12th INTERNATIONAL CONFERENCE ON APPROPRIATE TECHNOLOGY (ICAT)

***Dates*: 24 – 27 November, 2026 | *Venue*: National University of Science and Technology (NUST), Bulawayo, Zimbabwe**

PROGRAMME

DAY 1: TUESDAY 24 NOVEMBER

Central Africa Time (CAT)			
8 – 9 am	ARRIVAL & REGISTRATION		*Tea / Coffee*
ROOMS	*MAIN CONFERENCE ROOM*	*BREAKOUT ROOM A*	*BREAKOUT ROOM B*
9 – 12 pm	WORKSHOP: ENVIRONMENT, AGRICULTURE, AND ECOVILLAGES	WORKSHOP: ENERGY AND MATERIALS	WORKSHOP: POLICY, STANDARDS, AND ETHICS
12 – 1	*Lunch Break*		
2 – 4	*Cont.*	*Cont.*	WORKSHOP: GREEN ECONOMY, EDUCATION, KNOWLEDGE AND TECHNOLOGY TRANSFER
3 – 4	WELCOME RECEPTION [Ceremonial Hall]		
ROOM	*MAIN CONFERENCE ROOM*		
4 – 5.30	KEYNOTE I: {Joint} Dr ***Marek Chodnicki*** & Professor ***Jacek Kropiwnicki***		

DAY 2: WEDNESDAY 25 NOVEMBER

ROOM	*MAIN CONFERENCE ROOM*		
8 – 9 am	OPENING SESSION		
9 – 9.30	KEYNOTE II: Guest of Honour Dr ***Frederick M. Shava***		
9.30 – 9.40	REMARKS BY FACULTY OF APPLIED SCIENCE & RESEARCH AND INTERNATIONALISATION OFFICE (NUST)		
9.40 – 10	KEYNOTE III: Dr ***Tatenda Mavetera***		
ROOMS	*MAIN CONFERENCE ROOM*	*BREAKOUT ROOM A*	*BREAKOUT ROOM B*
10 – 11		SHOWCASING OF INNOVATIONS, PRODUCTS AND SERVICES BY STUDENTS AND COMPANIES, & POSTER PRESENTATION	*Tea & Coffee*
11 – 12 pm	PAPER SESSION: COMPUTATIONAL SYSTEMS	PAPER SESSION: WATER AND SANITATION	PAPER SESSION: ENERGY AND MATERIALS
12 – 1	*Lunch Break*		
1 – 2 pm	PANEL I: APPROPRIATE TECHNOLOGY FOR AGRICULTURE	PANEL II: APPROPRIATE TECHNOLOGIES FOR ENGINEERING (WATER AND SANITATION)	PANEL III: APPROPRIATE TECHNOLOGIES FOR MINING AND MANUFACTURING
2 – 4	PAPER SESSION: ENVIRONMENT, AGRICULTURE, AND ECOVILLAGES	PAPER SESSION: GREEN ECONOMY, EDUCATION, KNOWLEDGE AND TECHNOLOGY TRANSFER (I)	PAPER SESSION: MANUFACTURING, MINING AND SERVICE INDUSTRIES
ROOM	*MAIN CONFERENCE ROOM*		
4 – 5	PANEL IV: APPROPRIATE TECHNOLOGY (AT) MANIFESTO (INAT)		

DAY 3: THURSDAY 26 NOVEMBER

8 – 9 am	REGISTRATION		*Tea/Coffee*
ROOM	*MAIN CONFERENCE ROOM*		
9 – 10	KEYNOTE IV: ***Audrey Deegan***, J.D.		
ROOMS	*MAIN CONFERENCE ROOM*	*BREAKOUT ROOM A*	*BREAKOUT ROOM B*
10 – 11	PAPER SESSION: CITIES AND SPACE	PAPER SESSION: GREEN ECONOMY, EDUCATION, KNOWLEDGE AND TECHNOLOGY TRANSFER (II)	PAPER SESSION: POLICY, STANDARDS, AND ETHICS
11 – 12 pm			
12 – 1	*Lunch Break*		
ROOM	*MAIN CONFERENCE ROOM*		
1 – 2	KEYNOTE V: Dr ***Deogratias Niyizonkiza***		
2 – 4	TECHATHON		
4 – 5	INTERNATIONAL NETWORK ON APPROPRIATE TECHNOLOGY (INAT) MEETING		
6 – 8	CONFERENCE DINNER		

DAY 4: FRIDAY 27 NOVEMBER

8 – 9 am	REGISTRATION	*Tea/Coffee*
ROOM	*MAIN CONFERENCE ROOM*	
9 – 10	KEYNOTE VI: Dr ***Paul Sambo***	
10 – 11	KEYNOTE VII: Dr ***Busisa Moyo***	
11 – 12 pm	KEYNOTE VIII: Mr ***Isaiah Munyaradzi Bizabani***	
12 – 1	*Lunch Break*	
1 – 2	KEYNOTE IX: Dr ***Zvinodashe Revesai***	
ROOMS	*BREAKOUT ROOM A*	*BREAKOUT ROOM B*
2 – 4	POSTER SESSION	TECHNOLOGY FAIR
OOM	*MAIN CONFERENCE ROOM*	
4 – 6	CLOSING SESSION	

DAY 1: TUESDAY 24 NOVEMBER

Central Africa Time (CAT)			
8 – 9 am	**ARRIVAL & REGISTRATION** Mr ***Mqhele Mguni,*** Ms ***Caroline Mhlanga,*** Ms ***Sithabisiwe Mbengwa,*** Mr ***Theophelous Beans, &*** Mr ***Shepered Mapokotera***		***Tea / Coffee***
ROOMS	***MAIN CONFERENCE ROOM***	***BREAKOUT ROOM A***	***BREAKOUT ROOM B***
9 – 12 pm	**WORKSHOP: ENVIRONMENT, AGRICULTURE, AND ECOVILLAGES** **300**: THE NEXT GEN AWAKENING - AFRICA 4.0: YOUTH AGENCY TOWARDS SOVEREIGNTY IN AFRICA ***Brian Stephenson***	**WORKSHOP: ENERGY AND MATERIALS** **303**: APPROPRIATE TECHNOLOGY FOR THE AI ERA: RENEWABLE ENERGY AND BLOCKCHAIN SOLUTIONS 🌍 ***Todd Shurn***	**WORKSHOP: POLICY, STANDARDS, AND ETHICS** **49**: DESIGNING COMMUNITY-CENTRED SOLAR ENERGY PROJECTS FOR DEPRIVED AND FRAGILE SETTINGS – APPROACHES AND TECHNOLOGIES 🌍 ***Gada Kadoda, Marwan Adam, & Sarah Khaleefa***
12 - 1	***Lunch Break***		
1 – 2	**300** (Cont.)	**303** (Cont.)	**WORKSHOP: GREEN ECONOMY, EDUCATION, KNOWLEDGE, AND TECHNOLOGY TRANSFER** **301**: ENGINEERING EDUCATION FOR APPROPRIATE TECHNOLOGY: PRACTICAL APPROACHES FOR DEVELOPING SOCIALLY RESPONSIVE ENGINEERS ***John Tharakan***
2 – 3			
3 – 4	**WELCOME RECEPTION [Ceremonial Hall]** **Convenor:** Ms ***Saliwe Njolomole,*** Communication and Marketing Director, National University of Science and Technology (NUST)		
ROOM	***MAIN CONFERENCE ROOM***		
4 – 5.30	**KEYNOTE I**: {Joint} MECHANICAL ENGINEERING FOR SUSTAINABLE DEVELOPMENT AND RESEARCH COLLABORATION Dr ***Marek Chodnicki*** STIRLING ENGINES: A TECHNOLOGY FOR HARNESSING SMALL-SCALE THERMAL ENERGY SOURCES Professor ***Jacek Kropiwnicki*** **Chair:** Professor ***Khumbulani Mpofu***		

REMOTE PRESENTATION 🌍

DAY 2: WEDNESDAY 25 NOVEMBER

ROOM	*MAIN CONFERENCE ROOM*
8 – 9 am	**OPENING SESSION** **Director of Ceremony**: Ms ***Saliwe Njolomoler***, Communication and Marketing Director **BRIEFING BY THE VICE-CHANCELLOR'S OFFICE, NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY (NUST)** Ms ***Saliwe Njolomoler***, Communication and Marketing Director **NATIONAL ANTHEM** Ms ***Novuyo Bobo***, Information and Communication Technology Services (ICTS), NUST **OPENING PRAYER** Pastor ***Tompson Dube***, NUST Chaplain **WELCOME REMARKS** Honourable ***Judith Ncube***, Minister of State for Provincial Affairs and Devolution (Bulawayo Metropolitan) Professor ***Mqhele E. Dlodlo***, Vice-Chancellor of NUST **REMARKS FROM THE INTERNATIONAL NETWORK ON APPROPRIATE TECHNOLOGY (INAT)** Professor ***John Trimble***, President **OVERVIEW OF THE CONFERENCE** Dr ***Gada Kadoda***, Chair, 12th ICAT International Organising Committee (IOC) and Scientific Review Committee (SRC) Mr ***Sibangiso Ngwenya***, Chair, 12th ICAT Local Organising Committee (LOC); Co-Chair Dr ***Khulekani Sibanda*** **INTRODUCTION OF THE GUEST OF HONOUR** Honourable ***Judith Ncube***, Minister of State for Provincial Affairs and Devolution (Bulawayo Metropolitan)
9 – 9.30	**KEYNOTE II: Guest of Honour** Dr ***Frederick M. Shava*** Minister of Higher and Tertiary Education, Innovation, Science and Technology Development
9.30 – 9.40	**REMARKS BY FACULTY OF APPLIED SCIENCE (NUST)** Professor ***Philimon Nyamugure*** **REMARKS BY RESEARCH AND INTERNATIONALISATION OFFICE (NUST)** Professor ***Thembekile Ncube***
9.40 - 10	**KEYNOTE III:** Dr ***Tatenda Mavetera*** Minister of Information Communication Technology, Postal and Courier Services in Zimbabwe **Chair:** Ms ***Saliwe Njolomole***, NUST Communication and Marketing Director

REMOTE PRESENTATION

ROOMS	MAIN CONFERENCE ROOM	BREAKOUT ROOM A	BREAKOUT ROOM B
10 – 11		SHOWCASING OF INNOVATIONS, PRODUCTS AND SERVICES BY STUDENTS AND COMPANIES, & POSTER PRESENTATION **Innovation Showcase Convenor:** Ms ***Saliwe Njolomole***, NUST Communication and Marketing Director	***Tea & Coffee***
11 – 12 pm	**PAPER SESSION: COMPUTATIONAL SYSTEMS** **Chair:** Ms ***Siqabukile Ndlovu*** **112**: THE LANGUAGE FAMILY EFFECT: IMPROVING AFRICAN SENTIMENT MODELS THROUGH LINGUISTIC RELATEDNESS 🌍 ***Howard Prioleau, Selorm Kalitsi, Saurav Aryal, & Jeremy Blackstone*** **202**: AN EXPERT SYSTEM FOR COMPLIANCE WITH ZIMBABWE'S CYBER AND DATA PROTECTION ACT (2021) ***Maxmillan Giyane, Dzinaishe Mpini, & Sindiso Mpenyu Nleya*** **289**: FROM UNIVERSALISM TO UBUNTU: A DECOLONIAL APPROACH TO INTERSECTIONAL FAIRNESS IN MACHINE LEARNING FOR SUB-SAHARAN AFRICA ***Sinqobile C. Dube, Samkeliso S. Dube, & Mqhele Mguni***	**PAPER SESSION: WATER AND SANITATION** **Chair:** Mr ***Tinashe Shumba*** **18**: DEVELOPMENT AND EVALUATION OF A LOW-COST SAND–ACTIVATED CHARCOAL FILTRATION SYSTEM FOR GROUNDWATER TREATMENT IN RURAL AND SEMI-RURAL AREAS OF SUDAN 🌍 ***Sahl Yasin, Eithar Mustafa, Mohammed Alburag, & Naser A. Ibrahim***	**PAPER SESSION: ENERGY AND MATERIALS** **Chair:** Professor ***Ogundiran Soumonni*** **41**: AN OVERVIEW OF CRITICAL ENERGY MATERIALS FOR A JUST ENERGY TRANSITION TO RENEWABLE ENERGY AND THEIR ECONOMIC IMPACT ***Stanford Mudono & Hilda Vimbai Kaitano*** **62**: MECHANICAL CHARACTERIZATION OF CALABASH MATERIAL 🌍 ***Rovhona Ratshivhadelo, Letlhogonolo N. Semakane, Ronny T. Tebeta, & Daniel M. Madyira*** **84**: DICHOTOMY OF BIOMASS AND CLEAN COOKING ENERGY: EVALUATING A MULTI-FUEL TRANSITION STOVE IN GHANA 🌍 ***Donald Amrago & Rita Namoe Tabi***
12 – 1	***Lunch Break***		
1 – 2 pm	**PANEL II: APPROPRIATE TECHNOLOGY FOR AGRICULTURE** **Chair:** Mr ***Joseph Mutengeni*** **Discussants:** Mr ***Khesani Chilumani***, Mr ***O R Mushangure***, Mr ***Web Ndlovu***, Dr ***Lifa Maphosa***, & Dr ***Nancy Nleya***	**PANEL III: APPROPRIATE TECHNOLOGIES FOR ENGINEERING (WATER AND SANITATION)** **Chair:** Mr ***Wellington Mapenduka*** **Discussants:** Professor ***Felix Mudhindi***, Dr ***Madhau Freeman***, Ms ***Annatoria Chinyama***	**PANEL I: APPROPRIATE TECHNOLOGIES FOR MINING AND MANUFACTURING** **Chair:** Mrs ***Cathrine Chivasa*** **Discussants:** Engineer ***Albert Mkandla*** & Engineer ***Tamani Moyo***

DAY 2 (*Cont.*)

REMOTE PRESENTATION 🌍

ROOMS	MAIN CONFERENCE ROOM	BREAKOUT ROOM A	BREAKOUT ROOM B
2 – 4	**PAPER SESSION: Environment, Agriculture, and Ecovillages** **Chair:** Professor ***Taurai Mutanda*** **36**: STUDY ON ZIZIPHUS SPINA-CHRISTI FRUIT PULP'S PHYTOCHEMICAL PROPERTIES AND THEIR APPLICATION IN PHARMACEUTICAL AND FOOD PRODUCTS 🌍 ***Yahia Abdalla*** **44**: CHARACTERISING NATURAL ADHESIVES ON WOOD-TO-WOOD LAP JOINTS ***Murunwa Mission Makhuga, Ronny Tebeta, & Daniel Madyira*** **106**: EMPOWERING RURAL FARMING FAMILIES THROUGH APPROPRIATE TECHNOLOGIES: ENHANCING VALUE ADDITION AMONG HOUSEHOLD SMALL FARMERS IN SUDAN 🌍 ***Enayat Mohamed, Elmotwakil Awad, & Fatima Elrashid*** **136**: ENHANCING CROP YIELDS IN AFRICAN SMALL-SCALE FARMING THROUGH ARTIFICIAL INTELLIGENCE: A SOCIO-TECHNOLOGICAL APPROACH ***Sibangiso Ngwenya, Samkeliso Suku Dube, Caroline Mhlanga, Thembekile Blessmore Ndebele, Fadzai Dzehonye, Andile Dube, & Memory Dube*** **164**: NON-MATERIAL EMPOWERMENT OF SMALLHOLDER WOMEN FARMERS INVOLVED IN VSLAS IN MATOBO DISTRICT. ZIMBABWE 🌍 ***Tryphina Dube-Takaza & Katsande-Ncube***	**PAPER SESSION: Green Economy, Education, Knowledge, and Technology Transfer (I)** **Chair:** Professor ***Vusumuzi Maphosa*** **43**: RESILIENCE IN CRISIS: BLENDING TRADITIONAL PRACTICES AND MODERN TECHNOLOGIES IN WAR-AFFECTED SUDAN 🌍 ***Safa M. A. Suliman*** **48**: KNOWLEDGE SHARING ON ENTERPRISE SOCIAL MEDIA AND INNOVATION CAPABILITY: THE MEDIATING ROLE OF ORGANISATIONAL LEARNING ***Magadlene Mpandare*** **71**: DIGITAL TOOLS IN ACTION: STUDENTS' ENGAGEMENT AND LEARNING IN RURAL MATHEMATICS CLASSROOMS ***Sipho Sibanda & Joel Timire*** **72**: BEYOND AVAILABILITY: TEACHER PREPAREDNESS AND INTEGRATION OF DIGITAL TOOLS IN RURAL MATHEMATICS CLASSROOMS ***Sipho Sibanda & Joel Timire*** **87**: ENTREPRENEURIAL UNIVERSITIES: DESIGNING INDUSTRY-PARTNERED VENTURE CREATION PROGRAMS THAT SCALE IN A SOUTH AFRICAN PERSPECTIVE ***Mary Mutanda***	**PAPER SESSION: Manufacturing, Mining, and Service Industries** **Chair:** Professor ***Eriyeti Murena*** **22**: FAILURE FREQUENCY ANALYSIS FOR MAINTENANCE OPTIMISATION: A CASE STUDY OF A MUNICIPAL FLEET 🌍 ***Dakalo Malada, Khumbulani Mpofu, & Vuyisani Madolwana*** **27**: COAL QUALITY ASSESSMENT WITH MACHINE LEARNING: IMPROVING PREDICTIVE ACCURACY AND OPERATIONAL EFFICIENCY ***Vusumuzi Maphosa & Tawanda Leeroy Kapuya*** **30**: FRAUD DETECTION IN HEALTH INSURANCE CLAIMS USING MACHINE LEARNING TECHNIQUES ***Vusumuzi Maphosa & Maybin Dzikiti*** **83**: ACCESSIBLE VACUUM FORMING TOOLING APPROACHES FOR THE SOUTH AFRICAN SMALL-SCALE PLASTIC MANUFACTURING CONTEXT 🌍 ***Daniel Carstens & Martin Bolton*** **218**: PERFORMANCE-BASED DEVELOPMENT OF PGM SLAG–CRUMB RUBBER COMPOSITE PAVERS FOR CIRCULAR MINE INFRASTRUCTURE 🌍 ***Michael Mutiri, Munashe Felix Mudhindi, & Nyasha Charmaine Kadenge***
ROOM	**MAIN CONFERENCE ROOM**		
4 – 5	**PANEL IV: APPROPRIATE TECHNOLOGY (AT) MANIFESTO (INAT)** **Chair**: Professor ***John Trimble*** **Discussants:** Professor ***John Tharakan*** and Dr ***Brian Stephenson***		

DAY 2 (*Cont.*)

REMOTE PRESENTATION 🌍

DAY 3: THURSDAY 26 NOVEMBER

8 – 9 am	REGISTRATION		*Tea/Coffee*
ROOM	*MAIN CONFERENCE ROOM*		
9 – 10	**KEYNOTE IV:** BEYOND THE TECHNOLOGY: LISTENING, LEARNING AND LEADING INCLUSIVE DEVELOPMENT 🌍 ***Audrey Deegan***, J.D. **Chair:** Dr ***Brian Stephenson***		
ROOMS	*MAIN CONFERENCE ROOM*	*BREAKOUT ROOM A*	*BREAKOUT ROOM B*
10 – 11	**PAPER SESSION: Cities and Space** **Chair:** Ms ***Dawn Crutchfield*** 🌍 **29**: LEVERAGING MACHINE LEARNING TO ENHANCE ANOMALY DETECTION IN VIDEO SURVEILLANCE IN THE BANKING SECTOR ***Vusumuzi Maphosa* & *Siduduzile Ncube*** **67**: ADAPTIVE HOUSING: BRIDGING THE GAPS BETWEEN MODERN AND CONVENTIONAL HOUSING IN GEZIRA STATE, SUDAN 🌍 ***Dahlia Elgali***	**PAPER SESSION: Green Economy, Education, Knowledge, and Technology Transfer (II)** **Chair:** Dr ***Sibonile Moyo*** **96**: PREDICTING FUTURE SKILLS DEMAND FOR DATA ANALYSIS ROLES IN AFRICA: BRIDGING THE DIGITAL SKILLS GAP 🌍 ***Safa M. A. Suliman, Nadda K. H. Abass, Nuha T. I. Osman, & Ola M. H. Mohammed Ali*** **101**: PROMOTING CIRCULAR ECONOMY IN LOCAL COMMUNITIES BY TRANSFORMING PET-HDPE PLASTIC WASTE INTO SUSTAINABLE CONSTRUCTION MATERIAL SUITABLE FOR ECOLOGICALLY SENSITIVE ENVIRONMENTS ***Tatenda Mazadza, Dyson Zhira, & Edmore Takunda Mushonga*** **239**: AN ENDOGENOUS INNOVATION CAPABILITY FRAMEWORK FOR SOUTH AFRICAN FIRMS ***Kim Morkel* & *Ogundiran Soumonni*** **276**: AFROCENTRIC VISUAL COMMUNICATION AND APPROPRIATE TECHNOLOGIES: RECLAIMING INDIGENOUS DESIGN SYSTEMS FOR SUSTAINABLE DEVELOPMENT IN NIGERIA 🌍 ***Roy-Omoni Sylvester* & *Emmanuel Etsename***	**PAPER SESSION: Policy, Standards, and Ethics** **Chair:** Professor ***John Tharakan*** **31**: DOES FORMALIZATION INTERVENTION HELP INFORMAL ENTREPRENEURS TO REMAIN FORMAL AND AVOID POVERTY? A GENDER ANALYSIS IN BENIN 🌍 ***Bernadin Ahodode*** **111**: THE ROLE OF ARTIFICIAL INTELLIGENCE IN EXPOSING AND RESHAPING ZIMBABWE'S SOCIAL DISPARITIES ***Madalitso Khuoge* & *Gift Moyo***
11 – 12 pm	**77**: THE TRANSFORMATION OF GEOSPATIAL LAND MAPPING THROUGH THE APPLICATION OF DRONES ***Tambudzai Ngatiane***		
12 – 1	*Lunch Break*		

REMOTE PRESENTATION 🌍

ROOM	MAIN CONFERENCE ROOM
1 – 2	**KEYNOTE V:** RESTORING HUMAN DIGNITY THROUGH DIGNIFIED HEALTHCARE INFRASTRUCTURE: THE VILLAGE HEALTH WORKS MODEL 🌍 Dr ***Deogratias Niyizonkiza*** **Chair:** Dr ***Belinda Ndlovu***
2 – 4	**TECHATHON** **Organiser & Moderator:** Mr ***Mjumbe Poe***
4 – 5	**INTERNATIONAL NETWORK ON APPROPRIATE TECHNOLOGY (INAT) MEETING** **Chair:** Professor ***John Trimble***
6 – 8	**CONFERENCE DINNER**

DAY 3 (*Cont.*)

DAY 4: FRIDAY 27 NOVEMBER

8 – 9 am	REGISTRATION	*Tea/Coffee*
ROOM	MAIN CONFERENCE ROOM	
9 – 10	**KEYNOTE VI:** THE APPLICATION OF GEOSPATIAL INFORMATION SCIENCE IN LAND-USE PLANNING AND SUSTAINABLE NATURAL RESOURCE MANAGEMENT AMONG A1 AND A2 RESETTLEMENT FARMERS IN ZIMBABWE 🌍 Dr ***Paul Sambo*** **Chair:** Professor ***John Trimble***	
10 – 11	**KEYNOTE VII:** APPROPRIATE TECHNOLOGY FOR SMES Dr ***Busisa Moyo*** **Chairs:** Dr ***Tsitsi Zengeya*** / Mr ***Maxmillan Giyane***	
11 – 12 pm	**KEYNOTE VIII:** FROM AI CONSUMPTION TO INSTITUTIONAL SOVEREIGNTY: BUILDING APPROPRIATE, ACCOUNTABLE AND RESILIENT AI CAPABILITY FOR AFRICAN INSTITUTIONS Mr ***Isaiah Munyaradzi Bizabani*** **Chair:** Mr ***Smart Ncube***	
12 – 1	***Lunch Break***	
1 – 2	**KEYNOTE IX:** APPROPRIATE AI: INTERPRETABLE AND EXPLAINABLE MACHINE LEARNING FOR SUSTAINABLE, INCLUSIVE DEVELOPMENT IN THE AFRICAN COMMUNITIES Dr ***Zvinodashe Revesai*** **Chair:** Professor ***Sindiso Nleya***	

REMOTE PRESENTATION 🌍

ROOMS	*BREAKOUT ROOM A*	*BREAKOUT ROOM B*
2 – 4	**POSTER SESSION** **Convenor:** Mrs ***Siqabukile Ndlovu*** **73**: BRIDGING WASHINGTON, DC AND KENYA THROUGH CLEAN WATER INFRASTRUCTURE 🌍 ***Rachel Maxwell*** **76**: RADIOTRACER INVESTIGATIONS OF CONSTRUCTED WETLANDS' HYDRODYNAMICS ***Joseph Dongo*, *Hakimato H. Mwaitete*, *Peter Baricholo*, *Karoli N Njau*, *Annah Mabidi*, & *Norah Basopo*** **131**: IOT AND AI-ENABLED INDUSTRIAL EFFLUENT MONITORING AND MANAGEMENT SYSTEM 🌍 ***Shumirai Shiriyapinda*** **138**: BLOCKCHAIN-BASED BLOOD SUPPLY SYSTEM 🌍 ***Lawrence Njobo*** **141**: AUTOMATED BULK AIRTIME DISTRIBUTION WITH REAL-TIME SUPPORT DASHBOARD FOR TELECOMMUNICATIONS 🌍 ***Privilege Mucheni* & *Siqabukile Ndlovu*** **166**: HYDROSAFE: A MICROCONTROLLER-BASED INTELLIGENT MONITORING SYSTEM FOR SMART WATER MANAGEMENT, CONSERVATION, AND ABNORMAL USAGE DETECTION 🌍 ***Gracious Mhungu*** **167**: DESIGN AND DEVELOPMENT OF A DIGITAL AGRO-MARKETPLACE WITH CHATBOT INTEGRATION AND USSD SUPPORT FOR ZIMBABWEAN FARMERS 🌍 ***Pearson Munashe Torto*** **168**: IOT-ENABLED CONVEYOR SYSTEM FOR AUTOMATED WASTE SORTING: DESIGN, IMPLEMENTATION AND EVALUATION OF A LOW-COST PROTOTYPE 🌍 ***Tatenda Bandambira*** **188**: A MACHINE LEARNING FRAMEWORK FOR LOCALISED FLOOD RISK PREDICTION TO SUPPORT AN EARLY-WARNING SYSTEM IN DATA-SCARCE REGIONS 🌍 ***Presson Zhou* & *Samkeliso Dube*** **252**: IOT-BASED CRIME ALERTING WITH DYNAMIC SAFETY ROUTING SYSTEM: A COMMUNITY-CENTRED APPROPRIATE TECHNOLOGY INTERVENTION FOR URBAN SAFETY IN BULAWAYO, ZIMBABWE 🌍 ***Grace Munhokwane***	**TECHNOLOGY FAIR** **Convenor:** Mr ***Joseph Mutenge*** **9**: PROJECT ZEROCORE: A "GLASS BOX" FINANCIAL ENGINE FOR AFRICAN SME EMPOWERMENT ***Sakhengomusa Ndlovu* & *Tamuka Gambiza*** **63**: MERSALK: A CONTEXT-APPROPRIATE DIGITAL PLATFORM FOR RESILIENT TRADE IN SUDAN 🌍 ***Telal Omer*, *Waheed Elsadig*, & *Osman A.F. Hamad*** **89**: INTEGRATED RECYCLING OF E-WASTE AND LITHIUM-ION BATTERIES IN AFRICA: A DIGITAL TWIN TECH-FAIR DEMONSTRATION 🌍 ***Hendrick Tafadzwa Chikwanha*** **137**: SMARTPHONE-BASED AI FOR EARLY SKIN CANCER SCREENING IN LOW-RESOURCE SETTINGS ***Tadiwanashe Chigayo*, *Albert R. C. Mbuwa*, *Tawanda Terrence Kapumha*, & *Tanaka Brendon Mano*** **253**: MEDICAL INSURANCE FRAUD DETECTION SYSTEM: A PROACTIVE LAYERED APPROACH IN DEVELOPING CONTEXTS ***Kimberly G. D. Sithole*** **274**: A COMPARATIVE STUDY OF TRADITIONAL AND CRUMB RUBBER MODIFIED ASPHALT: ASSESSING PERFORMANCE, DURABILITY, AND ENVIRONMENTAL BENEFITS ***Stephen Chongani, Nyasha Kadenge, & Munashe Felix Mudhindi*** **GUEST EXHIBITOR** THE BOREHOLE PROJECT ***Mariam Titilope Olorundare*** Maripha Organic Farms Enterprises, Nigeria
ROOM	*MAIN CONFERENCE ROOM*	
4 – 6	**CLOSING SESSION** **Chair:** Professor ***John Trimble***	

DAY 4 (*Cont.*)

REMOTE PRESENTATION 🌍

MEETING LINKS

MS TEAMS

Day		MAIN CONFERENCE ROOM	BREAKOUT ROOM A	BREAKOUT ROOM B
1	Tuesday 24 November	Join: https://teams.microsoft.com/meet/37345158640739?p=kEh4QvcjN2b5IHnjYM	Join: https://teams.microsoft.com/meet/3585114264524315?p=802nlTasdB2lR6Er7G	Join: https://teams.microsoft.com/meet/3455466503435833?p=YnBOSeT5ckaYSFnCTu
		Meeting ID: 373 451 586 407 39	**Meeting ID: 358 511 426 452 431 5**	**Meeting ID: 345 546 650 343 583 3**
		Passcode: jU2Ab9Tg	**Passcode: dN7Li9wV**	**Passcode: GH6cy6Sr**
2	Wednesday 25 November	Join: https://teams.microsoft.com/meet/3717638384293662?p=FVxMv952EfG7TXXfXk	Join: https://teams.microsoft.com/meet/3402031386647665?p=y3gKoWC7WwfhUrteCQ	Join: https://teams.microsoft.com/meet/3633688832253570?p=NRHACChIfuRM0wEhcq
		Meeting ID: 371 763 838 429 366 2	**Meeting ID: 340 203 138 664 766 5**	**Meeting ID: 363 368 883 225 357 0**
		Passcode: d8rb9ii3	**Passcode: yn9gj6ru**	**Passcode: PG6Zn7bo**
3	Thursday 26 November	Join: https://teams.microsoft.com/meet/3211376270719966?p=kfwf4S2ZdOFtCsi2nc	Join: https://teams.microsoft.com/meet/3983996677517955?p=KmjVCxhAxdVBiqXwLg	Join: https://teams.microsoft.com/meet/3956657410944322?p=uWpBI4cybroxC1iGeR
		Meeting ID: 321 137 627 071 996 6	**Meeting ID: 398 399 667 751 795 5**	**Meeting ID: 395 665 741 094 432 2**
		Passcode: Gw7Ry2Mj	**Passcode: sj6si3BQ**	**Passcode: vs3MN6zA**
4	Friday 27 November	Join: https://teams.microsoft.com/meet/3324260218940050?p=EDRf4Jlv20fxUZZNQQ	Join: https://teams.microsoft.com/meet/397212011168297?p=1V0nOVbhsNQ1vOQ3RB	Join: https://teams.microsoft.com/meet/3993423352123828?p=DxTpgb5dIviTiMmRLj
		Meeting ID: 332 426 021 894 005 0	**Meeting ID: 397 212 011 168 297**	**Meeting ID: 399 342 335 212 382 8**
		Passcode: pQ7f6Fm3	**Passcode: B6mm9Lp3**	**Passcode: Hs3dq9z7**

LOCAL ORGANISNG COMMITTEE TECHNICAL TEAM (NUST)
Ms ***Novuyo Bobo,*** Mr ***Maverlous Mapurazi,*** Mr ***Brian Guvava,*** Mr ***Tatenda Nzvenga,*** Mr ***Mbongeni Mthimkhulu***

REMOTE PRESENTATION