

6<sup>th</sup>  
**INTERNATIONAL  
CONFERENCE**

**2018**

**4-6 SEPTEMBER**



**RESEARCH,  
INNOVATION & TECHNOLOGY  
FOR AFRICAN DEVELOPMENT**



# CONFERENCE PROGRAMME

Cape Peninsular University of Technology, Cape Town  
4 - 6 September 2018

Tuesday, 4 September 2018

# 08:30 – 10:00 REGISTRATION (COFFEE AND TEA ALSO AVAILABLE)

Venue	Opening Ceremony
Master of Ceremonies	Lecture Theatre 2
	Prof R Pellissier
10:00 – 10:15	Welcome address (Dr C Nhlapo - Vice Chancellor, Cape Peninsula University of Technology, South Africa)
10:15 – 10:30	Goodwill Message (Vice Chancellor, University of Cape Coast, Ghana)
10:30 – 10:45	Goodwill Message (Vice Chancellor, University of The Gambia, Gambia)
10:45 – 11:00	Goodwill Message (Vice Chancellor, University of Ilorin, Nigeria)
11:00 – 11:15	Goodwill Message (Vice Chancellor, Jaramogi Oginga Odinga University of Science and Technology, Kenya)
11:15 – 11:30	Goodwill Message (Vice Chancellor, Kwara State University, Nigeria)
11:30 – 11:40	Vote of thanks (Prof D Burger - Director of Research, Cape Peninsula University of Technology)

Venue	Lecture Theatre 2
Chair	Prof D Burger
11:50 – 12:30	Keynote Speaker: Dr Gertie Arts Environmental Risk Assessment in Africa: developments and challenges

# 12:30 – 13:10 LUNCH

Theme	Climate Change/Environmental Issues	Global Health & Wellness	ICT, Tourism, Business and Governance	Agriculture & Food Security
Venue	Lecture Theatre 1	Lecture Theatre 2	Lecture Theatre 4	Lecture Theatre 5
Chair	Prof Ken Findlay	Prof A Mohammed	Prof Ajay Garg	Prof A Omotesho
13:20 – 13:40	Raissa A. Omores, Francois Wewers, Abdur-Rahim A. Giwa & Thomas Farrar Assessment of the potential of <i>Acacia saligna</i> for environmental biomonitoring of polycyclic aromatic hydrocarbons in Cape Town, South Africa	Toyin Alabi, Nicole Brooks & Oluwafemi Oguntibeju Improved antioxidant status and protective role of <i>Anchomanes difformis</i> on liver and kidney in type 2 diabetes	Enciliah Chipunza Software quality management improvements in an agile environment	Z. Z. Maninjwa Antifungal activities of <i>Bulbine frutescens</i> extracts against <i>Fusarium oxysporum</i>
13:40 – 14:00	Conrad Basson & Velaphi Msomi The analysis of failed rail tracks	Folorunso Olabiyi, Yapo Aboua, Thomas Monsees & Oluwafemi Oguntibeju Antioxidative, cytotoxicity and skin depigmentation potentials of <i>Phyllanthus amarus</i> extracts	Zukile Mfengu & Bigwen Yan Measuring supply chain performance at a healthcare facility in Cape Town	Asavela Vika, Vanessa Jackson & Richard Mundembe PCR-based cloning and characterisation of the Bambara groundnut mitochondrial genome
14:00 – 14:20	Aphelele Tomsana, Elie F. Itoba-Tombo & Izanne S. Human An analysis of environmental obligations and environmental liabilities of a distribution division to improve ecologically sustainable development.	Caroline Tyavambiza, Samantha Meyer & Mervin Meyer <i>Cotyledon orbiculata</i> : a study of its relevance for skin infections	Vuyani Mtshikana & Bingwen Yan Knowledge sharing between young and old artisans at a construction company in Cape Town	Saidat Rabiou, Richard Mundembe & Vanessa Jackson Cloning and characterization of recombinant VsDef1, a novel antimicrobial peptide isolated from <i>Vigna subterranea</i>

14:20 – 14:40	Nqobile Felicia Ngubane & Oluwaseun Oyekola Feasibility study on the use of corn-stover as feedstock for renewable energy source	Mediline Goboza, Oluwafemi Oguntibeju & Yapo G Aboua Antihyperlipidemic, antioxidant and anti-inflammatory effects of vindoline in type 2 diabetic rats	Aliy Abdulwahid Adebisi Information communication technology (ICT): What translation teachers need to know	Asavela Vika Sequencing and Bioinformatics analysis of Bambara groundnut
<b>14:40 – 15:00 TEA BREAK</b>				
<b>Theme</b>	<b>Climate Change/Environmental Issues</b>	<b>Global Health &amp; Wellness</b>	<b>Gender, Social Issues and Education for Sustainable Development</b>	<b>Agriculture &amp; Food Security</b>
<b>Venue</b>	<b>Lecture Theatre 1</b>	<b>Lecture Theatre 2</b>	<b>Lecture Theatre 4</b>	<b>Lecture Theatre 5</b>
<b>Chair</b>	<b>Dr Mrs Mokoulu</b>	<b>Prof F Adepoju</b>	<b>Prof F Sarr</b>	<b>Prof Felix Nchu</b>
15:00 – 15:30	Guest Speaker: Prof K Findlay Decision Support for Marine Spatial Planning in the South African Exclusive Economic Zone		Guest Speaker: Prof O Olugbara Transforming society through innovative research	Guest Speaker: Prof OA Omotesho Agriculture and food security in Africa: How far is the promised land?
15:30 – 15:50	Ongama Soka & Oluwaseun Oyekola Pyrolysis of corn stover: Influences of temperature and other important parameters on char higher heating values	William Agyemang, Thomas Kolawole Ojo & Francis Afukaar Drivers' compliance and pedestrian safety at zebra crossings in the Cape Coast Metropolis, Ghana	Lawrence Acheampong & Emmanuel Arhin Factors influencing the sustainability of NGO's in the central region of Ghana	Mbappe Tanga, Francis B. Lewu, Adebola O. Oyedeji & Opeolowa O. Oyedeji Growth and yield of Burdock ( <i>Arctium lappa</i> L) in response to mineral fertilizer application
15:50 – 16:10	Ashton Mpofu, Pamela Welz & Oluwaseun Oyekola Optimization of the anaerobic digestion of secondary tannery sludge: Influence of initial pH and operating temperature	Bodun Olakanmi, Olufunke Olorundare & Saheed Afolabi Assessment of the effect of crude methanolic extracts (leaf and twig) of <i>Loranthus micranthus</i> on Streptozotocin induced diabetic rats	Vera Rosemary Ankoma-Sey Sustaining effective administrative tasks: Performance of Heads of academic departments in Senior High Schools in Ghana	Olatunde S Olatunji, Beatrice Opeolu & Olalekan S Fatoki Polychlorinated biphenyls (PCBs) congeners and dichlorodiphenyltrichloroethane & #146;s (DDTs) in fresh root and leafy vegetables
16:10 – 16:30	Abiola Ezekiel Taiwo, Tunde Victor Ojumu & Tafirenyika Nyamayaro Madzimbamuto Corn steep liquor: a cheap nitrogen source for ethanol and acetoin production	Ngaitad Stanislaus Njinga, Adeola Kola-Mustapha & Luqman Quadri Toxicity assessment of sub-acute and sub-chronic oral administration of aqueous extract of <i>Hibiscus sabdariffa</i> calyces in Wistar Rats	Ignatius Ticha & Muhammad Nakhoda Teaching scientific and academic literacy to achieve multiple objectives at a University of Technology in South Africa	Tatenda Blessing Runganga & Kant E Kanyarusoke Heat transfer effects in a solar crop dryer
16:30 – 16:50	Jenny Lumbala Chansa, Francios Wewers & Thandekile Mthethwa Au-TiO <sub>2</sub> plasmonic nanohybrids for highly efficient photocatalytic degradation of reactive orange 16 under visible light	Felicia Esemekiphoraro Williams, Emmanuel Teju Jolayemi & Tanimola Makanjuola Akande Ability of HIV/AIDS patients to identify dispensed medicines at public hospitals in a North-Central State, Nigeria	Lawrence Acheampong, Enoch Lalabi Kwadzodeh & Selorm Akaba Community attitudes towards National Sanitary Day exercise at Abura in the Cape Coast Metropolis, Ghana	Bulelwa Tandazo & Vusi Mshayisa Effect of processing steps on polyphenolic and antioxidant content of craft beer produced in a micro-brewery

Venue Chair	Lecture Theatre 2 Prof Eric Nyarko-Sampson 09:00 – 09:40 Keynote Speaker: Prof R Krishnamurthy Application of plant tissue culture technology with special reference to cultivation of horticultural and medicinal plants			
Theme	Climate Change/Environmental Issues	Global Health & Wellness	Gender, Social Issues and Education for Sustainable Development	Agriculture & Food Security
Venue Chair	Lecture Theatre 1 Prof Joseph Kioko	Lecture Theatre 2 Prof O Oguntibeju	Lecture Theatre 4 Prof F Olasehinde-Williams	Lecture Theatre 5 Mr Saffiong Kebbeh
09:50 – 10:20	Guest Speaker: Dr H Sawyerr Climate change and environment: reality or perception?	Guest Speaker: Prof M Asuquo Evolving trends in global health: The African perspective	Guest Speaker: Prof F Sarr Promoting gender equality: Politically informed and gender awareness approaches	
10:20 – 10:40	Sydney Shikwambana & Bongani Ncube Mapping of Limpopo Province into climate change vulnerability zones	Yusuf Ghazali, Ibrahim Bello & Adeola Kola-Mustapha The use of herbal medicines amongst outpatients at the University of Ilorin Teaching Hospital (UITH), Ilorin, Kwara State, Nigeria	Lawrence Acheampong, Raymond Yeboah & Selorm Akaba Assessment of community expectations towards revamping of Komenda sugar factory in Komenda-Edina-Eguafo-Abirem Municipality of the central region, Ghana	Faith Sibanda Composite of fermented and malted pearl millet flour with <i>Moringa oleifera</i> leaf powder for optimum protein using mixture design
10:40 – 11:00	Wanga Ncise, Felix Nchu & Christian Daniels Interactive effects of light intensity and pH on growth and antifungal activities of extracts of the bulbous plant, <i>Tulbaghia violacea</i> Alliaceae	Tajudeen Amusa, Adeola Kola-Mustapha & Olubunmi Atolani An overview of the African Centre for Herbal Research, Ilorin (ACHRI)	Moses Segbenya Working conditions and decent work agenda among informal stone quarry workers in the central region of Ghana	Adewole Tomiwa Adetunji, Bongani Ncube, Reckson Mulidzi & Francis Lewu Effect of cover crop management on glucosidase activity and soil organic carbon
11:00 – 11:20	Wighens Ngoie, Pamela Welz, Oluwaseun Oyekola & Daniel Ikhu-Omoregbe Edible oil wastewater sludge: A feasible feedstock for bioethanol and biodiesel by heterogeneous nano-magnetic catalyzed transesterification	Joshua Ayoola Obaleye, Abiodun Atoyebi Ajibola & Van Brecht Bernardus Synthesis, characterization, crystal structures and biological potency of some metal(II) carboxylate complexes with different nitrogenous ligands	Ibrahim Laro Abubakar Effects of external motivation on performance endurance among Kwara State University (KWASU) handball players	Taahir Harris, Victoria Jideani & Marilize Le Roes-Hill Phytochemical properties of Bambara groundnut ( <i>Vigna subterranea</i> ) extracts from Mpumalanga Province, South Africa
11:20 – 11:40	<b>TEA BREAK</b>			
Theme	Climate Change/Environmental Issues	Global Health & Wellness	Gender, Social Issues and Education for Sustainable Development	Agriculture & Food Security
Venue Chair	Lecture Theatre 1 Dr Ntokozo Malaza	Lecture Theatre 2 Prof Odunola	Lecture Theatre 4 Dr Abdul-Karim Kamara	Lecture Theatre 5 Prof Victoria Jideani
11:40 – 12:00	BO Fagbayigbo, BO Opeolu & OS Fatoki Seasonal variations and distribution of nine PFCs in surface water and sediment from the Diep and Plankenburg Rivers, South Africa	Oladapo O Oludairo, JKP Kwaga & Junaid Kabir Phenotypic characterization and antibiogram of <i>Salmonella</i> spp isolated from captive wildlife and humans in two zoos and a park in North Central Nigeria	Felicia Olasehinde-Williams Repositioning tertiary education for sustainable African development	Olwethu Pili & Bongani Ncube Coping and adaptation strategies for agricultural water use during drought periods in the Overberg and West Coast Districts, Western Cape, South Africa

12:00 – 12:20	Francis Emile Asuquo, Victor Anaba Osim & QueenAnn Francis Asuquo Mud crab ( <i>Scylla serrata</i> ) and mudskipper ( <i>Periophthalmus barbarus</i> ) as bioindicators of heavy metal contamination in the Great Kwa River Estuary, Nigeria	Oladapo O. Oludairo, JKP Kwaga & Junaid Kabir Genotypic characterization of <i>Salmonella</i> spp isolated from wild animals in 3 selected wildlife holding centres in North Central Nigeria	Dawit Solomon Worku & Jean Cleymans Thermal model and Isallis distribution for large hadron collider	Mercy Fanadzo & Bongani Ncube Analysis of smallholder farmer livelihoods, coping and adopting strategies during drought periods in South Africa
12:20 – 12:40	Victoria I Emeka, Chimezie N Emeka & Francis E Asuquo A study on the hydrochemistry and grain size distribution of bottom sediments of the Calabar River, South East Nigeria	Kazeem Adesina Dauda, Biswabrata Pradhan & B Uma Shankar Novel decision tree-based survival analysis with simultaneous competing risks	Saffiong Kebbeh, Momodou Jain & Bamba Gueye ECOBORDER: Strategic e-boarder alliance for ECOWAS states: A case for West Africa	Olufemi Bolarin, GB Adesiji & FO Oladipo Catastrophic destruction and displacement of farming families: Dilemma of food security in Nigeria and the Lake Chad sub-region
12:40 – 13:00	Chimezie N Emeka, Victoria I Emeka & Etie B Akpan Sedimentary facies architecture of the Great Kwa River, South East Nigeria	Adeola T Kola-Mustapha, Yusuf O Ghazali & Hameedat T Ayotunde Formulation and evaluation of <i>Parquetina nigrescens</i> suspensions for the treatment of diarrhea		Sururah Nasir, Ganiyat Olatunde & Abdulrazaq Adebawale Optimization of deep fat frying process for varieties of sweet potato crisps
<b>13:00 – 13:40 LUNCH</b>				
Venue	Lecture Theatre 2			
Chair	Prof Grace Adepoju			
13:40 – 14:20	Keynote Speaker: Dr Thandi Mgwebi TBA			
Theme	Climate Change/Environmental Issues	Global Health & Wellness	Climate Change/Environmental Issues AND Agriculture & Food Security	Agriculture & Food Security
Venue	Lecture Theatre 1	Lecture Theatre 2	Lecture Theatre 4	Lecture Theatre 5
Chair	Dr Richard Mundembe	Prof Olatunji	Dr Bongani Ncube	Prof R Krishnamurthy
14:30 – 14:50	Olubunmi A Mokuolu & Omodara O Stephen Investigating environmental air pollution in selected areas of Ilorin, Kwara State, Nigeria	JO Aiyedun & OO Oludairo Enhancing rabies prevention in Nigeria through health education	Gabriel Ademola Olatunji & Oluwatoyin Adenike Fabiyi Significant decrease in rice production	Fareed Ismail & Jasson Gryzagoridis Use of solar energy to enhance an aquaponics project at a low income community
14:50 – 15:10	Bamidele Olusegun Fawenu Pentateuchal prescriptions for environmental preservation in the context of advocacy on climate change in Ilorin, Nigeria	Friday Onyekwere Nwosu, Oluwaseyi Damilare Salu & Khadijat Adekemi Oyinlola Preparation and characterization of Ag Cu bimetallic-polysorbates hybrid nanocomposites for sensing urea	Wasiu Mayowa Raheem & Aina Thompson Adebeyejo Evaluation of heat index and its implications in Southwestern Nigeria	Awelani Sadiki & Bongani Ncube Accessing the challenges of accessing water by the emerging farmers in the Breede-Gouritz Catchment Management Agency
15:10 – 15:30	Mbulelo Ofisi, Learnmore Kambizi & Ignatious Matimati <i>In vitro</i> callus and shoot multiplication of rare <i>Argyrodema subalbum</i> and <i>Argyrodema testiculare</i> (Aizoaceae) endemic to the Knersvlakte region, South Africa	Oladapo O Oludairo & Julius O Aiyedun Epidemiology of brucellosis in Nigeria	Oluwatoyin Adenike Fabiyi & Gabriel Ademola Olatunji Enhancing food security: Potential of agro-biocides in the management of <i>Pratylenchus zeae</i> parasitizing maize	Victoria Jideani, Muthoni Kimani & Afam I. O. Jideani Integrating text mining and network analysis for ethnomedicinal profile of Bambara groundnut in Mpumalanga Province, South Africa

15:30 – 15:50	Chimezie N Emeka, Victoria I Emeka & Etie B Akpan Sedimentary facies architecture of the Great Kwa River, South east Nigeria	Kazeem Adesina Dauda & Waheed Babatunde Yahya Artificial neural networks in computing risk modeling using prostate cancer	Steven Mapfumo, Charles Laubscher & Joyce Ndlovu Cryopreservation of selected medicinal plant species and analysis of their genetic stability	Taibat Yusuf Contract farming: A sustainable pathway to increase rural income
15:50 – 16:10	Dumo Mpumlwana Mechanical properties of thermally treated, commercially pure, grade 2 Titanium (CP Ti grade 2)	JO Aiyedun, RIO Nwoha & OO Oludairo Rabies challenges in developing countries: Nigeria perspective	Gabriel Ademola Olatunji & Oluwatoyin Adenike Fabiyi Towards food security: Application of modified sorghum residue in integrated pest management	Mandilakhe Naku, Ignatious Matimati & Learnmore Kambizi The functional roles of ammonium (NH <sub>4</sub> <sup>+</sup> ) and nitrate (NO <sub>3</sub> <sup>-</sup> ) in regulating transpiration for mass-flow acquisition of nutrients in <i>Phaseolus vulgaris</i> L. (Fabaceae)

## 18:30 CONFERENCE DINNER

Thursday, 6 September 2018

Venue Chair	Lecture Theatre 2 Prof R Pellissier 09:00 – 09:40 Keynote Speaker: Prof Olatunde Research, innovation and technology for African development: Challenges faced by African universities			
Theme	Agriculture & Food Security			
Venue Chair	Lecture Theatre 1	Lecture Theatre 2 Prof Sidat Yaffa	Lecture Theatre 4	Lecture Theatre 5 Prof Kareem Alagbe Gbolagade
09:50 – 10:10		Samson A Oyeyinka, Sarah Olatunbosun & John K Joseph Utilisation of indigenous chicken eggs in the preparation of selected pastries		Adebanji Olasupo Oluwole, Daniel Ikhu-Omoregbe & Victoria Adaora Jideani Physicochemical and rheological properties of African catfish slime
10:10 – 10:30		Sibusiso Xego, Learnmore Kambizi & Felix Nchu Hydroponic cultivation of <i>Siphonochilus aethiopicus</i> using inert substrate mixes under different watering regimes		Kikelomo Kehinde Osasona & Mercy Fuka Salami Assessment of food security status and adaptation strategies to climate change among farm households in Osun State
10:30 – 10:50		Kehinde Affinnih & Umar Ibrahim Perception and gender involvement in rice husk/straw technology for soil and crop productivity in Niger State		Ibiyemi B Ojuko, Adesola T Oyeyinka & Abiodun A Adenloye Physical, chemical and sensory properties of non-gluten cookies from fermented cassava root
10:50 – 11:10		Gabriel Ademola Olatunji & Oluwaseyi Damilare Saliu Synthesis of regenerated nanocellulose and polyethylene hybrid resins for the design of biodegradable packaging		Abiodun A Adenloye & Samuel O Olawoye Palm kernel cake in subsistence goat production: Efficacy as feed supplement to Napier grass silage fed to West African dwarf goat
11:10 – 11:30	TEA BREAK			

Theme	Lecture Theatre 1	Lecture Theatre 2	Lecture Theatre 4	Lecture Theatre 5
Venue				
Chair				
11:30 – 11:50				
11:50 – 12:10				
12:10 – 12:30				
12:30 – 12:50				
<b>12:50 – 13:30 LUNCH</b>				
Theme	Lecture Theatre 1	Lecture Theatre 2	Lecture Theatre 4	Lecture Theatre 5
Venue				
Chair				
13:30 – 13:50				
13:50 – 14:10				
14:10 – 14:30				
14:30 – 14:50				
14:50 – 15:10				
<b>15:20</b>	<b>Closing of the U6 conference (Lecture Theatre 2)</b> <b>Vote of thanks (Prof OS Fatoki – Dean of Applied Sciences, Cape Peninsula University of Technology)</b>			

**Note for poster presentations:** The posters will be displayed during the entire duration of the conference. The presenters of the posters are requested to make themselves available at their posters for questions during some of the tea and lunch breaks.