



## Coordinator

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Link to access brochure:

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## *Université des Mascareignes*

Roes-Hill Campus

Avenue de la Concorde, Rose-Hill

(+)230 460 9500

Pamplemousses Campus

Beau Plan Round About, Pamplemousses

(+)230 260 4500

Bel Air Campus

Royal Road, Bel-Air

(+)230 460 5181



# National Research Week

*Thursday 17 April 2025*

*Rose-Hill Campus*



# About the Université des Mascareignes

The Université des Mascareignes was established in 2012 after a merger between the IST (Institut Supérieur de Technologie) at Rose-Hill and Swami Dayanand Institute of Management (SDIM) at Pamplemousses. UDM is the fourth and the youngest public University in Mauritius, which provides tertiary education in Engineering and Sustainable Development, Business & Management and Information and Communication Technology.

It has a close working collaboration with the Université de Limoges, France. Almost all the degree courses are dual degrees with the Université de Limoges, according to the European LMD system. This allows students to earn degrees which are internationally recognized. The Université de Limoges welcomes every year students from the UDM, either as part of their internships or studies funded by UDM/ French Embassy scholarships, or the European Erasmus funds.



## SESSION 6

### *Tech Horizons: Pioneering Future Technologies*

- *Emerging Technologies*
- *Tech-driven innovation in society and business*
- *Robotics and Artificial Intelligence in industry*
- *Development and societal impact*
- *Regulatory and Ethical Considerations*
- *Digital Transformation*
- *Cross-Sectoral Integration of emerging technologies*
- *Smart Cities and Infrastructure*

# PROGRAMME

09:30 – 09:35: Welcome by Prof Yashwantrao Ramma, Deputy Director General (Academic) & Launching by Dr Radhakrishna Somanah, CSK, Director General

09:35-09:55: Keynote Speech - Digital Twins Technology and Applications - Professor Krishna Busawon (Northumbria Univ., U.K.) – Chairperson: Dr Radhakrishna Somanah, CSK, Director General

## Session 1: Chairperson - Dr Leckramsingh Latchoomun

10:00-10:10: A Netnographic Study on Social Media for Sustainable Talent Management and Decent Work Promotion - Dr Swaleha Peeroo (UdM) & Dr P. Gunesh (UoM)

10:10-10:20: Building Smart and Resilient Infrastructure in Mauritian Cities - Dr (Ms) Y. Baguant (UoM)

10:20-10:30: Assessing Grassroots Flood Risk Management Strategies and Spatial Variability of Cyclone Freddy's Impacts in Chikwawa, Malawi - Mr Japhet Khendlo (UdM), Dr R. Beeharry (UdM), Dr R. Goodary (UdM)

10:30-10:40: Fostering Student Entrepreneurship at Université des Mascareignes Collaborative Ventures: Success Stories and Lessons Learned Case Studies of Successful Academia-Industry Partnerships - Dr Swaleha Peeroo (UdM), Dr V. Ladkoo (UdM)

10:40-10:50: Discussions

# PROGRAMME

## Session 2 : Chairperson - Dr Swaleha Peeroo

10:55-11:05: Nexus Between Smart Tourism and Economic Development of Mauritius: Prospects and Challenges - Dr Randhir Roopchund (UdM)

11:05-11:15: Design and Implementation of a Smart Kitchen for Mauritian Seniors: Integrating Voice-Controlled v/s Arduino-Based Automation - Mr Yovesh Bhiwoo (UoM), Mr S. Venkannah (UoM), Mrs S. Ramsamy-Iranah (ADI)

11:15-11:25: Transformational Leadership for Education 4.0 in the Mauritian Higher Educational Context - Dr Randhir Roopchund (UdM)

11:25-11:35: Application of Deep Learning to Monitor Adherence of Covid-19 Pandemic Guidelines in Mauritius - Mr Muhammad Bin Abubakr Joolfoo (UoM)

11:35-11:45: Development of a Climate Resilient Framework for Infrastructure – Dr Manta Devi Nowbuth (UoM)

11:45-11:55: Mathematical Modelling of Sigmoid Functions - Mrs Bhamini Sreekeesoon (UdM), Professor K. Busawon (Northumbria Univ), Dr R. K. Dreepaul (UdM)

11:55- 12:05 : Discussions

# PROGRAMME

## *Session 3: Chairperson - Dr Raj Dreepaul*

*12:10-12:20: A Study of Recycled Concrete Aggregates for Road Base Construction in Mauritius - Mr Kamlesh Greedharry (UdM), Dr R. Goodary (UdM), Mr J. C. Gatina (UdM), Mr K. Mogun (UdM)*

*12:20-12:30: Digital Transformation in Higher Education: A Hybrid Learning Approach for Practical-Oriented Module—Database Design and Development—A Case Study at Université des Mascareignes - Mrs Shameera Lauthan (UdM)*

*12:30-12:40: The Breakthrough of Forensic Phonetics in Mauritian Context to Challenge AI in Voice Analysis - Mrs Deepa Roy Sookara-Ramchurn (MIE)*

*12:40-12:50: A Conceptual Study on AI-Powered Mobile Payments: Trust, Security, and Adoption in the Era of Digital Transformation - Mrs Leenshya Gunnoo (UTM), Mr E. Bindah (UoM)*

*12:50-13:00: Towards the Transition to a Sustainable Public Transport System in Mauritius - Dr Leckramsingh Latchoomun (UdM), Mr A. Dhunnoo (UdM)*

*13:00-13:10: Class Struggle and Structural Oppression in South Africa: A Postcolonial Analysis of Resistance in Athol Fugard's Sizwe Bansi Is Dead. – Ms Pontso Kane*

*13:10 -13:20: Discussions*

# PROGRAMME

## *Session 4: Chairperson - Dr Randhir Roopchand*

*13:25-13:35: Engineering Geological Investigations in Regions Underlain by Deposits of Volcanic Origin - Dr Rajeshwar Goodary (UdM)*

*13:35-13:45: Towards the Search for Neural Network-Based Decoding Models for Polar Codes with Improved Performance - Dr Yogesh Beeharry (UoM)*

*13:45-13:55: A Hybrid Approach to Risk Management: Evaluating Captive and Parametric Insurance on the African Landscape - Ms Danisha Marthen (UoM) , Dr N. Mamode Khan (UoM)*

*13:55-14:05: Antenna Arrays in Emerging Technologies: Applications and Efficient Numerical Analysis for Large-Scale Systems - Dr Keshav Sewraj (UdM)*

*14:05-14:15: Translation of Kreol Morisien to English and English to Kreol Morisien - Ms Beebee Zaheenah Jameela Boodeea (UoM), Mr S. Pudaruth (UoM), Mr N. Chooramun (UoM), Mr A. Sukhoo (UoM)*

*14:15-14:25: A Social Network Analysis of Nicolas Pike's Travel Writing on Mauritius - Dr Neelam Fatmah Pirbhai (UdM), Ms P. Kane*

*14:25-14:35: Addressing some issues related to maths teaching at primary school level – Prof. Krishna Busawon (Northumbria Univ., U.K.)*

*14:35 -14:45: Discussions*