



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Office of the Deputy
Vice-Chancellor

Research, Innovation and
Partnerships

2024 Institutional Research Week (IRW)

*Theme: "Advancing Human-Centric Research, Innovation,
and Sustainability."*

Date: Monday, 28 October - Wednesday, 30 October 2024

Time: Central Africa Time (CAT) (UTC/GMT +02:00)

Venue: Auditorium 1, NUST Lower Campus

Zoom Link: [Click here to join meeting](#)

Meeting ID: 830 0072 3845

Passcode: IRW@24



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Best Institutional
Senior Researcher



NAMIBIA UNIVERSITY
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Certificate of Achievement

Awarded to

Prof Haritled Zideke Noldemariam

as the

Best Researcher of the Year
in the Faculty of Commerce, Human Sciences and Education - 2023

Dr. Haritled Zideke Noldemariam

Dean, Faculty of Commerce, Human Sciences and Education

29 November 2023

Dr. Haritled Zideke Noldemariam

Dean, Faculty of Commerce, Human Sciences and Education



DAY 1: Monday, 28 October 2024

Opening of 2024 Institutional Research Week (IRW)

Director of Ceremonies: Ms Rennie Munyayi, **Manager:** Research and Postgraduate Dev., Directorate of Research Innovation and Partnerships (DRIP)

Time	Activity/Topic	Presenter/Responsible
07:30	Arrival of Participants	
08:15	Opening Remarks	Prof Eroid Naomab <i>Vice-Chancellor</i>
08:25	Industry Speaker	Prof Suraj Kothari <i>Professor: Electrical and Computer Engineering, Iowa State University</i>
09:00	Industry Speaker	Prof Dr Anicia Peters <i>Chief Executive Officer: National Commission on Research Science and Technology (NCRST)</i>
09:30	Industry Speaker	Mr Antoine Berel <i>Vice-President: Sub-Saharan Africa - Halliburton</i>
09:55	Memorandum of Understanding (MoU) Signing	NUST and Halliburton Industries Ltd
10:00	Vote of Thanks	Dr Colin Stanley <i>Acting Deputy Vice-Chancellor: Research, Innovation and Partnerships</i>
10:10	Group Photo / Refreshments/ Tea break	



Technical Session 1: Oral Presenter (OP)

Chair: Dr Arpit Jain

Moderator: Ms Viktoria Shakela

Time	Authors	Title of Presentation
10:40	Iyaloo Haitula-Waiganjo, Jude Osakwe and Ambrose Azeta, Faculty of Computing and Informatics	Impediments to Cybersecurity Policy Implementation in Organisations: Case Study of Windhoek, Namibia
11:00	Mamoqenelo P. Morolong, Fungai Bhunu Shava and Attlee M. Gamundani Faculty of Computing and Informatics	Investigation of Machine Learning-Inspired Security Controls Used in Protecting Health Critical Infrastructure from Advanced Persistent Threat Attacks: Review
11:20	Lubinda M. and Shindume H. Faculty of Health, Natural Resources and Applied Sciences	Gender Dynamics in Land Ownership: Uncovering Disparities Among Communal Farmers in Namibia
11:40	Uerimanga Tjijombo, Niklaas Johannes Fredericks and Aletta Mweneni Hautemo, Faculty of Commerce, Human Sciences and Education	Sociolinguistic Investigation of Language Shift and Maintenance Among Ovahimba-Speaking Youth in Opuwo
12:00	Ndeshihafela Kakwambi, Guy Alain GA Lusilao, Samuel O. S. Akinsola, Faculty of Computing and Informatics	A Predictive Mobility Model Based on Crocodile Mobility Data for Human-Crocodile Conflict Management in Namibia
12:20	Kondjeni Ndadeva and Richard Maliwatu Faculty of Computing and Informatics	Towards Predictive Modelling of Recidivism: A Case of Namibia Correctional Services
12:40	Sakaria Iindombo and Mercy Chitauro Faculty of Computing and Informatics	Enhancing Blockchain Layer in Smart Grid Edge IoT Devices to Improve Data Security
13:00	Lunch Break and Poster Presentations Session, Auditorium 1 Foyer	



Technical Session 2

Chair: Dr Gereon Koch Kapuire

Moderator: Mr Sebastian Mukumbira

Time	Authors	Title of Presentation
14:00	Katja Becker, Helvi Itenge, Selma Auala, Joseph-David Isaacs and Heike Winschiers-Theophilus: Faculty of Computing and Informatics	Co-Design of an Extended Reality Escape Room with Primary School Students
14:20	Jason Mendes, Selma Auala, Heike Winschiers-Theophilus, Tomi "bgt" Suovuo4, Erkki Sutinen, Calkin Suero Montero and Naska Goagoses, Faculty of Computing and Informatics	Bridging Spaces: A Student Perspective on Designing for Remote Presence With 3D Holograms
14:40	Selma Auala, Nestor Nathingo, Brave Kahweka, Kaulyaalalwa Peter and Isaac Makosa: Faculty of Computing and Informatics	Non-Player Characters (NPCS) for a More Immersive Himbaverse

Technical Session 3

Chair: Dr Mercy Chitauru

Moderator: Mr David Kapali

Time	Authors	Title of Presentation
15:00	Rikurora Karamata, Franco Beukes, Edison Zau, Vetumbuavi Ndjavera and Metaramuje Kaundje: Faculty of Computing and Informatics	Smart Agriculture in Namibia: Deploying AI and IOT For Hydroponic Farming Aimed at Rural Community Subsistence
15:20	Revaldo Gertze, Shaun Kamesiepo, Erastus Matheus, Jimmy Sergio Damiao and Ernst Kandombo: Faculty of Computing and Informatics	Revolutionising Physiotherapy Through Augmented Reality: A Hololens 2-Based Remote Rehabilitation System
15:40	Teofilus Shiimi Faculty of Health, Natural Resources, and Applied Sciences	Determining Willingness to Pay to Adopt Conservation Agriculture in the Northern Regions of Namibia
16:00	Maria Kanyama, Fungai Bhunu Shava, Attlee Gamundani, Andreas Hartmann: Faculty of Computing and Informatics	Enhancing Anomaly Detection in Smart Water Metering Networks with LSTM-Autoencoder and Data Augmentation Techniques



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DAY 2: Tuesday, 29 October 2024

Director of Ceremonies: Prof Omotayo Awofolu, *Acting Director: Research and Postgraduate Development, DRIP*

Time	Activity/Topic	Presenter/Responsible
07:30	Arrival of Participants	
08:00	Welcome Remarks	Dr Colin Stanley <i>Acting Deputy Vice-Chancellor: Research, Innovation and Partnerships</i>
08:15	Industry Speaker	Dr Lisho Mundia <i>Deputy Executive Director of Research, Innovation and Training: Ministry of Higher Education, Technology and Innovation (MHETI)</i>
08:45	Invited Speaker	Prof Andreas Moegelmose <i>Visual Analysis and Perception Lab: Aalborg University, Denmark</i>
09:15	Vote of Thanks	Prof Fungai Bhunu-Shava <i>Acting Executive Dean; Faculty of Computing and Informatics</i>
Presentations		
09:25	Bas Rinen, Directorate Research Innovation & Partnerships	The Power of Sport in Development: The Case of Namibia
09:45	Philip Mensah, Eric Yankson, Derrick F. Buabeng	Reviewing the Effectiveness of Strategic Impact Assessment in Advancing Namibia's Sustainable Development Goals: Challenges and Opportunities
10:05	Tea Break	



Technical Session 4

Chair: Prof Habauka Kwaambwa

Moderator: Dr Roswitha Mahalie

10:15	Abubakar Hamisu Kamagata, Dham Singh Jat, Saravanakumar Paramasivam, Attlee M. Gamundani, Muhammad Zahir Ramli, Faculty of Computing and Informatics	Simulation and Prediction of Machine Learning-Based Storm Surge Forecasting Model
10:35	Wilikeni Nampala Kadhikwa and Nikodemus Angula, Faculty of Commerce, Human Sciences and Education	An Investigation into Factors Affecting the Sustainability of Agricultural Cooperatives in Namibia: A Case Study of Onghalulu Farmers' Cooperative, Ohangwena Region, Namibia
10:55	Arpit Jain and Dharm Sing Jat Faculty of Computing and Informatics, Namibia Sciences and Education	High Performance Federated Learning Techniques for Deep Learning on Medical Dataset
11:15	Rosa Ndapalondjila Patemoshela Ndakondja and Aletta Mweneni Hautemo, Faculty of Commerce, Human Sciences and Education	The Application of Technology Enhanced Language Learning in Teaching English and Oshikwanyama Phonetics at Selected Primary Schools in Eenhana Circuit
11:35	Sonio Haitangomwene Kalimbo and Haileleul Zeleke Woldemariam Faculty of Commerce, Human Sciences and Education	The Pragmatic Competence of English Second Year Students of The Department of Communication and Languages at Namibia University of Science and Technology
11:55	Josephina Panduleni Iyaloo Itoolwa and Abed Tangeni Williams Faculty of Commerce, Human Sciences and Education	The Intersection of Ecocriticism and Feminism in Maathai Wangari's Unbowed
12:15	Albano dos Santos, Ambrose Azeta and Steven Tjiraso Faculty of Computing and Informatics	Machine Learning Models for Water Resources Management Using Earth Observation Satellite Data in Namibia and Angola
12:35	Simeon I. Ambuga and Marius K. Mutorwa, Faculty of Health, Natural Resources, and Applied Sciences	Phytochemical Isolation and Determination of Antioxidant and Anticancer Activity of Asparagus Nelsii Schinz Root Extracts Via Docking Studies
12:55	Lawrence Madziwa and Thabo Falayi	Gold Monthly Price Forecasting using Machine Learning Tools for Investment Decisions



13:15	Lunch Break	
Technical Session 5		
Chair: Dr Veikko Shalimba,		
Moderator: Dr Eric Yankson		
Time	Authors	Title of Presentation
14:00	James Katende, Versheri K. Nadege, Omkar Buwa3, Anand Rao Faculty of Engineering and the Built Environment	Operational Impact Assessment and Sustainability Framework of Rural Mini-Grids: A Case Study of the Tsumkwe Mini-Grid in Namibia
14:20	Efraim Sheetekela, Oluibukun Ajayi Faculty of Engineering and the Built Environment	A GIS-Powered Platform for Agri-Business Connectivity and Market Insights in Namibia
14:40	Selma Ndeshimona lilonga and Oluibukun Gbenga Ajayi, Faculty of Engineering and the Built Environment	Application of Deep Learning Algorithms for Modelling Agricultural Drought Conditions in The Omusati Region of Namibia
15:00	Aune Kamosho and Oluibukun Ajayi	Crop Health Management Web Application System for Smart Farming
15:20	Derrick Frimpong Buabeng, Eric Yankson, Philip Mensah	Towards Effective Customary Land Governance: A Comparative Analysis of Namibia and Ghana For Sustainable Land Use and a Greener Future
15:40	Concluding Remarks	Dr Munyaradzi Maravanyika FCI
16:00	Tea/Coffee	



Day 3: Wednesday, 30 October 2024

Inaugural Professorial Lectures

Director of Ceremonies: Dr Colin Stanley, **Acting Deputy Vice-Chancellor:** Research, Innovation and Partnerships

Time	Activity/Topic	Presenter/Responsible
07:30	Arrival of Participants	
08:00	Academic Procession with Gaudeamus Igitur Song	Registrar's Office Representative
08:15	Welcoming Remarks	Prof Eroid Naomab <i>NUST Vice-Chancellor</i>
08:20	Speaker	Mr Joseph Mukendwa <i>Head of Policy, Planning and Strategy: Namibia Green Hydrogen Programme</i>
08:40	Speaker	Mr Mbahapu Hippy Tjivikua <i>Walvis Bay Corridor Group</i>
09:00	Keynote Speaker	Prof Wilfred Isioma Ukpere <i>Professor of Industrial Psychology and People Management: University of Johannesburg</i>
Inaugural Lecture Presentation		
09:20	Introduction of Candidate	Prof Efigenia Semente <i>Executive Dean: Faculty of Commerce, Human Sciences and Education</i>
09:25	Professor 1	Prof Sulaiman Atiku
10:10	Introduction of Candidate	Prof Harmony Musiyarira <i>Executive Dean: Faculty of Engineering and the Built Environment</i>
10:20	Professor 2	Prof Uchendu Eugene Chigbu
11:20	Presentation of Certificates	Prof Eroid Naomab <i>Vice-Chancellor</i>
11:30	Vote of Thanks	Prof Sifiso Nyathi <i>Registrar</i>
12:00	Group Photo	
Light refreshments for delegates - Lobby in Front of Auditorium 1		

Evening Programme

Researcher of the Year (RoY) Awards Ceremony

[EXCO members, EDs, E. Dirs, Inaugurates and 1 guest, RoYs Recipients and IRW organising committee members] Invitation only.

Time: 17:30 - 19:30





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Enquiries

E: dvcrip@nust.na

W: www.nust.na