



UNIVERSITY OF NATAL

**GRADUATION/ DIPLOMA
CEREMONY**

1995

TUESDAY 2 MAY

18:30

DURBAN CITY HALL

THE CHANCELLOR

"Chancellor" is an office that goes back to Antiquity: the original *cancellarius* regulated access to the Roman Tribune. In medieval times, the office became associated with the heads of the writing departments of the early kings. Because so few people were literate, a chancellor was automatically learned. This explains why the heads and spokesmen of the early universities were also accorded the title. More recently, the office has become largely symbolic. The executive head of a university is its vice-chancellor.

Archbishop Hurley is the fifth Chancellor of the University of Natal. His predecessors were: The Honourable D G Shephstone (1949-1966), Dr G G Campbell (1967-1973), Dr B A Armitage (1973-1983), and the Honourable R N Leon QC (1983-1992).

THE MACE

The Chancellor's Mace, generally referred to as "the Mace", is used on ceremonial occasions presided over by the chancellor and is regarded as the Chancellor's "staff of office". It symbolises the University's protection of its Chancellor.

The use of the mace as a symbol of authority has a long history. The head of a copper mace, which apparently dates back to the 12th Century before Christ, has been excavated at Beyce Sultan in Asia. In the early centuries, churchmen who went to war often carried a mace in preference to a sword. One side of the mace-head was beautifully decorated with the owner's emblem and on the other side was a large knob which served as a weapon, and was always round so that the church law never to shed blood was always carefully observed! In the early centuries the mace was a symbol of the king's authority. During the power struggle between the king and the Commons in the 13th Century, the king gave the speaker the mace as a symbol of his indemnity against arrest.

The Mace was designed by Mr G H Atkins, senior lecturer in sculpture in the University's Department of Fine Arts, was made in England and was first used at the 1970 graduation ceremonies.

THE ARMORIAL BEARINGS (See front cover)

The armorial bearings of the University of Natal were awarded by the College of Arms in London.

The two black wildebeest come from the arms of the Province of Natal. They are shown in full course to symbolise movement and progress. The two open books represent the universal heritage of knowledge and the two centres of the University, Durban and Pietermaritzburg. The five pointed star represents the land of Natal discovered and named on Christmas Day in 1497. Stella Aurorae, star of the dawn, symbolises the role of the University in dispelling the darkness of ignorance and evil.

ACADEMIC DRESS

The wearing of gowns by judges, ministers, teachers and scholars is an ancient and impressive custom. When the graduating students at universities receive their diplomas or degrees, they, too, (and perhaps, for some, only this once in their lives), wear the caps and gowns of this long tradition. By wearing the ancient regalia, they hold hands with students past and students present.

In modern times the standard cap and gown are almost universally worn. Of all the components of the costume, the hood conveys the greatest amount of information: it makes clear the level of the degree, the faculty in which it was given, and the institution which awarded it.

CONVOCATION

After being capped by the Chancellor, each graduate moves across the stage and hands to the President of Convocation or his representative a hood incorporating colours that indicate the degree being awarded and the Faculty in which it is being awarded. The President places the hood upon the graduate's shoulders, and, at the end of the ceremony, after the Chancellor's procession has left the stage, leads a procession of the new graduates out of the hall, row by row, to symbolise their acceptance into, and future membership of, the Convocation of the University of Natal, the statutory body through which graduates have the opportunity to play a continuing part in the affairs of the University.

PROGRAMME

The Vice-Chancellor constitutes the congregation

WELCOME TO GUESTS

The Deputy Vice-Chancellor

PRESENTATION OF DOCTORAL GRADUANDS

The Deans of Faculties

HONORARY DEGREE

Prof. John Brand Martin

BSc (Eng) (Natal), PhD (Cambridge), DSc (Eng) (Natal)

ADDRESS

Prof J B Martin

UNIVERSITY OF NATAL CASOC CHOIR

- (i) "Yekel' amathwasa angene" S B P Mnomiya
- (ii) A Traditional Song

PRESENTATION OF GRADUANDS AND DIPLOMATES

The Deans of Faculties

The Vice-Chancellor dissolves the congregation

The congregation is invited to join in the singing of Nkosi Sikelel'i-Afrika
and Die Stem

The Academic Procession leaves the Hall

The congregation is requested to stand while the academic procession enters and
leaves the hall and to remain seated until the conclusion of the ceremony
Only officially authorised persons may take photographs during the ceremony
Refreshments will be served in the first floor Gallery above the main entrance facing
Francis Farewell Square at the conclusion of the ceremony

OFFICERS

Chancellor	The Most Reverend D E Hurley, <i>OMI, DD</i> Archbishop Emeritus of Durban <i>PhL (Rome), STL (Rome)</i>
Vice-Chancellor and Principal	B M Gourley <i>CTA (Witwatersrand), MBL (UNISA), CA(SA)</i>
Chairman of Council	C van der Pol <i>BSc, PhD (Witwatersrand)</i>
Deputy Vice-Chancellor and Durban Principal	C F Cresswell <i>BSc (Hons), MSc (Rhodes), PhD (Bristol)</i> <i>FRSSAF, M.A.S.S.Af.</i>
Deputy Vice-Chancellor Research and Development	E M Preston-Whyte <i>BSocSc (Hons), PhD (Natal)</i>
Deputy Vice-Chancellor Planning and Resources	E. Ngara <i>BA (Hons)(Rhodesia), MPhil., PhD (London)</i>
Deputy Vice-Chancellor and Pietermaritzburg Principal	D A Maughan Brown <i>BA (Cape Town), MA (Cantab)</i> <i>DPhil (Sussex)</i>
Registrar	G J Trotter <i>BA (Hons). MA (Duke)</i>
President of Convocation	Mr J P Boulle <i>BSc (Agric), MSc (Agric)</i>
Orator	J U Jacobs <i>BA (Pret), THED BA (Hons) (Unisa)</i> <i>MPhil, PhD (Columbia)</i>

DEANS OF FACULTIES

Economics & Management	A B Lumby <i>BA (Hons) (Witwatersrand),</i> <i>PhD (Natal)</i>
Engineering	L W Roberts <i>MSc (Natal), PhD (London)</i> <i>PrEng, DIC, MSAIMechE, MASME</i>

Doctor of Philosophy in the Faculty of Engineering

Discipline

Fraser, David Douglas, *MScEng*.....Electronic Engineering
Thesis : Neural networks and early fast doppler for prediction in
meteor-burst communications systems

Randelhoff, Mark Charles, *MScEng*.....Electrical Engineering
Thesis : Automated generation of predictable real-time code for
motion control applications

Reynolds, Christopher Garth, *MScEng*.....Electronic Engineering
Thesis : The analysis, simulation and testing of an experimental
travelling-wave tube

Simpson, Alison Elizabeth, *BSc (Hons)*.....Chemical Engineering
Thesis : The recovery of sodium hydroxide from cotton scouring
effluents

Vassilopoulos, Nicolaos, *BScEng*.....Electronic Engineering
Thesis: The development of an experimental, low profile,
broadband travelling wave tube amplifier

Walker, Mark, *MScEng*.....Mechanical Engineering
Thesis : Design of laminated composite plates for maximum
buckling load using the finite element method

Doctor of Philosophy in the Faculty of Economics and Management

Discipline

Lord, Jeremy William, *M.B.L (Unisa), C.T.A (Natal), CA(SA), ACMA*
Business Administration
Thesis: Integrated Employee Participation Schemes in the South
African Gold Mining Industry: A Study of their effects
and dynamics.

Honorary Graduand

Martin, John Brand, *BScEng (Natal), PhD (Cambridge), DScEng (Natal)*

Master of Science in Engineering

Discipline

- Bullock, Pauline, BScEng**.....Chemical Engineering
Dissertation : Development and modelling of a cross-flow hindered settling classifier
- Chetty, Surendra, BScEng**.....Chemical Engineering
Dissertation : The evaluation of the cavitation process to produce radical species capable of oxidising organic pollutants in industrial wastewaters and potable water
- du Plessis, Claude, BScEng**.....Mechanical Engineering
Dissertation : Experimental and theoretical assessment of ice storage in air-conditioning applications
- Gubb, Wayne, BScEng**.....Mechanical Engineering
Dissertation : Investigation into a low cost stereolithography system
- Hao, Bai, BEng (Beijing Polytechnic)**.....Electrical Engineering
Dissertation : Field oriented control of a voltage-fed current regulated induction motor
- Jenkins, Kim Jonathan, BScEng**.....Civil Engineering
Dissertation and Coursework : Analysis of the performance of a pavement layer which has been treated by single pass *in situ* stabilisation
- McFarlane, David Gordon, BScEng**.....Civil Engineering
Dissertation and Coursework : Left turn yields at isolated signalised intersections
- Pillay, Marcus Julian, BScEng**.....Mechanical Engineering
Dissertation : The environmental behaviour of AISI 1045 steel laser surface alloyed with CrB and CrB₂ + Ni
- Pillay, Manushani, BSc (Hons)**.....Chemical Engineering
Dissertation : Detergent phosphorus in South Africa : Impact on eutrophication with specific reference to the Umgeni catchment
- Schlenter, Craig Charles, BScEng**.....Electrical Engineering
Dissertation : Case tools for automated real-time control code development

Discipline

Schwikkard, Gavin Wyatt, BScEng.....Chemical Engineering
Dissertation : An investigation of the sonochemical degradation
of hydantoin compounds

Shabtay, Yoram Leon, BScEng.....Mechanical Engineering
Dissertation : Compact heat exchanger operation at low air velocity

Singh, Subash, BScEng.....Mechanical Engineering
Dissertation : Routing aspects of mobile robots in manufacturing

Smith, Trevor Lloyd, BScEng.....Mechanical Engineering
Dissertation : Wind loading design for tall vertical process columns:
The effect of attachments

Stapleton, Gavin Malcolm, BScEng.....Electrical Engineering
Dissertation : State and parameter estimation for vector
controlled induction motor drives

Turner, Andrew Iver, BScEng.....Mechanical Engineering
Dissertation : Acoustic emissions for monitoring of a machining
process

Degree awarded cum laude

Master of Science in Land Surveying

Discipline

Honu, Wilson Yaw, BSc (Ghana).....Surveying and Mapping
Dissertation : Reliability estimation in surveying networks

Degree awarded cum laude

Master of Commerce

Discipline

Christensen, Peter Richard, BCom (Hons).....Economics
Thesis: Relevance of the Todaro Model Explaining Black
Migration to and within the Durban Functional Region.

Coates, Alison Jane, BCom (Hons).....Industrial &
Coursework Labour Studies

	<i>Discipline</i>
Cobbledick, John Liam, BCom (Hons)	Economics
Coursework	
Read, Catherine Ann, BCom (Hons)	Economics
Coursework	
Sharratt, Matthew Blaxland, BA (Hons)	Economics
Coursework	
van Rensburg, Paul, BSocSc (Hons)	Economics
Coursework	

Degree Awarded cum laude

Bachelor of Commerce (Honours)

	<i>Discipline</i>
Andrews, Matthew Ronald, BCom	Economics
Arbee, Aradhna, BCom	Marketing
Badsha, Yasmin, BCom	Business Administration
Burns, Justine Claire, BCom	Economics
Coppola, Daniela Lara, BCom	Finance
Deeb, Peter Bruce, BCom	Marketing
Dheda, Aarti Unkha Jairam, BCom	Business Administration
Dixon, Debra Lynn, BCom	Marketing
Donovan, Lynne Jones, BCom (Rhodes)	Marketing
Engelbrecht, Samuel Douglas, BCom	Business Administration
Fletcher, Kevin, BCom	Economics
Fortmann, Paul Edwin, BCom	Business Information Systems
Goddard, Mark David, BCom	Economics
Heneke, Vanessa Chantel, BSc	Business Information Systems
Ilkova, Elena Atanassova, BCom	Finance
Mulumba, Musangu, BCom	Economics
Murray, Derek John Coxetter, BCom	Business Information Systems
Ntombela, Imelda Patricia Duduzile, BCom (UZ) ...	Business Administration
Pillay Narrainen, Rooma, BCom	Marketing
Reinders, Leigh, BCom	Economics
Ribeiro, Carla Maria Da Silva, BCom	Marketing
Schewitz, Warren Martin, BCom	Finance
Slaney, Kevin Bruce Emery, BCom	Finance
Smith, Nolan Angus, BCom	Business Administration
Stead, Carryn Gail, BCom	Marketing
Taylor, Catherine Lesley, BCom	Economics

Bachelor of Science in Engineering

(Agricultural Engineering)

Lawrence, Douglas Norman John

(Chemical Engineering)

Bhawanideen, Anilkumar

Bogatsu, Sello Mathews

Bowden, Dion Eldred

Craig, Andrew

De Kock, Hazel Helen

Fath, Craig John Alan

Hadebe, Ewart Mboni

Hilditch, Jeanette Susan

Khathi, Sibongiseni Welcome

Khumalo, Patrick Vela

Leeuw, Tathlego Teeza Lemuel,
BSc (N.U.L)

(Civil Engineering)

Emslie, Ian Patrick

Erwin, Richard Grant

Naidu, Sadasivan

Piat, Daniel Marc Evenor

Pillay, Seniel Dasaradhan

Walker, Lisa

(Electrical Engineering)

Kenneth, Alastair Julian

Khoosal, Vijay Manilal

Krishnaswamy, Nerandra

Mabaso, Bongani Ephaniel

Maharaj, Subhas

Ramprotal, Alkesh Durgapursad

(Electronic Engineering)

Dimock, Caitlin

Gani, Mohamed Riaz Abdool Guff

Harie, Deepak Govind

John, Thiagaraj

Madondo, Phila Jeffrey

Naidoo, Kersenthren Dhanpal

Samlall, Avinash

Sivashankar, Yoganathan

Sperring, Garth Graham

Wellbeloved, Grant Bryce

(Mechanical Engineering)

Apsey, Jason John

Baty, Alistair Charles

Mottram, Matthew

Mpontshane, Thulani Percival

Seeripat, Sandeep Ramjathan

Sing, Anuradha

Skinner, Lloyd Arthur

Tompkins, Nicholas Richard

Webster, Gary Michael

Wu, Chia Chi

Degree Awarded cum laude

Bachelor of Commerce

Acutt, Paul Charles
Aitken, Stuart Alexander
Alleaume, Marie Chantal
Allison, Michael Denis Ashton
Anger, Colleen Elizabeth
Aranky, Michelle Karen
Arbee, Aslam Sathar
Badenhorst, Wayne
Baffoe, Frank Kojo
Bailey, Morne
Beaton, Shannon Stacey
Beckley, Cindy
Behm, Deanne
Berkemeyer, Linda Kim
Bernardis, Carmen Rose
Beukes, Christopher John
Bhagwandas, Nisha
Blyth, Andrew Richard
Boustred, Richard Mark
Bromfield, Wayne
Brown, Gareth Irwin
Bruyns, Shaun Justin
Buckle, Lisa Claire
Bulley, Neil Douglas Rowe
Burger, Craig
Buthelezi, Happy-Girl
Nonhlanhla
Buthelezi, Harvey Sicelo
Callaway, Janine Caryn
Campbell, Struan Robert
Carr, Justin Noble Alec
Carrim, Anisa
Cassim, Fatima
Castleden, David John
Cele, Khumbulani Medigan
Chambers, Bridgette Jane
Chohan, Ahmed Ebrahim
Cilliers, Chenay
Coburn, Calum Ross
Cockwell, Ann Bronwen
Combrinck, Janine Bernice
Compton-James, Gia Natasha
Coombe, Lauren Peta
Coombs, Christopher Mark
Coppola, Stefania
Croukamp, Susan Charlotte

Cruickshank, Paul David
Cullinane, Elizabeth Suzanne
Enid
Currie, Steven Denys
Cuspilli, Caron Lee
Dada, Tasneem
Dargan, Janine Louise
Davis, Christopher Roger
Dayaram, Hemlatta Umed
Daye, Cynthia Elizabeth
De Freitas, Marco Paulo Sousa
Deakin, Samantha Jane
Deeb, David John
Deetlefs, Tracy Heather
Denissen, Lee
Deonarain, Avinash Inderpaul
Dheda, Aarti Unkha Jairam
Dingle, Bradley Paul
Dlamini, Mlungisi Erasmus
Doherty-Bigara, Solange
Isabelle
Domingos, Ana Paula Dos Santos
Doorgapershad, Ashika
Doubell, Paula Alice
du Plessis, Andre
Durjan, Reshma
Dwarikapersad, Sharika
Ebrahim, Farouk
Elliott, Guy Rowan
Esnouf, Eric Jean-Pierre
Eyssell, Christopher Anton
Farley, Karen Lynn
Felix, Brendan Anthony
Fenger, Kevin Peter Mogens
Forbes, Caroline Jane
Fordyce, Grant Warwick
Foreman, Ivan Shaun
Foss, Bridgette Yolande
Foster, Leanne, BSocSc
Frizelle, Gregory Martin
Gallet, Marc Gaetan Denis
Gambushe, Msizi Goodenough
Gandhi, Sandeep
Geenen, Jan-Willem Pieter

Gerard, Bruno Dominique
Gabriel
Goosen, Jodi
Gordon, Stuart Cyril
Gori, Bibi Ayesha
Gourley, Michael Elliott
Govender, Kesheni
Govender, Loshnee
Govender, Prevashni
Govender, Sadhasivan Rama
Govender, Saras
Govender, Sharmlin
Govender, Sundran
Govender, Surein
Graham, Ryan Percival Lindsay
Grübbe, Lise Margrethe
Gwala, Sandile Aubrey Xolani
Hall, Mark
Hallowes, Matthew Ian
Hamilton, Melissa
Hansa, Mohammed Riyad
Hargovan, Sanjay Ratilal
Haripaul, Prajith Narain
Harkhu, Mahendra Harilal
Harvett, Wayne Bruce
Harvey, Grant Peter
Harvey, Paul Grove
Haswell, Garrick David
Hawkins, Robert Charles
Hendrickse, Ashnith Dee
Henry, Deborah Jane
Hierons, Melanie Candice
Hill, Mark Andrew
Holmes, Constantine Frank
Hope, Kenneth Michael Edward
Hull, Patrick Charles
Hume, Peter Anthony
Hurley, Bruce Whiteway
Hurter, Jeremy Richard
Hutson, Mark Rothwell
Huxtable, Martin
Hywood, Sylvia Gaye
Illing, Dirk Wyatt
Inarman, Shina
Jackson, Iain Fred Fuller
Jackson, Wendy Lynn
Jahangeer, Razeea Bibi
Jeewan, Shalini

Jhetam, Ziyaad Ahmed
Johnson, Greg Stewart
Jonsson, Leanne
Kadwa, Ayesha
Kamayor, Melanie Ann
Kavanagh, Stephen Michael
Khan, Ridwan
Khanyile, Philisiwe Henrietta
Khooa, Mojalefa Vincent
Kightley, Justin Bryan
Kimmerling, Theda Marianne
King, Alison Burnham
King, Brendan Wendel
Kirk, Karen Louise
Kirsten, Luke
Kloek, Deborah Ann
Knox, Oswald Vernon
Knox, Timothy David
Kotsos, Eleftheria Tania
Kougianos, Anastasia
Koumantarakis, Georges
Kruger, Genelle Colleen
Laden, Mark David
Le Fleur, Hilton Thomas
Lee, Lindy Patricia
Leeuw, Arnold David
Lewis, Alison Varian
Lillywhite, Tara Patricia
Lindhiem, Mark Stephen
Lindsay, Tony John
Livesey, Jason Bernard
MacHattie, Glen Albert
Machi, Vuyani Cyril
Majiya, Michael Fayson
Manilall, Sunil
Marais, Ryan
Martin, Heather
Martin, Norman Craig
Marwick, Tessa Lee
May, Cyril
Mayer, Gavin Maurice Paul
Mayne, Debby Rae
Mbonane, Siboniso Albert
McEilly, Robin Angelo
McMaster, Lindsay Alison
McNeill, Carla Jane
Mnguni, Njabulo
Moeletsi, Martha Mankikana

Mokhethi, Prudence Tebalo
Molefe, Goodison
Moodley, Suwendri
Moodley, Vanashree
Moothoo, Jeanie
Morris, Anne Vine
Morton, Andrew Dan
Mostert, Sharon-Ann
Mthembu, Sandra Tiny
Mtoba, Thembela Lihle
Müller, Nichola Alexandra
Mundell, Jerne Deirdre
Munro, David John
Murray, Kirsten Lee
Murray, Robert Milne
Mwenesongole, Ndolezi Sundie
Naicker, Deno George
Naicker, Subashni
Naidoo, Devan
Naidoo, Devaraj
Naidoo, Logni
Naidoo, Phobashini
Naidoo, Vaneshni
Naidoo, Yochana
Naiker, Leuven Mohambry
Nare, Jacob Marumo
Nelson, Jacqueline Anne
Nene, Lindiwe Princess
Ngobese, Mlungisi Reynold
Nhlangulela, Nkosinathi
 Wiseman
Norath, Shabbir
Norval, Janine Patricia
Nourse, Lisa Ann
Nzuza, Ntombikayise Charity
Ohmann-Nielsen, Vanessa
Oldman, Linda Rose
Omar, Irfaan
Padayachee, Kevindrin
Padayachee, Purshotman
 Sivanganum
Parker, Antony Brian
Pather, Sayendran
Patton, David Richard
Payne, Richard George
Pearson, Mandy Robyn
Pepper, III, Ennis Barr
Pereira, Telmo Manuel Soares

Peters, Carol Irene
Pillay, Bronwen
Pillay, Ingrid
Pillay, Koobandaran Moonsamy
Pillay, Peggie
Pillay, Sunita
Poacher, Bruce James
Pollock, Shaun MacLean
Protopsaltis, Nikolaos
Raetzer, Lee-Anne
Rajah, Kaniakumarie
Raju, Kireshe
Ramjattan, Navisha
Ranchod, Pratiksha
Rautenbach, Carl Pierre
Raw, Vanessa Claire
Reddy, Kamintha
Richard, Thomas Arnaud
Richards, Ross Alexander
Rickaby, Frederick Alastair
Rivera, Sascha Emma
Robbertze, Bradley John
Rodda, Barry Forbes
Rohrs, Barry-John
Roper, Lewis Alexander
Russell, Catherine Jane
Sanders, Jeremy Malcolm
Schriks, Shawn Adrian
Schroeder, Gunther Georg
Schwartz, Wendy Carol
Scott, Craig John
Scott, Paul Andrew Crawford
Seccombe, Diane Leigh
Selokela, Esrom Rapula
Sendyka, Pawel Jan
Shaik-Cassim, Katija Bibi
Sher, Craig Lance
Sherriff, Gary Charles
Sirkhot, Shenaz
Sjouerman, Jeroen Jason
Skene, Carol Ann
Skweyiya, Zoleka
Smaldon, David Alan
Smith, Malcolm Erskine
Somasundram, Kerry-Anne
Soni, Anisah
Soni, Dilesh
Stewart, Brendan Glenn

Stewart, Malcolm Edward
Sumner, Brett Geoffrey
Sumner, Mark Iain
Swift, Samantha
Taylor, Brent
Tees, Lara Catherine
Thiel, Beverley
Thomas, Leanne Jane
Thompson, Graeme Craige
Thorogood, Christie Skyrme
Thwala, Merriman Nkosinathi
Tollner, Kenneth Ivor
Trusler, Cindy Lee
Tsilizani, Aubrey John
Tweedy, George Caine
Valjee, Diptesh Himathlal
Valkhoff, Sjarn
van Der Elst, Tanya
van Der Merwe, Shelley
van Diermen, Nicolas Adam
van Wyk, Joanne
van Wyk, Tanya Louise
van Zyl, Nicola Jane
Vawda, Hawa
Vieira, Ana Bela

Vincer, Bruce Robert
Wakefield, Myles Howard
Walker, Blaise Anthony
Wallis, Roslyn Jayne
Ward, Clinton Adrian
Watson, Jennifer Jacqueline
Watt, Andrew Gibson
Watts, Nicholas James
Wayne, Clare Rosanne
Whitcher, Rowena Phillamena
 Pam
Whitehead, Catherine Mae
Williams, Clyde Wynne
Williams, Gillian Enid
Witton-Smith, Richard Eric
Wood, Andrew Kingsley Leach
Wright, Chantal
Wyche-Taylor, Sarah Jane
Yeni, Babuyile Eudorah
Young-Thomson, Andrew
 James
Zervogiannis, Yianoula
Zolty, Jonathan Abel
Zulu, Thabani Francis

Degree Awarded summa cum laude

Degree Awarded cum laude

Postgraduate Diploma in Engineering

Erasmus, David Eugene,
BScEng
McGuigan, Derek John, *BScEng*
(Paisley)
Murdoch, Andrew David,
BScEng

Nicholson, Kevin, *BScEng*
Saucez, Monique Lucie Jeanne,
MTRP
Wright, Brian Gregory, *BScEng*

Postgraduate Diploma in Industrial Relations

Ayer, Pumani, *BSocSc*
Berry, Alec James, *BSocSc*
Dekeda, Thabiso Ronnie, *BJuris*
(UDW)
Dlamini, David Vusi, *BSocSc*

Gumede, Zamanguni
 Genevieve, *BA (UZ)*
Hlapane, Itumeleng Peter, *BProc*
Horne, Keith Weller, *BSocSc*
Jele, Harry Jabulani, *BAdmin*
(UZ)

Kgosieng, Maadimo Winnifred,
BSocSc (Cape Town)
Khanyile, Christopher
Siphiwe, BA
Luthuli, Nontdkozo
Philadelphia, BCom (UZ)
Machesa, George Daniel Teboho
Mos, BAdmin (Hon) (Unisa)
Mashele, Lindiwe Princess,
BSocSc
Mazibuko, Thabani
Mbuli, Nhlakanipho Praise God,
BCom (UNIN)
Mehlomakulu, Wezile, BA
(UNITRA)
Mfingwana, Mafungwashe Vuyo
Pearl, BSocSc (Rhodes)
Moeketsi, Gladys Tseleng, BA
(N.U.L)
Molefe, Thabiso Barbara, *BSocSc*
Mphela, Matsiepane Titus,
BProc
Msiya, Janet Khululiwe, BA
(UNITRA)
Mtshali, Hlanganani Tumelo,
LIB (UDW)

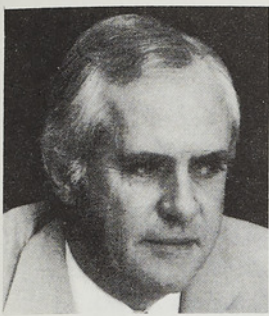
Ngcobo, Mfankhona Raymond
Bongin, BSocSc
Nkoana, Tebogo Penelope
Nordvoll, Monica Doris, BA
Phoswa, Sithembiso Thomas, BA
Pitsoe, Kagiso Sharon Patience,
BSocSc
Pretorius, Pearl Mercy, *BSocSc*
(UDW)
Radebe, Sandile Ernest, BA
Ramncwana, Dalikhwezi Lionel,
BAdmin (Cape Town)
Ramonyalioa, Disebo Patricia
Sannie, BA (UDW)
Sethole, Lordwish Lolo Segola,
BAdmin (UDW)
Shandu, Godfred Zibuse, *BSocSc*
Shongwe, Dorcas Nokukhanya
Sibaya, Lumumba, *BSocSc (Cape*
Town)
Valodia, Kuresha Ismail, BA
Xaba, Gugu Beryl, *BSocSc*
Xaba, Thabisile Cynthia, *BSocSc*
Zeka, Maureen Nosisi, BA
(UNITRA)
Zulu, Promise Lucky, *BSocSc*

Diploma Awarded with distinction

Postgraduate Diploma in Management Accounting

Bargate, Karen, *BCom (Hons)*
(Unisa)
Bugwandin, Praven, *BCom*
dey van Heerden, Ian, *BCom*
(Hons) (Pret)
Duthie, Bonne Grace, *BCom*
Govind, Daksha Vasan, *BCom*
Hill, Donovan John, *BCom*
Horner, Bruce Digby, *BCom*
(Unisa)
Howden, Tonya, *BCom*
Jhavary, Suleman Haroon,
BCom
Laing, Andrew, *BCom*
MacCallum, Susan, *BCom*
MacKenzie, Bruce Martin,
BCom

Moodley, Lanushar, *BCom*
Murley, Jonathan Pentrieth,
BCom
Obertik, Michael Jan, *BCom*
Odell, Tracey Anne, *BCom*
Parekh, Dharmendra, *BCom*
Pilling, Gregory Mark Alistair,
BCom
Ramjee, Jyotika Jackson, *BCom*
Russell, Mandy Jane, *BCom*
Shewell, Patricia Maureen,
BCom (Hons) (Unisa)
Silver, Brett Nicholas, *BCom*
Van Calcar, Hendrik Herm,
BCom
Wulfsohn, Scott Brandon, *BCom*



CONFERMENT OF THE DEGREE OF,
DOCTOR OF SCIENCE IN ENGINEERING
HONORIS CAUSA, UPON,
JOHN BRAND MARTIN

John Martin is one of the most distinguished products of the Faculty of Engineering of the University of Natal. Not only did he obtain his first degree here, but he was also awarded the D Sc degree in 1978.

Martin completed his B Sc (Engineering) degree *cum laude* in 1957, winning in the process the S A Federation of Engineering Contractor's Prize. He then worked for 18 months as a Temporary Lecturer in the Department of Civil Engineering before going to Cambridge on an Elsie Ballott Scholarship in 1959. He took his Ph D at Cambridge in 1962.

He spent the next twelve years at Brown University, where he was promoted to Professor of Engineering in 1968. In 1966 Brown honoured him with the award of its Ma degree (*ad eundem*). By the time he returned to South Africa in 1975 to take up the Corporation Chair of Civil Engineering at the University of Cape Town, he had already established himself as a major figure in engineering research and the training of graduate students.

At Cape Town, he has maintained over the past twenty years the same phenomenal research output. He served as head of the Department of Civil Engineering for five years from 1978 to 1982, and has been Dean of the Faculty of Engineering since 1983. For seven years from 1984 he simultaneously held the position of Director of Information Technology in the University. Since 1989 he has held the Chair of Applied Mechanics in the Department of Civil and Mechanical Engineering. In 1981 he was elected a Fellow of the University of Cape Town. In the same year he was appointed Director of the CSIR Research Unit on Non-linear Structural Mechanics. He went on to hold the position of Director of the Applied Mechanics Research Unit from 1984 to 1988, and since 1989 has been Director of the FRD/UCT Centre for Research in Computational and Applied Mechanics.

Martin's international renown has led to his being a long standing member of the editorial board's of a number of academic journals. Apart from his teaching and his research, he has served his university, his profession and South African society in a number of elected positions: as Senate Representative on the Council of UCT, and as a member of the Board of Directors of UCT's Organisation for Applied Research. For the CSIR he has served on the Advisory Committee for Mathematical Sciences; for the FRD on the Committee for Engineering and for the Atomic Energy Board on the Nuclear Safety Advisory Committee. He has been a member of the South African Council for Professional Engineers, and since 1991 of the Engineering Council of South Africa. Since 1988 he has been Chairman of the Board of Finite Element Analysis Services. From 1989-1991 he was a member of the Council of the Royal Society of South Africa, and since 1991 he has been a member of the Board of the Joint Venture between FRD, Industry and SAVI.

In 1973 John Martin was elected a Fellow of the South African Institution of Civil Engineers, in 1984 a Fellow of the American Society of Mechanical Engineers, in 1987 a Fellow of the Royal Society of South Africa and in 1992 a Fellow of the Academy of Engineers of the South African Society for Professional Engineers. He is also a member of the American Society of Civil Engineers, the Tau Beta Pi and Sigma Xi honour societies, the South African Mathematical Society and the South African Society for Numerical Mathematics.

In addition to these honours, he has received the Award for Meritorious Research from the South African Institution of Civil Engineers, the John F W Herschel Medal of the Royal Society of South Africa, and the Percy Fox Foundation Annual Award for his outstanding contribution in the fields of technology and science.

He has held positions as a Visiting Professor and Visiting Fellow at the University of Leicester, Brown University and Peterhouse, Cambridge

His prowess as a research scientist and his leading contribution to the Engineering profession have been widely acknowledged by others, and it is fitting that his *alma mater* should now recognise his singular achievements by bestowing upon him its highest honour.

NKOSI SIKELEL'I-AFRIKA

- 1 Nkosi sikelel' i-Afrika,
Maluphakanyisw' udumo lwayo.
Yizwa imiyhandazo yethu,
Nkosi sikelela,
Thina lusapho lwayo.
(Repeat verse)

2. Morena bōlōka sēchaba sa hesō.
Ōfelise lintōa lē matsōenyeho.
Morena bōlōka sēchaba sa hesō,
Ōfelise lintōa lē matsōenyeho.
Ōsēbōlōke ō...sebōlōke,
Ōsēbōlōke morena/Ō...sebōlōke.
Sechaba sa hesō,
Sechaba sa hesō.

Woza moya....
Woza moya....
Woza Moya, oyingcwele,
Usisikelele,
Thina lusapho lwayo.

Makube njalo,
Makube njalo,
Kuze kube ngunaphakade.
Kuze kube ngunaphakade.

Note: "o" is pronounced as "u", "e" is pronounced as "i" and "li" (in "ofelise lintoa") is pronounced as "di" ("ofedise dintoa").

(The following is a free translation of Nkosi Sikelel'i-Afrika)

LORD SAVE AFRICA

1. Lord save Africa,
May its honour be lifted high.
Hear our prayers:
Lord save
Us, the family of Africa

Come spirit...
Come spirit...
Come holy spirit,
That you may save
Us, the family of Africa

2. Lord save our country,
That you may end wars and oppression.
Lord save our country,
That you may end wars and oppression.
That you may save...save
That you may save Lord...save
Our country,
Our country.

Let it be so,
Let it be so,
Let it be finally and forever so,
Let it be finally and forever so.

SOME NOTES ON "NKOSI SIKEL' i-AFRIKA"

"Nkosi Sikelel' i-Afrika" was written, probably in 1897, by Enoch Sontonga, who was born in Lovedale in the Eastern Cape, into the Mpinga clan of the Tembu people, but who moved up to Johannesburg after leaving school. He seems to have pursued several occupations, probably ending up as a teacher in a Methodist mission school and living in Nancefield (Klipspruit). He died in 1904. His grave has not been found, but it is believed that it is in the Braamfontein cemetery, not far from the graves of Indians and Whites.

An avowed Christian and with a marvellous voice, Sontonga constantly wrote songs and hymns for his pupils to perform. "Nkosi Sikelel' i-Afrika" seems to have been first sung publicly at the ordination of a Methodist Minister in 1899. It was popularised by Dr John Dube, founder both of the newspaper *Ilanga* and of the Ohlange Training Institution north of Durban.

One of South Africa's greatest writers, Solomon Plaatje, was the first to record the song, accompanied by Sylvia Colenso on the piano, in England in 1923 (the record was made by the Zonophone Company). Later the Xhosa poet, Samuel Mqhayi, added seven more stanzas. In 1942 Morija Mission in Basuto land (as it then was) published a Sesotho version written by Moses Mphahlele.

"Nkosi Sikelel'" is derived from a fusion of European and African cultures. There are thus a number of reasons why all South African groups might take some pride in it. In recent years it has been adopted as a national anthem by several African countries.

The words of "Nkosi Sikelel'" have become part of South Africa's repertoire of oral poetry; many slightly different versions of the poem are in circulation. The version printed here was decided on by a group of Zulu and Sesotho scholars at this University.

(These notes are based largely upon an article written by Professor Tim Couzens of the University of the Witwatersrand).

DIE STEM VAN SUID-AFRIKA

(Official Afrikaans version)

Uit die blou van onse hemel, uit die diepte van ons see,
Oor ons ewige gebergtes waar die kranse antwoord gee,
Deur ons vér verlate vlaktes met die kreun van ossewa -
Ruis die stem van ons geliefde, van ons land Suid-Afrika

Ons sal antwoord op jou roepstem, ons sal offer wat jy vra:
Ons sal lewe, ons sal sterwe - ons vir jou, Suid-Afrika.

(Official English version)

Ring out from our blue heavens, from our deep seas
breaking round;
Over everlasting mountains where the echoing crags resound;
From our plains where creaking wagons cut their trails
into the earth -
Calls the spirit of our Country, of the land that gave us birth.
At thy call we shall not falter; firm and steadfast we shall stand.
At thy will to live or perish, O South Africa, dear land.

(A Zulu Translation)

(Translation by Mary Gordon and Msawakhe Hlengwa, Department of Zulu,
University of Natal, Pietermaritzburg. The translation is not literal, but tries to
capture the spirit of the original. No attempt was made to fit the words to the tune.)

Kusuka ekucwatheni kwesibhakabhaka sethu
Kusuka phansi ekujuleni kolwandle lwethu
Phezu kwezintaba zokhahlamba ezimi phakade
Lapho amawa eduma enanela imisindo
Phezu kwamathafa akithi kude le
Umsindo wokugedlezela kwezinqola
Kunyenyeza izwi lothando
Lwakho lizwe lethu Ningizimu Afrika.

Siyokuzwa ukumemeza kwakho
Siyonikela ngakho konke okucelayo
Siyophilela futhi sifele
Wena Ningizimu Afrika - izwe lethu.

