



UNIVERSITY OF
KWAZULU-NATAL™
INYUVESI
YAKWAZULU-NATALI

**COLLEGE OF AGRICULTURE,
ENGINEERING AND SCIENCE**

PRIS²⁰²⁶

POSTGRADUATE RESEARCH & INNOVATION SYMPOSIUM



DATE

**28 & 29
October
2026**

VENUE

**Coastlands
Hotel,
Musgrave, Durban**

THEME

**International
Year of
Rangelands and
Pastoralists**

pris.ukzn.ac.za

INSPIRING GREATNESS



UNIVERSITY OF
KWAZULU-NATAL[™]
INYUVESI
YAKWAZULU-NATALI

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

*The College of Agriculture, Engineering and Science
would like to express its appreciation to the following external partners who have
supported the Postgraduate Research and Innovation Symposium 2026*



agriculture, land reform
& rural development

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA



KWAZULU-NATAL PROVINCE
TRANSPORT
REPUBLIC OF SOUTH AFRICA



2CANA
—solutions



ANATECH
ANALYTICAL TECHNOLOGY



MERCK



National
Research
Foundation



South African National
Accreditation System



The College of Agriculture, Engineering and Science would like to express its appreciation to the following External Sponsors at the 2026 College Postgraduate Research and Innovation Symposium:

2Cana

Entelect

First National Bank

SASOL

The College of Agriculture, Engineering and Science would like to express its appreciation to the following internal partners for supporting the 2026 College Postgraduate Research and Innovation Symposium:

UKZN College of Agriculture, Engineering and Science Finance Department

UKZN Research Office

African Centre for Crop Improvement

Analytical Environmental Chemistry Research Group

Biological Sciences

Biomedical Optics Research Group

Bioprocess Research Group

Centre for Functional Biodiversity and Oppenheimer Fellow in Functional Biodiversity

Centre for Transformative Agricultural and Food Systems

Energy Materials Research Group

Image Processing, Computer Vision and Data Mining Research Group

KZNDOT Chair in Sustainable Transportation – Sustainable Transportation Research Group (STRg)

Laser Material Research Group

Nano-Chemistry Research Group

Nano-Gene and Drug Delivery Group

Quantum Research Group

School of Agriculture and Science

School of Engineering

South African Research Chair in Land Use Planning and Management

Thermodynamics Research Unit

uMngeni Water Chair of Water Resources Research and Innovation

Dr Mervlyn Moodley, Quantum Research Group

Professor Ademola Olaniran, School of Agriculture and Science (Dean and Head of School)

Professor Anne Stark, School of Engineering

Professor Brenda Moodley, Analytical Environmental Chemistry Research Group

Professor David Lokhat, uMngeni Water Chair of Water Resources Research and Innovation

Professor Genene Mola, Energy Materials Research Group

Professor Glen Bright, School of Engineering (Dean and Head of School)

Professor Gueguim Kana, Bioprocess Research Group

Professor Hussein Shimelis, African Centre for Crop Improvement

Professor Jules-Raymond Tapamo, Image Processing, Computer Vision and Data Mining Research Group

Professor Julia Sibiya, School of Agriculture and Science

Professor Kuveneshan Moodley, Thermodynamics Research Unit

Professor Mathew Moodley, Laser Material Research Group

Professor Moganavelli Singh, Nano-Gene and Drug Delivery Group

Professor Mohamed Mostafa Hassan Mostafa, KZNDOT Chair in Sustainable Transportation – Sustainable Transportation Research Group (STRg)

Professor Naven Chetty, Biomedical Optics Research Group

Professor Neil Koorbanally, Research Office

Professor Onesimo Mutanga, South African Research Chair in Land Use Planning and Management

Professor Rob Slotow, Centre for Functional Biodiversity and Oppenheimer Fellow in Functional Biodiversity

Professor Samson Mukaratirwa, Biological Sciences

Professor Shahidul Islam, Biological Sciences

Professor Sudan Hansraj, Discipline of Mathematics

Professor Tafadzwanashe Mabhaudhi, Centre for Transformative Agriculture and Food Systems

Professor Vincent Nyamori, Nano-Chemistry Research Group

Professor Viranjay Srivastava, School of Engineering

The College of Agriculture, Engineering and Science would like to express its appreciation to the following Exhibitors at the 2026 College Postgraduate Research and Innovation Symposium:

Anatech

AgriSETA

Eskom

Inqaba Biotechnical Industries

JLW Supplies

KwaZulu-Natal Department of Agriculture and Rural Development

KwaZulu-Natal Department of Transport

Merck Life Science

MINTEK

National Research Foundation

SANRAL

South African National Accreditation System

Standard Bank

TriLab Support

uMngeni-uThukela Water

PRIS 2026 OVERALL PLANNING COMMITTEE

Dr Sally Frost (Chair)

Prof Ritu Goswami (Dean: Research)

Mr Siphesihle Shezi

Mrs Christine Cuénod

Ms Nqobile Mthuli

Mr Luke Vorster

Dr Nokwanda Hendricks

Mr Asok Rajh

MOODLE COMMITTEE

Dr Nkosinathi Dlamini

Dr Hloniphile Sithole Mthethwa

Dr Cerene Rathilal

Mrs Rosanne Els

Dr Seipati Mokhosi

Mr Shridhar Singh

Dr Simo Mthethwa

Dr Vino Paideya

Mr Luke Vorster

TECHNICAL SUPPORT COMMITTEE

Mr Vasu Chetty

Mr Siyabonga Ntombela

Ms Anisa Suleman

Ms Chantal Ebrahim

Mr Musa Ntuli

Ms Mpume Khumalo

Prof Ross Robinson

The College of Agriculture, Engineering and Science would like to express its appreciation to the following Chairs, Assistant Chairs, Moodle Co-ordinators and Judges of the 2026 Postgraduate Research and Innovation Symposium:

AGRICULTURAL, EARTH AND ENVIRONMENTAL SCIENCES

ORAL PRESENTATIONS

Chair: Dr Ntombifuthi Nzimande

Assistant Chair: Dr Simphiwe Mngomezulu-Dube

Moodle Co-ordinator: Dr Hloniphile Sithole Mthethwa

Judges:

Dr Shaeden Gokool
Dr Mthembeni Mngadi

Dr Ntuthuko R Mkhize

Dr Nontokozo Mkhonza

FLASH PRESENTATIONS

Chair: Dr Simphiwe Mngomezulu-Dube

Assistant Chair: Dr Ntombifuthi Nzimande

Moodle Co-ordinator: Dr Hloniphile Sithole Mthethwa

Judges:

Dr Shaeden Gokool
Dr Ntuthuko R Mkhize

Dr Maqsooda Mahomed
Dr Nontokozo Mkhonza

Prof Saumitra Misra

BIOCHEMISTRY AND CHEMISTRY

ORAL PRESENTATIONS

Chair: Prof Brenda Moodley

Assistant Chair: Dr Vineet Jeena

Moodle Co-ordinator: Dr Vinodhani Paideya

Judges:

Prof Irvin Booysen
Prof Precious Mahlambi
Dr Matshawandile Tukulula

Dr Hogantharanni Govender
Dr Pamela Mkhize
Dr Sizwe Zamisa

Dr Bhekumuzi Gumbi
Prof Ofentse Jacob Poore

FLASH PRESENTATIONS

Chair: Dr Karen Pillay

Assistant Chair: Dr Nontokozo Msomi

Moodle Co-ordinator: Dr Seipati Mokhosi

Judges:

Prof Irvin Booysen

Dr Hogantharanni Govender

Dr Bhekumuzi Gumbi

Dr Phindile Khoza
Prof Ofentse Jacob Pooe
Dr Sizwe Zamisa

Dr Pamela Mkhize
Prof Parvesh Singh

Dr Lethukuthula Melusi Ngobese
Dr Matshawandile Tukulula

BIOLOGICAL SCIENCES

ORAL PRESENTATIONS

Chair: Prof Evariste Gueguim Kana
Assistant Chair: Professor Moses Okpeku
Moodle Co-ordinator: Dr Simo Mthethwa

Judges:

Prof Matthew Adeleke
Dr Sifiso Thuthukani Gumbi
Dr Nontokozo Matume
Dr Shakira Shaik

Dr Nasiphi Bitani
Dr Buyisile Makhubo
Dr Tshoanelo Miya
Dr Danisile Tembe

Dr Fikisiwe Gebashe
Dr Nontuthuko Maningi
Dr Sindiso Nkuna
Dr Dalene Vosloo

FLASH PRESENTATIONS

Chair: Prof Michael Lattorff
Assistant Chair: Prof Moses Okpeku
Moodle Co-ordinator: Dr Simo Mthethwa

Judges:

Dr Nasiphi Bitani
Dr Nontuthuko Maningi

Dr Fikisiwe Gebashe
Dr Shakira Shaik

Dr Buyisile Makhubo
Dr Dalene Vosloo

COMPUTING, MATHEMATICS, AND STATISTICS

ORAL PRESENTATIONS

Chair: Prof Retius Chifurira
Assistant Chair: Dr Joseph Ntabeni Jere
Moodle Co-ordinator: Dr Cerene Rathilal

Judges:

Dr Andronicus Akinyelu
Prof Paul Kogeda
Dr Hermene Mambili-Mamboundou
Dr Zekhaya Benard Shoji

Dr Kanagarathnam Arunakirinathar
Dr Thabo Lepphoto
Dr Adam Mohanad Mohammed

Dr Oliver Bodhlyera
Dr Cerene Rathilal

ENGINEERING

ORAL PRESENTATIONS

Chair: Prof Kuveneshan Moodley
Assistant Chair: Dr Phuti Tsipa
Moodle Co-ordinator: Mrs Rosanne Els

Judges:

Dr Joy Adu
Dr Madison Lasich

Dr Nivaar Brijmohan
Dr Malusi Mkhize

Prof Pradeep Kumar
Prof Wayne Nelson

FLASH PRESENTATIONS

Chair: Dr Mwitwa Chilufya

Assistant Chair: Dr Mustapha Jaji

Moodle Co-ordinator: Mrs Rosanne Els

Judges:

Dr Nivaar Brijmohan
Dr Phuti Tsipa

Dr Madison Lasich

Dr Malusi Mkhize

PHYSICS

ORAL PRESENTATIONS

Chair: Prof Mathew Moodley

Assistant Chair: Prof Kingsley Obodo

Moodle Co-ordinator: Dr Nkosinathi Dlamini

Judges:

Prof Thomas Konrad
Dr Mervlyn Moodley

Dr Marco Mariola
Dr Benjamin Perez

Dr Colani Masina
Prof Ilya Sinayskiy

COMPUTING, MATHEMATICS, PHYSICS AND STATISTICS

FLASH PRESENTATIONS

Chair: Prof Paul Kogeda

Assistant Chair: Dr Jesca Batidzirai

Moodle Co-ordinator: Mr Shridhar Singh

Judges:

Dr Andronicus Akinyelu
Mr Javhaid Hammujuddy
Dr Adam Mohanad Mohammed
Dr Zekhaya Benard Shoji

Prof Retius Chifurira
Dr Hermene Mambili-Mamboundou
Dr Mervlyn Moodley
Prof Ilya Sinayskiy

Prof Knowledge Chinhamu
Dr Sibusiso Hector Mthembu

EXTERNAL STAKEHOLDER JUDGES

ARRB SYSTEMS

Mr Shaun Brijlal

CITRUS ACADEMY

Mr Sam Louw

CONSTRUCTOR UNIVERSITY

Ms Precious Sephooko

ETHEKWINI MUNICIPALITY

Mr Veer Ramnarain

KWAZULU-NATAL DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

Mrs Nicky Findlay

Mr Sphehile Mkhungo

Ms Archana Nunkumar

Dr Sandisiwe Zondo

KWAZULU-NATAL DEPARTMENT OF TRANSPORT

Ms Nasiphi Ntengo

PRIVATE SECTOR

Dr Mphilisi Mahlambi

TECHNOLOGY INNOVATION AGENCY

Ms Nolwazi Nduli

UMNGENI-UTHUKELA WATER

Dr Ntsapokazi Deppa

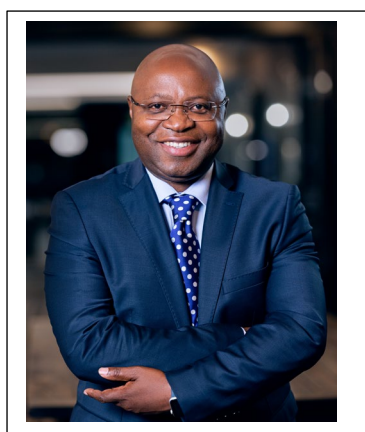
Ms Megan Schalkwyk

MESSAGES OF SUPPORT



Welcome to PRIS 2026 – the sixteenth College of Agriculture, Engineering and Science Postgraduate Research and Innovation Symposium. We are striving to ensure that the research carried out by our postgraduate students is relevant to society and contributes to the wellbeing of South Africans. This event highlights the cutting-edge research conducted by our postgraduate students and provides them with an opportunity to present their work to peers, academic staff and research partners. I would like to thank and congratulate the large number of postgraduate students who have shown the courage and enthusiasm to present their work today. The standard of proceedings is very similar to what students can expect at national and international conferences. Many students have used occasions such as this to hone their presentation skills and have gone on to win awards at international conferences. Behind every postgraduate student is a supervisor or supervisory team, who challenges, encourages and today will be sharing in your success – we owe you a debt of gratitude. Finally, we are grateful to all the sponsors whose generous contributions made this day possible, and we continue actively to seek ongoing collaboration and partnerships with industry and with all relevant role players.

Professor Nana Poku, Vice-Chancellor and Principal, UKZN



One of the most influential scientists of modern times, Albert Einstein, stated, "If we knew what it was we were doing, it would not be called research, would it?" Given the pace at which our world is changing, it is no wonder that the human race is under increasing pressure to become "experts" – to know more and more about less and less. The big challenge for us is to rapidly discover, inform and implement our small and big discoveries to make real changes. We have economic, environmental, health and cultural questions to respond to, for the benefit of the present and future generations. The mission of UKZN is to be relevant to our local communities, South Africa and the world. Our postgraduate students have made it possible for UKZN to deliver on its mission. The College Postgraduate Research and Innovation Symposium is a significant moment for UKZN to highlight the efforts and successes of our students and their supervisors. Every presentation over these two days is valuable and I encourage that you should start working on publishing your work. We are thankful to all the students who took time to share their knowledge with us. We also thank their supervisors, who guided them to the point of being able to share their research with us. Without the support of our funders, partners and

collaborators in research, we would not be celebrating the global recognition we currently enjoy and showcase through this special symposium.

Professor Fhatuwani Mudau,

Deputy Vice-Chancellor and Head of College: Agriculture, Engineering and Science, UKZN



The research community from the College of Agriculture, Engineering and Science continues to set the pace in terms of research outputs produced across the university. An important part of UKZN's Strategy is the emphasis it places on growing the impact of the research that is produced at UKZN. Impact is not only measured in terms of the influence our research has on the community in which we function and the manner in which it shapes the policy environment but also the citations our published research attracts from the broader research community. This requires a focus on high-impact journals and increasing the international collaborations we engage with. These two factors alone will significantly strengthen the research profile of UKZN. Please use the opportunity afforded by this event to encourage all our students and academics to build their research

profiles and to focus on the quality of the research produced to ensure that UKZN becomes well-known for the transformative character of its research.

Professor Rituparno Goswami, Dean of Research: College of Agriculture, Engineering and Science, UKZN



Welcome to the sixteenth College of Agriculture, Engineering and Science Postgraduate Research and Innovation Symposium. This year, the School of Agriculture and Science is the proud host of this flagship College event and the two days we have lined up are aimed at showcasing our master's and PhD research across the College, under the banner: "International Year of Rangelands and Pastoralists". The scientific programme promises to be exciting with a good mix of fundamental and applied research presentations. Of particular importance is communicating this research to a wider audience, demonstrating the impact it has on communities and industry. It is my hope that the event will be a catalyst for interdisciplinary dialogue among academics and researchers, and for future collaborative projects with community, government and industry stakeholders.

Part of conducting scientific research is to improve the lives of mankind. These two days will provide a platform for our postgraduate students to demonstrate this to their peers, professors and to the public. I applaud all presenters who have come forward to present their research - This is not just a platform to present your research but also a steppingstone on your journey towards becoming thought leaders and change makers in science. Please enjoy the moment, embrace the feedback and let it inspire your pursuit of excellence. Hosting an in-person symposium at one of our premier hotels in Durban allows students to get the full experience of attending a conference similar to a national or international format. This is an experience every postgraduate student should have. The symposium will take place in two formats, the conventional oral presentations,

and flash presentations, which are a shorter, more concise version of the oral presentation. This is a common practice at many international conferences on various continents. As such, our students will be exposed to this way of presenting their research that will allow them to make an impact to a large audience

Professor Ademola Olaniran, Dean and Head of the School of Agriculture and Science, UKZN

PROGRAMME

Wednesday, 28 October and Thursday, 29 October 2026

DAY ONE: Wednesday 28 October

- 09:00 – 09:15 **OPENING PLENARY** (*Sapphire Hall*)
Introduction – Professor Rituparno Goswami, College Dean of Research
Official Welcome – Professor Anil Chuturgoon, Deputy Vice-Chancellor of Research, University of KwaZulu-Natal
- 09:15 – 09:45 **Keynote Lecture – Professor Frank Matose**, Professor and Environmental Sociologist in the Department of Sociology, University of Cape Town.
- 09:45 – 9:50 **Programme overview - Professor Rituparno Goswami**
- 10:00 – 11:20 **Session 1 – ORAL PRESENTATIONS** (*Suite 1 – 4 & Ruby 1 – 2*)

* Click on the blue text to jump to the list of presentation titles for each session

Timeslot	AEES	BCC	BS	CMS	ENG	PHYS
10:00 – 10:20	AEES-O-1- Dlodlo- Nduduzo	BCC-O-1- Apo- Kayode	BS-O-1- Dangana- Reuben	CMS-O-1- Apleni- Tembelihle	ENG-O-1- Ahmad- Fazeel	PHYS-O-1- Bauchoo- Yastheer
10:20 – 10:40	AEES-O-2- Gwala-Oscar	BCC-O-2- Basson- Aimee	BS-O-2- Dludla- Nhlanhla	CMS-O-2- Dure-Esau	ENG-O-2- Bennie- Francis	PHYS-O-2- Chitete- Isaac
10:40 – 11:00	AEES-O-3- Hadebe- Ntuthuko	BCC-O-3- Ghumran- Safiyah	BS-O-3- Harpal- Saiesha	CMS-O-3- Hodgson- Emma	ENG-O-3- Dube-Kyle	PHYS-O-3- Hlongwane- Michael
11:00 – 11:20	AEES-O-4- Khaba- Nkanyezi	BCC-O-4- Hajee- Mariam	BS-O-4- Khoza- Sthabile	CMS-O-4- Letsoalo- Marothi	ENG-O-4- Mbedzi- Confidence	PHYS-O-4- Jimoh- Saheed

11:20 – 11:40 **Tea and viewing of industry exhibits** (*Sapphire Hall*)

11:40 – 13:00 **Session 2 – ORAL PRESENTATIONS** (*Suite 1 – 4 & Ruby 1 – 2*)

Timeslot	AEES	BCC	BS	CMS	ENG	PHYS
11:40 – 12:00	AEES-O-5- Maharaj-Ishta	BCC-O-5- Magqira- Bavuyile	BS-O-5- Khwela- Thembeka	CMS-O-5- Mukhalela- Braiton	ENG-O-5- Mchunu- Londiwe	PHYS-O-5- Manqele- Mbhasobhi

12:00 – 12:20	AEES-O-6-Mngomezulu-Lindelwe	BCC-O-6-Majebe-Mongezi	BS-O-6-Mntambo-Sinenhlanhla	CMS-O-6-Nkompela-Pamela	ENG-O-6-Mohabeer-Breyton	PHYS-O-6-Massinga-King
12:20 – 12:40	AEES-O-7-Ndlazi-Sabelo	BCC-O-7-Majola-Nonhlelo	BS-O-7-Mntungwa-Phindile	CMS-O-7-Nwajeri-Kizito	ENG-O-7-Mutuku-Peter	PHYS-O-7-Mnikathi-Ayanda
12:40 – 13:00	AEES-O-8-Nsukwini-Sakhile	BCC-O-8-Mthembu-Zwanani	BS-O-8-Ndlazi-Nkosinathi	CMS-O-8-Nwibo-Innocent	ENG-O-8-Naidoo-Leesan	PHYS-O-8-Naicker-Mishka

13:00 – 14:00 **Lunch** (*Sapphire Hall*)

14:00 – 15:20 **Session 3 – ORAL PRESENTATIONS** (*Suite 1 – 4 & Ruby 1 – 2*)

Timeslot	<u>AEES</u>	<u>BCC</u>	<u>BS</u>	<u>CMS</u>	<u>ENG</u>	<u>PHYS</u>
14:00 – 14:20	AEES-O-9-Phala-Mahlomola	BCC-O-9-Nyanda-Frank	BS-O-9-Ngozi-Lwandile	CMS-O-9-Onifade-Olayinka	ENG-O-9-Ncube-Dumoluhle	PHYS-O-9-Nxumalo-Sifiso
14:20 – 14:40	AEES-O-10-Chatara-Tinashe	BCC-O-10-Sekaleli-Bafokeng	BS-O-10-Ojo-Abiodun	CMS-O-10-Raghunan-Jadene	ENG-O-10-Ramlakhan-Yashmika	PHYS-O-11-Teliat-Rasheed
14:40 – 15:00	AEES-O-11-Sigenu-Xola	BCC-O-11-Sithole-Thandokuhle	BS-O-11-Persadh-Jahnavi	CMS-O-11-Raji-Wasiu	ENG-O-11-Sithole-Siyabonga	
15:00 – 15:20	AEES-O-12-Tswane-Simphele	BCC-O-12-Thomas-Tatum	BS-O-12-Singh-Savarna	CMS-O-12-Zwane-Siphele	ENG-O-12-Vundla-Mxolisi	

16:30 – 18:00 **SCIENCE WITH JAZZ** (*Suite 1- 4*)

Speaker: Professor David Lokhat, *Director, Centre for Water Resources Research, University of KwaZulu-Natal*

Musicians: Lu Dlamini, *Durban-Based Vocalist, Composer and a Traditional Instrumentalist*

18:00 – 22:00 **Gala Dinner** (*Sapphire Hall*)

Master of Ceremonies: Professor Alan Mathews

Welcome: Professor Ademola Olaniran, *Dean: School of Agriculture and Science, University of KwaZulu-Natal*

Keynote Speaker: Dr Kiara Worth, *Documentary Photographer, Storyteller, and Sustainability Activist*

Entertainment: Ms Ashleigh Joseph

Acknowledgement of PRIS Supporters: Professor Fhatuwani Mudau,
Deputy Vice-Chancellor and Head of College and Professor Ademola
Olaniran, Dean, School of Agriculture and Science

Entertainment: Ms Ashleigh Joseph

Closing Remarks

Dinner and Dancing

DAY TWO: Thursday, 29 October

FLASH PRESENTATIONS (Suite 1 – 4 & Ruby 1)

* Click on the blue text to jump to the list of presentation titles for each session

Timeslot	AEES	BCC	BS	CMPS	ENG
09:00 – 11:20	AEES-F-1-Auma-Herine	BCC-F-1-Afolabi-Olumide	BS-F-1-Abe-Fayoke	CMPS-F-1-Adepoju-Adebayo	ENG-F-1-Abejide-Kolawole
TEA: 11:25 – 11:45 <i>Cont.</i> 11:50 – 13:00	AEES-F-3-Chetty-Evania	BCC-F-2-Ally-Numeerah	BS-F-2-Adam-Ahmed	CMPS-F-2-Ahmed-Bakri	ENG-F-2-Almeida-André
	AEES-F-4-Gule-Melisa	BCC-F-3-Dlamini-Noluthando	BS-F-3-Adelola-Rebecca	CMPS-F-3-Badu-Godfred	ENG-F-3-Bala-Innocent
	AEES-F-5-Kamwana-Florence	BCC-F-4-Elsiad-Hassan	BS-F-4-Alabi-Mercy	CMPS-F-4-Bhengu-Neliswa	ENG-F-4-Biyela-Sandile
	AEES-F-6-Khumalo-Sinikiwe	BCC-F-5-Fayomi-Samuel	BS-F-6-Bhengu-Sphelele	CMPS-F-5-Cele-Lindani	ENG-F-5-Capelo-Danel
	AEES-F-7-Madonda-Anele	BCC-F-6-Gcabashe-Nontobeko	BS-F-7-Chonco-Thembalinye	CMPS-F-6-Dukhi-Shahil	ENG-F-6-Chakawa-Kudzanai
	AEES-F-8-Makhaye-Siyasanda	BCC-F-7-Khanyile-Nokukhanya	BS-F-8-Ebrahim-Zahra	CMPS-F-7-Haroon-Ali	ENG-F-7-Chetty-Prinell
	AEES-F-9-Mangwanya-Shelter	BCC-F-8-Kontile-Lelethu	BS-F-9-Gumenku-Lemohang	CMPS-F-8-Helarie-Rose-Medie-Fah	ENG-F-8-Chinobva-Nyasha
	AEES-F-10-Mbambo-Neliswa	BCC-F-9-Madlala-Asanda	BS-F-10-Jaca-Lubabalo	CMPS-F-9-Ibrahim-Amna	ENG-F-9-Dada-Talha
	AEES-F-11-Mdadane-Londeka	BCC-F-10-Magwaza-S'thandiwe	BS-F-11-Lushaba-Andiswa	CMPS-F-11-Mchunu-Bongekile	ENG-F-10-Dayanund-Jadin
	AEES-F-12-Mgoyana-Sinobom	BCC-F-11-Maphumulo-Nkosiphendule	BS-F-12-Maci-Bongeka	CMPS-F-12-Mncube-Mbongeni	ENG-F-11-Ganapathie-Adheesh

	AEES-F-13-Mshengu-Buhle	BCC-F-12-Mbatha-Thandeka	BS-F-13-Madikizela-Snothile	CMPS-F-13-Mngadi-Siyamthanda	ENG-F-12-Hlabisa-Sanele
	AEES-F-14-Naiker-Kiresnhi	BCC-F-13-Mnyandu-Hopewell	BS-F-14-Masuku-Bandile	CMPS-F-14-Mnisi-Siyamthanda	ENG-F-13-Iorshagher-Akuha
	AEES-F-15-Ndlazi-Sfundo	BCC-F-14-Mpungose-Minawe	BS-F-15-Mbonambi-Sithabile	CMPS-F-15-Moodley-Kavi	ENG-F-14-Jackpersad-Shivani
	AEES-F-16-Nyawo-Bongizenzo	BCC-F-15-Mthethwa-Lindokuhle	BS-F-16-Moodley-Tyrique	CMPS-F-16-Mpontshane-Asande	ENG-F-15-Macharia-Andrew
	AEES-F-17-Sibudugu-Luitiwe	BCC-F-16-Mthethwa-Khethabahle	BS-F-17-Mtolo-Aphiwe	CMPS-F-17-Msweli-Cebolenkosi	ENG-F-16-Masoga-Ivory
	AEES-F-18-Tsoananyana-Tanki	BCC-F-17-Mtshali-Sinakhokonke	BS-F-18-Nene-Fezile	CMPS-F-18-Mthembu-Thalente	ENG-F-17-Mdunge-Lindokuhle
	AEES-F-20-Vetman-Onke	BCC-F-18-Mupeti-Tonderai	BS-F-19-Ngubo-Zenande	CMPS-F-19-Nyakujipa-Evangelista	ENG-F-18-Mkhonza-Asande
	AEES-F-21-Xaba-Sindiswa	BCC-F-19-Nagiah-Kamoana	BS-F-20-Nyide-Babalwa	CMPS-F-20-Onyeabor-Ifeanyi	ENG-F-19-Moyo-Talent
	AEES-F-22-Yacoob-Ameera	BCC-F-20-Nomnganga-Busisiwe	BS-F-21-Phori-Pabalelo	CMPS-F-23-vanWyk-JoAnne	ENG-F-20-Muhammad-Ahad
	AEES-F-23-Zulu-Khumbuzile	BCC-F-21-Rajkumar-Nerissa	BS-F-22-Radebe-Nkanyezi	CMPS-F-24-Zondi-Mthobisi	ENG-F-21-Naidoo-Kyle
		BCC-F-22-Sokhela-Ntokozo	BS-F-23-Radzilani-Isaac		ENG-F-22-Ngcobo-Khethukuthula
		BCC-F-23-Wahab-Tasmia	BS-F-24-Sibuta-Aphiwe		ENG-F-24-Okem-Eche
			BS-F-25-Sithole-Slindile		ENG-F-25-Rajdev-Yarish
			BS-F-26-Tshwenyana-Eunice		ENG-F-26-Ramruthan-Caleb
			BS-F-27-Zuma-Olieve		ENG-F-27-Reddy-Byron
					ENG-F-28-Sebata-Gerald
					ENG-F-29-Sibanda-Sithandazile
					ENG-F-30-Tanyanyiwa-Jimson
					ENG-F-31-Thabethe-Zwelethu

					ENG-F-32- Wilson- Maimuna
--	--	--	--	--	---------------------------------

09:00 – 11:05 **CONCURRENT INDUSTRY SESSION** *(Ruby 2)*

09:00: **Welcome and Introduction:** Professor Neil Koorbanally

09:05: **Sasol:** Dr Tanya Hughes

09:25 **Discovery Bank:** Mr Nikhil Naik & Ms Leandra Naicker

09:45: **uMngeni-uThukela Water:** Ms Nelisiwe Mbatha

10:05: **First National Bank:** Mr Manqoba Sihwa

10:25: **National Research Foundation:** Mr Tsepiso Masemola

10:45: **SANRAL:** Ms Rhona Erasmus

11:05: **Standard Bank:** Ms Venessa Oger

11:05 – 11:45 **Tea and viewing of industry exhibits** *(Sapphire Hall)*

11:50 – 12:50 **CONCURRENT INDUSTRY SESSION** *(Ruby 2)*

11:50: **AgriSETA:** Mr Frikkie Fouche

12:10 **Eskom:** Mr Xolani Ngubeni

12:30: **Department of Agriculture:** Mrs Mpumelelo Gumede

13:00 – 14:00 **Lunch** *(Sapphire Hall)*

14:05: **Mintek:** Dr Ndivhuwo Shumbula

14:30 – 16:00 **Networking Session:** Tea and Coffee *(Suite 1 – 4)*

16:00 – 17:00 **Closing, Prize-Giving, and Lucky Draws** *(Sapphire Hall)*

Professor Rituparno Goswami, *College Dean of Research*

Professor Ademola Olaniran, *Dean, School of Agriculture and Science*

Professor Glen Bright, *Dean, School of Engineering*

Professor Fhatuwani Mudau, *Deputy Vice-Chancellor and Head of College*

Dr Sally Frost, *College Public Relations Manager*

Keynote Lecture

“Forests/Grasslands and the Power of Marginalised People in Southern Africa: Politics of Chronic Liminality”

by

PROFESSOR FRANK MATOSE

Professor of Environmental Sociology in the Department of Sociology, University of Cape Town

Decades after independence and the end of apartheid, why do communities in Southern Africa still struggle to reclaim land and resource rights lost under colonialism? [In my recent book: “Forests and the power of marginalised people in Southern Africa”](#), I examine this stagnation through the lens of ‘chronic liminality’, a state of perpetual waiting between states and local people. The examination offers a new perspective for scholars in different disciplines who are interested in interrogating power, collective action and the slow pace of reform.

Drawing on case studies from South Africa’s Dwesa-Cwebe Nature Reserve and Zimbabwe’s Gwayi and Mafungabusi Forests I examine how neoliberal conservation and colonial-era property relations keep communities in limbo. Overall, the speech advances scholarship on conservation in Africa and other postcolonial regions by providing a different perspective on the continued marginalisation of local people and arguing for the need to rethink ownership and management around forests, rangelands and other natural resources. As such, it explains why frustrated people in many marginal situations wait indefinitely for the state to act on their lost rights and has resonance for scholars in development studies, labour studies, and general sociology whose interests lie in interrogating power and justice. Ultimately, this speech interrogates why communities remain trapped, the politics behind state prevarication and the urgent need to rethink natural resource ownership and justice in post-colonial contexts.

Science With Jazz Seminar Series

“The Big Convergence – are we prepared for a new way of research?”

by

PROFESSOR DAVID LOKHAT

uMngeni-uThukela Water Chair in Water Resources Research and Innovation, African Rainbow Minerals Chair in Sustainable Engineering and Process Intensification, and the Director of the Centre for Water Resources Research

Most contemporary social and environmental problems are increasingly “wicked”, having no clear definitions nor solutions, and intersecting multiple and often conflicting societal needs. We have seen great efforts to merge overlapping disciplines and challenge areas, defining various nexuses between water, energy, health, food and climate. Recently, convergence research has emerged as an effective framework for tackling complex interdependent problems. It intentionally integrates seemingly disparate knowledge systems, methodologies, and expertise in a way that enables asking and answering research questions in completely new, and successful ways. What is convergence, and how can we apply it? This talk will introduce the fascinating concept.

Gala Dinner Keynote Address

“The Ground Between Us - Lessons of land, connection and policy from the Mongolian steppe”

by

Dr Kiara Worth

Documentary Photographer, Storyteller, and Sustainability Activist

As part of the United Nations Convention to Combat Desertification's (UNCCD) 17th Conference of the Parties (COP17), hosted by Mongolia in Ulaanbaatar, a UNCCD Silk Caravan undertook a 6,000-kilometre Eurasian journey from Türkiye, across Russia, Uzbekistan, Kazakhstan, Kyrgyzstan, and China to Mongolia, documenting land restoration efforts, pastoralist knowledge and local solutions, showcasing approaches to restoration that can be exchanged across diverse rangeland landscapes. Kiara travelled

with a caravan of pastoralists through Mongolia to exchange ideas and knowledge around indigenous leadership, local communities, and related concepts to set the tone for the negotiations.

Kiara's presentation will provide insight into the global challenge of land degradation and desertification, the role of the UNCCD and the COP17 negotiations, and the importance of restoring land, supporting rangelands and pastoralist communities, and strengthening international cooperation around this. It will also highlight the import role of storytelling in ensuring voices from the ground are heard.

PROFESSOR FRANK MATOSE

Biography:



Frank Matose is a professor and environmental sociologist in the Department of Sociology, University of Cape Town, South Africa.

His research focuses on the political ecology of conservation, collaborative forest management, and commons governance in Africa. His current research project is titled Resilient and Equitable Nature-based Pathways in Southern African Rangelands (REPAiR).

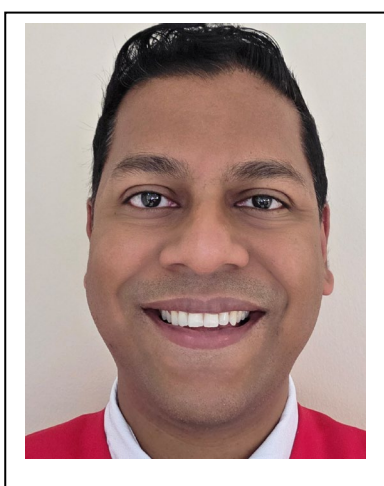
His latest book is titled: Forests and the power of Marginalised People in Southern Africa: Politics of Chronic Liminality, James Currey (2025). He recently co-published Reclaiming African Environmentalism: Ecological Struggles for Wellbeing and Habitability, with Lesley Green, Anselmo Matusse and Nikiwe Solomon, HSRC Press: Cape Town (2025) and The Violence of Conservation in Africa with Maano Ramutsindela and

Tafadzwa Mushonga (2022).

He serves on the advisory board of The Institute for African Alternatives (IFAA). He also serves as an interim of chair of the Advisory Committee of the Collaborating for Resilience (CoRe) and an affiliate editor of World Development.

PROFESSOR DAVID LOKHAT

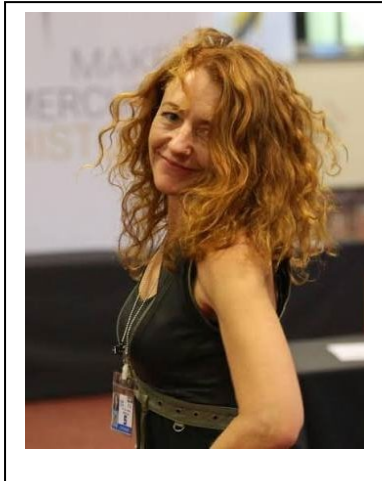
Biography:



Professor David Lokhat is the uMngeni-uThukela Water Chair in Water Resources Research and Innovation, African Rainbow Minerals Chair in Sustainable Engineering and Process Intensification, and the Director of the Centre for Water Resources Research at the University of KwaZulu-Natal. He is a Fellow of the South African Institution of Chemical Engineers, the Nigerian Society of Chemical Engineers, the Royal Society of Chemistry and the South African Academy of Engineering. He has been actively engaged in the advocacy and promotion of chemical engineering as a discipline, and has held numerous leadership roles within professional and academic societies.

DR KIARA WORTH

Biography:



Dr Kiara Worth is a storyteller and photographer based in Cape Town, South Africa, known for her work in sustainability activism and international negotiations. She has a background in political science and agriculture, and she covers topics such as climate change, biodiversity, and sustainable development in her photography and writing.

Kiara has been featured in major publications like the New York Times and The Guardian, and she has worked as a photo-journalist in Papua New Guinea, using her stories to communicate sustainability issues.

ORAL PRESENTATIONS

AGRICULTURAL, EARTH AND ENVIRONMENTAL SCIENCES

Chair: Dr Ntombifuthi Nzimande		
10:00 – 11:20	Session One	
Time	Presenter	Title
10:00 – 10:20	AEES-O-1: Nduduzo Dlodlo PhD 221026807	Physico-chemical quality of meat produced from weaned Californian rabbit's fed formulated cereal-based diets
10:20 – 10:40	AEES-O-2: Oscar Gwala PhD 213531236	Multi-Temporal Land Use/Land Cover Dynamics (2005–2025) and Machine Learning Algorithm Comparison in and around Kruger National Park
10:40 – 11:00	AEES-O-3: Ntuthuko Hadebe PhD 217021326	Impacts of Pluralistic Extension Service Delivery on Farmers' Production in Kwazulu-Natal, South Africa
11:00 – 11:20	AEES-O-4: Nkanyezi Khaba PhD 224026919	Morpho-physiological responses of selected citron watermelon (<i>Citrullus amarus</i>) genotypes under low nitrogen stress
11:40 – 13:00	Session Two	
11:40 – 12:00	AEES-O-5: Ishta Maharaj MSc 221006806	Detailed Bedrock Morphology and Structural Geology Controls on Diamond Traps Offshore Hottentot's Bay, Southern Namibia
12:00 – 12:20	AEES-O-6: Lindelwe Mngomezulu MSc 221059466	Catena-scale hydrological controls on peat decomposition and carbon stock vulnerability in the Nkandla peatlands, KwaZulu-Natal: A landscape-scale assessment.
12:20 – 12:40	AEES-O-7: Sabelo Ndlazi PhD 222130278	Socio-Economic Factors and Cropping Systems in Provitamin A Biofortified Yellow Maize (<i>Zea Mays</i> L.) Production In KwaZulu-Natal, South Africa
12:40 – 13:00	AEES-O-8: Sakhile Nsukwini PhD 208527210	Conservation Boundaries, Rangeland Livelihoods and Human–Wildlife Conflict: Community Experiences from Hluhluwe-iMfolozi Park and Somkhanda Game Reserve, South Africa
14:00 – 15:20	Session Three	
14:00 – 14:20	AEES-O-9: Mahlomola Phala PhD 224196641	Unequal Burdens: How Socio-Demographic Variables Shape the Environmental, Health, and Socio-Economic Effects of Illegal Waste Dumping
14:20 – 14:40	AEES-O-10: Tinashe Chatara PhD 219098910	Integrating Mixed Models and Multi-Trait Indices to Improve Selection for Drought Tolerance in African Spider Plant (<i>Gynandropsis gynandra</i>)
14:40 – 15:00	AEES-O-11: Xola Sigenu PhD 218018026	Effect Of Different Water Regimes and Potassium Fertilisation on Tuber Quality and Bioactive Compounds in Three Potato Cultivars

15:00 – 15:20	AEES-O-12: Simphiwe Tswane MSc 221026525	Spatiotemporal Dynamics of Vegetation Cover and Land Surface Temperatures from Landsat 8 (2015–2025)
---------------	---	--

ORAL PRESENTATIONS

BIOCHEMISTRY AND CHEMISTRY

Chair: Professor Brenda Moodley		
10:00–11:20	Session One	
Time	Presenter	Title
10:00 – 10:20	BCC-O-1: Kayode Apo PhD 223039684	Green Synthesis of Selenium Nanoparticles from Ocimum Leaf: Characterization, Antioxidant, Antibacterial, and Cytotoxicity Properties
10:20 – 10:40	BCC-O-2: Aimee Basson MSc 225085268	Selenium-Integrated Iron Oxide Nanocomposites: Structural Features and Cytotoxicity In Cancer Cells
10:40 – 11:00	BCC-O-3: Safiyah Ghumran PhD 214524354	Design, Synthesis, in Vitro, and in Silico Studies of Rhodanine-Isoniazid Molecular Hybrids
11:00 – 11:20	BCC-O-4: Mariam Hajee PhD 219014170	Comparison Of Graphitic Carbon Nitride Synthesised from Melamine and Urea for the Electrochemical Detection of Ciprofloxacin
11:40 – 13:00	Session Two	
11:40 – 12:00	BCC-O-5: Bavuyile Magqira PhD 220010172	Conversion of Coal Fly Ash to Zeolite for Adsorption of Different Pharmaceutical Contaminants from Water: Isotherms, Kinetics, Regeneration and Leaching Assessment
12:00 – 12:20	BCC-O-6: Mongezi Majebe MSc 218007732	Electrospun nanofiber conjugates encompassing ruthenium benz(imidazole/othiazole) compounds: Nanofabrication, characterization, drug-release profiles, and time-dependent anticancer studies
12:20 – 12:40	BCC-O-7: Nonhlelo Majola PhD 216047087	Oxidative Synthesis of 2,4,5-Trisubstituted Imidazoles Commencing from Methylarenes using Cobalt/NHPI in HFIP
12:40 – 13:00	BCC-O-8: Zwanani Mthembu MSc 221094202	Engineering a hybrid electron transport layer and biomass-derived carbon counter electrode for perovskite solar cells
14:00 – 15:20	Session Three	
14:00 – 14:20	BCC-O-09: Frank Nyanda PhD 224198007	Polystyrene Nanoparticles as a Model for Environmental Studies: Synthesis, Characterization, Stability, Detection, and Quantification
14:20 – 14:40	BCC-O-10: Bafokeng Sekaleli PhD 225111039	Effect of Zn and Zr on catalyst performance for methanol production from carbon dioxide
14:40 – 15:00	BCC-O-11: Thandokuhle Sithole	Isolation and Characterization of Cannabis-Derived Extracellular Vesicles

	MSc 217002844	
15:00 – 15:20	BCC-O-12: Tatum Thomas MSc 218069283	Isolation, characterization and cargo loading of mammalian extracellular vesicles

ORAL PRESENTATIONS

BIOLOGICAL SCIENCES

Chair: Professor Evariste Gueguim Kana		
10:00–11:20	Session One	
Time	Presenter	Title
10:00 – 10:20	BS-O-1: Reuben Dangana PhD 225195108	Network Pharmacology and Molecular Docking Reveal Multi-Target Anti-Malarial Mechanisms of a Polyherbal Extract from <i>A. indica</i> , <i>P. americana</i> , and <i>M. indica</i>
10:20 – 10:40	BS-O-2: Nhlanhla Dludla MSc 217001391	Seasonality Influences C, N, and P-Cycling Extracellular Enzyme Activities Under an Extended El-Niño Cycle
10:40 – 11:00	BS-O-3: Saiesha Harpal MSc 217012042	DNA Metabarcoding Reveals Spatial Patterns of Zooplankton Biodiversity Across the Agulhas Current
11:00 – 11:20	BS-O-4: Sthabile Khoza MSc 222002124	Language Model-Assisted Response Surface Optimization of Napier Grass Saccharification and Co-Fermentation for Efficient Lignocellulosic Bioethanol Production
11:40 – 13:00	Session Two	
11:40 – 12:00	BS-O-5: Thembeke Khwela MSc 219003364	Microbiological quality of the uMsunduzi River water and genomic analyses of representative <i>E. coli</i> isolates
12:00 – 12:20	BS-O-6: Sinenhlanhla Mntambo PhD 213509230	Medicinal Invertebrates Used in African Traditional Medicine: A Systematic Review
12:20 – 12:40	BS-O-7: Phindile Mntungwa MSc 220012167	Metabolomics Reveals Bacterial–Algal Cross-Feeding Enhances Nutrient Removal and PUFA-Enriched Biomass in Poultry Processing Wastewater
12:40 – 13:00	BS-O-8: Nkosinathi Ndlazi PhD 217019510	Antibiotic Resistance Surveillance Along the Msunduzi River: An Integrated One Health Approach
14:00 – 15:20	Session Three	
14:00 – 14:20	BS-O-9: Lwandile Ngozi PhD 217052416	Water quality and macroinvertebrate responses to land use and climate change in KwaZulu-Natal rivers, South Africa
14:20 – 14:40	BS-O-10: Abiodun Ojo PhD 224195273	Diversity and Evolutionary Analysis of the Transposable Elements in Chicken <i>Eimeria</i> Genomes
14:40 – 15:00	BS-O-11: Jahnavi Persadh PhD 214528400	Biodiversity Representation in Ecosystem Models of Marine Nursery Habitats

15:00 – 15:20	BS-O-12: Savarna Singh MSc 223115041	Development of a novel disinfectant, tLox-23, to reduce fungal infections in healthcare settings
---------------	---	--

ORAL PRESENTATIONS

COMPUTING, MATHEMATICS, AND STATISTICS

Chair: Professor Retius Chifurira		
10:00 – 11:20	Session One	
Time	Presenter	Title
10:00 – 10:20	CMS-O-1: Tembelihle Apleni MSc 225157827	Attention-Enhanced Ensemble Deep Learning Models for Multi-Crop Disease Classification
10:20 – 10:40	CMS-O-2: Esau Dure PhD 226156957	Value at Risk Estimation Under Global Financial Uncertainty: A Heavy-Tailed Student's t Mixture Autoregressive Approach
10:40 – 11:00	CMS-O-3: Emma Hodgson MSc 223144118	Mathematical models for Tuberculosis
11:00 – 11:20	CMS-O-4: Marothi Letsoalo PhD 224198826	Baseline Vulnerability Phenotypes in Pregnancy and Severe Maternal Outcome Among Women Living with HIV
11:40 – 13:00	Session Two	
11:40 – 12:00	CMS-O-5: Braiton Mukhalela PhD 225190874	A Multi-Station Multivariate LSTM Framework for Short-Term Extreme Rainfall Prediction in KZN, SA
12:00 – 12:20	CMS-O-6: Pamela Nkompela MSc 226217332	On The Number of 1-Nearly Independent Vertex Subsets
12:20 – 12:40	CMS-O-7: Kizito Nwajeri PhD 223153151	Artificial Neural Network and Response Surface Analysis of Heat and Mass Transfer in Cattaneo-Christov Oldroyd-B Flow over a Rotating Stretching Sheet
12:40 – 13:00	CMS-O-8: Innocent Nwibo PhD 225197177	Approximation of the Solutions of Pseudomonotone Equilibrium Problems by Modified Subgradient Extragradient Method with Application
14:00 – 15:20	Session Three	
14:00 – 14:20	CMS-O-9: Olayinka Onifade PhD 222121238	A Relaxed Inertial Subgradient Extragradient Method for Solving Variational Inequality and Multivalued Fixed-Point Problems.
14:20 – 14:40	CMS-O-10: Jadene Raghunan MSc 222008567	On minimal degrees of faithful permutation representation of finite groups
14:40 – 15:00	CMS-O-11: Wasiu Raji PhD 224196841	Cross-Dataset Cell Segmentation with a Domain-Adaptive ResNet50 Attention U-Net
15:00 – 15:20	CMS-O-12: Siphiwe Zwane MSc 224192364	The acceptance of a quick response code model to enhance South African banknote security

ORAL PRESENTATIONS

ENGINEERING

Chair: Professor Kuveneshan Moodley		
10:00 – 11:20	Session One	
Time	Presenter	Title
10:00 – 10:20	ENG-O-1: Fazeel Ahmad PhD 225174345	Experimentation, CFD validation, Machine Learning-Based Surrogate Modeling of Pumping Power Reduction of Non-Newtonian Turbulent Pipe Flow
10:20 – 10:40	ENG-O-2: Francis Bennie MSc 210500546	Assessing the Sensitivity of Harmonic Distortion and Distribution Transformer Risk to Feeder Impedance in Low-Voltage Networks with Distributed Energy Resources
10:40 – 11:00	ENG-O-3: Kyle Dube MSc 226219563	Simulating Growth and Decay Kinetics of Non-Pathogenic Escherichia coli Under Controlled Laboratory Conditions for Application to the Isipingo River
11:00 – 11:20	ENG-O-4: Confidence Mbedi MSc 225197313	Life Cycle Cost and Benefit Analysis of Modern Drip Irrigation Systems: A Systematic Review
11:40 – 13:00	Session Two	
11:40 – 12:00	ENG-O-5: Londiwe Mchunu MSc 220068885	Valorisation of Sanitation Waste for Alternative Building Material Synthesis
12:00 – 12:20	ENG-O-6: Breyton Mohabeer MSc 219081980	Investigating the Potential to Accurately Measure River Flow Discharge Using Remote Sensing Techniques
12:20 – 12:40	ENG-O-7: Peter Mutuku PhD 218088282	Experimental Physical Benchmark for Accurate Software Emulation of a Transmission Line: A Foundation for Hardware-in-the-Loop Validation
12:40 – 13:00	ENG-O-8: Leesan Naidoo MSc 219014486	Low-Cost Online Water Quality Monitoring of Water Efficient Sanitation Systems using Soft Sensors
14:00 – 15:20	Session Three	
14:00 – 14:20	ENG-O-9: Dumoluhle Ncube MSc 219014486	Developing a Provincial-Scale Transport–Emissions Modelling Architecture for Data-Constrained Regions: A Case Study of KwaZulu-Natal, South Africa
14:20 – 14:40	ENG-O-10: Yashmika Ramlakhan PhD 217020357	Sustaining waste management gains in informal settlements: Beyond parachute solutions
14:40 – 15:00	ENG-O-11: Siyabonga Sithole MSc 221060172	Innovative Application of Nuclear in Isotopic-Pathogen Tracer Study in Peri-Urban Rivers
15:00 – 15:20	ENG-O-12: Mxolisi Vundla MSc 219012994	A Decision Framework for Sludge Management and Valorization to De-risk Water-Efficient Sanitation Systems

ORAL PRESENTATIONS

PHYSICS

Chair: Professor Mathew Moodley		
10:00–11:20	Session One	
Time	Presenter	Title
10:00–10:20	PHYS-O-1: Yastheer Bauchoo PhD 217043438	Preparation of optical Schrodinger cat states using coherent control and their applications
10:20–10:40	PHYS-O-2: Isaac Chifete MSc 224174991	Measurement of the Dark Energy Spectroscopic Instrument (DESI) Galaxy cluster bulk velocity with kinematic Sunyaev-Zeldovich (kSZ) signals from Atacama Cosmology Telescope Polarimeter (ACTPol) Data Release 4
10:40–11:00	PHYS-O-3: Michael Hlongwane PhD 220046398	BiFeO ₃ Multifunctional Thin Films for Energy Storage and Non-Volatile Memory Devices
11:00–11:20	PHYS-O-4: Saheed Jimoh PhD 223152536	Wind Resource and Energy Potential Assessment in Ten Nigerian Cities Based on a Modified Bimodal Mixture Weibull Probability Density Function
11:40–13:00	Session Two	
11:40–12:00	PHYS-O-5: Mbhasobhi Manqe MSc 219037124	Development of a Remote, Self-Sustaining, Low-Cost, Low-Power GNSS RTK Base Station for CORS Applications
12:00–12:20	PHYS-O-6: King Massinga MSc 218060168	Variational Quantum Eigensolver and The Measurement Test Algorithm
12:20–12:40	PHYS-O-7: Ayanda Mnikathi MSc 220091068	Detection of Kinematic Sunyaev Zel'dovich Signals Using the Pairwise Momentum Estimator
12:40–13:00	PHYS-O-8: Mishka Naicker PhD 219002322	Variational Monte Carlo and the Quantum-Enhanced Metropolis-Hastings Algorithm
14:00–15:20	Session Three	
14:00–14:20	PHYS-O-9: Sifiso Nxumalo PhD 223153020	Effect of Nickel Substitution on Magnesium Ferrite Nanoparticles and Their Application in Spinach Cultivation
14:20–14:40	PHYS-O-10: Rasheed Teliat PhD 226202834	Assessment of Wind Resources and Energy Potential in Bisho, Eastern Cape Province, South Africa, Using a Bimodal Weibull Probability Density Function
14:40–15:00		
15:00–15:20		

FLASH PRESENTATIONS

AGRICULTURAL, EARTH AND ENVIRONMENTAL SCIENCES

Chair: Dr Simphiwe Mngomezulu-Dube		
<i>Flash No.</i>	<i>Presenter</i>	<i>Title</i>
AEES-F-1	Herine Auma PhD 225191174	Integrating Climate Change Modelling with Land Use/Land Cover Assessments to Support Estuary Management in Subtropical KwaZulu-Natal, South Africa
AEES-F-3	Evania Chetty PhD 219051491	Integrating Remote Sensing and Citizen Science for Inland Water Quality Monitoring: A Systematic Literature Review and Bibliometric Analysis
AEES-F-4	Melisa Gule MSc 220089824	Empowering Smallholder Farmers: Leveraging South African Weather Services Seasonal Climate Information for Climate Adaptation and Enhanced Food Security in Kwazulu-Natal
AEES-F-5	Florence Kamwana PhD 224191331	Assessing Sustainable Intensification Options for Maize Across Diverse Farm Types in central Malawi
AEES-F-6	Sinikiwe Khumalo PhD 219002761	Circular Economy Approaches for Resource Recovery from Drinking Water Treatment Residues: A Scoping Review
AEES-F-7	Anele Madonda MSc 222029634	Seafloor mapping and geophysical characterization of the central Agulhas Slide on the Southern Cape Margin.
AEES-F-8	Siyasanda Makhaye MSc 225196609	Comparative and Integrated Remote Sensing: Using Multispectral UAV and Satellite Based Imagery to Assess the Distribution and Risk of Invasive Alien Riparian Vegetation
AEES-F-9	Shelter Mangwanya PhD 224190492	A Bottom-Up Approach to Mapping Water-Energy-Food Nexus Interactions Towards Sustainable and Resilient Agrifood Systems in Socio-Ecologically Vulnerable Context
AEES-F-10	Neliswa Mbambo MSc 222023197	A Review of Diagnostic Performance of Indigenous Soil Indicators for Rapid Soil Assessment in Smallholder Farming Systems
AEES-F-11	Londeka Mdadane MSc 226149076	Optimizing vinegar marination and wood smoking for safe and consumer acceptable rabbit biltong production in KwaZulu-Natal, South Africa
AEES-F-12	Sinobom Mgozana MSc 222048683	Comprehensive Characterization of Juncao Grass (<i>Cenchrus fungigraminus</i>) Biochar: Chemical, Structural and Surface Properties
AEES-F-13	Buhle Mshengu MSc 219024922	Consumer and Retailer Perceptions Towards Broiler, Indigenous, And Crossbred Chicken Meat in the uMgungundlovu District, KwaZulu-Natal, South Africa
AEES-F-14	Kiresni Naiker MSc 211510568	Evaluating the Impact of Milk Replacer Supplementation and Calf Starter Feed Physical Form and Crude Protein Content

		on Feed Intake and Growth Performance in Female Holstein Friesian Calves: Two Separate Trials
AEES-F-15	Sfundo Ndlazi MSc 216011016	The Use of Endophytic Strains of Trichoderma to Prevent Pre- and Post-harvest Diseases of Avocado Caused by Pseudocercospora, Colletotrichum and Lasiodiplodia.
AEES-F-16	Bongizenzo Nyawo PhD 222130773	Groundwater Salinity Evolution Using PHREEQC Geochemical Modelling in the Fractured Basement Aquifer of the Hout River Catchment, Limpopo Province, South Africa
AEES-F-17	Luitwe Sibudugu MSc 224198841	Living Alongside Kruger National Park: A Comparative Study of Conservation Perceptions and Human Wildlife Conflict in Matsulu and Phalaubeni
AEES-F-18	Tanki Tsoananyana MSc 219027030	An exploratory study on consumer behaviour regarding food waste in Msunduzi & uMngeni Municipalities: Implications for household food security
AEES-F-20	Onke Vetman MSc 222025640	The Feasibility of ML For Optimising Non-Yielding Pillars in Hard-Rock Bord-And-Pillar Designs in Underground Mines
AEES-F-21	Sindiswa Xaba PhD 220100225	Enhancing Drought Tolerance in Potatoes by Exogenous Application of Moringa Leaf Extract from Aqueous-Based Methods
AEES-F-22	Ameera Yacoob PhD 218023873	UAS-Based Hyperspectral and Lidar Observations for Cross-Scale Ecohydrological Monitoring in the Northern Drakensberg Strategic Water Source Area
AEES-F-23	Khumbuzile Zulu PhD 224195879	Whose Conservation? Re- Writing History with Archives, Indigenous Knowledge, and Community Stories

FLASH PRESENTATIONS

BIOCHEMISTRY AND CHEMISTRY

Chair: Dr Karen Pillay		
Flash No.	Presenter	Title
BCC-F-1	Olumide Afolabi PhD 221113072	Synthesis And Characterisation of Novel Acylthioureas and Their S-Alkylated Analogues for Prospective <i>in Silico</i> and <i>in Vivo</i> Biological Evaluations.
BCC-F-2	Numeerah Ally PhD 218033284	Monitoring Contaminants of Emerging Concern in Wastewater Using Gas Chromatography-Mass Spectrometry
BCC-F-3	Noluthando Dlamini MSc 221001965	Synthesis of N ^Λ O-donor Mg(II) and Zn(II) complexes as catalysts for the production and depolymerization of PLAs
BCC-F-4	Hassan Elsiad PhD 224195395	Development of 1,2,3-Triazole-Based Bioisosteric Scaffolds for C-Terminal and

		Histidine Modification of Antimicrobial Peptides via Solid-Phase Peptide Synthesis
BCC-F-5	Samuel Fayomi PhD 224196085	Preliminary Evaluation of Isoleucine, Lysine and Serine On Glucose Handling In Ex Vivo And Diabetic Rat Models
BCC-F-6	Nontobeko Gcabashe PhD 220012265	Greener Synthesis Of N-Acyl Hydrazones of Isoniazid in Deep Eutectic Solvent
BCC-F-7	Nokukhanya Khanyile MSc 220014288	Development Of Sustainable Magnetic Molecularly Imprinted <i>Lippia Javanica</i> for The Selective Removal of Pharmaceuticals from Wastewater: Adsorption Kinetics & Isotherms
BCC-F-8	Lelethu Kontile MSc 218022087	<i>Eucalyptus Gunnii</i> Essential Oil: An Ecofriendly and Cost-Effective Adsorbent for Sulfonamides Removal in Wastewater
BCC-F-9	Asanda Madlala MSc 221009864	Use of Copper-Based Catalysts for the Direct Formation of Dimethyl Ether (DME) from Co ₂
BCC-F-10	S'thandiwe Magwaza PhD 221033135	Edible <i>Ulva fasciata</i> Attenuates Fructose-Induced Metabolic Dysfunctions and Restores Serum and Adipose Metabolites in Rats
BCC-F-11	Nkosiphendule Maphumulo MSc 220007410	Development and testing of bismuth-based photocatalysts supported on biochar for water treatment
BCC-F-12	Thandeka Mbatha PhD 220006971	Exploration of <i>Artemisia afra</i> leaves as bio-adsorbents for effective removal of pharmaceutical contaminants from wastewater: Kinetics, isotherms and thermodynamics
BCC-F-13	Hopewell Mnyandu PhD 212539071	Development of an Ultrasensitive Electrochemical Sensor with Magnetically Amplified Molecular Recognition for the Detection of an Antiretroviral Drug in River Water
BCC-F-14	Minawe Mpungose MSc 220089853	A Safety-Catch Resin for Solid-Phase Peptide Synthesis (SPPS). Avoiding the use of Trifluoroacetic Acid (TFA) for the Cleavage*
BCC-F-15	Lindokuhle Mthethwa PhD 220040532	Synthesis And Biological Evaluation of Ru(II) Complexes Containing Chelating 1,2,3-Triazole-Based Ligands as Potential New Antitubercular and Antiretroviral Agents
BCC-F-16	Khethabahle Mthethwa MSc 220027836	Stability DNA Binding Affinity and Cytotoxic Properties of Oxovanadium (IV) Phenanthroline Complexes
BCC-F-17	Sinakhokonke Mtshali MSc 222097796	Synthesis and Characterization of a Series of Functionalized Quinoxaline Silver (I) Complexes
BCC-F-18	Tonderai Mupeti MSc 223153498	Cobalt(II) Phthalocyanines Appended with Schiff Base Ion-Exchangers or Chelators for the Electrochemical Detection and Quantification of Traces Of Mercury(II) and Lead(II) in Wastewater.

BCC-F-19	Kamoana Nagiah MSc 222014012	Synergistic Antioxidant and Cytotoxic Effects of Selenium-Coated Zinc Ferrites <i>In Vitro</i>
BCC-F-20	Busisiwe Nomnganga PhD 217021510	Structural Characterisation and Epithelial Cell Uptake of Gardnerella vaginalis Extracellular Vesicles Reveal Their Potential Role in Bacterial Vaginosis Pathogenesis
BCC-F-21	Nerissa Rajkumar PhD 219003070	Optimisation and validation of an HPLC-PDA method for the quantification of contaminants of emerging concern – An investigation of seven selected pharmaceuticals
BCC-F-22	Ntokozo Sokhela MSc 221024256	Bioactive Plant Extract-Modified Nanochitin for the Removal of Microbial Contaminants from Irrigation Water
BCC-F-23	Tasmia Wahab MSc 219005666	An Investigation into the Presence of Organic Chemical Pollutants in the Reuse Water Plant at an uMngeni-uThukela Water Wastewater Treatment Plant

FLASH PRESENTATIONS

BIOLOGICAL SCIENCES

Chair: Professor Michael Lattorff		
Flash No.	Presenter	Title
BS-F-1	Fayoke Abo PhD 224046680	Health Workers' Perspectives and Diagnostic Practices in Malaria Case Identification Among Pregnant Women in Primary Health Settings in Oyo State, Nigeria.
BS-F-2	Ahmed Adam PhD 222131102	Antimicrobial and Anti-Quorum Sensing Screening of Endophytic Bacteria Isolated from <i>Kigelia africana</i>
BS-F-3	Rebecca Adelola PhD 225196593	Integrated in vitro and in silico evaluation of food preservation and hypoglycemic potentials of <i>Megaphrynium macrostachyum</i>
BS-F-4	Mercy Alabi PhD 223152256	Integrated In Vitro and In Silico Evaluation of Bioactive Metabolites from Endophytic Bacillus and Pseudomonas Species
BS-F-6	Sphelele Bhengu MSc 221042734	Smoke-Derived Compounds Reveal New Management Opportunities for Invasive Crofton Weed
BS-F-7	Thembalinye Chonco PhD 215048586	Plant-Arthropod Interactions Across Riparian and Adjacent Upland Habitats Along the uMngeni River: Implications For Ecosystem Functioning
BS-F-8	Zahra Ebrahim MSc 219033358	Genetic Diversity of Heat Shock Proteins (HSPs) in South African Nguni Cattle Populations
BS-F-9	Lemohang Gumenku PhD 224198855	Corn Resistant Starch Restores Glucose Homeostasis by Modulating the Gut–Pancreas–Metabolism Axis
BS-F-10	Lubabalo Jaca MSc 221006085	Antibiotic resistance profiling of Staphylococcus spp. and Salmonella spp.

		from three locations along the Msunduzi River
BS-F-11	Andiswa Lushaba PhD 222127690	Authentication of Wildlife Meat and Meat Product Labelling From Selected Commercial Wildlife Outlets in Durban, KwaZulu-Natal Province, South Africa
BS-F-12	Bongeka Maci MSc 220021336	Microscopic Analysis and Phytochemical Composition of <i>Cryptocarya woodii</i> ENGL. (Lauraceae)
BS-F-13	Snothile Madikizela MSc 220020762	The effects of fortifying maize meal and sorghum porridges with mopane worms and gyanisa caterpillars on colour quality and nutritional composition
BS-F-14	Bandile Masuku MSc 222082426	Can selected Pseudomonadota strains exhibiting β -lactamase activity cross-protect susceptible bacterial strains against β -lactam antibiotics?
BS-F-15	Sithabile Mbonambi MSc 222082426	Phytoremediation Potential of <i>Vigna unguiculata</i> and <i>Vigna radiata</i> in Heavy Metal-Contaminated Urban Soils
BS-F-16	Tyrique Moodley MSc 220002481	Post-Stress recovery in fission yeast (<i>Schizosaccharomyces pombe</i>) following oxidative stress
BS-F-17	Aphiwe Mtolo MSc '220026541	Honeydew-mediated multitrophic interactions in fruit agroecosystems: Ecological implications for integrated pest management: A narrative review
BS-F-18	Fezile Nene MSc 226221356	Baseline Assessment of Environmental Determinants of Viable Diarrhoeagenic Pathogens In Isipingo River, KwaZulu-Natal
BS-F-19	Zenande Ngubo MSc 219021653	Distribution of the Common Starling (<i>Sturnus vulgaris</i>), Common Myna (<i>Acridotheres tristis</i>), and Rose-ringed Parakeet (<i>Psittacula krameri</i>) in KwaZulu-Natal, South Africa, over ten years
BS-F-20	Babalwa Nyide PhD 2221309985	In Silico Design of a Multi-Epitope Therapeutic Vaccine Targeting HPV-35 E6 and E7 Oncoproteins for African Populations
BS-F-21	Pabalelo Phori PhD 226061115	Insect Pests Damaging the Baobab Fruits and Their Socio-Economic Impacts On Local Communities in the Vhembe Area.
BS-F-22	Nkanyezi Radebe MSc 220025038	Effect of adding edible insects on the nutritional and physical properties of fermented sorghum mageu
BS-F-23	Isaac Radzilani MSc 216074561	Isolation and Characterization of a Lytic Phage as a Potential Biocontrol Agent for <i>Klebsiella quasipneumoniae</i>
BS-F-24	Aphiwe Sibuta PhD 225195907	Isolation and preliminary characterization of lytic phages infecting Enterococcus faecium and an ESBL-producing multidrug-resistant Escherichia coli
BS-F-25	Slindile Sithole PhD 205502280	Evaluating the Efficacy, Cost-Effectiveness, and Adoption Potential of Biopesticides

		Against the Yellow Sugarcane Aphid <i>Sipha Flava</i>
BS-F-26	Eunice Tshwenyana PhD 223153410	Metagenomic Analysis of the Gut Microbiome Structure and Function in the Mopane Worm (<i>Gonimbrasia belina</i>)
BS-F-27	Olieve Zuma PhD 212544671	Investigating the Effects of Different Fire Regimes on Plant-Collembola Interactions in South African Mesic Grasslands

FLASH PRESENTATIONS

COMPUTING, MATHEMATICS, PHYSICS AND STATISTICS

Chair: Professor Paul Kogeda		
Flash No.	Presenter	Title
CMPS-F-1	Adebayo Adepoju PhD 226219644	Solution Processable Thin Film Organic Solar Cell as Alternative Source of Renewable Energy
CMPS-F-2	Bakri Ahmed PhD 225083932	Robust Emotion Recognition Through Generative Adversarial Audio Enhancement and Multi-Branch Deep Learning Models
CMPS-F-3	Godfred Badu PhD 225194242	A Simplified Architecture for Practical Plug-and-Play Quantum Key Distribution
CMPS-F-4	Neliswa Bhengu MSc 225083858	MERGHES TIER 3: Diffuse Radio Emission in High-Redshift Clusters
CMPS-F-5	Lindani Cele PhD 218031618	On Maximal Frames with Property P
CMPS-F-6	Shahil Dukhi MSc 222008822	Extreme Value Forecasting of Financial Losses Under Discrete Time Hawkes Excitation
CMPS-F-7	Ali Haroon PhD 219090351	Displacement-Aware Multi-Fuel Dynamics in Dynamic Bilevel Carbon Policy Optimisation
CMPS-F-8	Medie Fah Helarie PhD 223153323	Fidelity-Based Readout of Quantum Optimization Solutions
CMPS-F-9	Amna Ibrahim PhD 216075883	A Mathematical Framework for Stability Analysis and Control Strategies of a Hepatitis C Virus (HCV) Model with Immune Response
CMPS-F-11	Bongekile Mchunu MSc 213518809	Deep Learning Models for Early Tuberculosis Diagnosis Using X-Ray Images for Analysis
CMPS-F-12	Mbongeni Mncube MSc 220027453	Using Difference Imaging with a Deep Learning CNN to Classify Smoke Plumes
CMPS-F-13	Siyamthanda Mngadi PhD 219010652	Anisotropic compact star in regularized 4D Einstein-Gauss-Bonnet gravity with non-minimal coupling
CMPS-F-14	Siyamthanda Mnisi PhD 220087226	Southern African HIV/AIDS Dynamics Analysis Integrating Statistical and Mathematical Modelling
CMPS-F-15	Kavi Moodley MSc 222082617	Deep Learning Framework for Fine-Grained and Hubble-Informed Hierarchical Galaxy Classification
CMPS-F-16	Asande Mpontshane MSc 226122255	Normal Lattices, Related Structures, and Their Applications

CMPS-F-17	Cebolenkosi Msweli MSc 221026506	Optimizing African-Centric and Global LLMs for Code-Switched STEM Education: A Comparative Evaluation Under Resource-Constrained Hardware Simulations
CMPS-F-18	Thalente Mthembu MSc 217000413	On the Study of Variational Quantum Algorithms (VQAS) for Solving Linear Systems
CMPS-F-19	Evangelista Nyakujipa PhD 224196095	Classification of Hematoxylin and Eosin-Stained Breast Cancer Histology Microscopy Images Using Deep Learning
CMPS-F-20	Ifeanyi Onyeabor PhD 225197178	A New Two-Inertial Two-Subgradient Extragradient Algorithm for Approximating Solutions of Variational Inequality and Fixed Point Problems in Real Hilbert Spaces
CMPS-F-23	Jo-Anne van Wyk PhD 225196268	Exploring the Diversity of Mathematical Models of Diabetes Mellitus
CMPS-F-24	Mthobisi Zondi PhD 213532968	Evaluating growth trajectories in HIV-exposed uninfected children using a calibrated simulated HIV-unexposed comparator population

FLASH PRESENTATIONS

ENGINEERING

Chair: Dr Mwitwa Chilufya		
Flash No.	Presenter	Title
ENG-F-1	Kolawole Abejide PhD 223153021	Structural Effectiveness of Rolled Steel Bridge Girders Subject to Pitting Corrosion: A Performance-Based Approach
ENG-F-2	André Almeida MSc 221004724	A Fog-Centric Deep Learning Trust Management Architecture for Industrial IoT Networks
ENG-F-3	Innocent Bala PhD 226220742	An Integrated Framework for the Development of Sustainable Asphalt Mixtures Incorporating Waste Glass and Hybrid Synthetic Fibres
ENG-F-4	Sandile Biyela MSc 219051272	Development of a Solar Heat Exchanger for Maize with Combine Storage Unit for Smallholder Farmers in Sub-Saharan Africa.
ENG-F-5	Danel Capelo PhD 217002435	Generating electricity from ocean currents with underwater kites
ENG-F-6	Kudzanai Chakawa MSc 226131011	Green Process Design – A Strategy for Elimination of Hazardous Chemicals in Chemical Synthesis
ENG-F-7	Prinell Chetty MSc 219017450	Vulnerability Assessment Framework for Climate-Resilient Road Networks in KwaZulu-Natal
ENG-F-8	Nyasha Chinobva PhD 222127662	Valorisation of South African PGM Tailings Through Carbon Sequestration and Synthesis of Alkali-Activated Materials
ENG-F-9	Talha Dada MSc 222007292	A Distributed Workload and Resource Allocation Scheme for Pavement Defect Detection

ENG-F-10	Jadin Dayanund MSc 222003850	Design and Performance Analysis of a Self-Pressurising Nitrous Oxide/Hydrocarbon Propulsion System for Small Satellite Applications
ENG-F-11	Adheesh Ganapathie MSc 216007745	Loowatt(Kaloola) Sludge Characterization and Techno-Economic Analysis for Circular Economy Application
ENG-F-12	Sanele Hlabisa PhD 218023135	Abnormal Human Activity Recognition from Video Surveillance using Deep Learning
ENG-F-13	Akuha Iorshager PhD 226197080	Polymer-Impregnated Platinum Slag-Metakaolin Mortar for Sustainable Construction Applications
ENG-F-14	Shivani Jackpersad MSc 216008145	Process Development and Techno-Economic Evaluation of Zero-Liquid Discharge and Brine Valorisation for Desalination in KwaZulu-Natal in Green Hydrogen Processing Applications
ENG-F-15	Andrew Macharia PhD 224198483	GAB Pairing in an Uplink PD-NOMA Network
ENG-F-16	Ivory Masoga PhD 225196860	Simulation-Based Approach Techno-Economic Analysis of Green Hydrogen from Non-Portable Water Sources
ENG-F-17	Lindokuhle Mdunge MSc 221112646	Literature Review: Solar Photovoltaic (PV) Renewable Energy Solutions for Irrigated Sugarcane Production
ENG-F-18	Asande Mkhonza MSc 219003270	System Integration for a Desktop Selective Laser Sintering Additive Manufacturing Printer
ENG-F-19	Talent Moyo MSc 225196940	Catalytic Hydrogenation–Dehydrogenation of a Liquid Organic Hydrogen Carrier Using a Triarylborane Catalyst under Crude Hydrogen
ENG-F-20	Ahad Muhammad MSc 221004322	Machine Learning Prediction of the Larson–Skold Corrosion Index From Water Quality Parameters
ENG-F-21	Kyle Naidoo MSc 217004416	Variable Speed Limit Performance at Lane Drops Under Varying Traffic Composition, Speed Compliance, and Traffic Volume
ENG-F-22	Khethukuthula Ngcobo MSc 219067711	Development of a Software Prototype for Water Leak Detection Using GIS and Satellite Imagery
ENG-F-24	Eche Okem PhD 221121916	Performance Evaluation of Pavement's Seal Course Using Nanomaterial and Sasobit REDUX
ENG-F-25	Yarish Rajdev MSc 216076948	An AIoT Smart Water Metering AML Computing Framework
ENG-F-26	Caleb Ramruthan MSc 221001952	Fry Drying of Faecal Sludge for Briquette Production
ENG-F-27	Byron Reddy MSc 218046847	Evaluation of Accelerated Ageing and Pollution Performance of High Voltage Polymeric Insulators
ENG-F-28	Gerald Sebata MSc 226217262	Enhancing Reactive Absorption of Liquid Organic Hydrogen Carriers Using Additives for Improved Hydrogen Storage

ENG-F-29	Sithandazile Sibanda MSc 226221078	Production of Sugarcane Bagasse Particle Boards with a Lignin Binder
ENG-F-30	Jimson Tanyanyiwa PhD 216076779	Development of an Integrated Protocol for Sustainable Ultrapure Water Production from Non-Potable Water Sources for Green Hydrogen Production in KwaZulu-Natal
ENG-F-31	Zwelethu Thabethe MSc 218036382	Evaluating the Cracking Resistance and Environmental Impact of Glass Waste- and Glass Fiber-Incorporated Asphalt Mixtures.
ENG-F-32	Maimuna Wilson MSc 219038979	Bias Aware Sentiment Analysis of Gendered Language For Fair Natural Language Processing Systems

