#### **FACULTY OF HEALTH SCIENCES**

#### NATIONAL DIPLOMA: ENVIRONMENTAL HEALTH

HUMANI, Anelisa KOTSELE, Nombulelo MATWEBU, Aphiwe Sibongile MFINI, Alungile

#### **BACHELOR OF RADIOGRAPHY IN DIAGNOSTICS**

DAVIDS, Fatima
GEORGE, Cleo Jamie
HENDRICKS, Sihaam
MADIKIZELA, Lubabalo
MAPALALA, Khanyisile
MATANZIMA, Asavela
MBANGENI, Nontanda Junius
MENTOOR, St Luke Damlin Clive
NGXUBE, Olu
WELAPHI, Esethu

#### **CUM LAUDE**

CHETTY, Trezell Valentine GOOLAM-HOOSEN, Khatija MGIDLANA, Luyolo SCHOLTZ, Kelsey Lynn SMART, Michelle Elaine THOMPSON, Lee-Ann VAN WYK, Chemaine

## BACHELOR OF TECHNOLOGY: BIOMEDICAL TECHNOLOGY

MANINJWA, Siphokazi Lucille MDLALO, Nombulelo MKONTWANA, Busiswa Patience MOLOTO, Mmaphete Beverley MPAKATI, Tisunge SAIDI, Davie Tonnie

#### **CUM LAUDE**

KALUA, Vitumbiko KANYEMBA, Creto MAKWALO, Whytone MANJEZI, Nosipho Ncumisa

## BACHELOR OF TECHNOLOGY: ENVIRONMENTAL HEALTH

FIBI, Simthandile GQETYWA, Anele Nolwazi KAMPAPA, Benson KHUMALO, Fezeka Portia MABOZA, Sinawo MAKASA, Xoliswa Beaullah MALULEKE, Mikateko Molly MAZINGISA, Akhona Victress MDZINGWANA, Yolisa PALISO, Onele SIDEBA, Nombuyiselo Portia ZENZILE, Luvuyo

## BACHELOR OF TECHNOLOGY: RADIOGRAPHY: DIAGNOSTIC

BLIGNAUT, Leota Raquel

BOOYSEN, Rowen Deswin Aldin DIKO, Thandiswa ELLIOT, Liesl Alieda GARANE, Ntombizamawethu GROENEWALDT, Monique Melissa JONES, Daniël Nicola MANELI, Aviwe MARAIS, Shamonay Esmarelda MASEBENI, Nomsitho MAZULA, Xolelwa MBAMBOSI, Chwayita MOHUTSIWA, Tshireletso Charmaine MPOFU, Phelekwa Patricia NDLELA, Chuma PANDAY, Ni'Mat PLAATJIE, Siyabulela SINEKE, Noluvo STEINEVELDT, Marcia-Lee VISENYOUE, Louisa Alecia

#### **CUM LAUDE**

BOTHA, Natasja Nicole Krystle GELDERBLOM, Denielle Raylene

#### **FACULTY OF SCIENCE**

WILSON, Logan Britney

## BACHELOR OF TECHNOLOGY: AGRICULTURAL MANAGEMENT

CUJANA, Yandisa DYONGO, Sinokuhle GAXO, Azile JEZILE, Chumani KOLANISI, Noxolo LEMBEDE, Bongeka Sinamile MABANDLA, Okuhle MADIKIZELA, Lelethu MAHALA, Lungelwa Pakama MAHLANYANA, Sonwabile MAJOKWENI, Sandisele MARARENI, Nomvuzo MBALEKWA, Noluvuyo MBUMBULWANA, Sivuyile MDAKANE, Nonsikelelo Happiness MPONDZO, Luvokazi MQINA, Mzolisi MSITSHANA, Andiswa Pamela NDLANGISA, Sandisiwe NDUKU. Bonani Lavela NGCWEMBE, Zizo NJILI, Zamazima NOMLALA, Asiphe NONGCAWULA, Lizalise NTLANGA, Phumzile NTONGANA, Simamkele NTONTELA, Siphosethu NTWANAMBI, Lusanda NYATI, Phumeza PITA, Nkosinathi POWELL, Nicholas James RADALI, Adivhaho Everest RALA, Andiswa Jeanet SANGQU, Andisa SIBALI, Lonwabo SONTLABA, Zilulutho Noludwe

## ZINYA, Yolisa CUM LAUDE

MHATU, Sinovuyo Canida

THEKWANA, Thembelihle

## BACHELOR OF TECHNOLOGY: GAME RANCH MANAGEMENT

BOWLES, Shaun Zane HOLLOWAY, Michael Andrew LAHDEAHO, Jean Sebastian MURRAY, Jason Gareth RASELABE, Masindi Lawrence

#### **CUM LAUDE**

DE ROUBAIX, Lanielle KOUKAKIS, Learndra

#### **BACHELOR OF COMMERCE HONOURS**

DE VILLIERS, John Ethan

(Computer Science and Information Systems)

MADAVO, Tawanda Kuzivashe

(Information Systems and Business Management)

MYAMBO, Howard

(Information Systems and Business Management)

NONYANA, Basia Pascal

(Information Systems and Business Management)

#### **CUM LAUDE**

VAN DER MERWE, Marla

(Information Systems and Business Management)

## BACHELOR OF COMMERCE HONOURS IN MATHEMATICAL STATISTICS

MATSHAYA, Akhona

#### **BACHELOR OF SCIENCE HONOURS**

GOVUZELA, Mnoneleli Meshark

(Physics)

## BACHELOR OF SCIENCE HONOURS IN APPLIED MATHEMATICS

**CUM LAUDE** 

FOURIE, Daniel Liam

#### **BACHELOR OF SCIENCE HONOURS IN BIOCHEMISTRY**

NAIDOO, Sharnay SIWAK, Andrea Martha

#### **BACHELOR OF SCIENCE HONOURS IN BOTANY**

BODLEY, Deborah Lynn GRIEBENOW, Robert Ernest HLAHLA, Jeremiah MHLONGO, Lethukuthula Khayelihle MSONGELWA, Elihle Alizwa NEL, Marele Annette NELSON, Ashleigh WASSERMAN, Johan De Wet WIENAND, Nicole Nadine

#### **CUM LAUDE**

JULIE, Corianna Lauren LEHMAN, Tevan William Key

## BACHELOR OF SCIENCE HONOURS IN COMPUTER SCIENCE AND INFORMATION SYSTEMS

DIX-PEEK, Tayla Jane FLEUR, Logan Darren HIBBERS, Ilze JIKANI, Sibabalwe Sipamandla PANTSI, Phumeza Noluthando ROBERTS, James Dixon STRYDOM, Dean

#### **CUM LAUDE**

KEEN, Charne PHILLIPS, Antin Paul WATT, Nathan

## BACHELOR OF SCIENCE HONOURS IN ENVIRONMENTAL GEOGRAPHY

BOOI, Hulisani FORBES, Abigail Lucia KHOSA, Kevin MC ARTHUR, Brogan Erin

## BACHELOR OF SCIENCE HONOURS IN GEOGRAPHICAL INFORMATION SYSTEMS

CLOETE, Andre'

## BACHELOR OF SCIENCE HONOURS IN MATHEMATICAL STATISTICS

BHOXOZA, Ntando

#### **CUM LAUDE**

DJUZA, Petra GORLACH, Nikita Igorevna WESTRAADT, Edward James

#### **BACHELOR OF SCIENCE HONOURS IN MATHEMATICS**

#### **CUM LAUDE**

OLIVIER, Ruan

#### **BACHELOR OF SCIENCE HONOURS IN MICROBIOLOGY**

BEAUZEC, Deon
BEAUZEC, Michael
DWYER, Rebecca Ann
HENNING, Nicole Jo-Ann
JANSEN VAN RENSBURG, Zune
JOHNSON, Megan Elizabeth
MYBURG, Kierra Ashleigh
STRYDOM, Louis
VAN DER VEEN, Floor
VAN NIEKERK, Tanna Mae

#### **BACHELOR OF SCIENCE HONOURS IN ZOOLOGY**

DE MENEZES, Lyle DU TOIT, Hendrik Daniel HARTLEY, Oliver MZIMANE, Odwa Lona SHILUBANE, Natasha

#### **CUM LAUDE**

LINGENFELDER, Eleesha PERAL, Christopher Michael

#### **FACULTY OF LAW**

#### POSTGRADUATE DIPLOMA IN LABOUR LAW PRACTICE

BILLETT, Volenté Veronica
CLAASEN, Lisa Elaine
DEYSEL, Petrus Gerhardus
DUMEZWENI, Themba
HEWU, Mayibongwe Mayford
JOHN, Thenjiwe Pinkie
KAYAMA, Ohms Moven
KONA, Thandile Christopher
LEROTHOLI, Fezeka
LUWACA, Zidlekhaya
MADYIBI, Zoliswa
MAGELE, Mtutuzeli Viscount
MAHOKOTO, Mangaliso
MAPHOSA, Faith Sikhulile
MBUYISA, Khayelihle Malizo Errel

MCKELVEY, Bianca MDUDUMA, Nombeko MDUNYELWA, Ezile Aphelele Jongilizwe MENE, Bonginkosi Wilton MFAXA, Mncedisi MGIDLANA, Ncedisa Alex MINI, Mandlenkosi Welcome MINNIE, Wouter Jacobus Theron MOLOGWENI, Thembalethu Gladen MOPP, Jermane Rudi MPAPELA, Bekisisa MTEYISE, Nomapa Pretty MUSETEKA, Ben Washington MZINGELWA, Hombakazi NABELA, Zolisa NCOKAZI, Luthando NGXANGANE, Thandoxolo Humphrey NKUKWANA, Zingisile Wiseman NOMVETE, Lindile Freddy PETERS, Cecil SIGIDI, Vuyo Elvin SIMON, Ross Carl SITOTO, Thabanchu Macglory TANTSI, Philela THOMAS, Lara Michelle VENGE, Babalwa Jacquiline VON GORDON, Jana

#### **CUM LAUDE**

ELS, Brendon Deon SCHEEPERS, Dylan

### **FACULTY OF LAW**

### MASTER OF LAWS (COURSEWORK)

BANDA, Lisa Malopa (Labour Law) Title of treatise: LABOUR DISPUTE RESOLUTION IN SOUTH AFRICA AND MALAWI: A COMPARA	
	Supervisor: Mr RE Keith-Bandath
DU TOIT, Michelle Christine Title of treatise: THE CRIMINALISATION OF HIV AND THE SIGNIFICANCE OF KNOWLEDGE: A CO	DMPARATIVE STUDY
	Supervisor: Ms DL David
KALAWE, Thozama Mavis (Labour Law) Title of treatise: AN OVERVIEW OF ABSENCE WITHOUT LEAVE, SICK ABSENCE AND ABSCONDING	NG IN THE LOCAL GOVERNMENT SECTOR
ANOVERVIEW OF ABBLINGE WITHOUT LEAVE, SIGNABBLINGE AND ABBOONDIN	
	Supervisor: Mr MJ Boyens
KEMP, Matthew James - <i>Cum Laude</i> (Labour Law) Title of treatise: PUBLIC SECTOR EMPLOYEES AND THEIR RIGHT TO JUST ADMINISTRATIVE AC	CTION Supervisor: Prof JA Van Der Walt
KETI, Nosicelo (Labour Law) Title of treatise: THE RETURN-TO-WORK POLICY FOR INJURED AND DISEASED WORKERS	Supervisor: Dr L Biggs
XAKAXA, Xoliswa Yolanda Didi (Labour Law) Title of treatise: RATIFYING THE ILO CONVENTION NO. 102 (SOCIAL SECURITY MINIMUM STAI AFRICA	NDARDS CONVENTION, 1952) BY SOUTH Supervisor: Mr JK Gathongo
MASTER OF LAWS (RESEARCH)	
CHRISTOFFELS, Eugene Miles (Private Law) Title of dissertation: THE NON-RESTORATION OF LAND: COPE AND AMBIT OF SECTION 34 OF THE	RESTITUTION OF LAND RIGHTS ACT Supervisor: Prof DW Freedman Co-supervisor: Prof E Knoetze

### **FACULTY OF HEALTH SCIENCES**

### MASTER OF ARTS IN CLINICAL PSYCHOLOGY (COURSEWORK)

HEMMINGS, Tanya Arlene Simone - <i>Cum Laude</i>
Title of treatise:  EXPLORING MINDFULNESS AS AN INTERVENTION ON TEACHERS' STRESS, ANXIETY AND DEPRESSION IN THE EASTERN CAPE, SOUTH AFRICA
Supervisor: Prof DS Elkonin
KIBI, Aluta Title of treatise: THE EFFECTS OF FATHER ARSENTEFISM ON THE DEVELOPMENT OF A MASSIUM INFORMATION OF YOUR ON THE DEVELOPMENT.
THE EFFECTS OF FATHER ABSENTEEISM ON THE DEVELOPMENT OF A MASCULINE IDENTITY OF YOUNG XHOSA MEN IN AN URBAN TOWNSHIP
Supervisor: Dr Y Ally
O'KEEFFE, Shanna-Lee - <i>Cum Laude</i> Title of treatise: COUPLE'S PERCEPTIONS OF THE EFFECTIVENESS OF IMAGO ENRICHMENT WORKSHOPS ON RELATIONSHIP
SATISFACTION  Supervisor: Prof JG Howcroft Co-supervisor: Dr T Lambert
SALMANI TORGHI, Parnaz  Title of treatise:  THERAPISTS' PERCEPTION OF THE HEALING VARIABLES OF ANIMAL ASSISTED INTERVENTION  Supervisor: Prof JG Howcroft
MASTER OF ARTS IN COUNSELLING PSYCHOLOGY (COURSEWORK)
DE WET, Elna Title of treatise:  EFFECT OF FEMININE IDENTITY ON SEXUAL HEALTH DECISION MAKING OF YOUNG FEMALES
Supervisor: Dr Y Ally
MASINYANE, Anita Andrea Title of treatise: AN EXPLORATION OF THE ROMANTIC EXPERIENCES OF YOUNG FEMALE ADULTS RAISED BY SINGLE MOTHERS
Supervisor: Dr Y Ally
WEBBER, Lyndsay Lorna Title of treatise: PERCEPTIONS OF THE LONG-TERM INFLUENCE OF AN IMAGO GETTING THE LOVE YOU WANT COUPLES WORKSHOP
ON RELATIONSHIP SATISFACTION  Supervisor: Prof JG Howcroft
Co-supervisor: Dr T Lambert

ZIETSMAN, Louis Frederick Title of treatise: MATURE SOUTH AFRICAN STUDENTS' PERCEPTIONS OF THEIR TRANSITION EXPERIENCES INTO AND FROM UNIVERSITY EDUCATION Supervisor: Prof MB Watson Co-supervisor: Dr ML Mcmahon MASTER OF ARTS IN HEALTH AND WELFARE MANAGEMENT (COURSEWORK) HUYSAMEN, Peter Johannes Title of treatise: THE PERCEPTIONS OF PROVINCIAL EMS MANAGERS REGARDING THE MANAGEMENT OF THE MILLENNIAL EMPLOYEES IN THE NELSON MANDELA BAY HEALTH DISTRICT Supervisor: Dr SM Du Rand Co-supervisor: Mr NE Louw MASTER OF ARTS IN PSYCHOLOGY (RESEARCH) EDWARDS, Megan Althea Title of dissertation: YOUNG ADULTS' PERCEPTIONS OF THE PSYCHOSOCIAL FACTORS IMPACTING UPON SELF-DISCLOSURE ONLINE Supervisor: Prof JG Howcroft Co-supervisor: Dr T Lambert SCHOLTZ, Wilmie Title of dissertation: PERPETRATORS' PERSPECTIVES OF THE PSYCHOLOGICAL FACTORS CONTRIBUTING TO RACIALLY - MOTIVATED HATE CRIMES IN SOUTH AFRICA Supervisor: Dr Y Ally VON RUBEN, Adriana

Title of dissertation:

A SYSTEMATIC REVIEW OF INTERVENTION EFFECTIVENESS FOR PROBLEM ANGER IN AN ADULT OUTPATIENT POPULATION

Supervisor: Prof JG Howcroft Co-supervisor: Dr Y Ally

#### MASTER OF HUMAN MOVEMENT SCIENCE (RESEARCH)

LISTER, Cassandra Cheryl

Title of dissertation:

EFFECTS OF AN INTEGRATED MOVEMENT PROGRAMME ON MOTOR PROFICIENCY, VISUAL - MOTOR INTEGRATION AND SCHOLASTIC ACHIEVEMENTS IN GRADE ONE LEARNERS OF QUINTILE FIVE PRIMARY SCHOOLS IN PORT ELIZABETH

Supervisor: Dr ML Baard

#### **MASTER OF NURSING (COURSEWORK)**

MADLINGOZI, Nompumelelo Sibusisiwe (Advanced Midwifery and Neonatal Nursing Science) Title of treatise: EXPLORATION OF BREASTFEEDING MOTHERS' KNOWLEDGE AND ATTITUDES TOWARD HUMAN MILK DONATION IN NELSON MANDELA BAY Supervisor: Ms N Rall Co-supervisor: Mr BSI Sonti **MASTER OF PHARMACY (COURSEWORK)** LOUW, Philippus Du Toit (Industrial) Title of treatise: METHOD VALIDATION FOR THE QUANTIFICATION OF CASTICIN IN VITEX AGNUS CASTUS FRUIT USING A FOURIER TRANSFORM INFRARED MULTIVARIATE CHEMOMETRIC MODEL Supervisor: Prof G Kilian SINGH. Sharista (Industrial) Title of treatise: PROPORTIONAL SCALE-UP OF PLASMA-DERIVED FACTOR VIII BY INCREASING THE MASS OF CRYOPRECIPITATE FOR DISSOLUTION Supervisor: Prof G Kilian Co-supervisor: Mr S Lakshminarayana **MASTER OF PHARMACY (RESEARCH)** BOBBINS, Amy Claire - Cum Laude Title of dissertation: DELIVERY OF PHARMACEUTICAL SERVICES AND CARE AT THREE PRIMARY HEALTHCARE CLINICS WITH DIFFERENT DISPENSING MODELS IN THE NELSON MANDELA BAY HEALTH DISTRICT Supervisor: Prof SF Burton Co-supervisor: Ms T-L Fogarty

KEMP, Nicholas Mark

Title of dissertation:

BARRIERS TO PICKING AND PACKING IN PHARMACEUTICAL WAREHOUSING AND DISTRIBUTION IN SOUTH AFRICA

Supervisor: Mr YE Kadernani

Co-supervisors: Prof G Kilian and Mr Z Masebe

NDZAMELA, Sisipo Tandeka

Title of dissertation:

PATIENTS AND HEALTHCARE PROFESSIONALS' EXPERIENCES OF MEDICINE UNAVAILABILITY AT A PRIMARY HEALTHCARE CENTRE IN THE NELSON MANDELA BAY METROPOLE

Supervisor: Prof SF Burton

#### **FACULTY OF SCIENCE**

#### **MASTER OF SCIENCE (RESEARCH)**

DE VOS, Deidre (Zoology)

Title of dissertation:

THE EFFECT OF CASUARINA TREES ON SEA TURTLE NESTING BEACHES THROUGHOUT THE INDIAN OCEAN AND SOUTH - EAST ASIA REGIONS: A BEACH VULNERABILITY ASSESSMENT

Supervisor: Prof R Nel

Co-supervisor: Dr DR Du Preez

HLATI, Kuhle

(Zoology)

Title of dissertation:

PASSIVE ACOUSTIC MONITORING OF COASTAL DOLPHINS (SOUSA PLUMBEA AND TURSIOPS ADUNCUS) IN PLETTENBERG BAY: TEMPORAL PATTERNS AND GROUP DYNAMICS

Supervisor: Prof PA Pistorius Co-supervisor: Dr SP Kirkman

JACKSON, Simon

(Biochemistry)

Title of dissertation:

THE EFFECT OF ER STRESS IN INS-1E CELLS USING IL- 1ß UNDER HYPERGLYCAEMIC CONDITIONS

Supervisor: Prof CL Frost Co-supervisor: Dr N Beukes

KATENDE-LUKYAMUZI, Lucky Fulgentius

(Geography)

Title of dissertation:

ASSESSMENT OF INDIGENOUS FOREST DEGRADATION AND DEFORESTATION ALONG THE WILD COAST, NEAR PORT ST JOHN'S. EASTERN CAPE PROVINCE. SOUTH AFRICA

Supervisor: Prof V Kakembo

KEYS, Danielle Zuanda - Cum Laude

(Zoology)

Title of dissertation:

THE FORAGING ECOLOGY OF WEDGE - TAILED SHEARWATERS (ARDENNA PACIFICA) IN THE TROPICAL WESTERN INDIAN OCEAN

Supervisor: Prof PA Pistorius Co-supervisor: Dr M le Lorré

MATABANE, Rebotile

(Botany)

Title of dissertation:

TOLERANCE OF SALT MARSH ECOTONE SPECIES TO SALINITY AND INUNDATION

Supervisor: Prof JB Adams

MAZWANE, Sixolile Leonora

(Botany)

Title of dissertation:

ASSESSING GROWTH RESPONSE PATTTERN OF MICROALGAE TO VARYING ENVIRONMENTAL CONDITIONS USING SEDIMENTS FROM EPHEMERAL WETLANDS

Supervisor: Dr PT Gama Co-supervisor Dr D Schael

(Geology) Title of dissertation:
A SEISMIC CHARACTERIZATION OF THE CRUSTAL STRUCTURE UNDERLYING THE OFFSHORE
NOTHERN NATAL VALLEY WITHIN THE SOUTHWEST INDIAN OCEAN.  Supervisor: Prof CM Doucoure
MUJURU, George Tungamirai (Computer Science and Information Systems) Title of dissertation:
HEALTH AND ACTIVITY MONITORING TO SUPPORT THE SELF-MANAGEMENT OF CHRONIC DISEASES OF LIFESTYLE
USING SMART DEVICES  Supervisor: Prof JL Wesson  Co-supervisor: Dr NLO Cowley
NENGOVHELA, Vhuhwavhohau (Geology) Title of dissertation:
PETROPHYSICAL ANALYSIS OF THERMO-TECTONIC EFFECTS LINKED TO LOWER JURASSIC DOLERITE INTRUSIONS IN SEDIMENTARY ROCKS OF THE MAIN KAROO BASIN, WITH IMPLICATIONS FOR SHALE GAS DEVELOPMENT IN SOUTH AFRICA
Supervisor: Prof MJ De Wit
OLADIPO, Joshua Femi - <i>Cum Laude</i> (Computer Science and Information Systems) Title of dissertation: A CONGESTION AWARE ANT COLONY OPTIMISATION BASED ROUTING AND WAVELENGTH ASSIGNMENT ALGORITHM FOR TRANSPARENT FLEXI-GRID OPTICAL BURST SWITCHED NETWORKS  Supervisor: Dr MC Du Plessis Co-supervisor: Prof TB Gibbon
MASTER OF SCIENCE IN NANOSCIENCE (COURSEWORK)
JOSEPH, Sinelizwi Veronica  Title of treatise:  THE DEVELOPMENT OF RHENIUM (III) OXIDE NANORADIOPHARMACEUTICALS  Supervisor: Prof ZR Tshentu
Co-supervisor: Prof CL Frost
NYEMBE, Hlanganani Siphelele Title of treatise:
CORROSION RESISTANCE OF NANOCRYSTALLINE TITANIUM ZIRCONIUM LAYERS DEPOSITED ON ZIRLO  Supervisor: Prof JH Neethling  Co-supervisor: Dr A Janse Van Vuuren
XOLO, Luthando Title of treatise: SYNTHESIS OF FOLATE-CONJUGATED PALLADIUM NANOPARTICLES
Supervisor: Prof ZR Tshentu Co-supervisor: Prof MO Onani
MASTER OF SCIENCE IN TEXTILE SCIENCE (RESEARCH)
PILLAY, Princeton  Title of dissertation:  PEDUCING THE PRITT ENESS OF POLY FURFURY ALCOHOL RESINUSED IN COMPOSITES
REDUCING THE BRITTLENESS OF POLY-FURFURYL ALCOHOL RESIN USED IN COMPOSITES  Supervisor: Prof EE Ferg Co-supervisor: Dr M Chapple

MOORCROFT, David Fenner - Cum Laude

#### **FACULTY OF SCIENCE**

# THE DEGREE OF DOCTOR OF PHILOSOPHY (CHEMISTRY)

#### MUHAMMAD SABIU ABDUL-QUADIR

#### Previous qualifications:

1991 BSc (Ed) Chemistry
 2001 M.Ed. Curriculum Chemistry
 2006 MSc
 University of Lagos, Nigeria
 Chemistry University of Lagos, Nigeria

#### Thesis:

MOLECULARLY IMPRINTED POLYMERIC MATERIALS FOR ADSORPTIVE REMOVAL OF NITROGEN COMPOUNDS FROM FUEL OILS

The deleterious effects of refractory organonitrogen compounds (namely, quinoline, carbazole, pyrimidine and their alkylated derivatives) found in hydrotreated fuels are such that they emit nitrous oxides to the environment when combusted, thereby reducing air quality. The study investigated the use of oxidative denitrogenation *via* catalysed conversion of nitrogen compounds to N-oxides as well as adsorptive denitrogenation for the removal of organonitrogen compounds from fuel. The candidate demonstrated that selective adsorption of nitrogen containing compounds could be achieved through a series of novel molecularly imprinted adsorbents such as molecularly imprinted polybenzimidazole nanofibers, poly-2-(1*H*-imidazol-2-yl)-4-phenol microspheres and nanofibers. Four articles have been published from this work in international peer-reviewed journals of high impact and two conference papers have been presented.

Supervisor: Prof ZR Tshentu Co-supervisor: Dr AS Ogunlaja

# THE DEGREE OF DOCTOR OF PHILOSOPHY (PHYSICS)

#### **CHINEDU CHRISTIAN AHIA**

#### Previous qualifications:

2006 BSc. Hons (Physics & Astronomy)
 2011 MSc (Condensed Matter Physics & Mathematical Science)
 2013 MSc (Mathematical Science)
 University of Nigeria
 University of the Western Cape

#### Thesis:

DEVELOPMENT OF INSB/GASB QUANTUM DOTS BY MOVPE

In this study, inter-diffusion between gallium (Ga) and indium (In) at the interface between the gallium antimonide (GaSb) capping and buffer layers during the capping of indium antimonide (InSb) quantum dots (QDs) was observed to lead to the formation of an indium gallium antimonide (InGaSb) quantum well (QW), instead of QDs. This finding suggests a possible revision of the interpretation of previous data in the literature, whereby the luminescence within the near-infrared region was attributed to QDs instead of a QW. Results from this study indicate that inter-diffusion can be promising as a method for controlling the optical properties of QWs and tailoring the spectral response.

Supervisor: Prof JR Botha

# THE DEGREE OF DOCTOR OF PHILOSOPHY (CHEMISTRY)

#### **HOPE BALOYI**

#### **Previous qualifications:**

2009 BSc Hons (Biochemistry)
 2012 MSc (Engineering Sciences, Chemical Engineering)
 University of Venda
 North West University

#### Thesis:

INVESTIGATION OF THE THERMO-CHEMICAL BEHAVIOUR OF COAL-ALGAE AGGLOMERATES

The study involved the adsorption of wet microalgae slurry onto waste coal fines to improve the thermochemical performance of waste coal fines. Thermal processing of coal-algae agglomerates was carried out to establish the viability of the production of liquid bio-oils from fossil fuel. Findings indicated that the adsorption of wet microalgae slurry onto coal fines enhanced the chemical characteristics and thermal reactivity of coal, and improved the yields of liquid bio-oils. Liquid bio-oils and carbon char residue derived from the pyrolysis of coal-algae agglomerates showed distinct chemical properties as compared to coal derived products. This investigation paves new avenues for research scholars in coal science.

Supervisor: Dr GM Dugmore Co-supervisor: Prof B Zeelie (late)

# THE DEGREE OF DOCTOR OF PHILOSOPHY (CHEMISTRY)

#### VITUS OBIALO EJESIEME

#### **Previous qualifications:**

1999	BSc Hons (Industrial Chemistry)	Imo State University
2011	SAIME Programme (Business Management)	University of South Africa
2012	BSc Hons (Formulation Science)	Nelson Mandela Metropolitan University
2014	MSc (Chemistry)	Nelson Mandela Metropolitan University

#### Thesis:

AN INVESTIGATION OF THE COMBUSTION KINETICS OF COAL-MICROALGAE COMPOSITE

This study investigated the combustion behaviour of Coalgae ®, a unique composite material formed by the adsorption of live micro-algae onto waste coal fines and processing into agglomerate particles, providing a means to re-cycle carbon dioxide and recover waste coal. The combustion properties of Coalgae ® were found to be enhanced compared to coal. The ignition temperature was lower and the rate of combustion and peak combustion temperature were higher than coal. Evidence was presented that combustion of Coalgae ® was significantly different from coal, algae or a derived combination of these, indicating interaction during combustion of Coalgae ®.

Supervisor: Dr GM Dugmore Co-supervisor: Dr NM Vorster

### THE DEGREE OF DOCTOR OF PHILOSOPHY (COMPUTER SCIENCE)

#### IFEOLUWAPO OMOLADE FASHORO

#### **Previous qualifications:**

2008 BSc (Hons) Computing University of Portsmouth, UK 2011 MSc Management Information Systems University of Surrey, UK

### Thesis:

A SOCIAL MEDIA MODEL FOR PUBLIC PARTICIPATION IN A SOUTH AFRICAN MUNICIPALITY

Social media is ingrained in most aspects of life and has become a driving force behind open, collaborative government and transformation in public participation and engagement. The research aim was to propose a model to leverage social media opportunities and present an effective, structured approach towards public participation. The research design was a mixed-methods approach using a case study based in South Africa's Eastern Cape Province. The research culminated in the development of a model that provides an executable set of steps to implement social media for public participation. The model was implemented in the Nelson Mandela Bay Municipality.

Supervisor: Dr L Barnard

### THE DEGREE OF DOCTOR OF PHILOSOPHY (ENVIRONMENTAL GEOGRAPHY)

#### VINCENT JANI

#### **Previous qualifications:**

1994 B.A. University of Zimbabwe Graduate Certificate in Education University of Zimbabwe 2003 2013 MSc Bindura University of Science Education

#### Thesis:

DISPUTES. RELATIONSHIPS AND IDENTITY: ANALYSING HUMAN-HUMAN CONFLICTS AS A BASIS FOR HUMAN-WILDLIFE CONFLICTS IN THE MID-ZAMBEZI VALLEY, NORTHERN ZIMBABWE

This study analysed how human-human conflicts underlie human-wildlife conflicts in Chapoto Ward in the mid-Zambezi valley in northern Zimbabwe. The findings indicate that most of the disputes that were recorded were not resolved because they had a long and complicated history, which resulted in previous disputes resurfacing whenever a new one arose. The history of unresolved conflicts resulted in mistrust and failure to find common ground between the parties involved in the conflicts. Furthermore, the source of the disputes and unresolved conflicts was traced back to the identity level, whereby the antagonistic relationships among the stakeholders spilled over into the labelling and stigmatisation of each other. These findings support the new line of thinking that human-wildlife conflict is a complex issue which should not be viewed simply as a problem between people and wildlife but as a conflict between stakeholders with divergent views over wildlife management which manifests as human-human conflict.

> Supervisor: Dr AH de Wit Dr NL Webb (retired)

# THE DEGREE OF DOCTOR OF PHILOSOPHY (ZOOLOGY)

#### YANASIVAN KISTEN

#### Previous qualifications:

2009	Bachelor of Science in Marine Biology	University of KwaZulu-Natal
2010	Bachelor of Science Honours in Marine Biology	University of KwaZulu-Natal
2013	Master of Science in Biology	University of KwaZulu-Natal

#### Thesis:

THE EFFECTS OF ENVIRONMENTAL CHANGE ON THE PHYSIOLOGY AND ECOLOGY OF CAPE STUMPNOSE RHABDOSARGUS HOLUBI (STEINDACHNER, 1881) (SPARIDAE)

This study investigated the effects of various environmental changes on the physiology and ecology of *Rhabdosargus holubi* in temperate South African estuaries. The ecology of postflexion larvae of *R. holubi* was strongly mediated by low salinities, high turbidity and high temperature, particularly in permanently open estuaries. Thus, indicating the importance of freshwater inflow in estuarine fish ecology. Juvenile *R. holubi* were less dependent on the environment and were able to tolerate extreme conditions for long periods. These results indicate the robustness of the species and highlight the important ecological role it plays during environmental changes in estuaries.

Supervisor: Prof R Perissinotto Co-supervisors: Prof NA Strydom

# THE DEGREE OF DOCTOR OF PHILOSOPHY (BOTANY)

### CÉLIA DA CONCEIÇÃO FELISBERTO MACAMO

#### Previous qualifications:

2007	BSc (Ecology and Natural Resources Management)	Universidade Eduardo Mondlane
2011	MSc (Aquatic Biology and Coastal Ecosystems)	Universidade Eduardo Mondlane

#### Thesis:

THE MANGROVES OF MOZAMBIQUE: PATHWAYS TO CONSERVATION THROUGH INTEGRATED MANAGEMENT

This study investigated human and climate-related impacts on mangrove forests. These trees grow at the interface between land and sea and contribute to coastal protection, fisheries production and carbon storage. The research makes a significant contribution to understanding the impact of global threats on mangrove forests. New findings on cyclones and wood extraction were published in two international journal articles. The study analysed the mangrove management system in a country where community dependence on natural resources is high. A critical assessment of the existing institutional and legal instruments showed the importance of strengthening community-based management of mangroves. The research results can be applied globally and are also addressing United Nations Sustainable Development Goals on climate change and sustainable use of ocean resources.

Supervisor: Prof JB Adams Co-supervisor: Prof S Bandeira

### THE DEGREE OF DOCTOR OF PHILOSPHY (BOTANY)

#### MANDLA LEON MAGORO

#### **Previous qualifications:**

2011 BSc (Hons) (Conservation Biology) University of Venda **Rhodes University** 

2014 MSc (Zoology)

#### Thesis:

CHARACTERIZATION AND ECOLOGY OF SELECTED MICRO-ESTUARIES AND MICRO-OUTLETS IN THE EASTERN CAPE PROVINCE, SOUTH AFRICA

This study investigated the biotic and abiotic properties of micro-estuaries and micro-outlets in the Eastern Cape Province, as well as their general ecological functioning. The micro-outlets were dominated by freshwater conditions and freshwater-associated biota, while mesohaline conditions persisted in the microestuaries, with a combination of freshwater and estuary-associated fauna. Micro-estuaries have lower estuarine function in comparison with larger systems such as temporarily open/closed estuaries, with a low representation of estuary-associated phytoplankton, microphytobenthos, zooplankton, macro-zoobenthos and fish assemblages. This study has, for the first time, identified the characteristics necessary for the transformation of a coastal outlet into an estuary.

> Supervisor: Prof R Perissinotto Co-supervisor: Prof AK Whitfield

## THE DEGREE OF DOCTOR OF PHILOSOPHY (ENVIRONMENTAL GEOGRAPHY) **DENIS NSEKA**

#### **Previous qualifications:**

Bachelor of Geography, Second Class Honours Upper Division 2006 Makerere University 2010 Master of Land Use and Regional Development Planning Makerere University

#### Thesis:

A CHARACTERIZATION OF LANDSLIDE OCCURRENCE IN THE KIGEZI HIGHLANDS OF SOUTH WESTERN UGANDA

This study analysed the specific topographic parameters, inherent soil properties as well as land use and cover changes considered to be the key underpinnings of the spatial-temporal distribution of landslide occurrence in the Kigezi highlands of south western Uganda. Landslides in these highlands were noted to concentrate along topographic hollows in the landscape. Characterized by deep soil horizons with high clay content dominated by illite/muscovite minerals in the sub soils and profile concave forms with moderately steep slopes, hollows are the most vulnerable slope elements to landslide occurrence. The spatial-temporal patterns of landslide occurrence in Kigezi highlands have changed due to increased cultivation of steep middle and upper slopes. The information this study generated about the area's topographic, pedological and land cover characteristics should help in vulnerability mitigation and enhance community resilience to landslide hazards in this fragile highland ecosystem.

Supervisor: Prof V Kakembo Co-supervisor: Prof Y Bamutaze

# THE DEGREE OF DOCTOR OF PHILOSOPHY (MICROBIOLOGY)

#### **MITRADEV PATTOO**

#### **Previous qualifications:**

2008Diploma in Biomedical SciencesUniversity of Mauritius2010BSc (Hons) Biomedical SciencesUniversity of Mauritius2012MSc in BioinformaticsUniversity of Mauritius

#### Thesis:

BIOLOGICAL ACTIVITIES OF AN AQUEOUS EXTRACT OF TULBAGHIA VIOLACEA AGAINST CRYPTOCOCCUS SPECIES

This thesis represents an ethno-pharmacological study into the discovery of antifungal compounds from the medicinal plant *Tulbaghia violacea*. In this study the student describes the use of extracts from different plant parts (leaves, roots, rhizomes and tubers) to inhibit the growth of *Cryptococcus neoformans* (a yeast pathogen commonly afflicting HIV / AIDS patients) and *Cryptococcus gattii*. Biochemical testing using the rhizome extract indicated that fungal ergosterol, beta glucan and chitin production were affected, which explains the mechanism of fungal death. Importantly, the extract also affected fungal virulence factors including melanin and urease production. The multi-factorial effect of the extract makes it an ideal candidate for development into an effective antifungal agent.

Supervisor: Dr B Somai

# THE DEGREE OF DOCTOR OF PHILOSOPHY (CHEMISTRY)

#### NOMASONTO RAPULENYANE

#### **Previous qualifications:**

2009BSc (Chemistry & Microbiology)Rhodes University2010BSc (Hons) (Chemistry)Rhodes University2012MSc (Chemistry)Rhodes University

#### Thesis:

DEVELOPMENT OF HIGH CAPACITY LITHIUM-MANGANESE-RICH CATHODE MATERIALS xLi2MnO<sub>3</sub>.(1-X)LiMn0.5Mn0.5O2 FOR LITHIUM ION BATTERIES

This study is based on developing novel one-pot synthesis method which involves less procedural steps in making the process time efficient and cost effective. High capacity (≥ 700 Wh/kg specific energy density) cathode materials with good properties for lithium ion batteries such as stable cycling and high rate performance were produced. The candidate published one peer-reviewed journal paper from the work and filed two patents on high capacity cathode materials synthesis for lithium ion batteries. She has also presented her work at local conferences and won best oral presentation award. In June 2018, the candidate presented her work at the BRICS young scientist forum in Durban.

Supervisor: Prof EE Ferg Co-supervisor: Dr H Luo

### THE DEGREE OF DOCTOR OF PHILOSOPHY (PHYSICS)

#### **NGCALI TILE**

#### **Previous qualifications:**

2005 BSc (Physics with Chemistry) Walter Sisulu University 2006 BSc Hons (Physics) University of the Western Cape University of KwaZulu-Natal

2013 MSc (Physics)

#### Thesis:

AP-MOVPE GROWTH AND CHARACTERIZATION OF GaSb/GaAs QUANTUM DOTS

Self-organised semiconductor nano-structures have applications in novel optoelectronic devices. In particular, GaSb quantum dots can be incorporated in the active layer of mid-infrared devices for applications in medical diagnostics, environmental sensing, military countermeasures and solar-cells. The growth and control of these nanoscale structures is a scientific challenge. The first and important steps are to understand how they form and to establish the growth conditions to control their morphology. These are achieved in the present study, using Metalorganic Vapour Phase Epitaxy (MOVPE) as the growth technique. The findings in this study are relevant to industry and make a sound contribution to our understanding of quantum dot formation.

Supervisor: Prof JR Botha

### THE DEGREE OF DOCTOR OF PHILOSOPHY (ZOOLOGY)

#### **OLGA VARGAS FONSECA**

#### Previous qualifications:

2004 Doctor Veterinary Medicine (DVM) National University, Costa Rica 2009 MSc Animal health and behaviour Wageningen University, the Netherlands

#### Thesis:

POPULATION ECOLOGY OF INDO-PACIFIC BOTTLENOSE DOLPHINS ALONG THE SOUTH-EAST COAST OF SOUTH AFRICA

In this study, the genetic population structure of the Indo-Pacific bottlenose dolphin was assessed across the Agulhas and Natal Bioregions of South Africa. At the same time, the abundance, distribution and habitat use was investigated using boat-based surveys along 145 km of coastline from Goukamma Marine Protected Area (MPA) to Tsitsikamma MPA along the south-east coast of South Africa. Habitat preferences were assessed based on locations of sightings and recorded behaviour, and also compared with those of the sympatric Indian Ocean humpback dolphins. In so doing, the study provides the first assessment of habitat use and population changes as well as improved understanding of the fine-scale genetic differentiation, and sub-population boundaries, of bottlenose dolphins along the South African coast.

> Supervisor: Prof PA Pistorius Co-supervisors: Dr S Kirkman and Dr V Cockcroft

# THE DEGREE OF DOCTOR OF PHILOSOPHY (ENVIRONMENTAL GEOGRAPHY)

#### **HANNINGTON WASSWA**

#### Previous qualifications:

2002 Bachelor of Arts with Education Makerere University
2009 Master of Arts in Geography Makerere University

#### Thesis:

THE ECONOMIC AND ECOLOGICAL TRADE-OFFS OF WETLAND CONVERSION FOR DEVELOPMENT PROJECTS: THE CASE OF THE KAMPALA-MUKONO CORRIDOR

This study assessed the spatial and temporal wetland loss to Development Projects (DPs) and analysed the related economic and ecological implications in the Kampala-Mukono Corridor (KMC). It was revealed that almost half of KMC wetlands have been lost between 1974 and 2013, with the greatest losses accruing to DPs. The KMC stands to incur an economic trade-off worth US\$ 139 million, with the greatest percentage accruing to the subsistence level, in the form of incomes and livelihood products. Ecological implications point to altered hydrological regimes, reduced soil organic carbon sequestration potential and resultant local climate variability. Mitigation and conservation measures should involve a revision of historic property rights to regulate wetland use, performance bonds for environmentally friendly activities and tradable permits that utilise the concept of 'wetland banks' to prevent further loss of the KMC wetlands to DPs.

Supervisor: Prof V Kakembo Co-supervisor: Prof F Mugagga

#### **FACULTY OF HEALTH SCIENCE**

# THE DEGREE OF DOCTOR OF PHILOSOPHY (PSYCHOLOGY)

#### PHUMEZA PATRICIA KOTA-NYATI

#### **Previous qualifications:**

1994BAVISTA University1995BA HonoursUniversity of Port Elizabeth1999MA (Counselling Psychology)University of Port Elizabeth

#### THESIS:

BLACK WOMEN'S NARRATIVES OF WOMANHOOD: BEFORE AND AFTER HYSTERECTOMY

This study investigated experiences of hysterectomy among Black women. Their voices were shared against a background of a patriarchal and dominant medical discourse in the Eastern Cape Province of South Africa. The medical context gives scant consideration to the complex reciprocal influences of hysterectomy. The findings of this research revealed negative experiences resulting from severe symptoms before hysterectomy, exposed multi-layered structures of power and dominance during treatment, and indicated positive outcomes of hysterectomy. The findings should inform medical and allied practitioners regarding hysterectomy as a treatment option and add to the debate on the relationships between hysterectomy, womanhood, and identity.

Supervisor: Prof CN Hoelson

# THE DEGREE OF DOCTOR OF PHILOSOPHY (GENERAL HEALTH SCIENCES)

#### **DIANA OELOFSE**

#### **Previous qualifications:**

1994 MBChB University of the Orange Free State
2003 MMED Haematopathology University of the Free State

#### Thesis:

HAEMATOLOGICAL MALIGNANCIES IN A SOUTH AFRICAN POPULATION: A STUDY IN CANCER TRANSITION

Africa's indigenous populations are urbanising rapidly, leaving behind the spatial context of rural and traditional lifestyles and transitioning into environments modified by complex physical and social changes. High prevalence and an epidemic-like nature of many chronic diseases, including cancer, are associated with populations undergoing these transitions in health. Haematological malignancies are regarded as "rare cancers", yet they too, are becoming increasingly common. This study investigated historical conceptualisation, contemporary incidence and aspects of individual level and contextual epidemiology, with specific reference to the Eastern Cape region of South Africa. Results were characterised by complex patterns suggesting uneven forms of transitions in health among the region's composite population.

Supervisor: Prof I Truter Co-supervisor: Prof N Smith