization of Diesel Locomotive Brake Valve Refurbishment Using Lean Six Sigma</p> <p>Paper ID: 49</p> <p>Presenter Ngaka Mosia University of South Africa</p> |
| <p>12:50 – 13:05</p> | <p>Hydrogen production from waste plastics</p> <p>Paper ID: 248</p> <p>Presenter: Bishwash Paneru TU</p> | <p>A mathematical model of bioconvection flow in porous media with microbial exoprotein activity</p> <p>Paper ID: 273</p> <p>Presenter: Mqhelewenkosi Mpofu Gwanda State University</p> | <p>Development of Factory Maintenance Services Provider's Evaluation Criteria, Case Study in Indonesian Fertilizer Company</p> <p>Paper ID: 263</p> <p>Presenter: Muhammad Nur Bandung Institute of Technology</p> | <p>E-Church: A Web and Mobile-based Church Management System for Holy Rosary Parish Church</p> <p>Paper ID: 264</p> <p>Presenter: Carlitos Bernardino Student at Angeles University Foundation</p> |

LUNCH on the Deck

13:05 – 13:45

| Venue 1: Ruby | | Venue 2: Crystal | | Venue 3: Garnet | | Venue 4: Onyx | |
|-----------------------------------|---|--|--|--|--|------------------------------------|--|
| SMART TECHNOLOGIES | | ENTREPRENEURSHIP | | WATER | | OPERATIONS | |
| SESSION CHAIR: Tawanda Mushiri | | SESSION CHAIR: Prof Kemlall Ramdass | | SESSION CHAIR: Motsi Ephrey Matlakala | | SESSION CHAIR: Dr Oluwafemi Oni | |
| 13:45 - 14:00 | <p>Techno -economic Analysis of Methanol and Power Generation from Waste Tires Primary</p> <p>Paper ID: 216</p> <p>Presenter: Athi -Enkosi Mavukwana University of South Africa</p> | <p>Establishing strategic regional value chains & infrastructure in Africa for sustainable industrialisation – advancement of Africa free trade agreement & BRICS</p> <p>Paper ID: 235</p> <p>Presenter: Thakaramahlaha Lehohla Wits Mining Institute</p> | <p>Design and Development of a Borehole Water Pump for Rural Areas</p> <p>Paper ID: 191</p> <p>Presenter Motsi Ephrey Matlakala University of Johannesburg</p> | <p>The Design and Development of a Torsional Split Hopkinson Pressure Bar</p> <p>Paper ID: 198</p> <p>Presenter: Mangalani Edward Miyambo CSIR</p> | | | |
| 14:00 - 14:15 | <p>Simulation Modelling of Bus Ticket Sales Operations- A Case of Community Bus Service Company</p> <p>Paper ID: 197</p> <p>Presenter: Asser Letsatsi Tau, University of Johannesburg</p> | <p>An exploration of SMEs as a sustainable development goal</p> <p>Paper ID: 79/145</p> <p>Presenter: Kemlall Ramdass University of South Africa</p> | <p>Investigating the Water Reticulation problem in the Nkangala District Municipality of Mpumalanga Province</p> <p>Paper ID: 138</p> <p>Presenter: Motsi Ephrey Matlakala University of Johannesburg</p> | <p>Mixed Pull and Push Approaches for Improving Yarn Production System (Kombolcha Textile Share Company Spinning Department)</p> <p>Paper ID: 85</p> <p>Presenter: Abeba Shimelis Addis Abeba University</p> | | | |
| 14:15 - 14:30 | <p>Advantages of Digital Image Correlation Techniques for Conducting Tensile Characteristics of Strength Single Natural fiber (A case of Ethiopian Enset Plant fiber)</p> <p>Paper ID: 228</p> <p>Presenter: Ababayehu Gelgelu AASTU</p> | <p>A Comprehensive Analysis of the External and Internal Business Environment in the Construction Industry of South Africa: A Systematic Literature Review</p> <p>Paper ID: 165</p> <p>Presenter: Murendeni Liphadzi University of Johannesburg</p> | <p>Understanding Household water-use behavior in Limpopo rural area, South Africa</p> <p>Paper ID: 161</p> <p>Presenter: Lindelwa Mafanya University of Johannesburg</p> | <p>Exploring Machine Learning on Geochemistry Data for Estimating Metal Concentrations in Copper Deposits</p> <p>Paper ID: 182/204</p> <p>L traveling? Presenter: Lydia Joel Namibia University of Science and Technology</p> | | | |
| 14:30 - 14:45 | <p>A literature review for intelligent glucose monitoring systems for geriatric patients.</p> <p>Paper ID: 214</p> <p>Presenter: Tawanda Mushiri</p> | <p>The Importance of Entrepreneurial Networks in a Business Incubation Process</p> <p>Paper ID: 37</p> <p>Presenter: Lesego Serwadi</p> | <p>Review of the Global Domestic Water Sources</p> <p>Paper ID: 140</p> <p>Presenter: Motsi Ephrey Matlakala</p> | <p>Arduino-Based Home Automation System</p> <p>Paper ID: 151</p> <p>Presenter: Oluwafemi Oni Durban University of Technology</p> | | | |

| | University of Johannesburg | University of South Africa | University of Johannesburg | |
|------------------------------|---|--|--|---|
| 14:45 – 15:00 | <p>Design of smart control HVAC system for a computer laboratory</p> <p>Paper ID: 202</p> <p>Presenter: Mpho Podile University of Johannesburg</p> | <p>Spreadsheet solution for small vehicle routing problems for small businesses</p> <p>Paper ID: 89</p> <p>Presenter: Olufemi Adetunji University of Pretoria</p> | <p>Modelling Water Pumping System in the Govan Mbeki Local Municipality</p> <p>Paper ID: 139</p> <p>Presenter: Motsi Ephrey Matlakala University of Johannesburg</p> | <p>An investigation into appropriate maintenance strategy between preventive and predictive for buildings in South Africa.</p> <p>Paper 224</p> <p>Presenter: Morena William Nkomo, University of Johannesburg</p> |
| 14:40 – 15:00 | <p>Smart Mechatronics: Innovating Sustainable Solutions for the Future</p> <p>Paper ID: 211</p> <p>Presenter: Peter Onu University of Johannesburg</p> | <p>Integrated Model Based on TPM and SMED to Increase the Efficiency in a Plastic SME in Peru</p> <p>Paper ID: 155</p> <p>Presenter: Salvatore Eugenio Aratoma-Choque Universidad de Lima</p> | <p>Reflections on Sustainable Water Management in Buildings: Investigating Water Conservation Strategies in Gauteng Province</p> <p>Paper ID: 56</p> <p>Presenter: Koketso Masenya University of South Africa</p> | <p>A Review for The Recycling of Domestic Water in Urban Area Versus Rural Household</p> <p>Paper ID: 163</p> <p>Presenter: Lindelwa Mafanya University of Johannesburg</p> |
| 15:00 – 15:15 | <p>A Blockchain-Based System Concept for Managing Payments in the Construction Supply Chain</p> <p>Paper ID: 170</p> <p>Presenter: Samer Haffar Gaziantep University</p> | <p>Textile and Apparel Sector Outlook in Peru</p> <p>Paper ID: 183</p> <p>Presenter: Piero Fabrizio Arditto Xavier Universidad de Lima</p> | <p>Incorporation of Musa Acuminata Peduncle juice as operational management Mild Steel against corrosion in Seawater-Simulated Solution</p> <p>Paper ID: 133</p> <p>Presenter: Victor S. Aigbodion University of Nigeria Nsukka</p> | <p>Modelling Future Sustainability Landscapes Through Predictive Analytics</p> <p>Paper ID: 146/192</p> <p>Presenter: Simon Phuluwa University of South Africa</p> |

**TEA BREAK in the foyer
15:15 – 15:30**

| Venue 1: Ruby | | Venue 2: Crystal | | Venue 3: Garnet | | Venue 4: Onyx | |
|----------------------------------|---|--|---|---|--|-------------------------------------|--|
| OPERATIONS | | OPTIMISATION | | OPERATIONS | | MANUFACTURING | |
| SESSION CHAIR: Yale Moetanalo | | SESSION CHAIR: PB Mhlongo | | SESSION CHAIR: Bheki Makhanya | | SESSION CHAIR: Chika Oliver Ujah | |
| 15:30 – 15:45 | Adapting continuous assessments through scaffolding and laddering Paper ID: 77 Presenter: Yale Moetanalo University of South Africa | Optimizing productivity with the use of ergonomic Paper ID: 55 Presenter: Koketso Masenya University of South Africa | Factors of the Design of High Voltage Transmission Conductors Paper ID: 231 Presenter: Liada Madida University of Johannesburg | Phases and Applications of HEAs, an Advanced Material Paper ID: 174 Presenter: Chika Oliver Ujah University of Johannesburg | | | |
| 15:45 – 16:00 | Development of the Corncob Biomass District Water Heating System for the Rainham Government Flats in Harare, Zimbabwe Paper ID: 187 Presenter: Nelson Shati University of Zimbabwe | Optimization Techniques for Transportation and Distribution Management: A Comprehensive Review Paper ID: 92 Presenter Asif Zawad Islamic university of Technology | Experimental Modeling and Simulation of Zero-Surface Temperature of Controlled Water Jet Impingement Cooling System for Hot-Rolled Steel Plates Paper ID: 130 Presenter: Thomas Okechukwu Enugu State University of Science and Technolog | Processing Routes of HEAs, Prospects and Challenges Paper ID: 175 Presenter: Chika Oliver Ujah University of Johannesburg | | | |
| 16:00 – 16:15 | Measures and Challenges of Cost Control in Fast Casual Restaurants: Case of Johannesburg, South Africa Paper ID: 242 Presenter: Matildah Gumbo University of Johannesburg | Overview of power improvement on 3 phases on z source inverter Paper ID: 171 Presenter: PB Mhlongo Durban University of Technology | The Level of Maintenance Management Maturity in the South African Rail Network Paper ID: 95 Presenter: Bheki Makhanya University of Johannesburg | Reducing Product Defects through Statistical Process Control Implementation Paper ID: 53 Presenter: Ngaka Mosia University of South Africa | | | |
| 16:15 - 16:30 | Revolutionizing Automotive Manufacturing Through Additive Manufacturing: A Comprehensive Exploration of Technologies, Applications, and Impacts Paper ID: 84 Presenter: Shelly Thandiwe Mona Central University of Technology, Free state | Investigating work delegation and employee efficiency in an engineering maintenance service department Paper ID: 119 Presenter: Andile Sabani University of Johannesburg | Implementation of Machine Learning in the Forecasting of International Demand for Peruvian Organic Coffee Paper ID: 169 Presenter: Fernando Scaler Universidad de Lima Lima, Peru | Exploring how the Industrial Engineering body of knowledge can support red meat producers Paper ID: 47 Presenter: Rojanette Coetzee North-West University | | | |

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|--|---|---|--|---|
| <p>16:30 - 16:45</p> | <p>Drivers of compartmentalization for fire safety in high-rise buildings</p> <p>Paper ID: 142</p> <p>Presenter: Lungisile Hlophe Mangosuthu University of Technology</p> | <p>Integrating Life Cycle Assessment and System Dynamics Modeling for Sustainable Practice</p> <p>Paper ID: 180</p> <p>Presenter: Oluwafemi Ezekiel Ige University of Johannesburg</p> | <p>The effectiveness of customer relationship management with regards to business performance: a sustainability perspective</p> <p>Paper ID: 81</p> <p>Presenter: Bongumenzi Mncwango Durban University of Technology</p> | <p>Empirical Model of Water Systems for Rural Areas</p> <p>Paper ID: 137</p> <p>Presenter: Motsi Ephrey Matlakala University of Johannesburg</p> |
| <p>16:45 - 17:00</p> | <p>Frameworks for the Adoption of Additive Manufacturing in the Automotive Industry: A Comprehensive Literature Review</p> <p>Paper ID: 86</p> <p>Presenter Shelly Thandiwe Mona Product Development Technology Station (PDTS): Central University of Technology, Free state</p> | <p>Optimizing Dewatering Pipeline Routes in Centrifugal Pumping System: A Case Study at Karowe Diamond Mine</p> <p>Paper ID: 255</p> <p>Presenter: Katuve Tie BIUST</p> | <p>Classical Decomposition Time Series Predictive Model for the Forecast of Domestic Electric Energy Demand and Supply</p> <p>Paper ID: 260</p> <p>Presenter: Ruhiya Abubakar Ghana Communication Technology University</p> | <p>Design and Development of a Grey Domestic Water Filter</p> <p>Paper ID: 243</p> <p>Presenter: Hector Marobane University of Johannesburg</p> |

END OF DAY 3

Paper ID, Titles and Authors

Paper ID: 001 An Integer Programming Model for Intermodal Transportation Resilient to Disaster Impact

Benhür SATIR, Associate Professor, Department of Industrial Engineering, Çankaya University, Ankara, Turkey
Hasan KAVLAK, Lecturer, Department of Industrial Engineering, Çankaya University, Ankara, Turkey
M. Alp ERTEM, Professor Dr., Department of Industrial Engineering, Çankaya University, Ankara, Turkey

Paper ID: 004 Investigation into Lime Optimization and Control in Gold Recovery

Kemlall Ramdass, University of South Africa

Paper ID: 005 Application of Machine Learning for the Optimization of Nonlinear Cost Functions in the Inverse Modelling of Cam Designs

Vishal Ramnath, Lecturer, Department of Mechanical Engineering, University of South Africa, South Africa

Paper ID: 006 Application of Lean Principles to A Waxing Process in Automotive Manufacturing

Kemlall Ramdass and Simon Phuluwa, College of Science, Engineering and Technology, Department of Industrial Engineering, University of South Africa, Johannesburg, Florida, South Africa

Paper ID: 007 The Effectiveness of ISO 9001:2015 Quality Internal Audit within ISO Certified and Non-ISO Certified Laboratories: Systematic Literature Review

Siphiwe Maswanganye, Master of Philosophy in Quality Management Student, Department of Operations and Quality Management - Faculty of Management Sciences, Durban University of Technology, Durban, South Africa

Shalini Singh, Associate Professor, Department of Operations and Quality Management - Faculty of Management Sciences, Durban University of Technology, Durban, South Africa

Paper ID: 008 Nurturing Quality Education in a technology driven world

Shalini Singh, Associate Professor, Department of Operations and Quality Management, Durban University of Technology, South Africa
Bronwyn Claudia Swartz, Senior Lecturer, Department of Industrial and Systems Engineering, Cape Peninsula University of Technology, South Africa
Lucrecia Zinobia Valentine, Lecturer, Department of Industrial and Systems Engineering, Cape Peninsula University of Technology, South Africa

Paper ID: 010 Applying Lean to The Supply Chain in The Railway Industry

Kemlall Ramdass, Ndivhuho Ndou and Simon Phuluwa, College of Science, Engineering and Technology, Department of Industrial Engineering, University of South Africa, Johannesburg, Florida, South Africa

Paper ID: 013 An Investigation into the Feasibility of Using Blockchain Technology as a Platform for Land Registration System in South Africa

Ntomboxolo Faku, Department of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Anthea Amadi-Echendu, Senior lecturer, Department of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Nonceba Ntoyanto-Tyatantsi, Lecturer, Department of Applied Management, College of Economic and Management Sciences, University of South Africa, South Africa

Paper ID: 017 Understanding Value Creation in the Public Sector Through the Application of Lean

Unathi Thango, Department of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Anthea Amadi-Echendu, Senior lecturer, Department of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Marcia Mkansi, Professor of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Paper ID: 019 A Decision Support Tool for The Improved Processing of Yellowfin Sole Fillets At A Namibian Seafood Production Company

Marthinus Marais, Industrial Engineer Graduate, School of Industrial Engineering, Faculty of Engineering, North-West University (NWU), Potchefstroom Campus, South Africa

Maria van Zyl-Cillie, Lecturer, School of Industrial Engineering, Faculty of Engineering, North-West University (NWU), Potchefstroom Campus, South Africa

Paper ID: 020 Determining the Advantages of using Integrated Systems in Call Centres: A Literature Review

Michael Berning, Department of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Anthea Amadi-Echendu, Senior lecturer, Department of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Sugandren Naidoo, Professor of Operations Management, College of Economic and Management Sciences, University of South Africa, South Africa

Paper ID: 021 The Threat of Climate Change to Strategic Planning in Zimbabwean Commercial Banks: A Literature Review

Napoleon Kokera and Bupe Getrude Mwanza, Graduate School of Business, University of Zambia, Lusaka, Zambia

Paper ID: 022 Exploring Organisational personality Implications on Technopreneurial behaviour of industrial engineering companies in the Fourth Industrial era

Shepherd Murebwa, Lecturer, Department of Entrepreneurship & Business Management, School of Entrepreneurship & Business Sciences, Chinhoyi University of Technology (CUT), Chinhoyi, Zimbabwe
Sukoluhle Ganyani, PhD Student & Lecturer, Department of Crop and Soil Sciences, Agricultural Economics Section, Lupane State University (LSU), P.O Box 170, Lupane, Off Bulawayo-Victoria Falls Road, Bulawayo, Zimbabwe

Paper ID: 023 Exploring Corporate Governance System for Monitoring Organizational Performance: A Real-time Information and Control System Perspective

Barbara M. Hambaba, Doctor of Business Administration Candidate, School of Postgraduate Studies, University of Lusaka, Lusaka, Zambia
Dr. Shepherd Murebwa, Department of Entrepreneurship & Business Management, School of Entrepreneurship & Business Science, Chinhoyi University of Technology, Chinhoyi, Zimbabwe

Paper ID: 026 Design of a Data Management System for Pharmaceutical Stock Management at Public Primary Healthcare Clinics in the North West Province, South Africa

Chinead McGeer, Industrial Engineer Graduate, Faculty of Engineering, School of Industrial Engineering, North-West University (NWU), Potchefstroom Campus, South Africa
Maria van Zyl-Cillili, Lecturer, Faculty of Engineering, School of Industrial Engineering, North-West University (NWU), Potchefstroom Campus, South Africa

Paper ID: 027 Thermodynamic and Sustainability Analysis of a Novel Solar-Powered ORC System Integrated with Single-Effect Absorption-VCP Refrigeration Cycles for Domestic Electricity/Cooling Supply

Fidelis I. Abam, Department of Mechanical Engineering, University of Calabar, Nigeria
Bassey B. Okon, Department of Mechanical Engineering, Federal University of Technology, Ikot Abasi, Nigeria
Isumfon Edem, Department of Mechanical Engineering, Akwa Ibom State University Ikot Akpaden, Nigeria

Paper ID: 028 Implementing lean principles in a feedlot's commodity shed

Jodi Botha, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 029 Navigating Compliance Challenges: Integrating Risk Management for Sustainable Citrus Exports to the EU Market

Samantha Phologane, Master's student, Department of Industrial and Systems Engineering, Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa
Dr. Lucrecia Valentine, Acting Head of Department, Department of Industrial and Systems Engineering
Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa
Bingwen Yan, Acting Assistant Dean: Learning and Teaching, Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa

Paper ID: 030 A Literature Review on Process Modelling Tools That are Usable Within A Tertiary Educational Setting

Matthew Baldwin and Marne de Vries, Department of Industrial and Systems Engineering, University of Pretoria, Pretoria 0001, South Africa

Paper ID: 031/181 Implications of Informality on Acquisition of IR4.0 Technological Innovations in the Metal Fabrication Industry

Onias Sanangura and Bupe Getrude Mwanza, Graduate School of Business, University of Zambia, Great East Road Campus, Lusaka, Zambia

Paper ID: 032 Review of Risks Associated with Six Sigma Deployment in South Africa: A Laboratory Perspective

T. Mbita, Department of Engineering and the Built Environment, Cape Peninsula University of Technology, South Africa
Dr. B. Swartz, Department of Engineering and the Built Environment, Cape Peninsula University of Technology, South Africa

Paper ID: 033 Enhancing Post-disaster Relief Management Through Aerial Edge Computing: A Systematic Literature Review

Manduth Ramchander, Associate Professor, Department of Operations and Quality Management, Faculty of Management Sciences, Durban University of Technology, Durban, South Africa
Manikam Michael Nadar, Lecturer, Department of Operations and Quality Management, Faculty of Management Sciences, Durban University of Technology, Durban, South Africa

Paper ID: 034 Analysis of Risks Associated with Laboratory Error Rates of COVID-19 Testing at The NHLS Paarl Laboratory

Natasha Singh, Masters Student, Department of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa
Bronwyn Claudia Swartz, Senior lecturer, Department of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa

Paper ID: 036 Collision-free Autonomous Navigation of an Unmanned Aerial Vehicle in a Dynamic Environment Using an Event Camera

Ibrahim I. Akanbi and Michael K. Ayomoh, Department of Industrial and Systems Engineering, University of Pretoria, Pretoria, South Africa

Paper ID: 037 The Importance of Networks in A Business Incubation Programme In South Africa

Lesego. C. Serwadi, PHD Candidate, Department of Applied Management, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 038 Mathematics Education in South African Schools (Grades 1-12): A Systems Dynamics Approach from an Engineering Education Perspective

Paper ID: 039 Cattle handling facility designs for improved flow

Nadia van Jaarsveldt, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 040 Improving document flow at cattle auctions: Industry 4.0 meets lean 5S

Liani van der Walt, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 041/045 Designing a lean communication protocol to guide decision-making

M Küsel, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 042 Developing production planning solutions for new production companies in South Africa

Aniel van Deventer, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 043 Investigating low retention of sheep shearers in South Africa

Anri Klopper, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 044 Talent acquisition – A lean recruitment process design

Njabulo Nkosi'S'phile Mhlungu, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
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Paper ID: 045 Designing a lean communication protocol to guide decision-making

M Küsel, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 046 Lean inventory control system for a cosmetic company

Stacey Lea, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 047 Exploring how the Industrial Engineering body of knowledge can support red meat producers

Herme Nel, School of Industrial Engineering, North-west University, Potchefstroom, South Africa
Rojanette Coetzee, School of Industrial Engineering, North-west University, Potchefstroom, South Africa

Paper ID: 048 A Review of Critical Success Factors for Turnaround Maintenance Projects in the Petrochemical Industry

Lehoelere Maserumule and Mfundo Nkosi, PhD Student, Senior Lecturer, Department of Mechanical and Industrial Engineering, Faculty of Engineering and Built Environment, University of Johannesburg, Johannesburg, South Africa
Flavia Masubelele, Senior Lecturer, Department of Mechanical Engineering, School of Engineering, College of Science Engineering and Technology, University of South Africa, Florida, South Africa

Paper ID: 049 Optimization of Diesel Locomotive Brake Valve Refurbishment Using Lean Six Sigma

Ngaka Mosia and Kemlall Ramdass, Department of Industrial Engineering, University of South Africa, South Africa

Paper ID: 050 Exploring the Influence of Project Efficiency on Service Delivery

Ngaka Mosia and Kemlall Ramdass, Department of Industrial Engineering, University of South Africa, South Africa

Paper ID: 051 The Dynamics of Quality Management System (Qms) in Maintenance Operations

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa
Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa
Chrisentia Nyaka, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 052 An Evaluation of a Maintenance Strategy Using Risk-based Inspection (RBI)

Ngaka Mosia, Kemlall Ramdass and Ndivhuwo Ndou, Department of Industrial Engineering, University of South Africa, South Africa

Paper ID: 053 Reducing Product Defects Through Statistical Process Control Implementation

Ngaka Mosia and Kemlall Ramdass, Department of Industrial Engineering, University of South Africa, South Africa

Paper ID: 054 Using Business Process Reengineering to Improve and Optimise Project

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa
Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa
Koketso Masenya, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 055 Optimizing Productivity Through the Application of Ergonomics in an Automotive Manufacturing Organization

Koketso Masenya, Ngaka Mosia and Kemlall Ramdass, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Malatsi Lesego, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 056 Reflections on Sustainable Water Management in Buildings: Investigating Water Conservation Strategies in Gauteng Province

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

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Koketso Masenya, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 057 Optimizing Work Processes: A Comparative Study of Lean and Work Study Principles

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Koketso Masenya, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 058 Exploiting Sharepoint Capabilities to Improve Document Control as Per Iso9001:2015 And Incident Reporting for Effective Business Intelligence

Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Zanele Mpanza, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 059 Optimization of Production Quality using Lean Six Sigma

Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Zanele Mpanza, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 060 Using Lean to Optimize Processes in Paint Manufacturing to Meet Demand Deadlines

Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Zanele Mpanza, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 061 Creating Value Using Toyota Production Systems in A Leading Automotive Manufacturer

Kemlall Ramdass, Professor, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Zanele Mpanza, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Engineering, College of Sciences Engineering and Technology, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 062 Effect of single stage and multi stage mandrel forming of metal bellow type expansion joints

Agraja Magesh, Purdue University, USA

Paper ID: 063 Performance management at Air Force Base Ysterplaat

Bronwyn Swartz and Clint Lester Ah Shene, Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology, Cape Town, South Africa

Paper ID: 064/193 Supply Chain Resilience Strategies for managing Impact and Recovery: A Literature Review Approach

Chisungo Chisungo and Bupe Getrude Mwanza, Graduate Business School, University of Zambia, Zambia

Paper ID: 065 The Impact of Strategic Management in Implementing a Risk Management Framework

Ngaka Mosia, University of South Africa, Pretoria, South Africa

Paper ID: 066/185 Application of a proactive workplace risk management strategy

Ngaka Mosia, University of South Africa, Pretoria, South Africa

Paper ID: 067/074 Showcasing good practices in OER-based effective teaching and learning methods

Ngaka Mosia, University of South Africa, Pretoria, South Africa

Paper ID: 068 A disruptive technologies strategy for enhancing learner's experience in Teaching and learning

Ngaka Mosia, University of South Africa, Pretoria, South Africa

Paper ID: 069 Development of an Agile Supply Chain Networks

Ngaka Mosia, University of South Africa, Pretoria, South Africa

Paper ID: 071 Reentrant permutation flow shop scheduling with a deteriorating schedule

Makgoba Matsebe, University of Pretoria, South Africa

Olufemi Adetunji, University of Pretoria, South Africa

Paper ID: 073 The Future of an Engineering Technology Graduate

Ngaka Mosia and Yale Muanza, Lecturer, Department of Industrial Engineering, School of Science Engineering and Technology, College of Engineering, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 074 Showcasing good practices in OER-based effective teaching and learning methods

Yale Moetanalo, UNISA, South Africa

Paper ID: 075 Application of Quality Evaluation Tools for Learning Objects in Engineering Education

Yale Moetanalo, UNISA, South Africa

Paper ID: 076/077 Negotiating quality in Curriculum Development

Yale Muanza and Ngaka Mosia, Lecturer, Department of Industrial Engineering, School of Science Engineering and Technology, College of Engineering, University of South Africa (UNISA), Pretoria, South Africa

Paper ID: 079/145 An Exploration of SMEs as a Sustainable Development Goal

Kemlall R. Ramdass, Professor of Industrial Engineering, Department of Industrial Engineering, University of South Africa, Roodeport, South Africa

Andries Mbedzi, Regent Business School, Johannesburg, South Africa

Bongumenzi T Mncwango, Lecturer of Industrial Engineering, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa

Paper ID: 080 Network analysis Decision making under deep Uncertainty

Fuad Aleskerov, HSE University, 101000 Moscow, Myasnitskaya ulitsa, 20, Russia

Institute of Control Sciences of Russian Academy of Sciences, 117997 Moscow, Profsoyuznaya ulitsa, 65, Russia

Daniil Tkachev, HSE University, 101000 Moscow, Myasnitskaya ulitsa, 20, Russia

Paper ID: 081 The Effectiveness of Customer Relationship Management with Regards to Business Performance: A Sustainability Perspective

Kemlall R. Ramdass, Professor of Industrial Engineering, Department of Industrial Engineering, University of South Africa, Roodeport, South Africa

Phillipus Haivela, Regent Business School, Johannesburg, South Africa

Bongumenzi T Mncwango, Lecturer of Industrial Engineering, Department of Industrial Engineering, Durban University of Technology, Durban, South Africa

Paper ID: 082 Apple's Educational Technology Initiative and Its Impact on MacBook Market Share

Arjun Tyagi, Amity International School, India

Paper ID: 083 Modeling Distracted Pedestrian Crossing Behavior in Kuwait with Logistic Regression

Sharaf AlKheder, Full Professor of Civil Engineering, Civil Engineering Department, College of Engineering and Petroleum, Kuwait University, P.O. Box-5969, 13060, Safat, Kuwait

Paper ID: 084 Revolutionizing Automotive Manufacturing Through Additive Manufacturing: A Comprehensive Exploration of Technologies, Applications, and Impacts

Shelly Thandiwe Mona, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

Mfundo Nkosi, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

Paper ID: 085 Mixed Pull and Push Approaches for Improving Yarn Production Quality (Kombolcha Textile Share Company Spinning Department)

Abebe Shimelis Kassaye, Textile Engineering, Kombolcha Institute of Technology, Wollo University, Wollo, Ethiopia

Professor Daniel Kitaw and Dr. Gezahegn Tesfaye, School of Mechanical and Industrial Engineering, Addis Ababa Institute of Technology, Addis Ababa University, Addis Ababa, Ethiopia

Paper ID: 086 Frameworks for the Adoption of Additive Manufacturing in the Automotive Manufacturing Industry: A Comprehensive Literature Review

Shelly Thandiwe Mona, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

Mfundo Nkosi, Department of Mechanical and Industrial Engineering Technology, University of Johannesburg, South Africa

Paper ID: 087 A Sensor-Aided Pneumatic Bumper Activation System to Reduce the Impact Force During a Vehicle Crash

Boitumelo Gloria Khuthama, Department of Industrial Engineering, Operations Management and Mechanical Engineering, Vaal University of Technology, Vanderbijl park, South Africa

Taiwo Lolade Ladipo, Department of Industrial Engineering, Operations Management and Mechanical Engineering, Vaal University of Technology, Vanderbijl park South Africa
Gbeminiyi John Oyewole, School of Mechanical, Industrial, and Aeronautical Engineering, University of the Witwatersrand, Johannesburg, South Africa

Paper ID: 088 Enhancing Student Engagement and Learning Outcomes: An Investigation into the Impact of Interpretability Techniques in Personalised Learning Environments

Zvinodaishe Revesai, Department of Commerce, Reformed Church University, Masvingo, Zimbabwe
Tarirai Chani and Murimo Bethel Mutanga, Department of Information and Communication Technology, Mangosuthu University of Technology, Durban, South Africa

Paper ID: 089 Spreadsheet Solution for small vehicle routing problems for a small business

Vinjeru Makuwa, University of Pretoria, South Africa
Olufemi Adetunji, University of Pretoria, South Africa

Paper ID: 091 Joint ordering of educational items under constrained storage capacity

Olufemi Adetunji, University of Pretoria, South Africa
Jermi Ramakrishnan, University of Pretoria, South Africa

Paper ID: 092 Optimization Techniques for Transportation and Distribution Management: A Comprehensive Review

Md.Asif Zawad, Tahia Ilham and Ismat Ara Kaifa, Islamic University of Technology, Bangladesh

Paper ID: 093 Topic: Utilizing the potential of Artificial intelligence to enhance agriculture productivity and sustainability in the Sub-Saharan region

M. Chirasha, M. Chikurowo, E. Ndala and A. Ditima, Harare Institute of Technology, Zimbabwe

Paper ID: 094 Design of a smooth flat plate solar air heater for neonatal intensive care unit using Grey-wolf Algorithms

M. Chirasha, E. Maputi, Q. Kanhukamwe, M. Hudube and T. Dzapasi, Harare Institute of Technology, Zimbabwe

Paper ID: 095 The Level of Maintenance Management Maturity in the South African Rail Network

Liza Holomisa, Bheki Makhanya and Jan Harm C Pretorius, Postgraduate School of Engineering, Management, University of Johannesburg, Johannesburg, South Africa

Paper ID: 096 Beyond Good Intentions: A Game Theoretic Analysis of the Supply Chain Due Diligence Regulations

Ali Shantia, Toulouse Business School, France
Sara Rezaee Vessal, ESSEC Business School, France
Sam Aflaki, HEC Paris, France

Paper ID: 097 Trends of Emerging Technology in Online Learning

S Sandi and N Mosia, UNISA, South Africa

Paper ID: 098 Barriers of Transitioning through a Curriculum Delivery Grid in DE: An ODL readiness experiment for Industrial Engineering students

Siyasanga Sandi and Ngaka Mosia, UNISA, South Africa

Paper ID: 099 Assessing strategies to mitigate cable theft in the South African Railway Sector

Muhle Mthombeni, Bheki Makhanya and Jan Harm C Pretorius, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, South Africa

Paper ID: 100 Resilient Manufacturing Through Smart Technology Strategies

Sandi S and Ngaka M, University of South Africa (Unisa), South Africa

Paper ID: 101 The Impact of Failed Infrastructure Projects in Municipalities

Owen Molaudzi, Bheki Makhanya and Jan Harm C Pretorius, Postgraduate School of Engineering Management, Faculty of Engineering and the Built Environment, University of Johannesburg, Johannesburg, South Africa

Paper ID: 102 The impact of food traceability on supply chain performance. A systematic literature review

Benson Ruzive, Modern College of Business and Science, Oman
Reason Masengu, Middle East College, Oman

Paper ID: 103 The impact of Business Process Re-engineering on Organizational strategy

Prudence Tjale, Department of Quality and Operations Management, University of Johannesburg, Kingsway's Road, Johannesburg, South Africa
Polycarpe Feussi, Department of Quality and Operations Management, University of Johannesburg, Kingsway's Rd, Johannesburg, South Africa

Paper ID: 104 Causes of delay in construction projects during the Fourth Industrial Revolution: A South African Perspective

Jonathan Ntambwe Bupole, Eric Mikobi Bakama and Mushavhanamadi Khathutshelo, Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa

Paper ID: 105 Mediating Role of Knowledge Sharing Between Transformational Leadership and Innovative Service Delivery Among Nurses in the Federal Medical Centers of North East Nigeria

Maryam Tijjani Abba, Department of Marketing, Federal Polytechnic Bauchi, PMB 0231, Bauchi-Nigeria

Paper ID: 106 The Use of Innovative Mechanical Solutions to Implement Lean Methodologies in a Meat Manufacturing Factory in Egypt
Eng. Mustafa Oday, SAP PP Consultant, TechnoVal Information Systems, Cairo, Egypt
Prof. Tamer A. Mohamed, Prof. of Industrial Engineering and Management, Mechanical Engineering Department, Faculty of Engineering, The British University in Egypt, Cairo, Egypt

Paper ID: 107 Social and Solidarity Economy Impact on Local African SCM
Samantha Lester and Ahmed Deif, Department of Industrial Technology and Packaging, California Polytechnic State University, San Luis Obispo, CA 3407, USA

Paper ID: 108/205 Unveiling a Student Exam Verification System that Enables Secure and Efficient Access Control Using AI Technologies

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Carolina Mirella Hidalgo-Vargas, Facultad de Ingeniería, Universidad de Lima, Perú
Juan Carlos Quiroz-Flores, Research Professor, Facultad de Ingeniería, Universidad de Lima, Perú

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Morena William Nkomo and Stephan Molusiwa Ramabodu, Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburg, RSA

Paper ID: 224 An investigation into appropriate maintenance strategy between preventive and predictive for buildings in South Africa

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| Egypt | 138. Ecole Supérieure De Technologie, Fez | 218. Southern Arkansas University |
| 56. Zagazig University | Mozambique | 219. Western Michigan University |
| 57. Fayoum University | 139. Eduardo Mondlane University | 220. Loyola University Chicago |
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| Ethiopia | 140. National Univ. of Sci. and Tech. in Windhoek | 222. Central State University |
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| Finland | 141. Kathmandu University | Venezuela |
| 60. University of Vaasa | 142. Tribhuvan University | 224. Catholic University Andrés Bello, Caracas |
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| 62. Lorraine University, Metz | 144. University of Ibadan | Zambia |
| Ghana | 145. University of Nigeria, Nsukka | 226. University of Zambia |
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| 64. Accra Technical University | Oman | Zimbabwe |
| Haiti | 148. Sultan Qaboos University | 229. University of Zimbabwe, Harare |
| 65. Université Quisqueya | 149. Middle East College | 230. National University of Science and Technology |
| India | Pakistan | 231. Harare Institute of Technology (HIT) |
| 66. College of Eng and Tech, Bhubaneswar, Odisha, India | 150. Dawood University of Eng and Technology, Karachi | 232. Women's University in Africa (WUA) |
| 67. College of Engineering Guindy, Chennai | 151. Government College University Faisalabad | 233. Chinhoyi University of Technology (CUT) |
| 68. Guru Nanak Dev Engineering College | 152. Mehran University of Eng and Tech, Jamshoro, Sindh | High School Chapters |
| 69. Pandit Dendayal Petroleum Univ., Gujrat | 153. Riphah International University, Lahore Campus | 234. Bay Area of San Francisco & San Jose, CA |
| 70. P.D.A. College of Engineering, Gulbarga | 154. University of Engineering and Technology, Lahore | 235. Arongghata, Khulna, Bangladesh |
| 71. Vellore Institute of Technology | 155. UOT – Nowshera | |
| 72. Vidya Jyothi Institute of Technology, Hyderabad | 156. Information Technology Univ. of the Punjab, Lahore | |
| 73. Universal College of Eng & Tech (UCET), Guntur | Papua New Guinea | |
| 74. National Institute of Technology (NIT), Warangal | 157. Papua New Guinea University of Technology | |
| 75. Jawaharlal Nehru Technological University Hyderabad | Paraguay | |
| 76. IITS, India | 158. National University of Asuncion | |
| 77. Birla Institute of Tech & Sciences (BITS Pilani) | 159. Universidad del Cono Sur de las Américas | |
| 78. Amrita School of Business – Bangalore | Peru | |
| 79. Amrita school of Arts and Sciences, Mysuru | 160. National Univ of San Antonio Abad, Cusco | |
| 80. Amrita School of Business, Coimbatore | 161. Universidad de Lima (ULima) | |
| 81. Aligarh Muslim University, Aligarh | 162. Universidad Peruana de Ciencias Aplicadas (UPC) | |
| 82. Mahant Bachittar Singh College Eng & Tech, Jammu | 163. Universidad Ricardo Palma (URP) | |
| 83. Baba Banda Singh Bahadur Eng College | | |

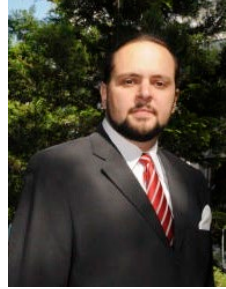
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Venue: UDC Campus, 4200 Connecticut Ave NW



7th European Conference on Industrial Engineering & Operations Management
Augsburg / Munich, Germany
July 16-18, 2024
Host: Augsburg Technical University



5th Asia Pacific Conference on Industrial Engineering and Operations Management
Sept. 10-12, 2024, Tokyo, Japan
Host: Hosei University, Venue: Waseda Univ.



Industrial Engineering and Operations Management Annual World Congress
October 9-11, 2024, Detroit, USA
Venue: Lawrence Technological University



3rd Australian Conference on Industrial Engineering and Operations Management
Sydney, Australia, Sept. 24-26, 2024
Venue: Hotel in Sydney
Host: University of Wollongong Australia



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15th International Conference on Industrial Engineering and Operations Management
February 18-20, 2025, Singapore
Host: Singapore University of Social Sciences



6th African IEOM Conference, Rabat, Morocco

April 8-10, 2025, Host and Venue: École Mohammadia d'Ingénieurs (EMI)
Conference Chair: Dr. Abdelaziz Berrado, Dept. of Industrial Engineering
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