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# FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT (CEREMONY 1)

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## ORDER OF PROCEEDINGS

Academic Procession.

*(The congregation is requested to stand as the procession enters the hall)*

The Presiding Officer will constitute the congregation.

The National Anthem.

The University Dedication will be read by a member of the SRC.

Welcome by the Master of Ceremonies.

Musical Item.

The graduands and diplomates will be presented to the Presiding Officer by the Dean of the faculty.

The Presiding Officer will congratulate the new graduates and diplomates.

The Master of Ceremonies will make closing announcements and invite the congregation to stand.

The Presiding Officer will dissolve the congregation.

The procession, including the new graduates and diplomates, will leave the hall.

*(The congregation is requested to remain standing until the procession has left the hall.)*

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# NATIONAL ANTHEM

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Nkosi sikelel' iAfrika  
Maluphakanyisw' uphondolwayo,  
Yizwa imithandazo yethu,  
Nkosi sikelela, thina lusapho lwayo.

Morena boloka etjhaba sa heso,  
O fedise dintwa la matshwenyeho,  
O se boloke,  
O se boloke setjhaba sa heso,  
Setjhaba sa South Afrika – South Afrika.

Uit die blou van onse hemel,  
Uit die diepte van ons see,  
Oor ons ewige gebergtes,  
Waar die kranse antwoord gee,

Sounds the call to come together,  
And united we shall stand,  
Let us live and strive for freedom,  
In South Africa our land.

**NAMES OF  
GRADUANDS/DIPLOMATES**

**FACULTY OF ENGINEERING AND  
THE BUILT ENVIRONMENT**

*Dean: Professor A Lewis*

**POSTGRADUATE DIPLOMA IN  
POWER PLANT ENGINEERING**

Sibusiso Wilkin Linda  
Goodwill Tshepo Mokoena  
Wilbard Ilithawe Nambahu

**DEGREE OF BACHELOR  
OF ARCHITECTURAL  
STUDIES HONOURS**

Muhammad Taariq Husain Abdullatif  
Bruce Bapela  
Jacobus Marthinus Bester  
Leila Bogner  
Shakeena Cassim  
Ruvimbo Bev Charakupa  
Alexandraalexandrovna Cholokh  
Lindsey Daniel  
Kara De Bruin  
Luke Erasmus  
Nabeelah Gangraker  
Jemma Gold  
Lolwethu Gubu  
Chloe Megan Heunis  
Laraamber Ichilcik  
Lizelle Kay Jackson  
Almajuan Johnson  
Toto Alessandro Kingsley-Rizzo  
Julia Nan Kirkpatrick  
Lauren Isolde Klingenberg  
Luke Duane Massey  
Kealeboga Robert Matlhola  
Thiko Matsila  
David William Mcalpine  
Noluthando Tshogofatso Mdlalose  
Khumalo Luvuyo Mhlakaza  
Phiwe Luyolo Mila (in the first class)  
Adam Johann Oosthuizen  
Shekinah Imani Orangi  
Ashara Pather  
Kaushal Punchoo  
Ebbe Dommissie Rabie  
Ashleigh Joyce Reimers  
David Johannes Rossouw  
Mary Chelsea Sarjoo

S'nenhlanhla Anele Shozi (in the first  
class)  
Jonathan Slaghuis  
Robin Nicholas Swartz  
Imaan Van Der Schyff  
Kira Van Zyl

**DEGREE OF BACHELOR OF CITY  
PLANNING HONOURS**

Seth Alistoun  
Francois Cecil Bosman  
Bahlakoana Chobokoane  
Kwanele Sipehelele Conjwa  
Lee Felaar  
Humphreys Francis Kafera  
Teboho Lawrence Lebusa  
Kgosi Mabalane  
Sihle Manzini  
Phumla Siyathokoza Marx  
Lindiwe Molomo  
Silindile Nhlangulela  
Liam Tristan Patel  
Abdul-Azeez Samuels

**DEGREE OF BACHELOR  
OF LANDSCAPE  
ARCHITECTURE HONOURS**

Eden Cloete  
Salma Rahmatallah Elamin  
Inayah Essack (in the first class)  
Paula Elke Frank (in the first class)  
Deidre' Danielle Goeieman  
Kyle William Goliath  
Marie-Lorraine Kalassa  
Colin Paul Lombard  
Athenkosi Maqubela  
Estelle Stander

**DEGREE OF BACHELOR  
OF SCIENCE HONOURS IN  
CONSTRUCTION MANAGEMENT**

Ayanda Jabulani Khumalo  
Tatenda Marcus Johnie Mundoma

**DEGREE OF BACHELOR OF  
SCIENCE HONOURS IN  
GEOGRAPHICAL INFORMATION  
SYSTEMS**

Dibanisa Fakude  
Gudani Khuswana  
Yanelisa Inga Amzolele Klaas

Nokubonga Mfeka  
Teboho Jacob Mosili  
Nicole Bohlahle Motsatse  
Flasie Sunika Mpanza  
Thabisile Prudence Nkosi  
Kholeka Nkazimulo Shabalala  
Natangue Pendapala Shongolo  
Yonela Twani

**DEGREE OF BACHELOR OF  
SCIENCE HONOURS IN  
MATERIALS SCIENCE**

Mohammedimran Hoosain  
Susan Duduzile Masela  
Dimpho Nthatisi Masuoa  
Onkhopotse Mbele  
Pusholetso Mmatladi  
Zamikhaya Shoene

**DEGREE OF BACHELOR  
OF SCIENCE HONOURS IN  
PROPERTY STUDIES**

Michael David Coles  
Maxine Penelope Harrison  
Sindisiwe Kalumba  
Kelsey Jemma Kleynhans (with  
distinction)  
Realeboga Lekoma  
Micah Ethan Gray Lurie  
Sive Siyanda Mankayi  
Tshifhiwa Mudau  
Jonathan Bruce Munro  
Rukudzo Nyabeze  
Angus Clive Pratt  
Mavhungu Ramathikhithi  
Brett Michael Tucker (with distinction)  
Aiden Van Wyk (with distinction)  
Hannah Leigh Volker  
Jaden Peter Whiley

**DEGREE OF BACHELOR  
OF SCIENCE HONOURS IN  
QUANTITY SURVEYING**

Yoran Johnny Anthony Nicolay  
Dorreman  
Cedric Sebastian Landers  
Zimkhitha Njoli  
Jonathan Michael Reynders

DEGREE OF MASTER  
OF ARCHITECTURE

Rahul Raj Auckloo (with distinction)  
Kaamilah Bardien  
Saajidah Bester  
Sonali Bissasser (with distinction)  
Naa-ilah Brown (with distinction)  
Gabriel Luke Chames (with distinction)  
Sasha Nel Czech  
Lisa Davies (with distinction)  
Saliegh Davis (with distinction)  
Saskia De Bok (with distinction)  
Kelly Ann De Gouveia (with distinction)  
Aidan Francis Gorton  
Liam Brian Harvey  
Rachel Marie Herbert  
Warren Frank Hoffman  
Teegan May Isola  
Nicole Sara Jackman (with distinction)  
Joy Heather Kruyer  
Kenneth Mxolisi Mahlangu  
Henk Pretorius Malherbe  
Palesa Chantel Masha  
Xenophen Lloyd Masipa  
Leah Ashleigh Michaels  
Keyur Moodley  
Luke David Moss  
Major Mwawa (with distinction)  
Nosipho Hope Patunia Ndawonde  
Alex Daniel Pienaar  
Timothy Scott Presbury (with distinction)  
Cole Timothy Rooy  
Maya Anna Sarembok (with distinction)  
Lwanele Shabalala  
Matthew Shepherd  
Ettore Antoine Giuseppe Soffietti  
Mariannah Bernadett Rose Stoffels  
Anna Madeleine Thomas  
Ruben Johannes Van Biljon  
Alexander Jason Versfeld  
Jihyun Yang

DEGREE OF MASTER OF CITY &  
REGIONAL PLANNING

Ashley Jean Howard  
Tshegofatso Grace Malatji  
Limpho Mokakose Lydia Maraka  
Edda Olaheya Mkombezi  
Enrique Timothy Siff  
Warwick James Wallace

DEGREE OF MASTER  
OF ENGINEERING

Bongani Dlamini (with distinction)

DEGREE OF MASTER OF  
ENGINEERING IN CIVIL  
INFRASTRUCTURE MANAGEMENT  
& MAINTENANCE

Taufeeq Khan (with distinction in the  
coursework component)

DEGREE OF MASTER OF  
GEOTECHNICAL ENGINEERING

Gerald Nyasha Muguto (with distinction)

DEGREE OF MASTER OF  
LANDSCAPE ARCHITECTURE

Sisipho Kanya Damane  
Zizipho Mbambo  
Siterfania Santos Borges  
Nelie Van Der Wat

DEGREE OF MASTER  
OF PHILOSOPHY

Thomas Makhubela  
Barakat Bidemi Tiamiyu

DEGREE OF MASTER OF SCIENCE  
IN ENGINEERING

Heinrich Stephen Benz  
Humphrey Tinashe Chiramba  
Matthew Robert Church  
Christopher Chibuzor Francis  
Michael Emmanuel Katsoulis  
Isma-Eel Khan  
Ansifrid Joachim Lekundayo  
Ignituous Vukosi Mboweni  
Nomathamsanqa Mlangeni  
Michael Pringle Noyce (with distinction)  
Petrus Jacobus Pieterse (with distinction)  
Fadi Shakkour  
Ayanda Sikhona Sibiya (with distinction)  
Daniella Ida Teixeira (with distinction)  
Casey Van Der Leek

DEGREE OF MASTER OF SCIENCE  
IN PROJECT MANAGEMENT

Tshegofatso Mokgotho  
Sunboy Mbongeni Mpofu  
Kasonde Mumba (with distinction in the  
dissertation)

DEGREE OF MASTER OF SCIENCE  
IN PROPERTY STUDIES

Ashley Mirlne Butler  
Eric Nkunda Uwoyashatse

DEGREE OF MASTER  
OF URBAN DESIGN

Hanno Coetsee  
Alexandra-Naledi Holtman (with  
distinction)  
Emma Macarthur (with distinction)  
Dennis Frederick Moss  
Siyabulela Keith Ntuntwana

DEGREE OF DOCTOR  
OF PHILOSOPHY

Danish Arif  
Thesis Title: *Person of interest rapid  
identification and tracking (POIRIT)  
assistance system*

Danish Arif completed his BSc Electrical Engineering in 2009 and M.S. Total Quality Management in 2013 at University of the Punjab, Pakistan and began full-time study towards his PhD in 2017. He has experience of teaching and research of 14 years in Pakistan and China.

Danish Arif's thesis proposes an optimized automated solution to search "High-Value Targets" from a network of cameras using Artificial Intelligence (AI) methods. He proposes parallel computing to process the images with low-powered embedded platforms as well as high performance computers. Human faces are detected from the CCTV images and stored in cloud databases. Multiple AI models are trained using carefully prepared datasets. The performance of each model is evaluated for all classification problems and presented in his research. He also proposes methods to transform the sketch

images to hyper-real images and improve resolution of CCTV images, which will help identify targets. These models will be useful in the future of smart cities by decreasing the search time and increasing the efficiency.

*Supervisor:* Professor S Winberg  
(Electrical Engineering)

Theodore Jordy Ngumbu Dinga  
Thesis Title: *Mechanistic study of the effect of alcohols on the dissolution of chalcopyrite in sulphate media*

Jordy Dinga holds a BSc(Hons) in Organic Chemistry from University of Kinshasa, DRC. He joined the Department of Chemical Engineering in 2017 for his MSc. He later upgraded to PhD.

Jordy Dinga's thesis investigates the effect of four alcohols, methanol, ethanol, 1 and 2-propanol, on the leaching of chalcopyrite in sulphate media. Chalcopyrite is the most economically important copper mineral, but it is very resistant to hydrometallurgical treatment. The work combines leaching, electrochemical, and surface studies to understand the role of these additives and the mechanisms involved. The findings confirm that the four alcohols, particularly 1-propanol, improve the dissolution of chalcopyrite through modifying the formation of oxidation products on the mineral surface, or aid in their removal, and thus ease the decline of the cathodic reaction rate. Further, alcohols do not support cupric ions to become a direct oxidant for the system, but rather they facilitate cupric ions to act as a catalyst in the dissolution mechanism through the formation of intermediate products. Finally, the thesis points to parallel oxidative and non-oxidative chalcopyrite leaching mechanisms occurring in sulphate media.

*Supervisor:* Professor J Petersen  
(Chemical Engineering)  
*Co-supervisor:* Dr T Moyo  
(Chemical Engineering)

Mahouelo Anicet Hounkanrin  
Thesis Title: *Viewpoint estimation in medical imaging*

Anicet Hounkanrin holds an MEng in Electrical Engineering from the University of Abomey-Calavi, Benin. He completed an MSc in Mathematical Sciences at Stellenbosch University before joining UCT for his PhD studies in 2018.

Anicet Hounkanrin's thesis focuses on the development of machine learning models for viewpoint estimation from X-ray images. He generated a dataset of digitally reconstructed radiographs from a set of computed tomography (CT) scans, which he used to train machine learning models, namely convolutional neural networks (CNNs). He then investigated the effectiveness of CNN-based classification and regression models for the determination of the orientation of a human subject in a radiograph. He also investigated the optimal parametrisation of the viewpoint space to solve the viewpoint estimation problem. He finds the CNN-based classification models using a quaternion representation of viewpoints to be most effective. He finally extended the proposed methods to estimate viewpoints from natural images.

*Supervisor:* Associate Professor F Nicolls  
(Electrical Engineering)  
*Co-supervisor:* Dr P Amayo  
(Electrical Engineering)

Mxolisi Richard Miller  
Thesis Title: *A collective self-governance framework for urban facilities management settings: application at public transport interchanges in economically depressed areas in Cape Town*

Mxolisi Miller holds a BCom Honours in Finance & Investments from UWC and an MBA from Stellenbosch University. He has worked on catalytic projects such as MyCiTi-BRT, and development of public transport interchanges in Cape Town. He helped negotiate the inclusion of the taxi industry in the MyCiTi bus operations.

Mxolisi's thesis considers collective governance of urban facilities management settings. He reviewed the

literature on collective self-governance, finding three theories, and combining them: the social identity model for collective action (SIMCA), the place attachment theory, and the design principles for collective self-governance, resulting in a collective self-governance framework being developed. Mxolisi then empirically evaluated the validity and reliability of the proposed collective self-governance framework by surveying 316 minibus taxi operators and informal traders from four public transport interchanges. Using structural equation modelling techniques, the collected data were analysed. Significant statistical evidence was found to support the willingness of minibus taxi operators and informal traders to participate in collective self-governance institutions at public transport interchanges. The study by Mxolisi fills a gap in urban facilities management research on psychosocial-economic factors that influence users' willingness to participate in collective self-governance institutions.

*Supervisor:* Associate Professor K Michell (Construction Economics and Management)

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# VISION AND MISSION

## UNIVERSITY OF CAPE TOWN

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### **Vision**

An inclusive and engaged research-intensive African university that inspires creativity through outstanding achievements in learning, discovery and citizenship; enhancing the lives of its students and staff, advancing a more equitable and sustainable social order and influencing the global higher education landscape.

### **Mission**

UCT is committed to engaging with the key issues of our natural and social worlds through outstanding teaching, research and scholarship. We seek to advance the status and distinctiveness of scholarship in Africa through building strategic partnerships across the continent, the global south and the rest of the world.

UCT provides a vibrant and supportive intellectual environment that attracts and connects people from all over the world.

We aim to produce graduates and future leaders who are influential locally and globally. Our qualifications are locally applicable and internationally acclaimed, underpinned by values of engaged citizenship and social justice. Our scholarship and research have a positive impact on our society and our environment.

We will actively advance the pace of transformation within our University and beyond, nurturing an inclusive institutional culture which embraces diversity.

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## OFFICERS OF THE UNIVERSITY

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### **Chancellor**

Precious Moloi-Motsepe, MBBCh DCH *Witwatersrand* Dip in Women's and Reproductive Health *Stellenbosch*

### **Vice-Chancellor (Interim)**

Batmanathan Dayanand Reddy, BSc (Eng) *Cape Town* PhD *Cantab* DSc (hc) *Stellenbosch* FRSSAf MASSAf FSAAE  
MAkadSA FTWAS FoISC OMB

### **Chair of Council**

Norman Martin Arendse SC, BA LLB *Cape Town* LLM *UCL*

### **President of Convocation**

Naadiya Moosajee, BSc(Eng)Civ MSc(Eng) *Cape Town*

### **Deputy Vice-Chancellors**

Jeffrey Murugan (Acting), MSc PhD *Cape Town*

Elelwani Ramugondo, BSc (Occupational Therapy) MSc (Occupational Therapy) PhD *Cape Town*

Linda Cynthia Ronnie (Acting), Adv Dip in Adult Ed MEd *Sheffield* PhD *Cape Town*

### **Registrar**

Royston Nathan Pillay, BA HDE BEd MBA (Executive Programme) *Cape Town*

### **Chief Operating Officer**

Mughtar Parker (Acting), (MCR) (SLCR) *Atlanta USA* B.Comm (Acc) *Western Cape*

### **Deans of Faculties**

*Commerce:* Suki Lesley Goodman, BSocSc(Hons) MBusSc PhD *Cape Town*

*Engineering &*

*the Built Environment:*

Alison Emslie Lewis, PrEng BSc(Eng)Chem MSc(Eng) PhD *Cape Town* FSAIChE  
FSAIMM MASSAf FSAAE FICHEM

*Health Sciences:*

Lionel Patrick Green-Thompson, DA FCA *CMSA* MBBCh MMed PhD *Witwatersrand*

*Humanities:*

Shose Kessi, PDBA *Witwatersrand* BA(Hons) *London* MSc PhD *LSE*

*Law:*

Danwood Mzikenge Chirwa, LLB(Hons) *Malawi* LLM *Pretoria* PhD *Western Cape*  
Practitioner of the High Court of Malawi

*Science:*

Hussein Suleman, MSc *UDW* PhD *Virginia Tech*

### **Dean of Higher Education Development**

Kasturi Behari-Leak, BA(Hons) HDE BEd *Durban-Westville* MEd *Cape Town* PhD *Rhodes*

### **Director of the Graduate School of Business**

Catherine Duggan, BA *Brown* PhD *Stanford*

# JOIN UCT ALUMNI CONNECT

Today is not the end of your relationship with the university but the beginning of a new phase in your continuing relationship with UCT, one that you share with the global UCT community of over 200 000 alumni. Wherever you choose to go, fellow UCT alumni will be there. Join UCT Alumni Connect, our bespoke social networking site for alumni. Membership is free and provides access to a global network of like-minded professionals, innovators, thought leaders and entrepreneurs. Join our virtual alumni community today and enjoy these member benefits:

- Expand your professional network
- Stay in touch with your alma mater
- Connect with thousands of UCT alumni
- Locate UCT alumni in your area using mobile GPS
- Access career mentorship opportunities
- Share images from your reunions and alumni events
- View notifications of UCT events taking place in your city
  - Access UCT Careers Service support

You can sign-up in less than 2 minutes, utilizing your Facebook, LinkedIn or email credentials. Visit [www.uctalumniconnect.com](http://www.uctalumniconnect.com) or scan the QR code, then click on the 'Join' link to sign up. It is that easy. Membership verification is fast.



**SCAN ME**

To remain in contact with former UCT classmates and to keep abreast of important developments taking place at your alma mater, make sure that you update your contact details on our website: [www.alumni@uct.ac.za](mailto:www.alumni@uct.ac.za). Here are some of the other ways you can stay in touch with us:

- Attend UCT alumni events hosted in your region
- Participate in the AGM of Convocation
- Join UCT Alumni Connect today
- Find and follow us on social media @UCTalumni
- Visit the Alumni Relations team in the Old Admin Building, located on UCT Lower Campus
- We love to profile our alumni. Email your news to: [alumni@uct.ac.za](mailto:alumni@uct.ac.za)

UCT benefits from a global network of alumni ambassadors, chapters and affinity groups, with an increasing number of volunteer networks across Africa. Our international UCT offices are focal points for leveraging institutional and research relationships, as well as donor opportunities. You can connect with one of our regional offices:

## **SOUTH AFRICA**

Lu Nteya: [lu.nteya@uct.ac.za](mailto:lu.nteya@uct.ac.za)  
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Nomcebo Msweli: [nomcebo.msweli@uct.ac.za](mailto:nomcebo.msweli@uct.ac.za)

## **NORTH AMERICA**

USA - Porcha Dodson: [porcha.dodson@uct.ac.za](mailto:porcha.dodson@uct.ac.za)  
CANADA - Samantha Mandigora: [info@uctcanada.ca](mailto:info@uctcanada.ca)

## **UNITED KINGDOM**

Angela Edwards: [uct-trust@tecres.net](mailto:uct-trust@tecres.net)

## **EUROPE**

Andrew Wigley: [andrew.wigley@uct.ac.za](mailto:andrew.wigley@uct.ac.za)

## **AUSTRALIA**

Ruth Thornton: [rjthornton1@bigpond.com](mailto:rjthornton1@bigpond.com)

The Development and Alumni Department looks forward to meeting you. Join us at one of the many alumni events hosted around the world, on campus at a UCT public lecture, at UCT Summer School or at your class reunion. Let's stay connected.