



Graduation Programme

The Future. Reimagined.





Dear UJ Graduate

At the University of Johannesburg (UJ), graduation not only signifies an academic milestone but also represents the emergence of a new cohort of leaders. Our objective has been to empower you as leaders who are primed to face the challenges of an ever-changing world defined by a plethora of challenges and opportunities. As you navigate these great societal shifts, we hope that your time at UJ will serve as a constant source of reference and inspiration. As we have sought to demonstrate, the Fourth Industrial Revolution (4IR) presents the opportunity for the exploration of new and exciting spheres, and you are uniquely poised to navigate this terrain. Our focus at UJ has been to create graduates who are agile, curious, and able to be active participants against this backdrop.

Your graduation today serves as a celebration of this momentous achievement! I want to take this opportunity to remind you that you now represent the privileged few in our country. You are uniquely poised to address some of the serious challenges we face and a qualification from UJ will stand you in good stead!

At UJ, you have encountered the finest academic minds from diverse backgrounds, spanning across the world as well as innovative technology-rich approaches to teaching and learning. As a result, UJ's global stature and academic robustness are recognised by the most prestigious global higher education ranking systems in the world. UJ has become a competitive player, not only in South Africa but also on the continent. You are an important part of this story.

We welcome you as a new member of our esteemed alumni community, which is making a lasting impact on society. We encourage you to join the UJ Alumni Network and become an active member of the University Convocation, which affords you an opportunity to make a significant contribution to our academic projects and beyond. Our promise in return to you is that we will continue to build UJ as an international university of choice, anchored in Africa, dynamically shaping the future.

Congratulations on this significant achievement. We look forward to witnessing you reimagine the future!

Prof Letlhokwa Mpedi
Vice-Chancellor and Principal
University of Johannesburg

**Welcome to the
Graduation Ceremony of the
University of Johannesburg
19 May 2023 at 09:30**

**Welkom by die
Gradeplegtigheid van die
Universiteit van Johannesburg
19 Mei 2023 om 09:30**

**Le a Amogelwa
Moletlong wa Dikapešo wa
Yunibesithi ya Johannesburg
19 Mopitlo 2023 ka 09:30**

**Niyamukelwa
eMcimbini wokweThweswa kweZiqu
weNyuvesi yaseJohannesburg
19 kuNhlaba 2023 ngele-09:30**

UNIVERSITY OF JOHANNESBURG

CHANCELLOR

Dr P Mlambo-Ngcuka

BA Ed (Lesotho), MPhil (UCT), DTech Ed (Warwick, England)

MEMBERS OF THE MANAGEMENT EXECUTIVE COMMITTEE

VICE-CHANCELLOR AND PRINCIPAL

Prof LG Mpedi

B Juris, LLB (Vista), LLM (RAU), LLD (UJ)

DEPUTY VICE-CHANCELLOR: ACADEMIC

Prof S Khan

BSc, BSc Hons, MSc, PhD (UWC)

DEPUTY VICE-CHANCELLOR: RESEARCH AND INTERNATIONALISATION

Prof S Sinha

BEng, MEng, PhD (UP)

REGISTRAR

Prof B van Vuuren
BSc, BSc Hons, MSc, PhD (UP)

CHIEF FINANCIAL OFFICER

Ms N Mamorare
BCom (Rhodes), BCom Hons (UKZN), CA (SA)

CHIEF OPERATING OFFICER

Dr M Ralephata
BSc Eng (Wits), MBA (UOVS), MSc, DBA (Heriot-Watt, UK)

SENIOR EXECUTIVE DIRECTOR

Dr N Vukuza
BA (Fort Hare), BA Hons (Rhodes), DTE (UNISA), MA (Wits),
PhD (SUN)

GENERAL COUNSEL

Mr D Pretorius
BCom, LLB, LLM (NWU)

EXECUTIVE DEANS

COLLEGE OF BUSINESS AND ECONOMICS

Prof L Ntsalaze

BCom, BCom Hons (NMMU), MPhil (UCT), PhD (SUN)

FACULTY OF ART, DESIGN AND ARCHITECTURE

Prof D Smal (Acting)

NDip, NHDip Clothing (TP), MTech Fashion (TUT),
DTech Design (CPUT)

FACULTY OF EDUCATION

Prof N Petersen

BA Ed (UNISA), BEd Hons, MEd (RAU), DEd (UJ)

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

Prof DJ Mashao

BSc Eng, MSc Eng (UCT), MSc AM, PhD (Brown, USA)

FACULTY OF HEALTH SCIENCES

Prof A Temane (Acting)

BNSc (UNW), MCur (RAU), PhD (UJ)

FACULTY OF HUMANITIES

Prof K Naidoo

BA, BA Hons, MA (UDW), DTE (Unisa), PhD (Manchester, UK)

FACULTY OF LAW

Prof W Domingo

B SoSc (UCT), LLB (UWC), LLM (Columbia, USA),
SJD (Wisconsin-Madison, USA)

FACULTY OF SCIENCE

Prof R Meijboom (Acting)

M (Groningen, Netherlands), PhD (UCT)

DEAN

JOHANNESBURG BUSINESS SCHOOL

Dr R Carolissen

BSc, BSc Hons, MSc (UWC), BBA Hons,
MBA (SUN), MCom (NWU), PhD (UWC)

MEMBERS OF COUNCIL

CHAIRPERSON

Ms X Kakana

DEPUTY CHAIRPERSON

Dr Y Ndema

MEMBERS

Prof H Abrahamse

Mr FM Baleni

Ms K Gugushe

Prof D Hildebrandt

Prof S Khan

Ms K Khumalo

Ms B Madikizela

Mr M Mahlasela

Mr M Manana

Ms L Mateza

Dr A Mokoena

Ms N Molope

Prof LG Mpedi

Mr LM Mpunzi

Ms NP Mvubu

Dr WP Rowland

Ms JA Schreiner

Prof A Strydom

Mr T Thobejane

PRESIDENT OF CONVOCATION

Mr LM Mpunzi

GAUDEAMUS IGITUR

Gaudeamus igitur,
Juvenes dum sumus;
Post iucundum iuventutem,
Post molestam senectutem
Nos habebit humus.
Vivat academia,
Vivant professores,
Vivat membrum quodlibet,
Vivat membra quaelibet;
Semper sint in flore!

English

Let us rejoice, therefore,
While we are young.
After a pleasant youth
After a troubling old age
The earth will have us.
Long live the academy!
Long live the professors!
Long live each student;
Long live the whole fraternity;
For ever may they flourish!

Sesotho sa Leboa

Ka gona, a re thabeng,
Re sa le ba bafsa.
Ka morago ga bofsa bjo bo bose
Ka morago ga go tšofala mo go nago
le mathata
Lefase le tla ba le rena.
Phela thuto phela!
Phelang diprofesa phelang!
Phelang baithuti phelang;
Phela kagišano ka botlalo phela;
O ka re ba ka phela gabotse
goyagoile!

Afrikaans

Laat ons dan vrolik wees,
Terwyl ons jonk is;
Na 'n aangename jeug.
Na 'n onaangename oudag,
Sal die aarde ons hou.
Lank lewe die universiteit,
Lank lewe die professore,
Lank lewe elke student,
Lank lewe al die studente,
Mag hulle vir ewig hul jeug behou!

Zulu

Ngakho, masithokoze
Sisebasha nje.
Emva kobumnandi bobusha
Emva kwezinkinga zobudala
Umhlaba uzosithatha.
Phambili ngemfundo!
Phambili boSolwazi!
Phambili nakuwe mfundi;
Phambili ngenhlangano yonke;
Maziqhubeke ngonaphakade!

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT QUALIFICATIONS

1. Bachelors

Dhlamini, Mamikie Melissa (Urban and Regional Planning)

Mabala, Prince Ntokozo Katileho (Urban and Regional Planning)

Mokaleng, Lesedi Theodorah (Urban and Regional Planning)

Nkomo, Sikhulile Ntobeko (Urban and Regional Planning)

Ntelele, Maite Meuriel (Urban and Regional Planning)

Rambevha, Nkhiphitheni (Construction)

Tshivhuyo, Khanyisa Agriment (Urban and Regional Planning)

2. Bachelor of Engineering Technology

Bodumele, Christopher (Mining Engineering)

Goboza, Nyasha (Civil Engineering)

Longolongo, Amany Joel (Civil Engineering)

Mafunda, Sonelisiwe (Physical Metallurgy)

Magogodi, Kabelo (Mining Engineering)

Mampshe, Phonchi Elvis (Extraction Metallurgy)

Mapheto, Ngoasladi Tsebo (Extraction Metallurgy)

Masindi, Khodani (Extraction Metallurgy)

Mathebula, Khanyisa Samantha (Physical Metallurgy)
Mfihlo, Vuyolwethu (Mining Engineering)
Mohlala, Daniel (Extraction Metallurgy)
Mthethwa, Sbusiso Lungelo Percivell (Extraction Metallurgy)
Ndwandwe, Menzi Zwide Gift (Extraction Metallurgy)
Nkosi, Malerato Hope (Mining Engineering)
Ntshangase, Zusiphe (Mining Engineering)
Phage, Tshidiso (Extraction Metallurgy)
Ramabulana, Toni Ofentse (Physical Metallurgy)
Rasilaya, Israel (Extraction Metallurgy)
Sehlaga, Tebogo Terrence (Civil Engineering)
Sepeng, Moeketsi George (Extraction Metallurgy)
Shirinda, Nhletelo Trevor (Civil Engineering)
Sigudhla, Ayanda Gratitude Happiness (Physical Metallurgy)
Simela, Goodwill Mfundisi (Extraction Metallurgy)

Special Awards

Faculty of Engineering and the Built Environment:

Faculty Prize for the Most Prestigious Undergraduate Student – BEng Tech

Kalenga, Mosie Mahmoud

Bachelor of Engineering Technology in Extraction Metallurgy
(with distinction)

3. Bachelor of Engineering

Baloyi, Colleny (Civil Engineering)

Maluleke, Nhlamulo Emmanuel (Civil Engineering)

Maphutha, Bruce (Civil Engineering)

Mashile, Dorian Kgetho (Civil Engineering)

Matsimbi, Johannes Chabane (Civil Engineering)

Mntwini, Madoda (Civil Engineering)

Mudzunga, Vhanga Shandu (Civil Engineering)

Oula, Marvin Jeremiah Odongo (Civil Engineering)

Ratau, Seithati (Civil Engineering)

Sekoati, Neo Anna (Civil Engineering)

Van Rensburg, Tebogo Sharon (Civil Engineering)

Zomba, Munyaradzi Takudzwa (Civil Engineering)

Special Awards

Faculty of Engineering and the Built Environment:

Faculty Prize for the Most Prestigious Undergraduate Student – BEng Science

Slabbert, Craig Daniel

Bachelor of Engineering in Electrical and Electronic Engineering (**with distinction**)

4. Bachelor of Urban Regional Planning Honours

Ntombela, Nkosinathi Sboniso Wilheart (Urban and Regional Planning)

5. Master's

Alembong, Marius Asongtia (Systems Engineering)

Dissertation: Modelling a SCADA system for potable water treatment plants using systems engineering principles

Supervisor: Prof J Meyer

Co-supervisor: Prof S Von Solms

Buthelezi, Sanele Minenhle (Engineering: Civil)

Dissertation: Predicting the remaining life of flexible pavement

Supervisor: Dr HA Quainoo

Davhana, Musiwa Innocent (Extraction Metallurgy)

Dissertation: Investigating a technical solution to reduce compressed air wastage in underground mines at the stope

Supervisor: Prof Rupprecht

Co-supervisor: Dr P Xiaowei

Gina, Phuthumile Vumile (Sustainable Urban Planning & Development)

Dissertation: The level of social cohesion among residents of mixed housing developments: Experiences of Fleurhof, Johannesburg

Supervisor: Prof T Gumbo

Co-supervisor: Mr N Pillay

Kantana, Adelfrieda Kamba (Sustainable Urban Planning & Development)

Dissertation: An Investigation into Public-Private partnerships and land delivery In Namibia: A case of Rundu

Supervisor: Prof Musakwa

Co-supervisor: Mr Z Mbinza

Kiama, Yves Nsambu (Structural Engineering)

Dissertation: Effect of Cape storms on the flat roof-mounted solar panels.

Supervisor: Prof J Mahachi

Kianza, Tambwe Jacques (Engineering: Civil)

Dissertation: Evaluation of green and non-green building's environmental impact and the potential effect on the health of Gauteng residents

Supervisor: Prof I Musonda

Co-supervisor: Prof W Musakwa

Lawrence, Kiara (Urban and Regional Planning) **(with distinction)**

Dissertation: Planning for the integration of non-motorised transport and public transport: A case study of the Harambee Bus Rapid Transit in Ekurhuleni Municipality

Supervisor: Prof T Gumbo

Co-supervisor: Dr Z Jeeva

Makwela, Masoma Paul (Structural Engineering)

Dissertation: The performance of rail-to-concrete connecting grout pad in a track-on-concrete system

Supervisor: Prof J Mahachi

Co-supervisor: Prof SO Ekolu

Masheula, Atlehang (Sustainable Urban Planning & Development)

Dissertation: Assessment of urban parks using green city index in Metropolitan Cities, Gauteng, South Africa

Supervisor: Mr A Ogra

Matshika, Lindokuhle Prince (Urban and Regional Planning)

Dissertation: Examining the efficacy of bus rapid transit systems in providing for the mobility needs of the urban poor: A case of Rea Vaya, City of Johannesburg.

Supervisor: Prof T Gumbo

Co-supervisor: Prof J Chakwizira

Mpati, Phuti Dineo Queen (Sustainable Urban Planning & Development)

Dissertation: An assessment of the contribution of the Fashion Industry to Johannesburg's Local Economic Development Initiatives: Johannesburg Fashion District

Supervisor: Dr E Makoni

Nengovhela, Ndivhudza (Urban and Regional Planning)

Dissertation: Performance assessment of Municipal waste eco-system in Gauteng City Region

Supervisor: Mr A Ogra

Ngubane, Zakhele Halalisani (Sustainable Energy)

Dissertation: Renewable resources: Efficient, clean and green energy technologies for power systems

Supervisor: Prof J Ren

Co-supervisor: Dr L Okonye

Nkosi, Doctor Stanley (Urban and Regional Planning)

Dissertation: Exploring local economic development to promote inclusive sustainable development in marginalised areas

Supervisor: Dr E Makoni

Co-supervisor: Dr T Moyo

Tlhapane, Kgomotso (Sustainable Urban Planning & Development)

Dissertation: Investigating the use of sustainable urban tools in addressing homelessness in the City of Johannesburg

Supervisor: Mr A Ogra

Co-supervisor: Prof T Gumbo

Special Award

Faculty of Engineering and the Built Environment:

Chancellor's Medal for the Most Meritorious Masters' Study

Tau, Asser Latsatsi

Master of Operations Management Bachelor of Arts (**with distinction**)

6. Doctor of Philosophy (DPhil)

Mugumo, Menard (Civil Engineering)

Thesis: Optimising hydropower potential by utilising flood energy

Supervisor: Prof MO Dinka

Co-supervisors: Prof M Ilunga

Ndeketeya, Annah (Civil Engineering)

Thesis: A decision support system for sustainable urban water management in the City of Johannesburg

Supervisor: Prof M Dundu

Tchadjie Noubissie, Leonel (Civil Engineering)

Thesis: Effect of activated bauxite addition on engineering properties and microstructure of volcanic ash-based geopolymer cement and concrete

Supervisor: Prof S Ekolu

Co-supervisors: Dr HA Quainoo

7. Doctor of Philosophy (PhD)

Muloiwa, Mpho (Civil Engineering)

Thesis: Optimization of energy consumption in domestic wastewater treatment

Supervisor: Prof M Dinka

Co-supervisors: Prof S Nyende-Byakika

Myeza, Msizi Reginald (Civil Engineering)

Thesis: Transformation and democratisation of urban life through public spaces in South Africa

Supervisor: Prof C Aigbavboa

Co-supervisors: Dr CO Tengan

8. Honorary Doctor of Philosophy *Honoris Causa*

Hazeltine, Barrett

COLLEGE OF BUSINESS AND ECONOMICS

QUALIFICATIONS

9. Bachelor of Commerce in Economics and Econometrics

Bapela, Neo John
Khanyile, Olwethu
Machete, Ofentse Anestatia
Maswanganyi, Masungulo Loyd
Mehlape, Koketso Lehlogonolo
Mekgwe, Gontse Elvis
Mokoena, Katlego Morakane
Mthimkhulu, Nompumelelo
Ngoasheng, Olga Mamaele
Pedinyane, Lerato
Rikhotso, Kustaka Lwandle
Sallie, Zaakirah
Tjotjo, Rethabile Mercy
Tshikume, Mukundi

10. Bachelor of Commerce Honours in Econometrics

Makgalefa, Selaelo Yolanda
Morei, Lerato Emma
Ranoko, Regomoditswe Abigail
Tshuma, Lethu

11. Bachelor of Commerce Honours in Economics

Burgess, Morgane
Kavul, Sandra Kayemb
Kgwadi, Gomolemo Ratanang
Komane, Nthabiseng Dolly
Kumalo, Lindokuhle
Ledwaba, Amogelang Modiegi Fredrica
Ledwaba, Ramadimetja Rossette
Mabija, Vhutali
Madikizela, Kamvelihle
Mangqawa, Fuyisile
Mashinini, Nomonde
Matjele, Reanetse
Mgida, Smanga Jeremiah
Mmapulane, Kopano Madimetja
Mokoena, Thulani
Monyela, Dikeledi Constance
Motete, Mpolokeng Pearl
Motsumi, Phumzile Angela
Mthembu, Mbali Sfundu
Mthembu, Nosipho Vuyo
Naidu, Nishantha
Nazitwere, Leonard
Ngcongwane, Precious Nombuso Banele
Nkuna, Audrey
Noshwama, Njabulo Ntobeko
Sebeela, Mirriam Tshegofatso
Simelane, Fezile Pertunia
Singo, Ntumeleng Sanette

Thole, Sedibo Machoene

12. Master of Financial Engineering

Shabangu, Monica Khensani (Financial Engineering)

Minor dissertation: Estimation of the bankruptcy probability for banks using the Omega model

Supervisor: Prof F Adekambi

Co-Supervisor: Dr K Essiomle

13. Master of Commerce

Agu, Patience Ndidiamaka (Development Economics)

Minor dissertation: The impact of cross-border trade on poverty in Africa

Supervisor: Prof NN Ngepah

Co-Supervisor: Dr CS Saba

Chamboko, David Kagelelo (Local Economic Development)

Technical research project: Economic exclusion and marginalisation of entrepreneurs in informal settlements: A case of Boitumelo informal settlement

Supervisor: Dr MB Maphela

Chauke, Hlamalani Margaret (Local Economic Development)

Technical research project: Digitalisation in micro and small businesses: A case of Vilakazi Street

Supervisor: Dr MB Maphela

Godana, Nkululeko Clement (Local Economic Development)

Technical research project: Assessment of entrepreneurial intentions for adults: The case of Mabalaastad village in the North-West Province

Supervisor: Dr MB Maphela

Hadebe, Zanele Noxolo (Competition and Economic Regulation)

Minor dissertation: Evaluation of the standards for assessing predatory pricing in South Africa: The case of Media24

Supervisor: Prof SJ Roberts

Hlebela, Ntsako (Competition and Economic Regulation)

Minor dissertation: The impact of the introduction of mobile number portability on switching costs and switching behaviour in South Africa

Supervisor: Dr T Muzata (MultiChoice, SA)

Co-Supervisor: Dr TS Vilakazi

Jeetoo, Jamiil (Competition and Economic Regulation) **(with distinction)**

Minor dissertation: Contribution of switching costs and network effects to consumer lock-in in mobile telephony in Mauritius

Supervisor: Dr R Hawthorne (Acacia Economics, SA)

Co-Supervisor: Dr EK Avenyo

Kola, Muhammad Mahmood (Competition and Economic Regulation)

Minor dissertation: A comparative analysis of regulatory approaches for reducing mobile data prices in South Africa

Supervisor: Dr TS Vilakazi

Maimeme, Seutame Oupa (Local Economic Development)

Technical research project: Leveraging indigenous knowledge for local economic development: The case of home-brewed alcohol in the Sekhukhune District Municipality

Supervisor: Ms N Rashied

Makhanya, Kabelo Collen (Financial Economics)

Minor dissertation: The relationship between carry trade and equity market returns in BRICS countries

Supervisor: Dr MM Manguzvane

Co-Supervisor: Prof L Bonga-Bonga

Mbokazi, Khetsile Setsabile (Development Economics)

Minor dissertation: The effect of real exchange rate misalignment on industrialisation and economic growth in the SADC region

Supervisor: Prof KS Nell

Molemohi, Thabiso Sir (Development Economics)

Minor dissertation: The effect of COVID-19 on gender inequality in the South African labour market

Supervisor: Prof NN Ngepah

Co-Supervisor: Dr CS Saba

Naidoo, Yourishaa (Development Economics)

Minor dissertation: The asymmetric effect of remittances on financial development: Evidence from South Africa

Supervisor: Dr ME Biyase

Sokapase, Zukile (Competition and Economic Regulation)

Minor dissertation: Market power and price discrimination in the market for the trading of piped-gas in South Africa

Supervisor: Prof R Das Nair

Thwala, Skhumbuzo (Local Economic Development)

Technical research project: The role of municipal budget in service delivery for local economic development: The case of Ekurhuleni

Supervisor: Prof PW Baur

Tshikalange, Mulanga (Financial Economics)

Minor dissertation: The determinants of the dynamic correlation between foreign exchange and equity markets: Cross-country comparison

Supervisor: Prof L Bonga-Bonga

Van Tonder, Jan-Louis (Competition and Economic Regulation) (**with distinction**)

Minor dissertation: The impact of household energy efficient products on consumers' willingness to pay: Implications for regulation

Supervisor: Prof L Grzybowski (University of Cape Town)

Co-Supervisor: Dr TS Vilakazi

14. Master of Philosophy

Gambatula, Charity Mphatso (Industrial Policy)

Minor dissertation: The impact of domestic debt on private investment in Malawi

Supervisor: Dr MK Wilson

Seboholi, Malineo Masekepe Alina (Industrial Policy)

Minor dissertation: The determinants of export performance of firms in Lesotho

Supervisor: Dr I Strauss

Co-Supervisor: Prof FM Tregenna

15. Doctor of Philosophy

Asiama, Rex Kweku Awuku (Economics)

Thesis: Essays on structural change and deindustrialisation in African countries

Supervisor: Prof FM Tregenna

Co-Supervisor: Prof KS Nell

Egunjobi, Ruth Oluwatosin (Economics)

Thesis: Essays on seafood export competitiveness and industrial upgrading in Namibia

Supervisor: Prof NN Ngepah

Co-Supervisor: Prof E Kraemer-Mbula

Kimari, Alexander Maina Jotham (Public Management and Governance)

Thesis: The effects of blockchain to improve the governance of public healthcare information in Kenya

Supervisor: Prof MI Jahed

Supervisor: Dr EB Niyitunga

Kirsten, Johann Petrus Frederich (Economics)

Thesis: Essays on the 'missing' middle class in South Africa

Supervisor: Prof I Botha

Co-Supervisor: Dr M Pretorius

Co-Supervisor: Dr ME Biyase

Kraak, André Hugh (Economics)

Thesis: Initiating an economic and skills turnaround in the local furniture innovation system of the Southern Cape: An 'intermediation' and 'innovation' perspective

Supervisor: Prof E Kraemer-Mbula

Mutandwa, Hudson (Public Management and Governance)

Thesis: Urban water infrastructure development in Zimbabwe: The role of Public Private Partnerships

Supervisor: Prof S Vyas-Doorgapersad

Mwambi, Sutene Mwambetania (Econometrics)

Thesis: Essays on cryptocurrencies tail dependency and asymmetry under the Levy-driven GARCH process

Supervisor: Prof JW Muteba Mwamba

Tshetu, Tabisa Namhla (Transport Economics)

Thesis: The impact of the Yamoussoukro Declaration on African airlines

Supervisor: Prof R Luke

Co-Supervisor: Prof J Walters

Van Niekerk, Bianca Maria (Marketing Management)

Thesis: A proposed model towards the impact of store atmospherics on BOP consumers' intention to purchase apparel

Supervisor: Prof M Roberts-Lombard

Co-Supervisor: Dr N Cunningham

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

LAUDATIONS

Mugumo, Menard PhD (Civil Engineering)

Menard Mugumo was born in Zimbabwe in 1969 and graduated with a BSc Honours degree in Civil Engineering from the University of Zimbabwe (1992). He graduated with an MSc in Civil Engineering from the University of the Witwatersrand in 2011. He worked as a Principal Engineer at Zimbabwe National Water Authority until 2004. He is currently working as Chief Engineer for the Department of Water and Sanitation in South Africa. He has done a number of feasibility studies for various dams in South Africa.

The candidate's doctoral research focused on the determination of the hydropower potential by utilising flood energy at large dam sites across South Africa. The study investigated the potential of harnessing flood energy to generate hydroelectric power at 145 large dam sites in South Africa. The study results have shown that a combined 2 840 MW can be generated from the 200-year flood at the sites investigated, with potential to generate approximately R25 billion in the year of flood occurrence. The hydropower potential from smaller (2 year) floods can generate 216 MW at 145 dam sites. Furthermore, reduction in CO₂ emissions as a result of switching from coal-

fired power production to flood hydropower has been found to range between 1.82 Mt/a to 23.87 Mt/a. The study suggested the development of operating rules for a cascade of dam reservoirs with allocation of space for flood control zones for future research.

Supervisor: Prof MO Dinka

Co-supervisor: Prof M Ilunga

Ndeketeya, Annah PhD (Civil Engineering)

Annah Ndeketeya is a water professional whose expertise and interests include water resources management, circular economy and multi-disciplinary environmental issues. She possesses a Bachelor's degree in Land and Water Resources Management from the Midlands State University and a Master's degree in Irrigation and Water Engineering from Wageningen University, Netherlands. She enrolled for a PhD study in the Department of Civil Engineering Science in 2016. Her PhD thesis focused on developing Decision-Support Tools for Sustainable Urban Water Management in the City of Johannesburg. Annah has managed to publish three international journal articles from her PhD thesis.

Available water resources are increasingly becoming scarce globally, and the City of Johannesburg's situation is worsened by rapid urbanisation, population growth, and climate change. One such strategy to supplement the water supply and relieve pressure on the main water supply system is to use alternative water sources (AWS), such as rainwater harvesting (RWH).

The objectives of the study were to evaluate the social dynamics in the CoJ and their effect on the adoption of RWH, assess the influence of seasonal rainfall and climate change on RWH, and develop a Water Evaluation and Planning Tool to assess different design options for an integrated water supply system by merging the suitability map, simulated run-off, and real-time city-data. Rainfall run-off was modelled using the HEC-HMS model up to the year 2050 under different climate scenarios. The novelty was mainly found in the development of suitability

maps and the implementation of GIS multi-criteria decision approach.

The objectives of the study were to evaluate the effect of social dynamics in the CoJ on the adoption of RWH, assess the influence of seasonal rainfall and climate change on RWH, and develop a Water Evaluation and Planning Tool to assess different design options for an integrated water supply system. Rainfall run-off was modelled using the HEC-HMS model and novelty was mainly found in the development of suitability maps and the implementation of the GIS multi-criteria decision approach.

Supervisor: Prof M Dundu

Tchadjie, Leonel Noumbissie PhD (Civil Engineering)

Tchadjie completed a four-year BSc (Chemistry) in 2009 at the University of Yaounde, Cameroon. From 2010 to 2012, he pursued a master's degree in chemistry, specializing in physio-chemistry of mineral materials at the University of Yaounde. In 2016, he was awarded an NRF-TWAS doctoral scholarship to pursue a DPhil at UJ, Department of Civil Engineering Science. Tchadjie has been offered a postdoctoral fellowship to study at University College of London.

The focus of Tchadjie's PhD was on the effect of activated bauxite addition on engineering properties and microstructure of volcanic ash-based geopolymer cement and concrete. Several studies have demonstrated the potential of using volcanic ash as a starting material for geopolymer synthesis. However, geopolymer products obtained from volcanic ash exhibit low strength development, thereby limiting their potential for application as building materials. This study investigated the feasibility of employing activated bauxite as a source of reactive alumina in the development of a suitable volcanic ash-based geopolymer binder. The study found that at ambient curing temperature, volcanic ash had very low geopolymer reactivity, although curing at the optimal temperature of 80°C led to significant strength development. The incorporation of activated bauxite in volcanic ash results in the formation of a more compact microstructure and overall strength improvement, thereby producing high-quality geopolymer binders or concretes with great potential for civil/structural engineering applications.

Tchadjie's PhD investigated the effect of activated bauxite addition on engineering properties and microstructure of volcanic ash-based geopolymer cement and concrete. The study found that at ambient curing temperature, volcanic ash had very low geopolymer reactivity. However, curing at optimal temperature of 80°C led to significant strength development and overall strength improvement, thereby producing high-quality geopolymer binders or concretes with great potential for civil/structural engineering applications. The study generated five journals and peer-reviewed conference papers.

Supervisor: Prof S.O. Ekolu

Co-supervisor: Dr H.A Quainoo

Muloiwa, Mpho PhD (Civil Engineering)

Mpho Muloiwa completed a Master's Degree in Engineering Civil at the University of Johannesburg. Prior to completing his Master's Degree, Mpho completed his Bachelor's Degree in the year 2015 at the University of Johannesburg. Currently, Mpho works as a lecturer at the Tshwane University of Technology, Faculty of Engineering and the Built Environment, Department of Civil Engineering. In his current line of work, he carries responsibilities such as teaching and learning, research and innovation, community engagement, and curriculum development.

Mpho's PhD study focused on the optimization of energy consumption in domestic wastewater treatment plants. His study was inspired by the current electricity crisis that has become a global concern all over the world, particularly in South Africa. About 1.611 kWh/m³ of energy is consumed in the biological treatment process during wastewater treatment. This energy is attributed to the continuous supply of oxygen for the respiration of microorganisms. The study investigated the possibility of incorporating temperature as a variable that has an impact on energy consumption. Mpho applied artificial neural network and decision tree algorithm to model energy consumption successfully. The energy consumption optimization model was optimized using the nature-inspired particle swarm optimization algorithm. Particle swarm optimization algorithm produced an optimum solution of 0.993 kWh/m³, which was 38.4% reduction in energy consumption in the biological

treatment process. Mpho managed to publish four article papers in peer reviewed journals.

Mpho's study was inspired by the current electricity crisis that has become a global concern particularly South Africa. With the aid of artificial intelligence and nature inspired algorithms, Mpho modelled and optimized energy consumption in the biological treatment process using artificial neural network and decision tree algorithm successfully. Energy consumption model, was optimized using particle swarm optimization. 38.4% reduction in energy consumption was achieved. Four article papers were published in peer reviewed journals. Congratulations Mpho.

Supervisor: Prof MO Dinka

Co-Supervisor: Prof S Nyende-Byakika

Myeza, Msizi Reginald PhD (Civil Engineering)

Msizi Myeza obtained his National Diploma in Town and Regional Planning (2007) from M.L. Sultan Technikon (currently known as Durban University of Technology), Bachelor of Science in Town and Regional Planning (2004) from Wits University. He obtained a distinction for his research report titled Expressing Transformation in the Planning of Public Urban Spaces (Parks and Squares) for the Johannesburg Inner City (2004). He proceeded to enrol for a master's in development planning (2008) from Wits University. He is a registered professional town and regional planner and is currently the Chief Executive Officer of the Council for the Built Environment in South Africa.

The candidate employed a mixed method that allows for extrapolation of themes and concepts to demonstrate that the modern-day practice of public space provision does not create places that enhance urban life or enrich socio-cultural life. The results of the study are transferable to both cities in developing and developed countries, taking into account specific contexts. Moreover, the study asserts that in order to create more dynamic and unique public spaces that contain and incorporate more of the South African spirit of ubuntu and a rainbow nation, there is a need for a more inclusive approach that opens up opportunities for participatory processes across lines of differences and privileges. The study also proposes shared characteristics and spatial-socio-cultural determinants of future public spaces as part of humanising the built environment. The general conclusions of this study are assembled in the following six sets: policy implementation, inclusive and participatory

developments in decision-making, public spaces that cater to diverse needs, public space management and governance, by-law enforcement and education programmes, and design principles for public space provision. The major contribution of the study is the development of an integrated framework for the transformation and democratisation of future public spaces in South Africa.

Supervisor: Prof CO Aigbavboa

Co-Supervisor: Prof C Tengan

COLLEGE OF BUSINESS AND ECONOMICS

LAUDATIONS

Asiama, Rex Kweku Awuku (PhD)

Rex Kweku Awuku Asiama holds a BScHons and MPhil in Economics from Ghana's Central University and the University of Ghana, respectively. He is employed as an Assistant Lecturer at the University of Environment and Sustainable Development in Ghana. Prior to this, he served as Research Assistant at the DSI/NRF South African Research Chair in Industrial Development at the University of Johannesburg (UJ) and at the Ghana Centre for Democratic Development. He has presented papers at international conferences like the TIPS forum, ESSA conference and the EAEPE annual conference. He has also published articles in journals such as Energy Policy, Water Policy, Irrigation and Drainage, International Journal of Emerging Markets, Journal of Sustainable Forestry, and the International Journal of Social Economics. His research interests are industrial policy and development, development economics, energy economics and development studies.

His thesis focuses on structural change, industrial development, and deindustrialisation in Africa, in particular analysing technology-driven structural change and the role of balance-of-payment constraints, as well as the policy-induced growth effect of manufacturing. The thesis comprises four empirical essays and uses time series and panel econometric approaches.

The thesis first shows that key macroeconomic, social, institutional, and political factors can influence technology-intensive manufacturing in African countries. It also identifies specific technology-based manufacturing sectors that can alleviate the balance-of-payment constraint in some African countries. In addition, the thesis shows that foreign aid can have positive growth effects on manufacturing in African countries, if targeted at improving manufacturing and production, and that certain policies and governance measures can enhance the growth-pulling effects of manufacturing. The findings have strong implications for industrial policy and for broader development policy in African countries.

Supervisor: Prof FM Tregenna

Co-Supervisor: Prof KS Nell

Egunjobi, Ruth Oluwatosin (PhD)

Ruth Oluwatosin Egunjobi holds a BSc Honours and a Master's degree in Economics. She is employed as a Lecturer at the International University of Management in Windhoek, Namibia.

Seafood-dependent developing countries tend to be trapped with uncompetitive exports. The objective of the study was to investigate the effectiveness of industrial upgrading strategies in Namibia's seafood sector and their potential impact on export competitiveness. Her thesis titled: Essays on Seafood Export Competitiveness and Industrial Upgrading in Namibia, makes a significant contribution by adapting various theoretical frameworks and econometric tools to tackle these issues.

Findings indicate that competitive advantage enhances import preferences. Industrial policy opens up new markets through product differentiation and innovation, mitigating previous high levels of unprocessed exports. Future shocks to industrial upgrading can be mitigated by export prices and the extent of GVC participation, which is crucial in mitigating the negative effects of uncompetitive seafood exports.

Supervisor: Prof NN Ngepah

Co-Supervisor: Prof E Kraemer-Mbula

Kimari, Alexander Maina (PhD)

Alexander Maina Kimari graduated from the University of Nairobi with a BSc in Electrical Engineering (Honours) and an MBA from St. Paul's University.

The title of his PhD thesis is “The Effects of Blockchain to Improve the Governance of Public Healthcare Information Management in Kenya”. The thesis discovered that Kenya’s public healthcare system is hampered by failure to govern information healthcare and medical health records, as well as the circulation of counterfeit drugs in pharmacies, and corruption in the public healthcare industry. The thesis discovered that blockchain technology – when applied in Kenya’s public healthcare system – can promote governance of medical health records, prevent counterfeit drug manufacturing and circulation, and can address corruption and promote transparency. Moreover, blockchain can reduce the amount of time patients spend waiting for the administration of healthcare services and make it easier to transfer medical healthcare reports from one hospital to another in a short period of time. The study was guided by a qualitative research approach.

Supervisor: Prof M Jahed

Co-Supervisor: Dr EB Niyitunga

Kirsten, Johann Petrus Frederich (PhD)

Frederich Kirsten is a temporary Lecturer in the School of Economics. He is a teaching and learning innovator and is the project manager of the Economic and Well-being Research group in the School of Economics. He holds an MCom in Economic Development from the University of Johannesburg (UJ).

The study investigated the subjective social positions of South Africans and contributed to the empirical and theoretical understanding of status perceptions in South Africa. Using the International Social Survey Programme dataset, the study used various econometric techniques to analyse the dynamics behind subjective social positioning and other social perceptions like biased perceptions, inequality tolerance, and demand for redistribution.

The study found that South Africans tended to place themselves in the middle of the social strata even though the country has struggled with income polarisation, confirming strongly biased perceptions that vary by race and income group. Furthermore, subjective social status and biased social perceptions significantly impact demand for redistribution, related to voting behaviour and societal unrest. These findings could assist policymakers in further understanding how South Africans perceive their position in society and assist with the subjective component of policy design aimed at reducing inequality and social unrest.

Supervisor: Prof I Botha

Co-Supervisor: Dr M Pretorius

Co-Supervisor: Dr ME Biyase

Kraak, André Hugh (PhD)

Andre Hugh Kraak holds a BA and MA in Economic History and a PhD in Education. He has worked at two South African universities and the Human Sciences Research Council (HSRC).

His thesis explored intermediation (or lack of) as a possible explanation for the decline and potential revival of the furniture industry in the Southern Cape. This entailed a qualitative exploration of the linkages between furniture firms and education and training organisations to develop artisanal, design and digitalisation capabilities. Several intermediary bodies (aiming to mediate relations between government and firms) were examined to identify their role in linkage building.

His findings suggest that intermediation has not occurred, mainly due to the absence of cooperation and interaction between key actors in the sector. Also, government departments have operated in isolation from each other, undermining the efforts of any intermediation. The overall effect has been to inhibit innovative solutions to an industry in decline.

Supervisor: Prof E Kraemer-Mbula

Mutandwa, Hudson (PhD)

Hudson Mutandwa was born in 1971 in the Gutu district, in the Masvingo Province in Zimbabwe. He graduated from the University of Zimbabwe with an Honours degree in Public Administration in 2012 and attained a Master's degree in Public Administration in 2014. He is also an alumnus of the School of Public Management and Governance, University of the Witwatersrand, South Africa, where he graduated with a Certificate in Research Methodology. Hudson has worked as an Administrative Assistant and Research Fellow at the Centre for Applied Social Science (CASS) at the University of Zimbabwe. Since 2012, he has worked as a Research Fellow at various research institutes, including Mass Public Opinion Institute (Zimbabwe), CASS (University of Zimbabwe), Good Governance Africa, Cloudburst (United States of America), the World Bank, International Court of Jurists, and the National Democratic Institute, among others.

His thesis examined the scope of the implementation of public private partnerships (PPPs) in urban water infrastructure in Zimbabwe. This qualitative study included interviews, literature and document reviews. The data was analysed using conceptual and document analysis. The study found that urban councils have failed to re-engineer and revamp their water systems to meet increasing water demands, and reasons are lack of technical skills and expertise; lack of coordination among the government departments responsible for water infrastructure; and accountability fragility; to state a few. A sequential PPP framework is proposed for improved urban water infrastructure.

Supervisor: Prof S Vyas-Doorgapersad

Mwambi, Sutene Mwambetania (PhD)

Sutene Mwambetania Mwambi holds an MCom in Financial Economics from the University of Johannesburg (UJ). Prior to his untimely passing, he was a Lecturer and MCom Financial Economics programme coordinator at the School of Economics at UJ.

His thesis employed several econometric methods to examine contagion risk and spillover dynamics in emerging and developed economies as proxied by leading individual country exchanges. The key results show that the regime-switching and dependence structure outperforms a portfolio strategy without regime switching and dependency, or a portfolio with only regime switching. Furthermore, the results show an inverse relationship between the risk contribution and asset allocation of South Africa and oil markets, supporting the existence of lower tail dependence between them.

Furthermore, there is evidence of regime changes in the GARCH process for all assets except gold, which affirms it is a stable asset and a suitable risk diversifier. The study was valuable in many ways and suggests that measuring and identifying extreme stock returns could benefit portfolio construction.

Supervisor: Prof JW Muteba Mwamba

Tshetu, Tabisa Namhla (PhD)

Tabisa Namhla Tshetu holds a National Diploma in Financial Information Systems and a Bridging Certificate in the Theory of Accounting from the University of Johannesburg (UJ), and a GIBS Master of Business Administration (MBA). Namhla has over 22 years of diverse experience in project, regulatory policy, stakeholder & financial management. Currently she is an Executive at Southern Africa's largest airline, and her responsibilities include the organisation's aeropolitics management function. This involves championing the start of new commercial routes, while ensuring compliance with domestic and foreign destinations' regulations & legislations. Namhla activates relations with regulatory bodies and maintains stakeholder relations on the continent. She joined the RSA delegation in negotiating Bilateral Air Services Agreements with other countries as a member of the Strategic Planning Committee. She has made presentations to the African Union (AU)-formed African Civil Aviation Commission and the UN-formed ICAO ICAN 2022 on open skies in Africa.

This study discussed aviation challenges in Africa, liberalisation, Yamoussoukro Declaration implementation delays and airlines' involvement in liberalisation resolutions. It examined airline and regulator liberalisation readiness, benefits, impediments, and implementation status, thereby determining the impact of liberalisation on African airlines and their post-liberalisation survival strategies. Data was collected through a qualitative explorative and descriptive research design by completing a semi-structured questionnaire for regulators and semi-

structured interviews for airlines from four Regional Economic Communities (RECs). The study found that liberalisation would improve intra-Africa connectivity through political will, efficiency, non-protectionism, and continental aviation regulations harmonisation. This would result in better and affordable travel experiences for passengers. The study uniquely considers the liberalisation issue from the airlines' and regulators' perspectives. It highlights the role of the airlines in liberalisation policy development. It was also the first study to comprehensively describe the safety validation process inspection audits imposed on foreign carriers between countries in Africa.

Supervisor: Prof R Luke

Co- Supervisor: Prof J Walters

Van Niekerk, Bianca Maria (PhD)

Bianca Maria van Niekerk holds a BCom, BCom Honours and MCom in Marketing Management from the North-West University (NWU) in South Africa. She has worked as a Marketing and Business Management Lecturer at various universities in South Africa over the past 10 years and is currently employed as a Lecturer at the Namibia University of Science and Technology in Windhoek. Bianca received a merit certificate for the best Master's student in Marketing Management in 2016 from NWU, and is also a dedicated academic, whose interest in teaching and learning is reflected in her innovative teaching approach. In terms of her research focus, she aims to empower apparel retailers with knowledge on how to implement market-based solutions to reduce poverty, income inequality and facilitate inclusive economic development in emerging African countries, such as Namibia.

She proposes a model for the impact of store atmospherics on Balance of Payments (BOP) consumers' intentions to purchase apparel. Her PhD study extends marketing literature by utilising five theories from a multidisciplinary theoretical perspective. Covariance-based structural equation modelling (SEM) assessed the significant relationships among all constructs in the conceptual model. The results illustrate that all purchase antecedents are relevant and BOP consumers' attitudes are the main factor driving the behavioural intentions of the BOP segment in Namibia towards apparel. This enables the advancement of apparel retailing in Namibia to develop national integration, focusing on "non-essential" products, such as

apparel, but also to drive this initiative regionally. To properly segment Namibia's urban BOP market, trust, perceived awareness, and self-identity should be emphasised in store atmospherics to convey a feeling of equal status, importance, and recognition to foster the behavioural intentions of the BOP cohort in an emerging African market such as Namibia.

Supervisor: Prof M Roberts-Lombard

Co-Supervisor: Dr N Cunningham

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

HONORARY DOCTORAL LAUDATION

Hazeltine, Barrett PhD *honoris causa*

Prof Barrett Hazeltine is Professor Emeritus at Brown University and was a tenured professor in the College of Engineering at Brown, one of the top universities in the United States of America and part of the Ivy League institutions. Prof Hazeltine obtained his PhD in 1963 and has since produced more than 200 publications, reports, and reviews. His research interests include digital logic, technology transfer, and engineering education. Prof Hazeltine has also published two textbooks, one on electronic circuit design and another on small-scale technologies.

Prof Hazeltine was awarded student-recognized teaching awards for 13 years (1972-1984 and again in 1990) and, in 1985, the teaching award at Brown was named after him in recognition of this achievement. He has taught a variety of courses but specializes in Engineering Management, where he teaches about entrepreneurial skills and business decision-making.

Prof Hazeltine has already received awards from the American Society for Engineering Education, the Providence Engineering Society, and the New York Brown Club. He has also already been

awarded an honorary doctorate by the State University of New York in Stony Brook.

Prof Hazeltine has made significant contributions to engineering education in Africa. He taught at the University of Zambia in 1970 and 1976, at the University of Malawi at various points between 1980 and 1989, at the University of Botswana in 1993, and at the Africa University in Zimbabwe. At both the Universities of Zambia and Malawi, Prof Hazeltine helped these institutions develop degree programs in engineering. Other foreign countries in which he has done teaching or consulting are Bangladesh, Indonesia, Nigeria, South Africa, the Philippines, Taiwan, and Thailand. As such, Prof Hazeltine demonstrates the UJ aims of internationalization and collaboration.

Indeed, Prof Hazeltine's experiences in Africa have partially molded his career. As he states in an interview:

I certainly learned a lot of technology things [in Africa]. I was introduced to technology I never would have seen if I had stayed here as an ordinary electrical engineer. It gives you much more appreciation for the impact of technological and societal change.

In this same interview, he also speaks of the importance of decolonisation of engineering curricula in Africa, further aligning himself with the values and imperatives held by the UJ. As Prof Hazeltine states:

The other issue that was important, especially in the beginning, was decolonisation of the mind. When we first went to Zambia, the aspiration was, “We want to be as good as those British universities,” but being as good as those British universities meant being just like them, and in an entirely different setting.

As such, Prof Hazeltine understands the importance of knowledge, teaching, and learning – as well as technology – located in, and appropriate for, context, thus aligning closely with UJ’s vision of being an international university of choice anchored in Africa.

Barrett Hazeltine has officially retired twice but continues to teach a full course load. He also supervises postgraduate students, oversees research projects, chaperones international trips, and bikes to and from work every day, even after 62 years of teaching. He lives the UJ philosophy of learning to be, as he has continually updated his knowledge of computing and technology over the last several decades during which technology has been completely revolutionized. That his teaching and research remain relevant and current to this day demonstrates his passion and enthusiasm, both as an educator and as a lifelong learner.

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National Anthem of South Africa

Nkosi sikelel' Afrika
Maluphakanyisw' uphondo lwayo,

Yizwa imithandazo yethu,
Nkosi sikelela, thina lusapho lwayo.

Morena boloka setjhaba sa heso,
O fedise dintwa le 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.