<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>07:30 (UTC+1)</td>
<td>Welcome</td>
<td>Welcome Address</td>
<td>Paul Cunningham, IST-Africa Institute, Ireland</td>
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</tbody>
</table>
| 07:35 (UTC+1) | Session 2: Cyber Security 1 | Threat Modeling Made Simple: Method Aimed at Non-Experts  
South Africa's Cloud and Data Storage Readiness – A Policy Review  
Determining the Efficacy of Cybersecurity Awareness Programs on Enhancing WiFi Security Behavior | Mads Andresen, Danish Technical University, Denmark  
Dina Moloja, Central University of Technology, South Africa  
Phumelela Mjoli, University of Pretoria, South Africa  
Joseph Mitao Nguu, United States International University - Africa, Kenya |
| 09:05 (UTC+1) | Break   |                                                                                  |
| 09:15 (UTC+1) | Session 3: Cyber Security 2 | Digital Forensics as a Service Implementation: A Scalable Solution for Cyber Incident Response  
Towards the Development of a Digital Forensic Readiness Model for 5G NFV Environments  
Towards a Unified eDiscovery Forensics Architecture (UEFA) | Paula Musuva, USIU-Africa, Kenya  
Sheunesu Makura, University of Pretoria, South Africa  
Julius Silaa, Namibia University of Science and Technology, Namibia |
| 10:25 (UTC+1) | Break   |                                                                                  |
| 10:35 (UTC+1) | Session 4: Cyber Security 3 | Deep Learning vs. Traditional Learning for Radio Frequency Fingerprinting  
An Optimized Machine Learning Model for the Detection of Man-in-the-Middle Attack in Mobile Edge Computing  
A Model to Limit Batching Denial of Service Attacks on GraphQL | Andreas Otto, University of Pretoria, South Africa  
Ramahlapane Lerato Moila, University Of Limpopo, South Africa  
Arno Möller, University of Pretoria, South Africa |
| 11:45 (UTC+1) | Lunch   |                                                                                  |
| 12:45 (UTC+1) | Session 5: Cyber Security 4 | An Investigation into Telecommuting Impact on Endpoints  
Security of Corporate Networks in Namibia  
Block Switching: Defying Fast Gradient Sign Resistance  
The Effects of Sampling Technique and Sample Size on Classification Performance of Ensemble Tree Classifiers in Detecting Credit Card Fraud | Ericky Ipumbu, NUST, Namibia  
James Mwangi, Dedan Kimathi University of Technology, Kenya  
Mcdonald Chogugudza, University of Fort Hare, South Africa |
| 14:40 (UTC+1) | End of Sessions |                                                                                  |
Tuesday, 21 May, 2024

Session 7: eHealth 1

08:40 (UTC+1) / 09:40 (SA) / 10:40 (East Africa)  Break

A Framework for Establishing Evidence for Digital Health Interventions in Africa
Bessie Mailla, University of Cape Town, South Africa

ICT for Improved Maternal Healthcare in Uganda: A Systematic Literature Review
Musa Chemisto, Soroti University, Uganda

Influence of Health Social Network Sites on Chronic Disease Management: A Systematic Review
Funmi Adebesin, University of Pretoria, South Africa

08:50 (UTC+1) / 09:50 (SA) / 10:30 (East Africa)

Session 8: eHealth 2

10:20 (UTC+1) / 11:20 (SA) / 12:20 (East Africa)  Break

An Immersive Solution to Enhance Nursing Student Skills of Intradermal Injection on New-born.
Lahai Rois Iradukunda, University of the Western Cape, South Africa

A Computer Vision Approach for Infant Cognitive Monitoring
Leah Mutanu, United States International University, Kenya

Fostering Nursing Students’ Defibrillator Training Using Immersive Technology
Insaaf Ajeraan, University of the Western Cape, South Africa

Leveraging Virtual Reality to Strengthen Healthcare in Africa: A Systematised Literature Review of Virtual Reality Emerging Technologies and Applications in Medical Education
William Wasswa, Mbarara University of Science and Technology, Uganda

10:30 (UTC+1) / 11:30 (SA) / 12:30 (East Africa)

Session 9: eHealth 3

12:00 (UTC+1) / 13:00 (SA) / 14:00 (East Africa)  Lunch

Understanding the Impact of Different Light Sources on the Reproducibility of Skin Spectral Signature for Different Skin Tones
Ajibola Oladokun, University of Cape Town, South Africa

Application of Feature Extraction and Selection Techniques in Computed-Based Diagnosis of Breast Cancer from X-ray Mammograms
Ebenzer Debrah, Mbarara University of Science and Technology, Uganda

Optimization of Stroke Prediction Model using a Hybrid of Heterogeneous Ensemble Machine Learning Techniques
Moses Agana, University of Calabar, Nigeria

Deployment and Innovation Processes of Integrated Electronic Medical Record (EMR) System: A Case of University Health Centre Living Lab in Tanzania
Diana Severine Rwegasira, University of Dar es Salaam, Tanzania

13:00 (UTC+1) / 14:00 (SA) / 15:00 (East Africa)

Session 10: eHealth 4

Bilingual Medication (Med-Alert) Reminder Application for Patients
Rebohele Sehlabo, Walter Sisulu University, South Africa

An Evaluation of Health Data Accessibility and Sharing Features of Smartwatches used by South Africans
Carmen Bekker, Nelson Mandela University, South Africa
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<th>Time</th>
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| 07:30 (UTC+1) / 08:30 (SA) / 09:30 (East Africa) | Session 12: Next Generation Computing 1 | Enhancing Systematic Literature Reviews using LDA and ChatGPT: Case of Framework for Smart City Planning  
Muthoni Masinde, Central University of Technology, South Africa  
A Metrics-based Model for Estimating the Maintainability of Cloud-Based Enterprise Information Systems for Kenyan SMEs  
Elijah Macharia, Jomo Kenyatta University of Agriculture & Technology, Kenya  
DbAPI: A Backend-as-a-Service Platform for Rapid Deployment of Cloud Services  
Paul Okanda, United States International University (USIU), Kenya  
An Intelligent Chatbot Implementation for Employee Exit Auto-Clearance using Deep Learning  
Lawrence Kasera, Strathmore University, Kenya  
Thomas Kenn Yong, University of Mauritius, Mauritius | South Africa                            |
| 09:30 (UTC+1) / 10:30 (SA) / 11:30 (East Africa) | Break                                   |                                                                          |                          |
Yolo Madani, Central University of Technology, South Africa  
Evaluating the Techno-Economic Viability of Greenfield 5G in South Africa: A Comprehensive Comparison with 4G Networks  
Lusani Mamushiane, CSIR, South Africa  
Towards a 5G Equipped Video Surveillance UAV for Public Safety  
Thapelo Makhalanyane, CSIR, South Africa  
Enhancing Classification and Prediction through the Application of Hybrid Machine Learning Models  
Misheck Banda, University of South Africa, South Africa  
Generating African Artistic Styles Using Textual Inversion  
Azizuddin Ahmed Biyabani, Carnegie Mellon University Africa, Rwanda | South Africa                            |
| 11:40 (UTC+1) / 12:40 (SA) / 13:40 (East Africa) | Lunch                                   |                                                                          |                          |
| 12:30 (UTC+1) / 13:30 (SA) / 14:30 (East Africa) | Session 14: Content Technologies 1     | A Meta-Analytic Quantitative Review of Methods and Techniques for Sign Language Recognition Approaches  
Absolom Muzambi, UNISA, South Africa  
Building a Dataset for Misinformation Detection in the Low-Resource Language  
Mulwell Patience Mukwevho, University of Pretoria, South Africa  
Dispatching News Based on Exact Location Using Dispatch (D) App: An Alternative to X (Twitter)  
Tinashe Crispen Garidzira, Walter Sisulu University, South Africa | South Africa                            |
| 13:40 (UTC+1) / 14:40 (SA) / 15:40 (East Africa) | Break                                   |                                                                          |                          |
| 13:50 (UTC+1) / 14:50 (SA) / 16:50 (East Africa) | Session 15: Content Technologies 2     | Generalising across Domains in Video Misinformation Detection  
David Walker, University of Pretoria, South Africa  
Analyzing the Perception of Immigrants in South Africa: A Machine Learning Approach to Aggregate Twitter Sentiment Data  
Tendai Shoko, University of Johannesburg (UJ), South Africa | South Africa                            |
**Thursday, 23 May, 2024**

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<tr>
<th>Time</th>
<th>Session 17: Technology Enhanced Learning 1</th>
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</table>
| 07:30 (UTC+1) / 08:30 (SA) / 09:30 (East Africa) | The Use of ICT in Knowledge Sharing in Collaborative School Partnerships in South Africa  
Keagile Ramokolo, University of Pretoria, South Africa  
MiLab: a Virtual Science Laboratory for Malawian Secondary Schools  
Stanley Ndebu, Mzuzu University, Malawi  
Accessible Augmented Reality Chemistry Lab for Students in Developing Countries  
Frank Samson, NM-AIST, Arusha, Tanzania  
Core Dimensions of Sustainably Deploying Digital Technologies in Resource-Constrained Schools in the Mpumalanga Province of South Africa  
Marshall Musarunwa, University of South Africa, South Africa  
WSU-Alert: Emergency Response System (ERS) for Students  
Mkhuleko Gongwana, Walter Sisulu University, South Africa |

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<tr>
<th>Time</th>
<th>Session 18: Technology Enhanced Learning 2</th>
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| 09:40 (UTC+1) / 10:40 (SA) / 11:40 (East Africa) | An Adaptation of DigComp for the South African Context  
Creswell Du Preez, Nelson Mandela University, South Africa  
Leveraging Web-Based Learning to Mitigate Adult Literacy Levels: Perspectives from Kenya  
Martha Ng'ang'a, Jomo Kenyatta University of Agriculture and Technology, Kenya  
Socio-Technical Insights Deploying Rural Solar Computer Housings for Informal Learning and Information Access  
Kim Gush, CSIR, South Africa  
Teaching as a Service: An Exploration of Educational Framework for Technology driven teaching for Higher Education Institutions  
Adam A. Ali, Islamic University, Uganda |

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<th>Time</th>
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<tr>
<th>Time</th>
<th>Session 19: Technology Enhanced Learning 3</th>
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</table>
| 12:00 (UTC+1) / 13:00 (SA) / 14:00 (East Africa) | Guidelines for Effective Use of ChatGPT in Introductory Programming Education  
Tlou Ramabu, Tshwane University of Technology, South Africa  
The Application of Augmented Reality in Teaching Symbolic Mathematical Expressions  
Elona Mbalekwa, University of the Western Cape, South Africa  
LiDAR-Based Augmented Reality Implementation for Library Tours  
Kapoko Mojapelo, University of the Western Cape, South Africa  
A Baseline Study on Responsible Computing Integration in Computing Courses: A Case Study of Dedan Kimathi University of Technology  
George Musumba, Dedan Kimathi University of Technology, Kenya |

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<th>Time</th>
<th>Lunch Break</th>
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<tr>
<th>Time</th>
<th>Session 20: Technology Enhanced Learning 4</th>
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</table>
| 13:40 (UTC+1) / 14:40 (SA) / 15:40 (East Africa) | Building an AI Future: Research and Policy Directions for Africa's Higher Education  
Anthony Maina, Dedan Kimathi University of Technology, Kenya |
## Conference Programme

**Friday, 24 May, 2024**

### Session 21: eGovernment

**Assessing the Usability of Integrated Financial Management Information Systems (IFMS) in Uganda: Case Study of Mbale Local Government**  
Emmanuel Eilu, Uganda Christian University, Uganda

**E-HRM Practices and Public Value Creation. A Case of County Government in Kenya**  
Gabriel Kamau, Murang'a University of Technology, Kenya

### Break

**08:15 (UTC+1) / 09:15 (SA) / 10:15 (East Africa)**

### Session 22: Energy and eInfrastructures

**A Solar PV Hybrid System Sizing Procedure for the South African Tourism Industry**  
Bradley Mercuur, Lean Energy, South Africa

**Challenges of Migration from 2G to 3G/4G of Mobile Broadband Connectivity and Services in Tanzania**  
Moses Ismail, University of Dar es Salaam, Tanzania

**Factors Influencing the Integration of Robotic Process Automation in Banking**  
Komla Pillay, University of Johannesburg, South Africa

### Break

**09:35 (UTC+1) / 10:35 (SA) / 11:35 (East Africa)**

### Session 23: eAgriculture and Environmental Sustainability 1

**The Perceived Influence of Internet of Things on Precision Agriculture for Small-Scale Farming**  
Tinashe Chizema, Nelson Mandela University, South Africa

**Design and Implementation of an IoT-based Smart Household Biogas Digester**  
Francis Aweenagua, Ashesi University, Ghana

**Tailoring, Access, and Creation of Digital Content: Catalysts for Agricultural Development for Smallholder Farmers**  
Jimmy Macharia, United States International University, Kenya

**Mapping of the Maize Area Using Remotely Detected Multispectral and Radar Images Based on a Random Forest Machine Learning Algorithm**  
Simbarashe Jombo, Sol Plaatje University, South Africa

### Lunch

**11:15 (UTC+1) / 12:15 (SA) / 13:15 (East Africa)**

### Session 24: eAgriculture and Environmental Sustainability 2

**Urban Gardens Impact on Food and Environmental Sustainability: Study Case of Aguascalientes, Mexico**  
Maria-Teresa Hernandez-Herrera, Universidad Panamericana Bonatera, Mexico

**Integrating Fuzzy Logic, Solar Power and IoT for Real-Time Water Quality Monitoring in Cage Fish Culture**  
Aggrey Shitsukane, Technical University of Mombasa, Kenya

**Ensemble Deep and Machine Learning for Improving Short-Term Water Demand Forecast in Cities**  
Paul Toto, Jomo Kenyatta University of Agriculture and Technology, Kenya

**AI-Driven Carbon Emissions Tracking and Mitigation Model**  
Billy Ochieng, Kisii University, Kenya

### End of Sessions

**13:45 (UTC+1) / 14:45 (SA) / 15:45 (East Africa)**