# Ceremony 8 Faculty of Engineering, the Built Environment and Information Technology

School of the Built Environment

Friday, 7 April 2017, 09:30 Vodacom NMMU Indoor Sports Centre, South Campus, Summerstrand

# **CONGRATULATORY MESSAGE**

Graduation is a momentous occasion, representing the crowning moment of all your hard work and the many sacrifices that you and your loved ones have made to reach this milestone.

For us, graduation is the highlight of the university calendar as we witness successful students cross the stage to be capped and enter a new chapter in their lives. Each of you has a unique story to tell.

We salute and applaud your achievement and wish you all the best in your future endeavours. Your time here at the Nelson Mandela Metropolitan University (NMMU) was but a stepping stone towards your future.

We trust that NMMU has equipped you not only with an excellent academic qualification for the many challenges of life and work, but also with life-changing experiences to shape your future.

It is our wish that you will leave here today as proud NMMU graduates who will continue to champion social justice and equality, and be change agents in building a better society and a better world.

Thank you for offering us the privilege of making NMMU a part of your life. Your success is our success, and as NMMU alumni, we look forward to watching your story unfold.

# Congratulations!

Ms Santie Botha Chancellor



Prof Derrick Swartz Vice-Chancellor



#### ABOUT NMMU

Nelson Mandela Metropolitan University (NMMU) is a new generation university, distinguished by a wide range of study options and access routes open to students. With 450 programmes from certificate through to doctoral level across 130 different career fields, NMMU truly is a comprehensive university.

Founded on more than a century of quality higher education, NMMU nurtures innovation, fosters creativity, embraces technology and develops people to meet the challenges of tomorrow. NMMU is a product of a merger of the University of Port Elizabeth and the PE Technikon in 2005. Prior to such a merger, the Vista University campus of Port Elizabeth was incorporated into the former University of Port Elizabeth. The university has a strong track record of research, working extensively in partnership with business and

industry, making NMMU a valued contributor to the socioeconomic development of the region and beyond.

This year (2017), the university has 24530 students and close to 4100 permanent and contract staff, based on seven campuses in Nelson Mandela Bay and George.

#### Leaders

NMMU's Vice-Chancellor is Professor Derrick Swartz, the Chancellor is Ms Santie Botha and the Chair of Council is Judge Ronnie Pillay.

#### Location

Six of NMMU's campuses are in Nelson Mandela Bay and one is in George on the Garden Route. The seven campuses are:

- South Campus in Summerstrand (within a 720-hectare private nature reserve)
- North Campus in Summerstrand
- Second Avenue Campus, home to the new "green" Business School, in Summerstrand
- Bird Street Campus which will be a new postgraduate arts hub in Central
- Missionvale Campus in Missionvale
- George Campus in George
- The Ocean Sciences Campus (recently purchased from CSIR)

Facilities and supportive teaching and learning environment

NMMU is privileged to have outstanding facilities. All students have access to well-equipped laboratories, some of which are open 24/7, and free Wi-Fi throughout all its campuses. All the lecture halls are equipped with the latest technology and students have the opportunity of using additional e-learning tools online. The campus libraries and information services network offers a state-of-the-art integrated online system. There are cafeterias, food courts and coffee shops.

A range of opportunities are provided to enhance the academic success of students. These include a first-year orientation programme, peer-facilitated learning opportunities (eg, Supplemental Instruction, e-PAL, tutorials, practicals, mentor programmes, 'Keys to Success' workshops and online resources). NMMU also promotes both in and outside of the class learning to enhance holistic student development. To recognise the learning that takes place outside of the class, NMMU has developed an innovative, electronic co-curricular record system.

The University also offers the finest sporting facilities in the Eastern Cape and numerous venues for conferences, meetings and other special events.

#### **Faculties**

NMMU has seven faculties. They are:

- Arts
- · Business and Economic Sciences
- Education
- Engineering, the Built Environment and Information Technology
- Health Sciences
- Law
- Science

#### Academic focus areas

Though NMMU prides itself on its vast range of programme offerings, it has a number of strategic areas in terms of its core business of teaching and learning, research and engagement. They are:

- · Health and wellness
- Economic and business development with a focus on job creation and entrepreneurship
- Materials and process development for industry and manufacturing
- Emerging information and communications technology for development
- Environmental and natural resource management
- · Culture, communication and language
- · Leadership, governance, democracy and justice
- Educational development in support of excellence in teaching, learning and curriculum
- Infrastructure and human settlement development

#### Strategic research areas

- Biodiversity conservation and restoration
- · Coastal marine and shallow water ecosystems
- Cyber citizenship
- · Democratisation, conflict and poverty
- Earth Stewardship Science
- Health and wellbeing
- Humanising pedagogies
- Manufacturing technology and engineering
- Nanoscale characterisation and development of strategic materials
- Science, Mathematics and Technology Education for Society
- Strategic energy technologies
- Sustainable human settlement development and management
- Sustainable local economic development

# **Research and Engagement entities**

NMMU has 31 focused faculty based and 7 institution-wide entities (institutes, centres and units) that exist over and above the formal academic structures that are aimed at promoting engagement, research, technology transfer and innovation. They include the likes of InnoVenton; NMMU's Institute for Chemical Technology and Downstream Chemicals; eNtsa, an institute that focuses on seeking solutions through engineering; Earth Stewardship Science Research Institute (ESSRI); and Institute for Coastal and Marine Research. Many are award-winning entities.

#### 'Green' endeavours

In line with its value of respect for the natural environment, NMMU is involved in a large number of "green" initiatives that will not only reduce its own carbon footprint but is also assisting others in seeking renewable energy resource solutions. The university's new Business School, for example, was the first in the country to be awarded four-star "green" accreditation for a public and education building by the Green Building Council of South Africa in 2013. The "green" agenda is supported by the Centre for Renewable Energy, which is recognised as a research leader in the field.

#### International links

Just over 8% of NMMU's student body comes from 64 different countries outside of South Africa. The Office for International Education fosters relationships and manages inter-institutional linkages to enrich both NMMU staff and students. These partnerships also foster our growing research. NMMU regularly sends students for study abroad opportunities.

# Reasons to be proud:

- NMMU's diversity and multiculturalism. Our African students alone come from 34 countries on the continent.
- The High Resolution Transmission Electron Microscopy (HRTEM) Centre, which opened in 2011, is the only place in Africa where scientists can view atoms in line with NMMU's growing prominence for nanoscience.
- More than 40% of NMMU academic staff have doctoral degrees when compared to the national average of 33%.
- New infrastructure like the iconic Engineering block on North Campus and the new Human Movement Science Building complete with a 100m research sprint track on South Campus.
- NMMU has excellent links with industry and business, particularly within the pharmacy, tourism and automotive industries.
- NMMU's ongoing education partnership with Fifa, as one of only two presenters in Africa of an international sports management programme through the Centre International d'Etude du Sport (CIES).
- The success of being the first student racing team from Africa to successfully compete in the Formula Student event in Germany. NMMU students designed and built a racing car to exacting specifications.
- The university was selected in 2012 to facilitate the country's first electric e-mobility programme and technical centre, called the uYilo e-mobility programme.
- NMMU has extensive expertise within the field of friction processing which has resulted in numerous national awards for the patented technology, WeldCore<sup>®</sup>. This technology has also aligned the strategic partnership between NMMU and Eskom.
- NMMU's accounting and pharmacy students who continue to produce top results in their national external
  examinations
- NMMU's international award-winning choir which continues to perform around the globe to wide acclaim.

#### **ACADEMIC DRESS**

Special academic attire was designed for office bearers at Nelson Mandela Metropolitan University to be worn at prestigious academic events like graduation.

Each outfit – from that of the Chancellor and Vice-Chancellor to those of the Executive Deans – has been especially selected to signify a particular office, in keeping with attire worn by academics at leading universities throughout the world.

The gowns, caps and hoods of NMMU graduates were similarly inspired and are explained in detail below.

# Academic dress for graduates at NMMU is as follows:

#### **Doctoral degrees**

Gown: Cardinal red polyester cashmere gown with long pointed sleeves pleated up with blue cord and

button and lined with blue satin with 125mm facings and a blue collar.

Hood: Full shape hood in cardinal red polyester cashmere lined with faculty colour satin and edged

around the cowl with 75mm faculty colour ribbon with 15mm blue ribbon overlaid central. 50mm wide straight neckband in cardinal red polyester cashmere, 25mm faculty colour ribbon in centre

of neckband with 15mm blue ribbon overlaid central to faculty ribbon.

**Cap:** Round doctor's bonnet in black velvet with faculty colour cord and tassel.

#### Master's degrees

Gown: Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail is used.

Hood: Full shape blue hood lined faculty colour satin and edged around the outside of the cowl with

75mm faculty colour with ribbon. 50mm straight neckband in blue with 25mm faculty colour ribbon

centred.

**Cap:** Black mortarboard with blue tassel.

#### Postgraduate diplomas

Gown: Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail.

**Hood:** Blue simple shape hood lined silver grey satin. Straight neckband with 15mm faculty ribbon on

top edge of neckband and around cowl. 15mm silver grey ribbon on bottom edge of neckband

and around cowl spaced 20mm away from the faculty colour.

Cap: Black mortarboard with blue tassel.

# **Bachelor honours degrees**

Gown: Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail.

**Hood:** Blue simple shape hood lined silver grey satin with 50mm wide straight neckband in faculty colour.

Cowl edged 75mm faculty colour ribbon on the outside. 15mm silver grey ribbon runs along the

outer edge of the cowl, overlaid on faculty ribbon and on top edge of neckband.

**Cap:** Black mortarboard with blue tassel.

# Four-year bachelor's degrees (including Bachelor of Technology degrees)

**Gown:** Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail.

**Hood:** Blue simple shape hood lined silver grey satin with 50mm wide straight neckband in faculty colour.

Cowl edged 75mm faculty colour ribbon on the outside. Silver grey cord runs along the outer

edge of the cowl, overlaid on faculty ribbon and on top edge of neckband.

**Cap:** Black mortarboard with blue tassel.

#### Three-year bachelor's degrees

Gown: Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail.

Hood: Blue simple shape hood lined with silver grey satin with 50mm wide straight neckband in faculty

colour. Cowl edged 75mm faculty colour ribbon on the outside.

**Cap:** Black mortarboard with blue tassel.

#### Advanced diploma

Gown: Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail.

**Hood:** Blue simple shape hood lined with silver grey satin with 50mm wide straight neckband. 15mm

faculty colour ribbon on top and bottom of neckband around cowl.

**Cap:** Black mortarboard with blue tassel.

**Diploma** 

**Gown:** Black gown, long pointed sleeves pleated up with blue twisted double cord and button. Similar

cord detail.

Hood: Blue simple shape hood with 50mm wide straight neckband. 25mm faculty colour ribbon on

centre of neckband.

**Cap:** Black mortarboard with blue tassel.

# **Faculty colours**

Arts: Yellow Business & Economic Sciences: Plum

Health Sciences:

Law:
Grey blue
Education:
Orange
Science:
Dark green

Engineering, the Built Environment

and Information Technology: Light blue

Business School Black and magenta

Messrs T. Birch & Co (Pty) Ltd and its subsidiary, Croft Magill & Watson (Pty) Ltd, have been appointed as official robemaker to the University and as contracted suppliers of choice to students for graduation academic attire.

The Image Factor has been appointed as the official photographer of the University.

2017 AUTUMN GRADUATION CEREMONIES APRIL 2017				
Friday, 31 March 2017				
Ceremony 1	09:30	George Campus All Programmes		
Tuesday, 4 April 2017		•		
Ceremony 2	09:30	Faculty of Arts (School of Architecture; School of Music, Art & Design and School of Language, Media & Culture)		
Ceremony 3	14:30	Faculty of Education		
Wednesday, 5 April 2017				
Ceremony 4	09:30	Faculty of Business and Economic Sciences (School of Management Sciences - excluding Undergraduate Diploma qualifications)		
Ceremony 5	14:30	Faculty of Arts (School of Governmental & Social Sciences)		
Thursday, 6 April 2017				
Ceremony 6	09:30	Faculty of Business and Economic Sciences (School of Economics, Development & Tourism)		
Ceremony 7	14:30	Faculty of Business and Economic Sciences (School of Industrial Psychology & Human Resources, Graduate School and others)		
Friday, 7 April 2017				
Ceremony 8	09:30	Faculty of Engineering, the Built Environment and Information Technology (School of the Built Environment)		
Ceremony 9	14:30	Faculty of Engineering, the Built Environment and Information Technology (School of Engineering)		
Saturday, 8 April 2017				
Ceremony 10	09:30	Faculty of Engineering, the Built Environment and Information Technology (School of Information & Communication Technology)		
Ceremony 11	14:30	Faculty of Science (School of Computing Sciences, Mathematics, Physics & Statistics and School of Biomolecular & Chemical Sciences)		
Monday, 10 April 2017				
Ceremony 12	09:30	Faculty of Science (School of Environmental Sciences)		
Ceremony 13	14:30	Faculty of Law		
		Faculty of Business and Economic Sciences (School of Accounting, Postgraduate qualifications including Bachelor of Technology degrees)		
Tuesday, 11 April 2017				
Ceremony 14	09:30	Faculty of Health Sciences (School of Clinical Care Sciences and School of Medicinal Sciences)		
Ceremony 15	14:30	Faculty of Health Sciences (School of Behavioural Sciences and School of Lifestyle Sciences)		
Wednesday, 12 April 2017				
Ceremony 16	09:30	Faculty of Business and Economic Sciences (School of Accounting – Undergraduate qualifications)		
Ceremony 17	14:30	Faculty of Business and Economic Sciences (School of Management Sciences – Undergraduate Diploma qualifications)		

#### OFFICE-BEARERS OF THE UNIVERSITY

**CHANCELLOR** 

MS S BOTHA: BEcon, BEconHons(US)

**CHAIRPERSON OF COUNCIL** 

JUSTICE R PILLAY: BA, LLB(UDW)

**VICE-CHANCELLOR** 

PROF DI SWARTZ: BA(UWC), MA, DPhil, Doctor in Human Rights Law (hc)(Essex University, UK)

DEPUTY VICE-CHANCELLOR: INSTITUTIONAL SUPPORT

DR SW MUTHWA: BA(SW)(Fort Hare), BA(SW)Hons(Wits), MSc, PhD(London University, UK)

DEPUTY VICE-CHANCELLOR: RESEARCH AND ENGAGEMENT

PROF AWR LEITCH: BSc, BScHons, MSc, PhD(UPE)

**DEPUTY VICE-CHANCELLOR: TEACHING AND LEARNING** 

PROF DM ZINN: BA, BAHons, HDE(UCT), MEd, DEd(Harvard University, USA)

**EXECUTIVE DIRECTOR: FINANCE** 

MR MR MONAGHAN: BCom(UPE), BComHons(UNISA), Professional Accountant(SA)

**EXECUTIVE DIRECTOR: HUMAN RESOURCES** 

MS VN BAM: BSocSc(UCT), PGDip(UFH), MBL(UNISA)

**REGISTRAR** 

DR F GOOLAM: BSc, HDE, BEd, MEd(UDW), PhD(UP)

PRESIDENT OF ALUMNI ASSOCIATION

DR R JONAS: BA(UWC), HDE, BAHons(Unisa), MA(UPE), PhD(NMMU)

**EXECUTIVE DEANS OF FACULTIES:** 

**ARTS** 

PROF MJR BOSWELL: BSocSc, BSocScHons, MSocSc(UCT), PhD(Vrije Universiteit, Netherlands)

**BUSINESS AND ECONOMIC SCIENCES** 

DR I LAGARDIEN: PGDip, MSc(London School of Economics), PhD(University of Wales)

**EDUCATION** 

DR SF MOENG: BA, HDE, BEdHons(UPE), MSc(St Cloud State University, USA), DEd(NMMU)

ENGINEERING, THE BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

DR OSW FRANKS: BSc MechEng, MInd Admin(UCT), Hons (B&A)(US), PhD (Engineering Science)(USF - USA), Pr Eng

HEALTH SCIENCES

PROF L PEPETA: MBChB (Unitra), FCPAED(SA), DCH(SA), MMed (Wits)

LAW

PROF A GOVINDJEE: BA, LLB(RU), LLM(UPE), LLD(NMMU)

**SCIENCE** 

PROF A MURONGA: BSc,UED(UNIVEN), BScHons, MSc(UCT), PhD (University of Minnesota, USA)

**DEAN OF TEACHING AND LEARNING** 

PROF CD FOXCROFT: BA, BAHons, MA, DPhil(UPE)

**DEAN OF STUDENTS** 

MR LP JACK: NDip(PMA)(EC Technikon), BTech(PM)(PET), BAPhil(US), MCom(UKZN)

# **ORDER OF PROCEEDINGS**

# **ENTRANCE OF ACADEMIC PROCESSION**

(The congregation is requested to rise while the academic procession enters the hall)

#### MOMENT OF SILENCE

Director: Marketing and Corporate Relations (The congregation is requested to remain standing)

# **CONSTITUTION OF CONGREGATION AND WELCOME**

Vice-Chancellor (The congregation is requested to be seated)

#### **AWARDING OF QUALIFICATIONS**

Vice-Chancellor

#### **DISSOLUTION OF CONGREGATION**

Vice-Chancellor

# **NATIONAL ANTHEM**

(The congregation is requested to stand for the singing of the National Anthem)

# **DEPARTURE OF ACADEMIC PROCESSION**

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

# **INFORMATION TO MEMBERS OF THE CONGREGATION**

Members of the congregation are requested:

- To rise and remain standing while the academic procession enters and leaves the hall.
- Not to leave the hall before the end of the ceremony.
- To switch off cellular phones or turn them on silent mode.
- Not to move around in the hall.
- Not to eat and drink in the hall.
- Not to get up and take photographs during the ceremony.
- To limit cheering and ululating to a minimum.
- The words Cum Laude indicates in the text below that the diploma or degree is awarded with distinction to the candidate/s listed.

#### **NATIONAL DIPLOMA: BUILDING**

AINSLEY, Kyle Davied

ANDROLIAKOS, Christopher Devlin

BARNARD, Reuben Johan BARNWELL, Claudia Paige

BOKUVA, Lwandile

CHILDS, Jonathan James Manning

COETZEE, Riaan Sharl CUBUNGU, Aphiwe DE KLERK, Darren Charles DE LAUWERE, Jean Rene DLAMINI, Bulelwa Kym DU PLOOY, Armandt DU TOIT, Christiaan

EVANS, Bashira FANG, Chih-Hung

FIHLA, Athenkosi Dalindyebo FUNANI, Ncumusa Ntombizanele

GALAWE, Mondli Lucky

GCORA, Sihle

GREWE, Robin Nicky GUGUSHE, Athi Hlokoma HASSIM, Mohamed Jubail HLALUKANA, Zinwe-Zenkosi

KOMPELE, Coceka LANDMAN, Christiaan LAWANA, Kwakho

LE ROUX, Gawie Jean-Pierre

LECHE, Evaristus LOTZ, Jared David

MAHANJANA, Samelangolwazi

MAHOKOTO, Ayabulela

MAILA, Ipeleng MAKAULA, Lakheni MARALA, Thabo

MAVODSE, Vutlhari Harmony MBHALATI, Rirhandzu Seda

MEISE, Jarryd Albert METISO, Samuel MOELA, Sethakge Kaizer MOKONENYANE, Tau MQELE, Zandisiwe Wendy MUKHEIBIR, Cameron William

MZWAKALI, Sifanele NJAJULA, Siviwe NJOMBA, Busisiwe

NKAYITSHANA, Sinelizwi Funeka

NONKWALI, Ezile NTSHOBANE, Noniko OLWAGEN, Marnus

OOSTHUIZEN, Johan Hendrik

PAKKIES, Luvo

PIETERSEN, Rouchelle PILISO, Zhane Mary-Ann PRETORIUS, Wandile Walter

SEBUSI, Kagisho SHARE, Tiaan SHIBAMBU, Gift SHWENI, Asive SITHOLE, Ndalwenhle

SOGCWAYI, Aviwe Nomvuyiso Princess

TAPULA, Yanga TILESE, Neliswa Jesica TONJENI, Akuthi

TSHANGANA, Sifungo Maxwell

VAN DER WESTHUIZEN, Estian Josias VAN JAARSVELD, Osmond Renier

WATKINS, Jaime ZINGELWA, Nomfusi

#### **CUM LAUDE**

DU PREEZ, Gabriella LEKOMA, Onalenna MQONGWANA, Vuyolwethu NTSHIBA, Peliwe Lizeka SMITH, Shani

#### **BACHELOR OF SCIENCE IN CONSTRUCTION ECONOMICS**

DE KLERK, Matthew Kyle FERREIRA, Ruan Christo GOLIGHTLY, Wade Philip GREWAR, John William GROBLER, Michael-John GROOM, Kurt Alex

KAKEMBO, Kevina Catherine
KHOSA, Musa Pleasure
KONZEKA, Khayakazi Ruth
KRIEL, Jakobus Andre

LAMPRECHT, Marnewecke Johannes MAIFALA, Lethabo Mathukhu

MAJOVA, Atenkosi Atandile Nande MALUSI, Mlungiseleli MARSHALL, Gary Brian MDUDO, Sanelisiwe MFUKELI, Nomphelo MOKONENYANE, Thabo Bulumko
MORGAN, Craig John
NAMDARKHAN, Yaasiin Ishrafil Waseem Khan
POTGIETER, Regardt Johan
ROACH, Bradley William
STUART-WHITE, Douglas Alastair
TAJE, Thato Stephen
TSHIPUKE, Livhuwani Rodney
TYAMZASHE, Nangamso
WITBOOI, Tsepiso Constance
XULABA, Sibulelokuhle

# **CUM LAUDE**

BRADLEY, Nicholas Gawith HEMPEL, Candice Angelique LABUSCHAGNE, Wade

#### **BACHELOR OF SCIENCE IN CONSTRUCTION STUDIES**

BUCHNER, Lafras DZOMBE, Jean Rumbidzaishe GOLIATH, Marsha Eleanor HOWARD, Luke Anthony HOWARD, Thomas James KALI, Kanyisa Lavela KHOZA, Thulani Nicolas KLOPPER, Evan John MAHLANGU, Sibusiso Simon MASEKELA, Thato Lekau MFUBESI, Lonwabo Tsepo MIENIE, Jacobus Willem MTHUPHA, Fikeveni MULLER, Lehan MZIMBA, Uwakhe Visani NQETO, Phikolomzi STEENEKAMP, Sarel Johannes SWANEPOEL, Fritz VISSER, Herculaas Jacobus XANYWA, Loyisokazi Aphiwe Shellian

#### **CUM LAUDE**

BRADFIELD, Kelvin GEORGE, Mandisi

#### **BACHELOR OF TECHNOLOGY: CONSTRUCTION MANAGEMENT**

BUBB, Donnovin Ernest CALVERLEY, Wesley CAPTAIN, Siphenkosi Michelle DYALIVANE. Zingisa EKSTEEN, Justin Clive FEKADE, Chulumanco GANGQA, Viwe GREY, Luyanda Benson HOPGOOD, Ross Cuyler JAFTA, Aseza JONKER, Juan-Pierre KWEBA, Xola MAGIDA, Siyalizwa MAJIKIJA, Čosmus Cuma MBAMBALALA, Litha Msa MEY, Herman MHLANA, Putuma Sheilla MLAMLELI, Unathi MQOLOMBENI, Gloria Nonyaniso MYBURGH, Isabel Cynthia NDLOVU, Chuma Phikiso NDZINGO, Buyiswa

NGQOLA, Siphosethu
NGUDLE, Sihle
NYANDENI, Lethaba Ziningi
QADI, Dumisani
QUNTA, Zifikile
RALA, Sizwe
ROLS, Noluvo
SHUDE, Aphiwe Sive Lunga
SIBISI, Siphamandla
SIBOTO, Nobubele Ncumisa
SONO, Voninga Prudence
SOWAZI, Luphumlo Luyolo
TERBLANCHE, Erhard
TSHEFU, Bomkazi
ZOTHE, Asandile

#### **CUM LAUDE**

BOOI, Bonga Sivuyisiwe MAPUKATA, Phumela MBANGA, Abulele Zakhe

# **BACHELOR OF TECHNOLOGY: QUANTITY SURVEYING**

BOOI, Ziyanda Anelisa BOUWER, Leslie Cornelius Wessel BRITS, Gustav Johan BURGER, Shannon Damian CAMPBELL, Joshua COX, Dane River DANISO, Athi GUZANA, Sibabalwe GWENXANE, Zimkita HANSFORD, Thomas John HAYWARD, Ruan JACOBS, Wandisa JOYI, Yanga KRATSHI, Siphiwe KUFA, Msawenkosi MAC LACHLAN, Rick Anton MACHANE. Olwethu Andile MANYATELA, Anam MAQUNGO, Buntu Chuma MARAQANA, Nkosinathi Emmanuel MATINISE, Sisipho Thubelihle MCCAY, Warren MHAMBI. Asavela

MILLER, Oscar John

MSONGELWA, Mphumzi

MVANYASHE, Siphiwo

MNDELA, Oko

NGQOTSHO, Oyama NJAMENI, Avile NKAYI, Mbasa NKAYI, Sidanga NTONGANA, Nwabisa PEPETA, Anele Dugmore POTWANA, Avela PRINSLOO, Nicholas SIGIDI, Sinotando STRYDOM, Damien TATANI, Zuko TONGO, Zuziwe Lauren TSHAKA, Lutho TSHANGASE, Samkelo Siyambonga TURNER, Henry-Hugh VAN NIEKERK, Igre WESTCOTT, Byron Matthew WILLIAMS, Nomakhakha XOSENI, Qaqamba Sinovuyo YAKO, Sizwe ZOZI, Thabisa ZWELIBANZI, Lwazi

# **CUM LAUDE**

KUBULI, Samkelo

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

BEUKMAN, Shaun BOTHA, Nicholas Reece CUNNINGHAM, Brandon Murray DUKU, Leju GOVENDER, Kerushan Haveshan

HEINE, Timothy Kurt MADIKANE, Wanda

MARAQANA, Mafa Hallowmas

MLELE, Thandile

MUSHAYI, Tafadzwa MUSHAYI, Vincent NDEMA, Satshosanda NDWANDWA, Siyamthanda NETHERCOTT, Brett Alec PAGEL, Luke Theodore SEOPA, Sebo Sharon TSITA, Hlaluso

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

BEST. Rudi Alexander BROWN, James DICKS, Matthew Langford ESMERALDO, Keanu Jerome Barrionuevo

FERGUSON, Tyrone Peter GCWABAZA, Lungelo Fortune

GERARD, Celine Myriam Marie

GOSSOW, Jessica

HINANA, Ondluhlanga Luthando KRETZMANN, Luke Chad MABOVU, Lunga MADUNA, Dineo Zonke MOFFITT, Matthew Jon

MULLER, Marcus Du Preez

NOTYAWE. Anie PASIWE, Lwandile RASMENI, Chuma Lunga SABBAGH, Darren Michael SIKO, Sonwabile TUMEDI, Gaenametse Nonette

VAN DEN HEEVER, Coenraad Johannes

VISSER, Stephanus WOON SEK LAW, David

**CUM LAUDE** 

ZULU, Silindile

MABALA, Khanyisa

# MASTER OF SCIENCE IN THE BUILT ENVIRONMENT (COURSEWORK)

AYESU-KORANTENG, Emma (Project Management) Title of treatise:

THE EFFECTIVENESS OF HEALTH AND SAFETY SERVICE PROVIDERS' RELATIVE TO CONSTRUCTION

Supervisor: Dr FL Geminiani

BAVU, Sonwabile (Property Economics and Valuation) Title of treatise: PROPERTY DEVELOPMENT IN MTHATHA: AN INTERACTIVE FRAMEWORK Supervisor: Prof B Botha LUDIDI, Daniel Dumisa (Property Economics and Valuation) Title of treatise: HOME OWNERSHIP IN THE GAP HOUSING MARKET IN SOUTH AFRICA Supervisor: Mr JP Bekker

MARTIN, Monica (Project Management) Title of treatise:

THE DEVELOPMENT OF A GOOD GOVERNED COSTING MANAGEMENT MODEL FOR MANDELA BAY DEVELOPMENT AGENCY PROJECTS WITHIN THE NELSON MANDELA BAY MUNICIPAL BOUNDARIES

Supervisor: Prof CM Adendorff

MTHI, Vuyolwethu Feza Pilisa (Project Management)

Title of treatise:

QUALITY MANAGEMENT SYSTEMS AS A STRATEGIC PERFORMANCE ENHANCING TOOL: A CASE STUDY OF BAY WEST CITY MALL

Supervisor: Mr CJ Allen

NTAKANA, Khululekani (Property Economics and Valuation) Title of treatise: FACTORS THAT WOULD DETERMINE URBAN RESILIENCE WITH SPECIFIC REFERENCE BUFFALO CITY METROPOLITAN MUNICIPALITY	CE TO EAST LONDON IN
	upervisor: Prof SL Mbanga
ROSSOUW, Jeanne Jacques (Project Management) Title of treatise: EFFECTIVE COMMUNICATION PLANNING FOR HIGH PERFORMANCE CIVIL ENGINEERING	<i>ING PROJECT TEAMS</i> upervisor: Prof GJ Crafford
SONGELWA, Thuthuka Siphumezile ( <i>Project Management</i> ) Title of treatise: AN EVALUATION OF GOVERNMENT HOUSING PROJECTS AGAINST THE BREAKING NE	FW GROUND PRINCIPLES Supervisor: Mr JP Bekker
MASTER OF SCIENCE: CONSTRUCTION ECONOMICS (RESEARCH)  DENT, Sharon Peta (Construction Economics) Title of dissertation: THROUGHPUT RATES OF QUANTITY SURVEYING STUDENTS: A COHORT ANALYSIS Su	upervisor: Prof GJ Crafford
MASTER OF TECHNOLOGY: QUANTITY SURVEYING (RESEARCH)  LOOCK, Morne Title of dissertation: THE RISK OF BORROWED CAPITAL FOR COMMERCIAL, INDUSTRIAL AND REDEVELOPERS	ESIDENTIAL PROPERTY  Supervisor: Prof B Botha
	upervisor: Dr FL Geminiani supervisor: Prof FA Emuze

# DOCTOR OF PHILOSOPHY IN CONSTRUCTION MANAGEMENT

Title of thesis:  PUBLIC PROCUREMENT REFORMS IN GHANA: IMPACT ON THE GROWTH OF THE LOC INDUSTRY  Supervisor	CAL CONSTRUCTION
ANUGWO, Iruka Chijindu Title of thesis: THE SUSTAINABILITY OF SOUTH AFRICAN CONSTRUCTION SMALL, MEDIUM AND MICRO E Supervisor	<i>ENTERPRISES</i> r: Prof WWM Shakantu
BEKKER, Jakobus Petrus Title of thesis: IMPROVING THE SUPPLY OF SUBSIDISED HOUSING IN SOUTH AFRICA Supervis	sor: Prof JJ Smallwood
	upervisor: Prof B Botha DSW Franks and B Yan

# **DOCTORAL DEGREE CITATIONS**

# THE DEGREE OF DOCTOR OF PHILOSOPHY IN CONSTRUCTION MANAGEMENT

# **CHRISTOPHER AMOAH**

# **Previous qualifications:**

1995 Senior Secondary school Certificate
2004 Bachelor of Science Land Economy

Kwame Nkrumah University of Science and Technology

2011 Master of Science in Project Management

2011 Master of Science in Project Management

University of Pretoria

#### Thesis:

PUBLIC PROCUREMENT REFORMS IN GHANA: IMPACT ON THE GROWTH OF THE LOCAL CONSTRUCTION INDUSTRY

Ghana has undertaken several reforms in her public procurement systems – in an attempt to address the weaknesses of the past procurement practices. However, the effectiveness of these reforms in promoting the local construction firms has not been investigated. This research, therefore, has investigated how the various procurement reforms instituted by the government of Ghana have impacted the growth of the Ghanaian construction sector.

The findings of the research show that; even though public procurement reforms have been able to improve the procurement practices, they have failed to significantly impact the growth of the local construction industry. It was also discovered that local contractors only execute minor works devoid of complexities; and that they are mainly engaged as sub-contractors to foreign firms on major government projects.

The findings also revealed that government has so far not instituted any radical laws in the procurement systems to protect the local construction firms. The research has produced a tender-evaluation template with improved and increased local content mechanisms – with the aim of protecting the local construction industry. The research has also produced tender evaluation formulas for calculating points for bidders; and how the successful bidder should be arrived at.

The study provides recommendations to all the stakeholders in the Ghanaian construction industry; and it proposes that the evaluation criteria produced by this study be used in the public procurement system, in order to help grow the indigenous construction industry.

# THE DEGREE OF DOCTOR OF PHILOSOPHY IN CONSTRUCTION MANAGEMENT

# **IRUKA CHIJINDU ANUGWO**

# **Previous qualifications:**

2007 BTech (Project Management Technology)
 2014 MSc (Built Environment: Project Management)
 Federal University of Technology Owerri
 Nelson Mandela Metropolitan University

#### Thesis:

THE SUSTAINABILITY OF SOUTH AFRICAN CONSTRUCTION SMALL, MEDIUM AND MICRO ENTERPRISES

The construction industry is one of the prime sectors that engender the economic sustainability and competitiveness of any nation. The majority of firms in the construction industry are small, medium and micro-enterprises (SMME's). In the South African context, SMMEs account for 95% of the business entities in the construction market. This segment of the South African construction industry faces the threat of chronic business failure, with up to 80% of firms prematurely exiting the market within their first five years of operation. This is of major concern to economic planners; because it impedes sustainability and transformation.

Thus, this study's primary aim was to conduct an in-depth investigation aimed at developing a base level of understanding of the in-process operational elements of surviving SMMEs, who have succeeded beyond their first five (5) years of business operation in South Africa, and developed a model for sustainability. A qualitative-research approach, rooted in the phenomenological paradigm and utilising the in-depth interviewing method, was used for conducting the research.

Thirty-four (34) construction organisations in Grades 4-6 of the CIDB register of contractors were purposively selected and interviewed.

The empirical findings showed that the SMME contractors who had survived the first 5 years of operation possess the following qualities: "Fundamental educational qualifications"; "experience and knowledge of construction works"; "a clear understanding of competitive-business strategies and characteristics"; "critical skills and multi-skills (functional-project teams)"; and "reliance on strategic resources, competencies and capabilities.

A host of strategic drivers, all of which significantly impact on the success, growth and development, as well as the sustainability and survival of SMME contractors, were also identified. Based on these findings, the study developed and recommended a business-survival strategy and a model for SMME contractors in the South African construction industry.

# THE DEGREE OF DOCTOR OF PHILOSOPHY IN CONSTRUCTION MANAGEMENT

# **JAKOBUS PETRUS BEKKER**

# **Previous qualifications:**

1990	National Diploma (Building Surveying)	Port Elizabeth Technikon
1991	National Higher Diploma (Building Surveying)	Port Elizabeth Technikon
2004	Magister Scientiae in the Built Environment (Construction	
	Management)	University of Port Elizabeth

# Thesis:

#### IMPROVING THE SUPPLY OF SUBSIDISED HOUSING IN SOUTH AFRICA

Despite South African citizens' constitutional right to adequate housing, Government's housing delivery has been described as a multi-stakeholder, multi-phase problem, exacerbated by political interference, as well as corruption. Accordingly, housing delivery is ideologically and politically designed and executed, which means that certain practicalities relative to the construction process are not even considered. Policy and construction-practice incompatibility, therefore, seem to be a major obstacle to government subsidised-housing (GSH) construction. It was, therefore, important to assess whether the current housing policy is sufficiently responsive to contractors' ability to supply GSH.

The research considered the effect of Government's housing-procurement policy relative to quality houses, contractor capability, and government's systemic and administrative capacity, inhibiting the construction sector's ability to supply housing – and impacting on recipients' satisfaction.

The study adopted a post-positivist philosophy, embracing a quantitative approach, which allowed for an in-depth analysis of the differences in terms of GSH stakeholders' perspectives relative to the effect that GSH policy has on the ability of the construction sector to supply GSH.

The research findings indicated that the respondents generally disagreed with the notion that government policy practices do not impact the construction of GSH. It was concluded that government housing-procurement policies are inappropriate for application in the GSH sector; and that any undue influence on the construction sector would influence a contractor's ability to supply GSH.

It was recommended that the South African government critically reassess its current housing-procurement policy, to ensure that it is sufficiently responsive to the needs of the construction sector, by introducing the proposed-results framework for improving GSH supply, and thereby delivering maximum benefit to the GSH.

The study makes a significant contribution to the GSH body of knowledge and construction in South Africa – by presenting a construction-sector perspective to GSH; product-quality dimensions as measurable-quality characteristics for standard GSH, using the South African housing code, and a proposed framework for an alternative result-driven-management tool to improve the supply of GSH in South Africa.

# THE DEGREE OF DOCTOR OF PHILOSOPHY IN CONSTRUCTION MANAGEMENT

# **BONGIWE LORRETA MALI-SWELINDAWO**

# **Previous qualifications:**

2012 MTech: Quality (cum laude)
 2002 BTech: Quality
 2001 PGD: Human Resource Management
 1999 ND: Commercial Administration
 Cape Peninsula University of Technology
 Peninsula Technikon
 Peninsula Technikon
 Peninsula Technikon

# Thesis:

SOUTH AFRICAN PUBLIC SECTOR PROPERTY MANAGEMENT: A PERFORMANCE MODEL

The primary objective of this research study was to develop a performance model deemed necessary – and also to serve as a Best-Practice model for the effective management of Public Sector properties in SA. The study was, therefore, conducted within the South African municipal environment – with the specific purpose of alleviating South African municipalities of the problems associated with overall poor operational performance, dissatisfied Public Sector property stakeholders, and inadequacies in global and competitiveness alignment.

The developed conceptual model identified constructed variables that emanated from an extensive literature review addressing the focus of the research. The variables were operationalised as part of the validity of the quantitative research approach. The statistical procedure deemed appropriate for this intrigued research was Structural-Equation Modelling (SEM). The major empirical findings/constructs of the newly developed performance model for Public Sector Property Management comprise obsolescence and strategic factors, global alignment, finance cost and control, PESTEL impact, transformation and sustainability, monitoring, measurement and control, as well as leadership governance.

The implementation of the Mali-Swelindawo performance model, coupled with recommendations stemming from this research, would rapidly result in higher quality and continual improvement of the South African public sector Property-Management practice. Since a performance model for the effective management of Public Sector properties was not existent before conducting this study, Mali-Swelindawo's research is original, ground-breaking and cutting-edge – in the sense that the knowledge will add new and significant value to the identified area. Consequently, Mali-Swelindawo's research provides a significant contribution to Public Sector Property Management in South Africa. This constitutes a major fiscal role player in the management of State assets.



#### VISION

To be a dynamic African university, recognised for its leadership in generating cutting-edge knowledge for a sustainable future.

# **MISSION**

To offer a diverse range of quality educational opportunities that will make a critical and constructive contribution to regional, national and global sustainability.

To achieve our vision and mission, we will ensure that:

- Our values inform and define our institutional ethos and distinctive educational purpose and philosophy.
- We are committed to promoting equity of access and opportunities so as to give students the best chance
  of success in their pursuit of lifelong learning and diverse educational goals.
- We provide a vibrant, stimulating and richly diverse environment that enables staff and students to reach their full potential.
- We develop graduates and diplomates to be responsible global citizens capable of critical reasoning, innovation, and adaptability.
- We create and sustain an environment that encourages and supports a vibrant research, scholarship and innovation culture.
- We engage in mutually beneficial partnerships locally, nationally and globally to enhance social, economic, and ecological sustainability.

# **VALUES**

# i. Respect for diversity

- We reflect and serve diverse regional, national and global communities
- We promote an open society where critical scholarship and the expression of a multiplicity of opinions and experiences are actively encouraged
- We foster an environment in which diversity is appreciated, respected and celebrated
- We are committed to accessibility, inclusivity and social justice

#### ii. Excellence

- We promote, recognise and reward excellence in our teaching, learning, research and engagement
- We promote, recognise and reward excellent service delivery to all our stakeholders
- We provide a supportive and affirming environment that enables students and staff to reach their full potential
- We adopt innovative approaches to promote excellence in our institutional policies, structures, processes and systems

# iii. Ubuntu

- We are a people-centred university
- We respect the dignity of others
- We recognise our mutual interdependence
- We promote compassionate and responsible citizenship

#### iv. Integrity

- We act with integrity and accept responsibility for our actions
- We behave in an ethical and professional manner
- We conduct our activities in an accountable and transparent manner
- We ensure the integrity of our information, systems and processes

#### v. Respect for the natural environment

- We care about the environment and recognise our responsibility to conserve, protect and properly manage natural resources for ourselves and future generations
- We promote the integration of sustainability principles into our academic practices, institutional operations and design of physical infrastructure
- We encourage mutually beneficial and sustainable approaches to community service and engagement
- We inspire students and staff to embrace environmentally friendly practices

# vi. Taking responsibility

- We acknowledge our personal responsibility for ethical behaviour towards others
- We assume responsibility for the achievement of personal and institutional goals
- We accept responsibility for our actions and the consequences thereof
- We provide an environment that encourages students and staff to take responsibility for their academic and professional endeavours

#### **EDUCATIONAL PURPOSE AND PHILOSOPHY**

- We provide transformational leadership in the service of society through our teaching and learning, research and engagement activities.
  - To achieve this we are committed to developing the human potential of our staff and students in the full spectrum of its cognitive, economic, social, cultural, aesthetic and personal dimensions in the pursuit of democratic citizenship.
- We adopt a humanising pedagogical approach that respects and acknowledges diverse knowledge traditions and engages them in critical dialogue in order to nurture a participative approach to problemposing and -solving, and the ability to contribute to a multi-cultural society.
- We inspire our stakeholders to be passionate about and respectful of an ecologically diverse and sustainable natural environment.
- We will be known for our people-centred, caring, values-driven organisational culture that will allow all members of the university community to contribute optimally to its life.

# CONGRATULATORY MESSAGE FROM THE ALUMNI ASSOCIATION

Congratulations on your achievement! You are now an alumnus of NMMU. We would like to take this opportunity to introduce you to the NMMU Alumni Association.

Once you have obtained your NMMU certificate, diploma or degree you become an alumnus of the university and a member of the NMMU Alumni Association. The Association is recognised by the NMMU Council as a structure of the University. The Association supports and enhances the realisation of the University's vision and mission through maintaining and expanding positive relationships with its members.

The University can be supported in a variety of ways including sharing news, expertise, skills, networks and contributions in cash and kind. Cash donations to the Alumni Fund are used to fund bursaries, projects and the NMMU Capital and Endowment Campaign. Every contribution makes a difference. Donations can be made online as well.

Join our existing alumni chapters nationally and internationally or help establish new ones to maintain and build our networks. We encourage you to remain active NMMU ambassadors.

#### The role of the Alumni Relations Office

The Alumni Relations Office is responsible for the day-to-day management and running of the Alumni Association, the University Shop and all matters related to alumni relationship building.

We kindly request all alumni to ensure that we have your latest contact details to invite you to chapter socials and networking events as well as provide you with information regarding alumni and NMMU achievements. You are also requested to send us news regarding your or fellow alumni achievements and interesting experiences for publication in our newsletters and on the website.

Please visit our website for more information http://alumni.nmmu.ac.za or e-mail us at alumni@nmmu.ac.za or join our Facebook page NMMU Alumni. Other contact details include tel. +27 41 504 3935 and fax +27 41 504 1417. You are also most welcome to visit the Alumni Relations Centre on the North Campus in Port Elizabeth.

Remember to buy your memorabilia from the University Shop during graduation.

We look forward to hearing from you. Stay connected to your alma mater!

# **NATIONAL ANTHEM**

Nkosi Sikelel'i-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 Africa.

South Africa.

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.