



**UNIVERSITY OF  
KWAZULU-NATAL**

**GRADUATION CEREMONY**

**FACULTY OF ENGINEERING**

**TUESDAY, 20 APRIL 2010**

**19h00**

**SPORTS CENTRE  
(WESTVILLE CAMPUS)**

## THE UKZN PACT

We, the staff and students  
of the University of Kwa-Zulu Natal  
agree to treat each other with respect,  
to abide by the rules and regulations of the institution  
and to commit ourselves to excellence in research-led  
teaching and learning



### **Isivumelwano seNyuvesi yaKwaZulu-Natali**

Thina, singabasebenzi nabafundi  
baseNyuvesi yaKwaZulu-Natali  
sivumelana ngokuthi siphathane ngenhlonipho,  
silandele yonke imithetho nemigomo yesikhungo  
futhi sizibophezela ekufundeni nasekufundiseni  
okuholwa ucwaningo nokunobunyoningco

## OFFICERS

**Chancellor** **Dr ZL Mkhize**  
MBChB(Natal)

**Vice-Chancellor and Principal** **Professor MW Makgoba**  
MBChB(Natal) DPhil(Oxon) FRCP(Lond)  
FRSSAfMASSAfAMP(INSEAD)

**Chairman of Council** **Mr M Mia**

**Deputy Vice-Chancellor (Research)** **Professor NM Ijumba**  
PrEng BSc(Eng)(Hon)(Dar-es-Salaam) MSc  
(Salford) PhD(Strathclyde) CEng MIET  
MIEEE Reg Eng(T) Reg Eng(K)

**Deputy Vice-Chancellor (Teaching and Learning)** **Professor R Vithal**  
BA(Hons) UHDE(UDW) BEd(Natal) MPhil  
(Cantab) DrScient(AaU)

**Deputy Vice-Chancellor and Head of College (Agriculture, Engineering and Science)** **Professor R Slotow**  
BScHons(Rhodes) MSc(Natal) PhD(California)

**Acting Deputy Vice-Chancellor and Head of College (Health Sciences)** **Professor SY Essack**  
BPharm MPharm PhD(UDW) MPS

**Deputy Vice-Chancellor and Head of College (Humanities)** **Professor JRA Ayee**  
BAHons MPA(Ghana) PhD(Hebrew  
University of Jerusalem)

**Deputy Vice-Chancellor and Head of College (Law and Management Studies)** **Professor JC Mubangizi**  
Dip.Ed LLB(Makerere) Dip.L.P(LDC)  
LLM(Cape Town) LLD(UDW)

**Registrar** **Professor JJ Meyerowitz**  
BScCompSc MSc(Natal)

**President of Convocation** **Mr SC Ngcobo**  
BAdmin BCom(Hons)(UDW)

## OFFICE BEARERS – FACULTY OF ENGINEERING

**Dean Professor F Takawira**  
PrEng, BScEng (Manchester), PhD (Cantab),  
MIEEE

**Deputy Dean Professor E Boje**  
PrEng, BScEng(Witwatersrand) MScEng  
PhD(Natal) DiplData(Unisa) SMSAIMC  
MIEEE

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# **ORDER OF PROCEEDINGS**

The Academic Procession enters the Hall  
*University Anthem – Ihele*

## **The Chancellor constitutes the Congregation**

### **Welcome to Guests**

Professor R Slotow

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

### **Congratulatory Remarks**

Students' Representative Council

## **Presentation of Doctoral Graduands**

Dean of the Faculty

## **Introduction of the Guest Speaker**

Orator

### **Address**

Dr Sibusiso Sibisi

## **Musical Interlude**

## **Presentation of Graduands**

Dean and Deputy Dean of the Faculty

## **The Chancellor dissolves the Congregation**

### **National Anthem**

The Congregation is invited to join in the singing of the National Anthem

The Academic Procession leaves the Hall  
*Gaudeamus Igitur*



### Key to symbols

- + Passes with distinction in major subject / programme
- \* Degree awarded *cum laude*
- α Degree awarded *summa cum laude*
- # Diploma awarded with distinction
- Posthumous

# Award of Degrees in the Faculty of Engineering

## DOCTORAL DEGREES

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### Doctor of Philosophy

- Chetty**, Manimagalay, *BScEng, MScEng* ..... *Chemical Engineering*  
Thesis: Neural network analysis of cell cycle regulators in mammalian cells  
Supervisors: Professor M Carsky and Dr E Kormuth
- Foxon**, Katherine Maria, *BScEng* ..... *Chemical Engineering*  
Thesis: Analysis of pilot-scale anaerobic baffled reactor treating domestic wastewater  
Supervisor: Professor CA Buckley
- **Kumile**, Christopher Matlalo, *BEngHons, MScEng(Portsmouth)* .. *Mechanical Engineering*  
Thesis: Sensor based real-time mechatronic control of computer integrated manufacturing  
Supervisor: Professor G Bright
- Liu**, Yi-Sheng, *BScEng, MScEng* ..... *Electronic Engineering*  
Thesis: Hybrid token-CDMA medium protocol  
Supervisors: Professor F Takawira and Professor H Xu
- Moller**, Bruce Colin, *BScEng, MScEng* ..... *Chemical Engineering*  
Thesis: Activity of complex multifunctional organic components in common solvents  
Supervisors: Professor D Ramjugernath and Dr JR Rarey
- Quazi**, Tahmid Al-Mumit, *BScEng, MScEng* ..... *Electronic Engineering*  
Thesis: Cross-layer design for the transmission of multimedia traffic over fading channels  
Supervisors: Professor H Xu and Professor F Takawira
- Scriba**, Stefan Martin, *BScEng, MScEng* ..... *Electronic Engineering*  
Thesis: Analysis of the EDF family of schedulers  
Supervisor: Professor F Takawira
- Walingo**, Tom Mmbasu, *BTech(Moi), MScEng* ..... *Electronic Engineering*  
Thesis: Traffic modeling and analysis of next generation networks  
Supervisor: Professor F Takawira
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# MASTERS DEGREES

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## Master of Science in Engineering

- Abdul Kader**, Muhammad, *BScEng* ..... *Chemical Engineering*  
Dissertation: The modeling and control of a 1-octene partitioned wall distillation column  
Supervisor: Professor M Mulholland
- Begemann**, Morné, *NatDipEng(TTC)* ..... *Electrical Engineering*  
Dissertation and coursework: Integrated and synchronised approach to DSM and DMP initiates  
Supervisors: Professor NM Ijumba and Dr RM Naidoo
- α **Botha**, Martin Francis, *BScEng* ..... *Chemical Engineering*  
Dissertation: Production and high temperature treatment of syngas  
Supervisor: Professor M Carsky
- Browne**, Anthony Jason, *BScEng* ..... *Environmental Engineering*  
Dissertation and coursework: Investigation into the denitrification of high strength landfill leachate using pine bark and raw composted commercial garden refuse as a carbon source: column studies  
Supervisor: Professor C Trois
- Chetty**, Rajandren, *NHDipEng(WitTek)* ..... *Electrical Engineering*  
Dissertation and coursework: Residential time-of-use electricity pricing – an econometric assessment  
Supervisors: Professors NM Ijumba and Dr VA Lawrence
- Giles**, Ryan Cameron, *BScEng* ..... *Agricultural Engineering*  
Dissertation: A simulation study of cane transport system improvements in the Sezela Mill area  
Supervisors: Professor PWL Lyne and Professor CN Bezuidenhout
- \* **Holtzhausen**, Servaas De Kock, *BEng(Pret)* ..... *Mechanical Engineering*  
Dissertation: Design of an autonomous underwater vehicle: vehicle tracking and position control  
Supervisor: Professor G Bright
- \* **Iwarere**, Samuel Ayodele, *BScHons(Ilorin)* ..... *Chemical Engineering*  
Dissertation: Measurement of phase equilibria for oxygenated hydrocarbon systems  
Supervisors: Professor D Ramjugernath and Dr P Naidoo



- Iyilade, Yemisi, BScEng(Ambrose Alli) ..... Civil Engineering**  
Dissertation: An investigation into the mechanical biological pre-treatment of garden waste using forced aeration, and its impact on carbon reduction potential  
Supervisor: Professor C Trois
- Jumman, Ashiel, BScEng ..... Agricultural Engineering**  
Dissertation: A framework to improve irrigation design and operating strategies in the South African sugarcane industry  
Supervisors: Dr A Senzanje and Dr NL Lecler
- Kaniki Tumba, Armel, BScEng(Lubumbashi) ..... Chemical Engineering**  
Dissertation: Infinite dilution activity coefficient measurements of organic solutes in fluorinated ionic liquids by gas-liquid chromatography and the inert gas stripping method  
Supervisors: Professor D Ramjugernath and Dr P Naidoo
- \*Leoaneka, Mocketjema Clarence, BScEng ..... Electrical Engineering**  
Dissertation: Dynamic performance of numerical distance protection relays in heavily series compensated networks  
Supervisor: Professor BS Rigby
- Lüssi, Kevin Myles, BScEng ..... Mechanical Engineering**  
Dissertation: A study and implimentation analysis of an anti-sagging device for power transmission lines using shape memory alloys  
Supervisor: Dr D Muftic
- Mahomed, Veruschia, BScEng ..... Electronic Engineering**  
Dissertation: Wavelet based compression integrating error protection via arithmetic coding with forbidden symbol and map metric sequential coding  
Supervisor: Professor SH Mneney
- Matadin, Sunveer, BScEng ..... Electronic Engineering**  
Dissertation: Research and design of an embedded controller and GUI for the automation of the armature volt-drop test  
Supervisor: Professor ES Boje
- Mills, Dustin David, BScEng ..... Agricultural Engineering**  
Dissertation: Development and assessment of an automatic short furrow irrigation system  
Supervisors: Dr NL Lecler and Professor JC Smithers
- Mkandawire, Burnet O'Brien, BScEng(Malawi) ..... Electrical Engineering**  
Dissertation and coursework: Integrated systems thinking for refurbishment: the blueprint for optimizing returns on assets managed  
Supervisors: Professor NM Ijumba and Mr S Govender

- Modisane, Thabo, BScEng** ..... *Electrical Engineering*  
Dissertation: Performance analysis of voltage regulating relays with circulating current control algorithms using hardware-in-loop real-time simulator techniques  
Supervisor: Professor BS Rigby
- Moodley, Prebantha, BScEng** ..... *Chemical Engineering*  
Dissertation: Vapour-liquid equilibria studies for binary systems containing 1-hexene and n-hexane  
Supervisors: Professor D Ramjugernath and Dr P Naidoo
- Moodley, Thessygan, BScEng** ..... *Electronic Engineering*  
Dissertation: Development of a model helicopter based flight test platform for multivariable feedback control  
Supervisor: Professor ES Boje
- Naidu, Charvinia, BScEng** ..... *Chemical Engineering*  
Dissertation: The development of a three phase filtration cell  
Supervisors: Professor DIO Ikhu-Omoregbe and Professor M Carsky
- \* **Ntusi, Marathon, BScEng(CapeTown)** ..... *Electrical Engineering*  
Dissertation and coursework: Optimal placement of capacitors on a transmission network  
Supervisor: Professor NM Ijumba
- Nzimande, Timothy Mbusi, BScEng** ..... *Electrical Engineering*  
Dissertation and coursework: Voltage dip performance analysis  
Supervisors: Professor NM Ijumba and Mr RG Koch
- \* **Padayachee, Laneil, BScEng** ..... *Electronic Engineering*  
Dissertation: Asynchronous cooperative communication with channel and delay estimation  
Supervisors: Professor H Xu and Professor F Takawira
- α **Pillay, Jeremy Clive, BScEng** ..... *Chemical Engineering*  
Dissertation: Binary vapour-liquid equilibria for oxygen-containing compounds  
Supervisors: Professor D Ramjugernath and Dr P Naidoo
- α **Pitot de la Beaujardiere, Jean-Francois Philippe, BScEng** ..... *Mechanical Engineering*  
Dissertation: Numerical simulation of the structural response of a composite rocket nozzle during the ignition transient  
Supervisors: Professor G Bright and Professor E Morozov
- Pletts, Troy Robin, BScEng** ..... *Agricultural Engineering*  
Dissertation: The feasibility of automatic on-board weighing systems in the South African sugarcane transport industry  
Supervisors: Professor PWL Lyne and Mr LF Lagrange

- Plug, Bjorn Dirk, BScEng** ..... *Civil Engineering*  
 Dissertation: Study of the efficiency of various substrates in the removal of nitrates from landfill leachates  
 Supervisor: Professor C Trois
- Rajkumar, Shailendra, BScEng** ..... *Chemical Engineering*  
 Dissertation: Modeling of biological sulphate reduction in anaerobic digestion  
 Supervisors: Professor CA Buckley and Mr CJ Brouckaert
- Rampersad, Vaughan, BScEng** ..... *Electrical Engineering*  
 Dissertation: PLC implementation of online, PRBS-based tests for mechanical system parameter estimation  
 Supervisors: Mr B Burton and Professor RG Harley
- Syed, Jameel, BScEng** ..... *Electronic Engineering*  
 Dissertation: Effect of amplifier non-linearity on the performance of CDMA communication systems in Raleigh fading environment  
 Supervisor: Professor F Takawira
- Thorogood, Rhys Lloyd, BScEng** ..... *Mechanical Engineering*  
 Dissertation: Performance based analysis of current South African semi trailer and B-double trailer designs  
 Supervisor: Professor G Bright
- Vandayar, Nivashni, BTech(DUT)** ..... *Chemical Engineering*  
 Dissertation: Mitigation of sulphur dioxide emissions at Hillside Aluminium: a feasibility study  
 Supervisor: Professor M Carsky
- Wilson, Etienne Pierre, BScEng** ..... *Chemical Engineering*  
 Dissertation: A vapour-liquid equilibrium study on sub-critical systems using a static apparatus  
 Supervisors: Professor D Ramjugernath, Dr P Naidoo and Professor JD Raal
- Zulu, Njabulo Mziwandile, BTech(MUT)** ..... *Environmental Engineering*  
 Dissertation and coursework: The development of a latent heat thermal energy storage system using a phase change  
 Supervisor: Professor DR Arnold



## Master of Science

**Dilrajh**, Rudipersadh, *BTech(DUT)* ..... *Water and Environmental Management*  
Dissertation and coursework: Optimisation of construction of VIP toilet sanitation for clinics  
in rural areas  
Supervisor: Professor C Trois

**Manzini**, Sibusiso Thomas, *FDE, FDE (Advanced), MEd* ..... *Leadership and Innovation*  
Dissertation and coursework: Towards a systems and complexity perspective of the national  
system of innovation.  
Supervisor: Professor RG Taylor

**Taylor**, Michael Richard, *BA(Pret), HDE(UKZN), MBA(Charles Stuart)* .... *Leadership and  
Innovation*  
Dissertation and coursework: Exploring the design and development of the Real  
Value(c)methodology: an emerging value-based leadership metrics system  
Supervisor: Professor RG Taylor

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## HONOURS DEGREES

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### Bachelor of Science Honours in Property Development (Construction Management)

**Amod**, Mohamed Sameer Yakoob, *BSc(PropDev)*  
**Bosa**, Nikita Naledi Nakiyingi Nabossa, *BSc(PropDev)*  
**Dlamini**, Innocent Samkelo, *BSc(PropDev)*  
**Hirsch**, Carl Andrew, *BSc(PropDev)*

### Bachelor of Science Honours in Property Development (Quantity Surveying)

**Benting**, Nuaal, *BSc(PropDev)*  
**Dawood**, Gibran, *BSc(PropDev)*  
**Dlamini**, Nompumelelo Mbali, *BSc(PropDev)*  
**Dlamini**, Phumzile Zimasa, *BSc(PropDev)*  
**Doubell**, Bryce Gorwyne, *BSc(PropDev)*



**Garaba**, Simbarashe, *BSc(PropDev)*  
**Gcumisa**, Thembeka Hazel, *BSc(PropDev)*  
**Kandhai**, Shevona, *BSc(PropDev)*  
**Kingu**, Naomi Eliwaza, *BSc(PropDev)*  
**Maduna**, Mthokozisi Wordsworth, *BSc(PropDev)*  
**Mhlanga**, Kwanele Dalisu Nyamezela, *BSc(PropDev)*  
**Moeletsi**, Mpho Elliah, *Dip.in Constr.Stud. (Polytechnic), BSc(PropDev)*  
**Mokete**, Bibby Onalenna, *BSc(PropDev)*  
**Monageng**, Michael Kopano, *BSc(PropDev)*  
**Montsho**, Koobonye, *BSc(PropDev)*  
**Monyela**, Tshogofatso Maria Pheladi, *BSc(PropDev)*  
**Moodley**, Kristina, *BSc(PropDev)*  
**Mudliar**, Karisha, *BSc(PropDev)*  
**Naidoo**, Neeleshen, *BSc(PropDev)*  
**Ncalane**, Nomathandazo Lucia, *BSc(PropDev)*  
**Osman**, Mobeen, *BSc(PropDev)*  
**Paruk**, Mahomed, *BSc(PropDev)*  
**Patel**, Faheem, *BSc(PropDev)*  
**Pillay**, Terene, *BSc(PropDev)*  
**Reddy**, Nathaniel Clarence, *BSc(PropDev)*  
**Rocke**, Rhys Stanley, *BSc(PropDev)*  
**Thevan**, Derylene, *BSc(PropDev)*  
**Weyers**, Declan Ronald Patrick, *BSc(PropDev)*

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## BACHELORS DEGREES

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### Bachelor of Science in Engineering

#### *Agricultural Engineering*

**Boote**, Gordon Louis Nelson  
**Dladla**, Lungisani Titus  
**Fraser**, Bruce Stuart  
**Lebotsa**, Mamashege Gladys  
**Lebotsa**, Phalane Sekina

**Maidi**, Frank Tebe  
**Mamabolo**, Mahlatse Arone  
**Moodley**, Samantha  
**Neethling**, Devon Lynton  
**Thwala**, Buyisiwe Mavis

## *Chemical Engineering*

Adam, Hoosain  
Basitheva, Anisha  
Bhana, Dhiren Visham  
Bisetty, Revandan  
Brigman, Natasha  
Changoo, Kevin  
Chetty, Lavashkar  
Chetty, Prean  
Chetty, Rashnee  
Devprasad, Teshiele  
Dowley, Yvan  
Emmanuel, Shenelle Anne  
Fraser, Christopher Michael  
Gafoor, Omerah  
 $\alpha$  Gent, Roy Derek  
Govender, Anton  
Govender, Byron Bradley  
Govender, Casey  
Govender, Wayne Llewelyn  
Gwebu, Dudu Lomakhisimusi  
Iswalal, Tinika Nashreen  
Kallan, Preshen  
Khan, Mukhtar Ahmad  
Khan, Nasreen  
Lasich, Matthew  
Lilwanth, Hitesh  
Lolwana, Xolani Gift  
Ludwig, Carsten Peter  
Lukhele, Celenkosini Gabriel  
Lutchminarain, Viona Nundkisoor  
Maduray, Presantha  
Magwaza, Nkululeko Duke  
Marot Macquet, Sebastien  
Masthan, Iftikhaar Saahir  
Mc Dougall, Shana Marica  
Mjindi, Avumile Vumani  
Moodley, Perusha

Moodley, Prenolan  
Motilal, Brendan  
Mthembu, Nkululeko  
Mudliar, Ryandhran  
Naicker, Ansuia  
Naicker, Prisha  
Naicker, Sherwin  
Naicker, Yogani  
Naidoo, Levasan  
Naidoo, Sershen  
Nala, Mqondisi Edmund  
Padayachee, Kimon  
Perumal, Natasha  
Perumal, Thavandhran  
Pillay, Jeremy  
Pillay, Keshnee  
Pillay, Thirusan  
Porter, Nicole Megan  
Prithipal, Rasmika  
Purdon, Andrew James  
Ramlakhan, Natleen  
Ramlal, Veashna  
Reddy, Jashanta  
Reddy, Kelisha  
\* Rice, Nicholas Michael  
Sewlall, Preetha  
Sewraj, Alecia  
Sheahan, Warren Errol  
Sikhakhane, Thangithini Thokozani  
Sivanarain, Rishan  
Sobie, Nishaanie  
Somera, Shaveth  
Subramani, Kevin  
Vane, Freedom Khumbulani  
\* Venkatesan, Luke  
Woodraj, Akhil

## *Civil Engineering*

Ally, Shaheer  
Budhram, Nishtha  
Capery, Oomar Dawood  
Chamane, Xolani James

Chetty, Calvin  
Ciza, Richard  
Dellar, Sheldon Ryan  
Devnarain, Pranav Provinchand

**Dilrajh**, Avana  
**Etti**, Jeremiah Craig  
**Govender**, Denise  
**Harper**, Gareth David  
**Harripershad**, Jitesh  
**Harrychund**, Sarisha  
**Hlophe**, Wandile Sanele  
**Hoffman**, Kurt Daniel  
**Jagath**, Rohini  
**Jimoh**, Ayodele Oluwole  
\* **Jugwanth**, Samista  
**Kadwa**, Ahmed Suleman  
**Kasserchun**, Sumith  
**Kernick**, Gordon Brian  
**Khambule**, Sibusiso Blessing  
**Khumalo**, Zinhle Viriato  
**Kretzinger**, Dale Bryan  
**Lephoto**, Mpho Albert  
**Maabong**, Thabiso  
**Mahabeer**, Santosh  
**Maharaj**, Nerita  
**Mahomed**, Ridhwaan

**Makan**, Jenean  
**Moodley**, Radeshni  
**Mudaly**, Merissa Deandra  
**Munsamy**, Kerissa  
**Naicker**, Julian  
**Naidoo**, Rosanne  
**Naidu**, Sira Krean  
**Nair**, Christopher Emmanuel  
**Ntinga**, Musawenkosi Boy-Boy  
**Pillay**, Redhavan  
**Ramcharan**, Reshika  
**Ramharak**, Vishane Hiralal  
**Ramjee**, Amit Kantillal  
**Ramprasad**, Bavathie  
**Ramroop**, Avinash  
**Ramsamy**, Samuel  
**Robert**, Suresh  
**Severaj**, Vikaar Rabichund  
**Sivepersad**, Sherika  
**Thomas**, Byron Wesley  
**Zondo**, Nqobile Sibongiseni

### *Computer Engineering*

**Anandlal**, Sunera  
**Babopeng**, Boago Rudolph  
**Gounder**, Trenade  
**Govender**, Lendl  
**Ismail Sooliman**, Muhammad Rayhaan  
**Letsididi**, Nametsegang  
**Mahomed**, Naasira  
**Naicker**, Nishen

α **Naidoo**, Damian Nathan  
**Naidoo**, Theran  
**Ndlangamandla**, Jabulile Precious  
**Ramlakhan**, Yashveer  
**Singh**, Ashvir  
**Singh**, Avinash  
**Soodhoo**, Nimesh  
**Vieira**, Ricardo Santos

### *Electrical Engineering*

**Alli**, Junaid  
**Ambaram**, Akheel Pravindas  
**Blose**, Siyanda Benedict  
**Brigman**, Navash  
**Chelliah**, Shaphan  
**David**, Lynn

**Erswell**, David Anthony  
**Gounden**, Morvyn  
**Govender**, Dayalan  
**Govender**, Dershin  
**Govender**, Kavitha  
**Govender**, Theshan



**Khuzwayo**, Thamsanqa Nkululeko  
**Mafu**, Emmanuel Nkosinathi  
**Manciya**, Lulama Wiseman  
**Marais**, Dylan Charles  
**Maseko**, Nkosinathi Wellbeloved  
**Mnguni**, Mehlokazulu Rudolf  
**Moodley**, Yolán  
**Mosalaosi**, Modisa  
**Mvuyana**, Steven Siphesihle  
**Nagesur**, Dushen  
**Naidoo**, Cassandra  
**Naidoo**, Criselda Andrea  
**Naidoo**, Jasoda  
**Naidoo**, Lyle  
**Naidoo**, Niveshen  
**Naik**, Raynold

**Naiken**, Nalleen Poovalingham  
**Ngubane**, Qaphela Siyabonga  
**Nkosi**, Sibusiso Blessing  
**Panday**, Zesh  
**Pillay**, Gabriel  
 \* **Pillay**, Kerrylynn Rochelle  
**Pillay**, Vimeshan  
**Reddy**, Viknesveran  
**Satimburwa**, Siphesihle Gadzirai  
**Shozi**, Philani Aurelius  
**Sigawuke**, Remember  
**Singh**, Shivern Mansingh  
**Subbiah**, Revashan Wayne  
**Tose**, Msingathi  
**Zulu**, Msawenkosi Herman

### *Electronic Engineering*

**Barlow**, Philip Arthur  
**Brijmohan**, Nivadh  
**Chanderman**, Anveer  
**Duma**, Weziwe Mfanafuthi  
**Feli**, Anthony Divine Elemawusi  
**Freese**, Gareth Charles  
**Gebashe**, Vukani Ayanda  
**Govender**, Devendran  
**Govender**, Matthew  
**Hemraj**, Vishal  
**Inderjeet**, Avesh  
**Khan**, Nisar  
**Maharaj**, Suash  
**Makhanya**, Nkosiyezwe Israel  
**Meghrajh**, Tashveer  
**Mhlongo**, Sylvester Themba  
 \* **Moodley**, Yuven  
**Moolman**, Frans  
**Motheram**, Preia  
**Mundri**, Kalvin  
**Naicker**, Karlin Kevin

**Naidoo**, Claude Jerarde  
**Naidoo**, Daryl  
**Naidoo**, Leanne  
**Naidoo**, Nivern  
**Naidoo**, Yuven  
**Ndwardwe**, Lethukuthula David  
**Nervik**, Susanti  
**Nkwanyana**, Nontsikelelo Sihle  
**Paardenkooper**, Adam Peter  
**Paruk**, Zaid  
**Ramdhani**, Pavan Nareenchand  
**Rampersadh**, Devina  
**Rapeti**, Kalin  
 α **Reddi**, Yashren  
**Roux**, David Vincent  
**Rowell**, Timothy Clive  
**Shabalala**, Mondri Victor  
**Sivanarain**, Priyen  
 \* **Sivnarain**, Resham  
**Suleman**, Ashraf  
 \* **Turck**, Jonathan Roscoe



## *Mechanical Engineering*

- Akoojee**, Mohammed  
**Andrick**, Maina Innocent  
**Archary**, Hamresin  
**Athol-Webb**, Avern Malcolm  
**Bahadur**, Trevlen  
**Bapeekke**, Sulaiman Ahmed Sadeck  
**Bronner**, Matthew Jeffrey  
**Buthelezi**, Phiwe Sibongokuhle  
 $\alpha$  **Chowdhury**, Seffat Mohammad  
**Dias**, Ivan Da Costa  
**Dixon**, Roland Christopher  
**Drotsky**, Chris  
**Du Clou**, Sven  
**Ekoru**, John Elisa Dimiti  
**Elson**, Wesley De Vere  
**Emmenis**, Wayne Stanley  
 $\alpha$  **Feng**, Chun-Tsung  
**Genevieve**, Bernard  
 $\alpha$  **Govender**, Anthony  
**Govender**, Indrian  
**\*Govender**, Jude  
**Govender**, Myendran  
**Govender**, Serena  
**Govender**, Stanton Wesley  
**Govindasamy**, Aldrin Stephen  
**Grobler**, Herbert Alfred  
**Gurriah**, Wesley James  
**Hlophe**, Linduyise Goodman  
**Hove**, William Tazvitya  
**Joseph**, Jerusha Sarah  
**Juggoo**, Yashman  
**\*Kemp**, Iain Henry  
**Keudel-Schaffer**, Wesley  
**Khan**, Yusuf  
**Khomo**, Zwakele Franciscus  
**Lakhna**, Adheesh  
**Loukidis**, Tino George  
**Maharaj**, Avinash  
**Maphumulo**, Mdimiseni Emmanuel  
**Mbatha**, Nduduzo  
**Mc Clure**, Scott Victor  
**Meman**, Mohamed Mehboob  
**Moodley**, Vishandren  
**Mudali**, Ugandhiran  
**Munien**, Dhivern  
**Naidoo**, Kelvin  
**Naidoo**, Prenola  
**Naidoo**, Yogianandh  
**Nemavhandu**, Rendani Immanuel  
**Ngomane**, Sibusiso Santos  
**Ntombela**, Sithembiso Xolani  
**Nxumalo**, Sonke  
**Nyuswa**, Barry  
**Olivier**, Jean-Pierre, *BSc(UPE)*  
 $\alpha$  **Page**, Matthew Christopher  
**Phakathi**, Mthokozisi Patrick  
**Pillay**, Yokreshni Krishna  
**Raiman**, Shakir  
**Reddy**, Navashan  
**Rodger**, Michael Geoffrey  
**Scott**, Dylan Jeremy  
**Sigamoney**, Kingston  
**Singh**, Manshil  
**Singh**, Sumeeth  
**Singh**, Yashiel  
**Stephen**, Wesley Alwyn  
 $\alpha$  **Tootla**, Naem Ebrahim  
**Tshikovhi**, Thingahangwi  
**Veale**, Kirsty Lynn  
**Viljoen**, Hendrik Johannes  
**Xaba**, Nonkululeko Peacworth Nancy

## Bachelor of Science in Land Surveying

**Buthelezi**, Mthokozisi Excellent  
**Dlamini**, Zanexolo Kelvin  
**Geerds**, Edwardt Albert  
**Karrim**, Mohamed Shoaeb  
**Laolang**, Bonolo  
**Mabaso**, Ntando

**Michalak**, Maciez Stanislaw  
**Monnenyane**, Baholo Elias  
**Mzimela**, Emmanuel Scelo  
**Sibisi**, Sihle Cedric  
**Sithetho**, Babalwa

## Bachelor of Science in Property Development

**Asmall**, Ayesha  
**Barnes**, Jason Mark  
**Bulose**, Adrian Thandanani  
**Chetty**, Raylin  
**Coetzee**, Tyrone  
**Curia**, Cindy  
**Ducasse**, Corey  
**Govender**, Deelan  
**Govender**, Seren  
**Haug**, Bjorn Arne  
**Hlahane**, Kabelo Pearl  
**Jones**, Carl David  
**Khoza**, Sitakele Lokwandza Patience  
**Kimber**, Garth Derek  
**Kirpal**, Lishya  
**Lansdell**, Warren Kyle  
**Leftwick**, Mark Victor  
**Leonard**, Sumaiyah  
**Lester**, Travis John  
**Malek Hoosen**, Raees  
**Marx**, Leigh - Anne Yolanda  
**Mattioda**, Matteo Carlo  
**Mgobhozi**, Senzo Nhlakanipho  
**Moodley**, Devashen Lane  
**Moodley**, Nerissa

**Moorhead**, Stacie Alex  
**Motala**, Ziyaad  
**Mzobe**, Vuyisile Brightness  
**Ndlovu**, Xolile Success  
**Nisbet**, Adam Tristram  
**Ntanzi**, Zinhle Fundiswa  
**Padia**, Irshaad  
**Parbhoo**, Ashley  
**Pillay**, Vedarsharn  
**Riddle**, Jason Marc  
**Ross**, Jarrod Wayne  
**Sacks**, Alec  
**Sigwebela**, Siphumelele  
**Simelane**, Yolanda Bongiwe  
**Singh**, Haveer  
**Sisilana**, Owethu  
**Sivanath**, Kavitha  
**Stevens**, Blake Anthony  
**Sutherland**, Michael Pierre Mckenzie  
**Tayob**, Hishaam Imtiaz  
**Tshabalala**, Thembeke Lynette Gugulethu  
**Von Berg**, Andrew Michael  
**Vorster**, Danica-Anne  
**Wearne**, Steven Mark

## GUEST SPEAKER

### Dr Sibusiso Sibisi



Dr Sibusiso Sibisi was born, raised and schooled in a Roman Catholic Mission area called Marianhill in Durban where he completed his high school education. He had an opportunity to pursue his tertiary studies in England and London. He obtained a PhD from the Department of Applied Mathematics and Theoretical Physics (DAMTP), Cambridge University.

Dr Sibisi has a particular interest in the diffusion of ideas between academia and industry.

In the late eighties he taught Applied Mathematics at the University of Witwatersrand for five years. In 1988 he was a Fulbright Fellow at the California Institute of Technology. He was a Senior Research Associate at the DAMTP and at the Cavendish Laboratory in Cambridge.

In 1997 he entered the South African corporate world as the Executive Director at Plessey in Cape Town where his role was to manage and direct research and development in telecommunications technologies.

He later joined the University of Cape Town as the Deputy Vice-Chancellor for Research.

In 2007 Dr Sibisi was awarded the Order of Mapungubwe (Silver) by President Thabo Mbeki for his exceptional contribution to technology, research and strategy. This Order is awarded to South African citizens for excellence and exceptional achievement and it represents ingenuity and excellence.

Dr Sibusiso Sibisi is the President and Chief Executive Officer of the Council for Scientific and Industrial Research (CSIR) which is one of the leading scientific and technology research, development and implementation organisations in Africa.

He is the chairperson of the Denel board, board member of Liberty Holdings and non-executive director of Murray and Roberts.

Dr Sibisi is a seasoned author of numerous books and journal articles on science and technology.



# The Graduation Ceremony

The graduation ceremony has a long history and is steeped in tradition. It dates back to the establishment of the first universities in Europe in the 12<sup>th</sup> century.

## The Chancellor

“Chancellor” is an office that goes back to Roman times: the original chancellor or *cancellarius* (as the office was known), regulated access to the Roman Tribune. In medieval times, the office became associated with the heads of writing departments of the early kings. Because so few people were literate, a chancellor was necessarily learned. This is why the heads and spokespersons of the early universities were also accorded this title. More recently the office has become largely symbolic and the executive head of a university is its Vice-Chancellor. One of the Chancellor’s primary roles is to confer degrees at the graduation ceremonies.

Dr Zwelini Mkhize is the second Chancellor of the University of KwaZulu-Natal. His predecessor is Dr Frene Ginwala (2005-2009).

## The Mace

The University of KwaZulu-Natal Mace was designed and executed by local sculptor Mr Zamokakhwe Gumede and is carved from an indigenous wood, Drakensberg bottlebrush (*umBande*), gathered from the artist’s home near Bergville.

The head of the Mace is made up of three opened book-like forms, suggestive of scholarship but also of the massive landscape forms of our province, onto each of which is placed a ruler, a pen and a pencil. These refer respectively to the scientific and computational, the text-based and the creative sides to the University’s work. Below this are an encircling set of heads, representing the diverse University community. The whole is surmounted by an alighting secretary bird (*iNtungunono*), an elegant and active bird found throughout the province and equally at home on land or in the air. At the foot of the Mace is a hoof-like shape, giving a sense of contact with the soil of Africa.

The carrying of the mace in procession symbolizes the University’s status as a degree awarding institution.

## Academic Dress

The wearing of gowns by judges, ministers, teachers and scholars is an ancient and significant custom. By wearing a gown when receiving their degrees and diplomas, the graduating student participates in this long tradition and joins hands with students past and present.

The hood conveys the most amount of information with the addition of braid or coloured linings differentiating the different qualifications. The colour of the band or hood lining represents the Faculty, each of which has its own colour.

## Convocation

After being capped by the Chancellor, each graduate moves across the stage and hands the hood to the Robing officer who represents the Convocation of the University. The Robing officer places the hood upon the graduate’s shoulders and, in so doing, symbolizes acceptance into the Convocation of the University of KwaZulu-Natal, the statutory body which links graduates of the University and through which graduates have the opportunity to play a continuing role in the affairs of the University.





## The University Logo

The University Logo is a powerful visual symbol through which the University projects an image of excellence. In addition, it emphasises the University's standing and integrity within the province of KwaZulu-Natal and within the academic and business communities, at home and abroad and provides an identity around which internal stakeholders – staff and students – unite.

The African shield symbolises the protection of our most valuable assets, namely, education, culture and, by extension, African Scholarship. The globe with multi-coloured rays epitomises a rising sun, a new beginning and acts as a symbol of enlightenment.

Further, the globe represents the University as a global player, producing world-class graduates, while the multi-coloured rays embody diversity – race, culture, language – as well as social values. The book/wave/wings, which underscore the visual, represent the foundation of knowledge, the spirit of the eastern seaboard, and soaring to new heights.

The circular format of the Centenary Logo suggests unity and simulates a globe, representing UKZN as a world class university. The entire structure mirrors a coat of arms. Coats of arms are used to identify a community/family. The University is a community and 'family' within itself.

The University logo represents a University that is rooted in and responsive to Africa's unique qualities, challenges, diversities and strengths, while, at the same time, nurturing and protecting African Scholarship.

## Celebrating 100 years of Academic Excellence

The University of KwaZulu-Natal (UKZN) will be celebrating 2010 as the centenary of academic excellence in the province of KwaZulu-Natal.

This marks the rich tapestry of varied history from the University College, Bechet College, Salisbury Island-University College, Medical School, Edgewood College, Pietermaritzburg, Howard College and later the University of Durban-Westville.

In January 1910, the Natal University College in Pietermaritzburg was established with 57 students – 49 men and 8 women operating from Maritzburg College.

Eight professors formed the staff of the College in 1910: Professors of Classics; Chemistry and Physics; Botany and Geology; English and Philosophy; Pure and Applied Mathematics; Zoology; Modern Languages and History; and Law. Undergraduates in 1910 paid R3.00 per month for tuition.

UKZN celebrates 100 years of consolidation of academia – we are celebrating a history of mergers, consolidations, reconfiguration and the present that we now enjoy – a university that stands out as one of South Africa's prominent universities and is one of three African universities ranked amongst the top 500 universities in the world.

*UKZN Graduation Anthem: IHELE*  
(written and composed by Phelelani Mnomiya)

Obani labo?  
Baphi?  
Ngibona beza beyikazela  
Bathwel' ongiyane  
Bavela kuphi na?  
Obani labo?  
Ongqondongqondo, oSibakhulu  
Yibo Laba  
Yini na leyo  
Ihele, ihele lezingwazi zakithi  
Udwendwe lwezinqwele zakithi  
Nant' ihele loNgqondongqondo  
Nant' ihele loSibakhulu  
Udwendwe lwezinqwele zakithi  
Dedani bangene; kodwa nathi siyeza  
Dedani badlule; nathi siyalandela  
Sithi: halala, halala  
Halala maqhawe esizwe sethu  
Unwel' olude, inkonzo enhle  
Sithi: halala!

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*GAUDEAMUS IGITUR*

Gaudeamus igitur, juvenes dum sumus;  
Gaudeamus igitur, juvenes dum sumus;  
Post jucundam juventutem,  
Post molestam senectutem,  
Nos habebit humus, nos habebit humus.  
Ubi sunt qui ante nos in mundo fuere?  
Ubi sunt qui ante nos in mundo fuere?  
Vadite ad superos, transite ad inferos,  
Ubi jam fuere, ubi jam fuere.  
Vita nostra brevis est, brevi finietur;  
Vita nostra brevis est, brevi finietur;  
Venit mors velociter, rapit nos atrociter,  
Nemini parcetur, nemini parcetur.  
Vivat Academia, vivant Professores,  
Vivat Academia, vivant Professores,  
Vivat membrum quodlibet,  
Vivant membra quaelibet,  
Semper sint in flore, semper sint in flore.

*NATIONAL ANTHEM*

Nkosi sikelel' iAfrika  
Maluphakanyisw' uphondo lwayo  
Yizwa imithandazo yethu  
Nkosi sikelela  
Thina lusapholwayo.

Morena boloka  
Setjhaba saheso  
Ofedise dintwa lematshwenyeho.

O se boloke, O se boloke  
Setjhaba saheso  
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.

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