



**NCRST**  
NATIONAL COMMISSION  
ON RESEARCH SCIENCE & TECHNOLOGY



# **NATIONAL SCIENCE WEEK 07 - 10 NOVEMBER 2023**

*“Unleashing the Full Potential of Science”*

Venue: UNAM Main Campus

UNAM LEISURE CENTRE | UNAM LIBRARY AUDITORIUM | FACULTY OF SCIENCE FOYER W-BLOCK | X BLOCK- 149

# **PROGRAMME**

## SCIENTIFIC DEMONSTRATIONS, ACADEMIC AND INDUSTRY PRESENTATIONS

Dates: 7 to 8 November 2023

Website: <https://research.unam.edu.na/science-conference/#>

### ALL SESSIONS ARE HYBRID EVENTS

<https://zoom.us/j/93481986516?pwd=dmFkR1hLcTdtlVrWmUzdVh4ZGpLdz09>

Meeting ID: 934 8198 6516

Passcode: KQ2135

- Opening session: Zoom Link
- Parallel sessions- Leisure Centre- Room 1
- Parallel session- Library Auditorium – Room 2
- Parallel session- Room X149 -Room 3

**DAY 1: 06 NOVEMBER 2023**  
**GRAND OPENING OF NATIONAL SCIENCE WEEK, UN PLAZA.**  
**HOSTED BY THE NCRST ON 6 NOVEMBER 2023.**  
**VENUE: UN PLAZA HOSTED BY NCRST**  
**TIME: 10:00**

**DAY 2: 07 NOVEMBER 2023**  
**VENUE: LEISURE CENTRE**  
**OPENING PLENARY & WELCOMING SESSION**  
**MASTER OF CEREMONIES:**  
**PROF NELAGO INDONGO. ACTING PVC (PVC) FOR RESEARCH, INNOVATION AND DEVELOPMENT (RID)**  
**ZOOM: <https://zoom.us/j/93481986516?pwd=dmFkR1hLcTdtIVrWmUzdVh4ZGpLdz09>**

<b>TIME</b>	<b>TITLE &amp; SPEAKER</b>
8:00 to 9:00	REGISTRATION OF DELEGATES AT UNAM (SCAN QR CODE AT THE DOOR, ONLINE REGISTER AT PROVIDED LINK)
9:00 to 9:20	OPENING & WELCOME <ul style="list-style-type: none"> <li>▪ <b>Remarks from UNAM, Prof Ndeyapo Martha Nickanor</b>, Executive Dean, FAENS</li> <li>▪ <b>Remarks from NCRST, Mr. Paulus Mungeyi</b>, Acting General Manager Innovation and Technology Development</li> </ul>
9:20 to 9:30	WELCOMING REMARKS & SETTING THE SCENE <b>TBC</b>
9:30 to 10:00	<b>KEYNOTE ADDRESS</b> <i>"Unleashing the full potential of Science: Forging a meaningful Scientific career in the age of Innovation".</i> <b>Dr Eino Mvula, Chief Executive Officer, Namibia Standards Institution (NSI)</b>
<b>10:00 to 10:30</b>	<b>TEA BREAK</b>

TIME	SPEAKER & TITLE		
10:30 to 11:00	How to have a fulfilling career in STEM, a perspective from a University of Namibia Alumni. <b>Ms. Nansunga Kambinda, Technical Discipline Manager-Hydrology &amp; Hydrogeology (SLR Africa) and Manager: Hydrology and hydrogeology studies, Osino Gold Exploration (Pty)LTD</b>		
11:00 to 11:30	Start Up in STEM, the story of Green Team Consultants. <b>Mr. Sakaria Nalusha, Managing Partner, Green Team Consultants- <a href="#">Virtual presentation</a></b>		
11:30 to 12:00	Looking to the future of energy Production: Green Hydrogen Production and Utilization <b>Dr. Zivayi Chiguvare, Senior Lecturer and Acting Director: Namibia Green Hydrogen Research Institute (NGHRI)</b>		
12:00 to 12:30	Shaping the science Industry and Bridging the gap between academia and Industry: The students' perspective <b>Ms. Otilie, N. Fillipus, Student Representative for the School of Science</b>		
12:30 to 13:00	Employment opportunities for chemistry graduates in the Water Treatment Industry <b>Mr. Tomas Amutenya, Analyst (Chemistry) City of Windhoek</b>		
<b>Vote of Thanks Dr. Mwangala Nalisa, Chairperson FAENS Conference organising Committee</b>			
<b>13:00 to 14:00</b>	<b>LUNCH (LEISURE CENTRE)</b>		
<b>PARALLEL SESSIONS</b>			
14:00 to 14:15	<b>VENUE: LEISURE CENTRE</b> <b>Chair: Prof Martin Mugochi Research area:</b> Computing, Mathematics, Statistics, Economics, and Research Management	<b>VENUE: LIBRARY AUDITORIUM</b> <b>Chair: Mr. Bernhard Mukuve</b> <b>Research area:</b> Agriculture and Biology	<b>VENUE: X149</b> <b>Chair: Mr. Petrus Shanika</b> <b>Research area:</b> Chemistry, Marine Biology and Health sciences
	STEM fields, accreditation, and curriculum development in computing. <b>Prof. Raymond Greenlaw- <a href="#">Virtual presentation</a></b>	A comparative study on the feed intake, digestibility and nitrogen balance of Kalahari red goats fed with <i>Tylosema esculentum</i> versus <i>Medicago sativa</i> as a protein supplement. <b>Mr. Innocent Hiangoro</b>	A Biodiversity and Ecological Analysis of Zooplankton, Fish and Seabird Communities Across a Temporal Scale at Selected Offshore Sites in Lüderitz, Namibia. <b>Ms. Arisha September</b>
14:15 to 14:30	Analyzing the Influence and Effectiveness of Regional Economic Communities in Advancing the Implementation of the Single African Air Transport Market. <b>Mr. Peter Imanuel</b>	Evaluation of alginate-modified starch composite as shell material for encapsulation of MFA-degrading bacteria for the prevention of <i>Dichapetalum cymosum</i> poisoning in ruminants. <b>Mr. Tjaronda Karumendu</b>	Acid-neutralizing and cytotoxicity properties of novel <i>Sesamum capense</i> mucilage used as an alternative treatment for peptic ulcers and as antacids in Namibia. <b>Dr. Albertina Shatri</b>

14:30 to 14:45	A bibliometric analysis of research at the University of Namibia <b>Mr. Kelvin Mubiana Katukula</b>	Analysis of the state of Biomass procession and trading in Namibia's growing recycling economy. <b>Mr. Shepherd M. Nyambe</b>	Phytochemical characterisation and antimicrobial activity of <i>Nigella sativa</i> seeds. <b>Mr. Festus Shafodino Shafodino</b>
14:45 to 15:00	Statistical modeling the performance of universities: A case study. <b>Dr. Booyesen Sabehe Tubulingane</b>	Antioxidant, Antimicrobial, and Antibiofilm Properties of <i>Opuntia Stricta</i> and <i>Vachellia Erioloba</i> , and Chemical Characterization of Volatile Compounds. <b>Mr. Junias Jackson</b>	Total quantification of bioactive compounds in <i>Sesamum capense</i> aqueous mucilage: A step toward understanding its traditional use in treating gastric conditions. <b>Dr. Albertina Shatri</b>
<b>15:00 to 15:20</b>	<b>TEA BREAK (Leisure Centre)</b>		
15:20 to 15:35	Optimizing Ruin Probability Through Reinsurance with Inclusion of Investment and Dividend Payments. <b>Mr. Sailas Namhindo- <a href="#">Virtual presentation</a></b>	Evaluating the effects of different soil amendments on soil physicochemical properties, growth, and yield of wheat ( <i>Triticum aestivum</i> L.) in North-Central Namibia. <b>Ms. Anna Haufiku</b>	Toxicological evaluation of the poisonous plant <i>Dipcadi glaucum</i> (wild onion) using a Brine Shrimp Lethality Assay. <b>Mr. Jonathan Ortmann</b>
15:35 to 15:50	Augmented reality in teaching object-oriented programming concepts. <b>Mr. Mulanduleni Niilungu- <a href="#">Virtual presentation</a></b>	Geochemical and isotopic constraints on the water balance of wetlands in the cuvelai Etosha basin, northern Namibia. <b>Ms. Jane Rachel Mutjida</b>	Evaluating immune responses of covid-19, tuberculosis, and HIV infections through cytokine profiling. <b>Ms. Othilie Katali</b>
15:50 to 16:05	<b>VENUE: LEISURE CENTRE</b> <b>Chair: Mr. Titus Haiduwa</b> <b>Research area: Chemistry &amp; Agriculture</b>	Sand mining as a driver of ecological succession and soil quality loss in the sub-tropical savanna environment, Namibia <b>Dr. Jesaya Nakanyala</b>	Estimation of the net primary production of giant kelp ( <i>Macrocystis pyrifera</i> ) at the kelp blue shearwater bay farm in Lüderitz, Namibia. <b>Mr. Michael Ndinomwene Mateus</b>
16:05 to 16:20	Chemical and thermal characterization of Biomass from selected Namibian encroacher bushes for the production of biochar and bio-oil. <b>Ms. Magano Shivolo</b>	Soil Amendments improve cabbage yield, Water use efficiency and profitability in semi-arid North central Namibia. <b>Mr. Stefanus Petrus- <a href="#">Virtual presentation</a></b>	Effects of different irrigation levels and soil amendments on cabbage performance, soil water storage, and economic benefit in semi-arid central Namibia. <b>Mr. Kuume Benjamen Pendapala Enguwa. <a href="#">Virtual presentation</a></b>
			Investigations on the fabrication of Al, Cr, and Ni-doped ZnO thin films by the aqueous spray-coating method and their applications as photoanodes for hydrogen production via photoelectrochemical water splitting. <b>Ms. Wilka Naalombole Titus</b>



16:20 to 16:35	Evaluating the effects of soil conditioners on soil properties and cabbage performance under different water regimes in Northern and Central Namibia. <b>Mr. Titus Haruwodi- <a href="#">Virtual presentation</a></b>	Agronomic Performance of Bambara Groundnut Varieties Treated with Bradyrhizobium Strains in Namibia. <b>Ms. Maria Amwenyo <a href="#">Virtual presentation</a></b>	Antioxidant and antibacterial evaluation of selected hydrazone ligands and their metal complexes. <b>Ms. Teopolina Ndagwedhapo Nawinda</b>
16:35 to 16:50	Preparation of activated carbon from <i>Acacia erioloba</i> seed pods using potassium hydroxide as an impregnating agent for the treatment of wastewater. <b>Ms Garere Uiras. <a href="#">Virtual presentation</a></b>	Assessing Farmers' Production Practices and Marketing Activities of Cabbage ( <i>Brassica oleracea var. Capitata</i> ) in Omusati Region, Namibia. <b>Ms. Hallelluya Hamalwa <a href="#">Virtual presentation</a></b>	Removal of contaminants from wastewater with activated carbon prepared from <i>Acacia erioloba</i> seed pods with H <sub>2</sub> SO <sub>4</sub> -H <sub>3</sub> PO <sub>4</sub> . <b>Mr. Elia Haukongo <a href="#">Virtual presentation</a></b>
16:50 to 17:05	The effects of ensiling <i>Senegalia mellifera</i> with or without carbohydrate additives and lactic acid bacteria (LAB) inoculant on the silage pH, nutrient composition, and in vitro digestibility. <b>Ms. Portia Murorua <a href="#">Virtual presentation</a></b>	<p><b>Research area: Statistics</b></p> <p><b>Demonstration of Statistical Software</b> <b>Mr. Werner Tjipueja.</b> <b>(45 min presentations on the use of R)</b> <b><a href="#">Virtual presentation</a></b></p>	Evaluating antimicrobial effects of selected indigenous medicinal plants against pathogens isolated from clinical samples at Namibia Institute of Pathology. <b>Ms. Mirjam Z. Bauleth. <a href="#">Virtual presentation</a></b>
17:05 to 17:20	Phytochemical Characterisation and Antimicrobial Activity of <i>Nigella Sativa</i> Seeds. <b>Mr. Festus Shafodino</b>		Activated carbon from wastepaper for the removal of contaminants from wastewater. <b>Ms. Viola Willemse. <a href="#">Virtual presentation</a></b>

<b>SCIENTIFIC DEMONSTRATION, EXPERIMENTS AND POSTER PRESENTATIONS 07 NOVEMBER 2023</b>			
<b>TIME</b>	<b>PRESENTATION</b>	<b>TITLE &amp; SPEAKER</b>	<b>VENUE</b>
<b>SCIENTIFIC DEMONSTRATIONS</b>			
<b>DAY 2: 07 NOVEMBER 2023</b>			
10:30 to 11:15	Chemical reactions: Application of Chemistry in everyday life <b>Dr Moola Nyambe and Ms. Hilaria Hakwenye</b>		SCIENCE BLOCK 2 <sup>ND</sup> FLOOR W218
11:30 to 12:15	Fungi as food, medicine, and cash crop, <b>ZERI Research Team</b>		Science Faculty Foyer (Exhibition area)
12:30 to 13:00	Green Hydrogen production by electrolysis using electricity produced by a solar panel. <b>Dr Zivayi Chiguvare &amp; Ms. Cecilia C. Naule</b>		
<b>13:00 to 14:00</b>	<b>LUNCH (Leisure Centre)</b>		
14: 00 to 14:30	Activated Carbon from Wastepaper for the Removal of Methylene Blue and Methyl Orange Dyes. <b>Ms. Viola Willemse</b>		SCIENCE BLOCK 2 <sup>ND</sup> FLOOR W219
14:45 to 15:15	Climate Agrometeorological Prediction Chatbot to Aid Small Scale Farmers. <b>Dr. Nalina Suresh</b>		Science Faculty Foyer (Exhibition area)
<b>POSTERS WILL BE DISPLAYED AT THE SCIENCE BLOCK ENTRANCE FROM 7 to 10 NOVEMBER 09:00 to 16:30</b>			

SCIENTIFIC DEMONSTRATION, EXPERIMENTS AND POSTER PRESENTATIONS 08 NOVEMBER 2023			
TIME	PRESENTATION	TITLE & SPEAKER	VENUE
<b>SCIENTIFIC DEMONSTRATIONS</b>			
<b>DAY 3: 08 NOVEMBER 2023</b>			
09:00 to 09:30	Fungi as food, medicine, and cash crop <b>Prof Nailoke Pauline Kadhila</b>		Science Faculty Foyer (Exhibition Area)
09:30 to 10:00	Climate Agrometeorological Prediction Chatbot to Aid Small Scale Farmers. <b>Dr. Nalina Suresh</b>		
<b>10:00 to 10:30</b>	<b>Tea Break (DH)</b>		
10:30 to 11:15	Chemical reactions: Application of Chemistry in everyday life <b>Dr Moola Nyambe and Ms Hilaria Hakwenye</b> Department of Physics, Chemistry & Material Science		SCIENCE BLOCK 2 <sup>ND</sup> FLOOR W218
11:30 to 12:15	Green Hydrogen production by electrolysis using electricity produced by a solar panel. <b>Dr Zivayi Chiguvare &amp; Ms. Cecilia C. Naule</b> , MSc Researcher in Renewable Energy		Science Faculty Foyer (Exhibition Area)
<b>POSTERS WILL BE DISPLAYED AT THE SCIENCE BLOCK ENTRANCE FROM 7 to 10 NOVEMBER, 9:00 to 16:30</b>			
<b>13:00 to 14:00</b>	<b>LUNCH (DH)</b>		



### ALL DAY EVENTS

Dates: 7 to 10 November 2023

Venue: Science Block Entrance/foyer

1. **Research posters from postgraduates and academic on display from 7 To 10 November, 9:00 To 16:30**
2. **Green Hydrogen Production and Utilization**

**Abstract:** A green Hydrogen production and utilization demonstration will be exhibited, featuring solar photovoltaic electricity that powers an electrolyser. Produced hydrogen and oxygen are stored in separate tanks, and hydrogen can be used to run an electric motor through a fuel cell. Pamphlets describing the Namibia Green Hydrogen Research Institute, and highlights of its activities, and the horizontal Green Hydrogen value chain will also be distributed.

3. **Climate Agrometeorological Prediction Chatbot to Aid Small Scale Farmers. Dr. Nalina Suresh**

**Abstract:** The aim of this study is to collect climate agrometeorological data from real-world environment using IoT sensors, pre-train the prediction model with the real-world environment dataset using IoT, to predict weather parameters such as temperature. In addition, an interactive Chatbot is developed for effective early warning of Agrometeorological conditions and the performance of the pilot prototype is evaluated.

4. **Activated Carbon from Wastepaper for the Removal of Methylene Blue and Methyl Orange Dyes**

**Abstract:** Nowadays, wastewater from dyeing industries has become a challenging issue in the world. This is due to the fact that dyes significantly compromise the aesthetic quality of water bodies, inhibit plant growth, and may promote toxicity, mutagenicity, and carcinogenicity. Researchers have reported several techniques to treat those effluents based on their desired water quality. Adsorption is the most common method because it is a cheap, simple, and effective method. In this work, activated carbon from wastepaper will be used for dye removal. The adsorbent (AC) has a high surface area and high porosity to remove the two dyes of interest. The demonstration will entail the removal efficiency of various concentrations of Methylene blue and Methyl Orange. Additionally, factors affecting adsorption such as time, pH, and dosage of adsorbent will be examined.

5. **Fungi as food, medicine, and cash crop- An array of mushrooms and by products by the ZERI project.**
6. **Apps Designed by our 4<sup>th</sup> Year computing students also on display.**

## FOURTH YEAR FINAL PRESENTATIONS

Dates: 9 to 10 November 2023

### ALL SESSIONS ARE HYBRID EVENTS

- All rooms are available to use for presentations either face-to-face or online. Zoom room will be given to everyone  
<https://zoom.us/j/93481986516?pwd=dmFkR1hLcTdtdlVrWmUzdVh4ZGpLdz09>

**Meeting ID:** 934 8198 6516

**Passcode:** KQ2135

- Lecture Hall 1, Military Sciences, 1st Floor- Room 1
- Lecture Hall 2, Military Sciences, 1st Floor- Room 2
- Lecture Hall 3, Military Sciences, 1st Floor- Room 3
- Lecture Hall 4, Military Sciences, 1st Floor- Room 4
- X149, Room 5
- Library Auditorium Room 6
- **Geosciences Southern Campus**
  - **Meeting ID:** 956 1379 183 and **Passcode:** 822395
  - **Zoom Link:** <https://zoom.us/j/95613791831?pwd=L3JVTjBwajVMc1JuVUo0a2JvZER4Zz09>
- **Forestry and Rangeland, Ogongo Campus**
  - **Zoom link:** <https://zoom.us/j/92436047971?pwd=Z0llalpIN1UraG1qRkVKBko5aEowUT09>
  - **Meeting ID:** 924 3604 7971 and **Passcode:** KQ2041
- **Fisheries and ocean sciences, Sam Nujoma campus**
  - <https://zoom.us/j/93603593878>
  - **Meeting ID:** 936 0359 3878

**DAY 4**  
**9 NOVEMBER 2023**

Venue: Lecture Hall 1, Military Sciences, 1 <sup>st</sup> Floor		Venue: Lecture Hall 2, Military Sciences, 1 <sup>st</sup> Floor		
Departments Presenting-Chair:		Departments Presenting-Chair:		
<ul style="list-style-type: none"> <li>▪ Microbiology- Magdalena Lang</li> <li>▪ Environmental Ecology- Mukuve Bernhard</li> </ul>		<ul style="list-style-type: none"> <li>▪ Geography and Env. Sciences- Margaret Angula</li> <li>▪ Physics- Zivayi Chiguvare</li> </ul>		
TIME	SPEAKER	TITLE	SPEAKER	TITLE
8:00 to 8:20	Tongo Reagan Siboleka	Isolation of actinomycetes from hardap region	Rijeterera Rupingena	Culture, livelihood, and the environment: Impacts of environmental change on cultural-based livelihood of Ovaherere farmers, Otjinene Constituency, Omaheke Region
8:20 to 8:40	Pondo Shikongo	Isolation of actinomycetes from Dorop national park	Loide Shipingana	Community level governance system impact on livestock farmers in the Otjinene constituency, Omaheke Region
8:40 to 9:00	Bertha T Shifeta	Determination of microbial content and the efficacy of ash treatment of water collected from natural waterbodies in Omusati region, Namibia	Loini Kasheeta	Assessing the impacts of flooding on the livelihood of people: A case study of Oshimwaku village in Ohangwena Region
9:00 to 9:20	Aiysha Hochobeb	Isolation of mycotoxins and fungal contaminants from open market traditional food	Jonas Tapiso	Water Security and livelihoods of Kuvukiland informal settlement
9:20 to 9:40	Aune Amuthenu	In vitro antioxidant potential of Actinomycetes Co-cultures from selected medicinal plant occurring In Zambezi region	Amandus Kampanja	An investigation on bush encroachment in Okandjatu communal rangeland
9:40 to 10:00	Sophia S Isolo	Cultivation of Lion's mane and Turkish tail mushrooms in Namibia	Stephanie Gaugoros	Living with corporate fencing in communal farming areas in otjinene constituency
<b>10:00 to 10:30</b>	<b>HEALTH BREAK</b>			
10:30 to 10:50	Loide Ngolombe	Molecular and morphological confirmation of the ZERI mushroom collection	Ruben Shishaki	An investigation into how physical and natural capitals contribute to the food security outcomes and sustainable food production in Otjinene Constituency, Omaheke Region.

10:50 to 11:10	Frieda NS Shihepununeni	Isolation of local strains of <i>Bacillus thuringiensis</i> from soil samples at the University of Namibia	Tuhafeni Matheus	Livestock farmers perception on Human Wildlife Conflict with predators: A case study of Khoadi Hoas and Torra Conservancies, Kunene Region
11:10 to 11:30	Allison Stramis	Effect of <i>Vachellia erioloba</i> on the germination and growth of beans in Namibia	Erkki Kleopas	Assessment of the 2023 flood impacts on small businesses: A case study of Oshikango, Ohangwena Region
11:30 to 11:50	Kevako Kuverua	Antibiofilm activity of selected Namibian medicinal plants	Kaarina Nyambali	An assessment of rural-urban transition in Otjinene settlement, Omaheke Region
11:50 to 12:10	Senia N Nathan	Breeding and cultivation of oyster mushroom for better adaptation under Namibia climatic condition	Philemon Hedimbi	-----
12:10 to 12:30	Wendy Geingos	Investigating the abundance, composition, and diversity of phytoplankton species in Goreangab dam and Neckartel dam, Namibia.	David Haindongo.	-----
12:30 to 12:50	Elika Nghilwamo	Assessment of temporal changes in herbaceous cover, dominance, and rangeland condition between 2019 and 2023 on farm Kiamsab west, central Namibia.	Luke Aloh Yato KATTE	In-Vitro Propagation of Local And Exotic Sweet Potatoes ( <i>Ipomoea Batatas</i> ) Genotype Using Nodal Explant.
<b>12:50 to 14:00</b>	<b>LUNCH</b>			
14:00 to 14:20	Sofia Angula	Effects of bush control on herbaceous species dynamics at Otjiwa game farm.	Sunny Nanyeni H E	The effect of different plant growth regulator levels in potatoes ( <i>Solanum tuberosum</i> L.) Var Montreal by micropropagation
14:20 to 14:40	Liina Kathena	Effects of climate change on the vegetation growth and reproductive output of <i>Cleome gynandra</i> L and <i>Cleome rubella</i> B under different drought treatments	-----	-----
14:40 to 15:00	Olivia Vincent	Assessing the chlorophyll concentrations in Von Bach and Swakoppoort Dams	-----	-----



15:00 to 15:20	Thanti Bengela	Effects of Bush Thinning on woody plant dynamics at Otjiwa game farm.	-----	-----
15:20 to 15:40	Chisomo Malota	Assessment of temporal changes in herbaceous richness, diversity, and composition on farm Kiamsab West 364, central Namibia		
15:40 to 16:00	-----	-----	-----	-----
16:00 to 16:20	-----	-----	-----	-----

**DAY 4**  
**9 NOVEMBER 2023**

<b>Venue: Lecture Hall 3, Military Sciences, 1<sup>st</sup> Floor</b>		<b>Venue: Lecture Hall 4, Military Sciences, 1<sup>st</sup> Floor</b>	
<b>Departments Presenting-Chair:</b>		<b>Departments Presenting-Chair:</b>	
<ul style="list-style-type: none"> <li>▪ Mathematics- Elise Lazarus</li> </ul>		<ul style="list-style-type: none"> <li>▪ Environmental Science (Geography/Gis Section)-Margaret Angula and Dr Hamukwaya</li> <li>▪ Wildlife Management and Tourisms- Hove Kudakwashe</li> </ul>	
<b>TIME</b>	<b>SPEAKER</b>	<b>TITLE</b>	<b>TITLE</b>
8:00 to 8:20	Ropafadzo Choto	A comparative analysis of the housing sector between Africa and Europe	Assessing Soil Salinity in Crop Fields Using GIS and Remote Sensing, in Ongenga Constituency, Ohangwena Region, Namibia
8:20 to 8:40	Elise Joseph	Forecasting the Stock Market using News Sentiment Analysis	Soil Phosphorus Concentration Prediction and Mapping using Random Forest Algorithm in Cultivated Crop Fields in Ongenga Constituency, Ohangwena Region, Namibia
8:40 to 9:00	Elisa Dula	The determinants of housing prices in Namibia	Analysis of Primary Macronutrients and their Effects on Primary Productivity in Crop Fields in the Ongenga Constituency, Ohangwena Region
9:00 to 9:20	Paulina Kamati	Credit Risk Management and Issues of Bad Debts in Namibian Commercial Banks.	Soil nitrogen content in cultivated and fallow sandy textured areas in Ohangwena Region, Namibia
9:20 to 9:40	Hendrine Hedimbi	Exploring categorical commutativity in a category of commutative rings	Analysis of Zinc Content in Sandy Soil Crop Fields in Halili, Kapako Constituency, Kavango West Region
9:40 to 10:00	Naeheman Petrus	A comparative study of pricing equity linked life insurance products.	An Analysis of Drought Risk Monitoring Using Remote Sensing and GIS in Kunene Region, Namibia
<b>10:00 to 10:30</b>	<b>HEALTH BREAK</b>		
10:30 to 10:50	Simon Hamakali	Lindelof reflection in Topological spaces	Identifying Suitable Sites for Earth Dams: Integrating GIS and Analytical Hierarchical Process (AHP) in Iishana of Ohangwena Region, Namibia
10:50 to 11:10	Witbooi Hamunyela	Alternating Direction implicit, numerical schemes for pricing options	Developing and Evaluating a Mobile GIS Application for Facilitating Field Data Collection in Namibia

11:10 to 11:30	Fillemon Nashongo	Markowitz portfolio theory and Capital Asset pricing model	Aretha Chaata	Exploring the efficacy of Community Based Natural Resources Management in the Salambala and Nakabolelwa conservancies, Zambezi region, Namibia
11:30 to 11:50	Agrippine Gerhard	A categorical explanation of the completion of metric spaces.	Lubanda, CM	Assessment of the influence of vegetation structure on elephant crop raiding in Mudumu Complex, north-eastern Namibia
11:50 to 12:10	Tulela Shikongo	Measuring interest rate risk in the life insurance sector: Namibia	Mwanawina, P M	Evaluating abundance species richness and activity in Mudumu National Park using 2022 camera trap data from block C
12:10 to 12:30	Ndapewoshali Nanghonga	Optimal investment of pension funds and inflation risk	Iita, S	Assessment of bird species diversity in Katima Mulilo Town, Zambezi Region, Namibia
12:30 to 12:50	Ruvarashe Mutasa	Modeling auto insurance claims and severity using machine learning techniques	Johannes, NN	A comparative analysis of species composition between undergrowth and canopy layers under the influence of fire in Katima Mulilo quarantine area, Liselo, Namibia
<b>12:50 to 14:00</b>	<b>LUNCH</b>			
14:00 to 14:20	Matengu Nyambe	Tumor growth dynamics modeling with immunotherapy and chemotherapy	Nuuyoma, jn	Modelling vegetation succession at piospheres: State and transition approach, in Omuntele communal area, Oshikoto Region, Namibia
14:20 to 14:40	Anja Robberts	Numerical solutions to the classical Black Scholes equation	Conrad, SI	An assessment of Socio-cultural and economic impacts of tourism establishments on communities
14:40 to 15:00	Monique Cloete	The use of Fourier transforms for the pricing of financial options	Munkutike, CK	Feeding preferences of oxpeckers in Salambala conservancy, north-eastern Namibia
15:00 to 15:20	-----	-----	Martin, NT	Growth and yield response of spinach under experimental integrated aquaculture
15:20 to 15:40	-----	-----	Emosho, EN	Complementary benefits of tourism and hunting to communal conservancies in Namibia
15:40 to 16:00	-----	-----	Nghaamwa, SN	Assessing the perception of the local communities on the benefits of forestry resources and implications for climate change mitigation in the Zambezi Region, Namibia
16:00 to 16:20	-----	-----		

**DAY 4**  
**9 NOVEMBER 2023**

**Venue: X149, X Block**  
**Departments Presenting-Chair:**  
▪ *Computing-Titus Haiduwa*

**Venue: Library Auditorium**  
**Departments Presenting-Chair:**  
▪ *Food Sciences - Dr Penny Hiwilepo-van Hal*  
▪ *Chemistry- Johannes Naimhwaka*

TIME	SPEAKER	TITLE	SPEAKER	TITLE
8:00 to 8:20	Geneous Mutsira	Designing and developing a new website for Gecko Namibia: An information systems perspective	Jennifer Areses	Development of Horse mackerel burger incorporated with fermented Bambara nuts flour
8:20 to 8:40	Shaun Uningandu Tjikumise	-----	Bericky Alweendo	Physico-chemical and Organoleptic properties of set yoghurt incorporated with Maguni ( <i>Strychnos spinosa</i> ) and Mutete ( <i>Hibiscus sabdariffa</i> )
8:40 to 9:00	Sem Pinehas liuhwa	-----	Vimbai Kamucheka	Development, nutrient analysis, and physicochemical properties of a Ready-To-Eat breakfast cereal made from Sorghum and fermented Bambara groundnuts
9:00 to 9:20	Tinotenda Gotore	Design of a Machine learning based Mobile Application for Institute of Chartered Accountants of Namibia	Melania Daniel	A Study of the Microbiological Quality of Water at Neudamm Campus
9:20 to 9:40	Ndeshitila Jakulandje Asheela	The Development of a comprehensive Oshindonga-English dictionary mobile app	Emma Ndjigwa	Mutete ( <i>Hibiscus sabdariffa</i> ) calyces: A natural nutraceutical used to improve the aesthetic and health benefits of polished rice
9:40 to 10:00	Linus Muuteyapo	-----	Bester Silawa	Shelf-life study of Hibiscus <i>sabdariffa</i> and <i>Strychnos spinosa</i> juice using an accelerated method



<b>10:00 to 10:30 HEALTH BREAK</b>				
10:30 to 10:50	Johannes Ndjimba	-----	Festus LN	Monoterpenes from Plocamium species: Computational studies of their potential to inhibit enzymes associated with breast cancer.
10:50 to 11:10	Ananias Ndemuweda Nakale	The development of an AI model for identifying pests	Mashapure CC	"The synthesis of natural product-based hybrids and the antioxidant and anti-microbial evaluation"
11:10 to 11:30	Yakomba Ngongo	The development of an IOT-Based cattle monitoring system for Kapako constituency in Kavango West Region	Sebron R	Profiling of antioxidants in the leaves and fruits of Hibiscus sabdariffa using HPLC coupled to an online radical scavenging assay
11:30 to 11:50	Riovanni Dantago Eichab	An AI-based class attendance register app using facial recognition	Van Wyk TL	Profiling of antioxidants in the roots and flowers of Hydnora abyssinica using HPLC coupled to an online radical scavenging assay
11:50 to 12:10	Nangula Julia Ndesihala Ndakunda	An Interactive campus map for the University of Namibia	Kapi VG	Synthesis of Carbon cellulose Nano fibers from Banana peels for wastewater treatment
12:10 to 12:30	Christine Ndaimelero Muhoko	Development of an audio virtual assistant Chabot to aid in computer literacy	Ndipolifa VN	Adsorption of phenol on MnO <sub>2</sub> catalysts.
12:30 to 12:50	Nathan David Sebulon Tangi Nehoya	A gamified mobile application for cybersecurity education and awareness	Kamakuva JT	Isolation, characterization, and biological evaluation of bioactive metabolites from Marsdenia macrantha
<b>12:50 to 14:00 LUNCH</b>				
14:00 to 14:20	Wellington Robson Junior Mitole	Web application to connect consumers and producers in Windhoek	Nakwafila LN	Preparation of plant fertilizers from mineral tails using green chemical solvents
14:20 to 14:40	Janice Ruby Margreth-Rose Gontes	A Mobile Application for Self-Management of Diabetes	Mouton QC	Dye degradation efficiency of Nitrogen-doped Cu <sub>2</sub> O and CuO.

14:40 to 15:00	Saara Lugambo Naita Nakalemo	Telemedicine and Virtual Assistant- Enabled Mobile App on Patient Engagement and Healthcare Use	Shivika MC	Fabrication and characterization of copper-cobalt oxide thin films by the spray-coating-method, and their application as heterogenous catalysts for the production of biodiesel from non-edible seed oils.
15:00 to 15:20	Aron Shinana	Online Booking systems for NaTIS Learners Test	Namupala JT	Development and validation of a quality control method for the determination of locally produced essential oil in ointment.
15:20 to 15:40	-----	-----	-----	-----
15:40 to 16:00	-----	-----	-----	-----
16:00 to 16:20	-----	-----	-----	-----

**DAY 4**  
**9 NOVEMBER 2023**

<b>Online Departments Presenting-Chair:</b> <ul style="list-style-type: none"> <li>Geo-Science southern campus-Mbili Tshiningayamwe</li> </ul>			<b>Online Departments Presenting-Chair:</b> <ul style="list-style-type: none"> <li>Fisheries and ocean sciences, Sam Nujoma campus-Lineekela Kandjengo</li> </ul>	
TIME	SPEAKER	TITLE	SPEAKER	TITLE
8:00 to 8:20	Adriaan Coetzee	Mineral Petrographic Characterization of the Otjikoto Orebody in the Damara Belt, Namibia	Aina Nuugulu	Utilization of Water Quality Index in the Water Quality Analysis of the Goreangab Dam to Determine Suitability of Potential Aquaculture Site
8:20 to 8:40	Oliver Mate	Atlantic 1, diamond placer deposit, Namibia: geology and diamond potential by clast classification	Naftal Angula	Effectiveness of discard ban to the Namibian fisheries sustainability
8:40 to 9:00	Ndimulipeni Mushikwete	The characterisation of weathering Dolerite boulders in arid environment, at the Giant's playground; Namibia	Lameck Nghimutina	Parasite-fauna of the Southern mullet, <i>Chelon richardsonni</i> (Smith 1846) along the Walvis Bay lagoon
9:00 to 9:20	Eduardo Anderson	Rare Earth element mineralization in heavy REE enriched sandstone layer at Lofdal, Namibia	Nanja Tabale	Comparison of microbial community in the gastrointestinal tract of tilapia, <i>Oreochromis andersonni</i> reared in freshwater and saline water
9:20 to 9:40	Elifas Shivute	Geotechnical investigation of Termite Mediated Mounthills and Geophagic soils for engineering purposes	Dantago Nanus	Investigating the effects of applying Namibian beach casted <i>Laminaria pallida</i> as substrate amendment to wheat straw for <i>Hypsizygus ulmarius</i>
9:40 to 10:00	Ashton Delie	Hydrogeochemical and Isotopic characterization of the Upper Kalahari Aquifer Zambezi Region, Namibia	Mbinaye Menjengua	Comparison of Mercury concentration in Cape fur seals ( <i>Arctocephalus pusillus</i> ) and prey species (Hake ( <i>Merluccius paradoxus</i> ) and Horse mackerel ( <i>Trachurus trachurus</i> ))

<b>10:00 to 10:30</b>	<b>HEALTH BREAK</b>			
10:30 to 10:50	Kavevaza Kaputuaza	Saedimentology, Stratigraphy & Petrography of the oldest Nama Group, Tsaus MT, Namibia	Malyenge Sakarias	Regrowth after harvesting <i>Gracilariopsis funicularis</i>
10:50 to 11:10	Matheus Nehale	Structural mapping of the ptygmatic folding of the cap carbonate layer in the Northern Naukluff Complex, Namibia	Simaneka Shikongo	Seasonal variation in biomass and species composition of seaweed stranded along the central coast of Namibia
11:10 to 11:30	Alfeus Alfeus	Heavy Rare Earth element mineralization within Naauport Fm at Lofdal, Namibia	Bezeiden Boas	Investigating the potential of a Decoupled Aquaponics systems in Tilapia fish and Lettuce growth
11:30 to 11:50	Tinotendavalerie Ngombe	Paeontology of Mt Tsaus, Lower Nama Group, Southern Namibia	Klara Sheelongo	Effects of cooked and uncooked feed on the growth, survival rate and feed utilization parameters on <i>Oreochromis mossambicus</i> juveniles reared in aquarium tanks
11:50 to 12:10	-----	-----	Diina Shatipamba	An assessment of the population structure and recruitment of White mussels ( <i>Donax serra</i> ) in the Henties Bay area, Namibia
12:10 to 12:30	-----	-----	Johanna Leo	Anaerobic Co-digestion of Beach cast <i>Laminaria pallida</i> (Split-fan kelp) and chicken manure to produce biogas
12:30 to 12:50	-----	-----	Naomi Ndilimondwi	The comparison of different preservation methods for Southern Mullet ( <i>Chelon richardsonii</i> )
<b>12:50 to 14:00</b>	<b>LUNCH</b>			
14:00 to 14:20	-----	-----	Yantileni Shithigona	Co-digestion of fish waste and cow manure in biogas production
14:20 to 14:40	-----	-----	Ndamonoghenda David	Investigating the effect of Salicornia amended sorghum on growth and yield of oyster mushroom, <i>Pleurotus sapidus</i>
14:40 to 15:00	-----	-----	Helmuth Neumbo's	Fish feed waste and its effects on water quantify and investigation of two aquaculture feed used in Namibia



15:00 to 15:20	-----	-----	Ivana Kotze	Length-weight relationships and sex ratios of the spotted gully and smooth hound shark
15:20 to 15:40	-----	-----	Erna Dominicus	The potential of processing oyster shells ( <i>Crassostrea gigas</i> ) from oyster farms through vermicomposting as a sustainable coastal waste valorization technique
15:40 to 16:00	-----	-----	-----	-----
16:00 to 16:20	-----	-----	-----	-----

**DAY 4**  
**9 NOVEMBER 2023**

<b>Online</b>		
<b>Departments Presenting-Chair:</b>		
<ul style="list-style-type: none"> <li>▪ <i>Forestry and Rangeland-Dr Jack Kambatuku</i></li> </ul>		
<b>TIME</b>	<b>SPEAKER</b>	<b>TITLE</b>
8:00 to 8:20	Hilya Petrus	Comparative analysis of community perception toward the conservancy initiative: a case study of Sesfontein and king Nehale conservancies.
8:20 to 8:40	Johanna Gervasius	Level of contamination in surface water bodies around Ogongo Campus
8:40 to 9:00	Ndeshihafela Shiimi	The effect of rhizobial inoculation on seedling growth performance of <i>Baikiea plurijuga</i> propagated by means of seeds
9:00 to 9:20	Simon Martin	The use of sentinel satellite images to estimate biomass in selected indigenous woody species in Ogongo campus
9:20 to 9:40	Robert Tobias	The development of a spectral library for selected indigenous woody species
9:40 to 10:00	Aina Petrus	Exploring community-based water resources management (CBWRM) policy as a pathway to improve management of water in Ompundja, Oshana region.
<b>10:00 to 10:30 HEALTH BREAK</b>		
10:30 to 10:50	Japhet Shikesho	Analysis of <i>Sclerocarya birrea</i> distribution in terms of Height and diameter: the case of Ogongo unam Campus
10:50 to 11:10	Aaron Namene	Assessing gender ration and canopy diameter of <i>Sclerocarya birrea</i> planted and naturally occurring trees at UNAM Ogongo campus.
11:10 to 11:30	Kuvale	The effect of flood on the livelihood of Engela Constituency/Community
11:30 to 11:50	Rebekka Sheehama	Efficiency of food waste as an organic fertilizer
11:50 to 12:10	Penehafo Mathias	The effect of rhizobial inoculation on seedling growth performance of <i>Guibortia coleosperma</i> propagated by means of seeds.
12:10 to 12:30	Ndinelago Amunyela	The use of Sentinel satellite images to estimate vegetation water content for selected indigenous woody species in Ogongo Campus
12:30 to 12:50	Joolokeni Hamalwa	Suitable medium of growth(soil) from under legume trees using moringa
<b>12:50 to 14:00 LUNCH</b>		
14:00 to 14:20	Beata Titus	Assessment of forest policy implementation on illegal harvesting of woody species in community forest of Omusati region

14:20 to 14:40	Ester Andowa	Socio-economic importance of <i>Colophospermum mopane</i> in Osisia village
14:40 to 15:00	Absalom Lasarus	Monitoring and evaluation of woodland and range degradation of selected grazing camps at University of Namibia Ogongo Campus
15:00 to 15:20	Angeline Shoopala	Honeybees associated flowers and forage availability at Ogongo Unam Campus.
15:20 to 15:40	Jafet Mwalhaluka	The effect of rhizobial inoculation on seedling growth performance of <i>Baikiea plurijuga</i> propagated by means of cuttings.
15:40 to 16:00	Alphar Lutombi	The impact of invasive plant species on native vegetation and ecosystems, and the development of effective strategies for their control and management
16:00 to 16:20	Esther Uupindi	The impact of the salt production by the Walvis Bay Salt Holdings company on marine life in the Walvis Bay Lagoon
16:20 to 16:40	Thimotheus Dinyando	Human Wildlife Conflict in Kavango East Region
16:40 to 17:00	Fransina Elias	The effect of hot water treatment on germination and establishment success of Mango seeds and seedlings
17:00 to 17:20	Helena Shawelaka	Effectiveness of sand fixing for pearl millet production in Northern Namibia

**DAY 5: 10 NOVEMBER 2023- PRACTICAL DEMONSTRATIONS ONLY**

**Venue:** Computing Labs: E218, E213, E209 Y-BLOCK

**Departments Presenting-Chair:**

- Computing-Titus Haiduwa

## COMMITTEE MEMBERS

- Prof Martha Ndeyapo Nikanor, Executive Dean FAENS (Host Faculty)
- Prof. Veikko Uahengo, Associate Dean, School of Science
- Prof Martin Mugochi
- Dr Mwangala Nalisa
- Mr. Bernhard Mukuve
- Mr. Titus Haiduwa
- Mr. Petrus Shanika
- Mr. Johannes Naimhwaka
- Mr. Simeon Hamukoshi
- Ms. Magdalena Lang
- Ms. Teopolina Nawinda

## VOTE OF THANKS

- Special thanks to the NCRST for cohosting this event, the office of the Vice Chancellor for financial commitment and support towards research activities. The Executive Dean, Associates Deans of the FAENS.
- Our invited industry speakers, academic presenters, fourth year students and the University staff for the financial, logistics and in-kind support. Last and not least the committee members, thank you for your hard work and persistence.





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