

GRA 1/3/59 (0/3)

PROFESSOR L W ROBERTS
DEAN
FACULTY OF ENGINEERING



UNIVERSITY OF NATAL

GRADUATION/DIPLOMA CEREMONY

1992

FRIDAY 10 APRIL

18:00

DURBAN

PROGRAMME

The Vice-Chancellor constitutes the congregation

WELCOME TO GUESTS
The Deputy Vice-Chancellor, Durban

PRESENTATION OF DOCTORAL GRADUANDS
The Deans of Faculties

HONORARY DEGREE
The Orator presents the Honorary Graduand
William Peter Venter
for the degree of
DOCTOR OF SCIENCE IN ENGINEERING

ADDRESS
Dr W P Venter
Hon DCom (UOVS)

THE NATAL PHILHARMONIC WOODWIND QUINTET
Excerpts from *Suite in G* Philip Rameau

PRESENTATION OF GRADUANDS AND DIPLOMATES
The Deans of Faculties

The Vice-Chancellor dissolves the congregation

THE NATAL PHILHARMONIC WOODWIND QUINTET
Flute: Petro Pieterse, BMus(Hons) (Pret); Oboe: Kelly Newport, BMus (Dallas)
Clarinet: Ian Holloway; Bassoon: Retha Cilliers, BMus (Pret);
Horn: Jeffrey Solomon, BMus (Dallas), MMus (New York)

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 are permitted to take photographs during the ceremony.

Refreshments will be served in the upper gallery at the conclusion of the ceremony.

OFFICERS

Chancellor	The Honourable R N Leon QC, BA, LLB (Natal)
Vice-Chancellor and Principal	J V Leatt BA (Rhodes), BA(Hons), PhD (Cape Town)
Chairman of Council	G C Cox BCom, LLB (Cape Town)
Deputy Vice-Chancellor and Vice-Principal, Durban	C F Cresswell BSc(Hons), MSc (Rhodes), PhD (Bristol), FRSSAf
Deputy Vice-Chancellor and Vice-Principal, Finance and Technical Services	B M Gourley CTA (Witwatersrand), MBL (Unisa), CA (SA)
Acting Deputy Vice-Chancellor and Vice-Principal, Pietermaritzburg	D A Maughan Brown BA (Cape Town), MA (Cantab), DPhil (Sussex)
Registrar	B X de Wet MA (Pret), DLitt et Phil (Unisa), HED (Pret)
President of Convocation	J M Pet PrEng, BScEng (Natal), MSAACE
Orator	P J H Scholtz BA(Hons), HED (Natal)

DEANS OF FACULTIES

Engineering	L W Roberts PrEng, MScEng (Natal), PhD (London) DIC, MSAIMechE, MASME
Science	A D M Walker MSc (Rhodes), PhD (Cantab), FRSSAf

DOCTORAL GRADUANDS

DOCTOR OF SCIENCE

Discipline

Moore, Phyllis Patricia, MSc, PhD Biology
Thesis : Human blood groups and antibodies.

DOCTOR OF PHILOSOPHY IN THE FACULTY OF SCIENCE

Discipline

Cooper, James Andrew Graham, BSc(Hons) (Queens), MSc (Natal) Geology
Thesis : Sedimentary models and geomorphological classification of river mouths on a subtropical, wave-dominated coast, Natal, South Africa.

Farrant, Jill Margaret, MSc Biology
Thesis : Some aspects of the development of the homoiohydrous (recalcitrant) seeds of *Avicennia marina* (Forssk.) Vierh.

Friedel, Reiner Hans-Walter, BScEng, BSc(Hons) Physics
Thesis : A study of wave induced electron precipitation at low and middle latitudes.

Heinsohn, Rolf-Dieter, BSc(Hons) Biology
Thesis : Growth and nutrient cycling in cultivated *Protea neriifolia* R.Br.

Jutle, Kasturi Kalyanee, BSc(Hons) (London), MSc (Natal) Chemistry
Thesis : Investigations into enamine and adamantane chemistry.

Lambiris, Angelo John Leonis, MSc Biology
Thesis : The use of laryngeal and buccopharyngeal morphology in anuran taxonomy.

Mace, Richard Lester, BSc(Hons) Physics
Thesis : Linear and nonlinear electron-acoustic waves in plasmas with two electron components.

Naidu, Kamcilla, BSc(Hons) Applied Mathematics
Thesis : Waves in space and astrophysical plasmas.

North, Delia Elizabeth, MSc Mathematical Statistics
Thesis : Partial exchangeability and related topics.

Ramsay, Peter John, BSc(Hons) Geology
Thesis : Sedimentology, coral reef zonation and late Pleistocene coastline models of the Sodwana Bay continental shelf, northern Zululand.

Simpson, Richard, BSc(Hons) Chemistry
Thesis : Investigations in Dienamine chemistry.

MR VICE-CHANCELLOR

Drying is an energy intensive operation which, in order to be economically effective, demands a sound understanding of the drying process and of its kinetics.

AR

Ernest Faber compared the drying behaviour of particulate solids when fluidized in hot air and in super-heated steam. The criteria for when steam could have an economic advantage, were established for the systems investigated. He then developed, for fluidized bed dryers, a design procedure which incorporated the analysis of the costs of the drying operation and which should provide a useful starting point for industrial process assessment.

MR VICE-CHANCELLOR,

I HAVE THE HONOUR TO PRESENT FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY IN THE FACULTY OF ENGINEERING

ERNEST FERNAND FABER

FABER

GRADUANDS

MASTER OF SCIENCE

Discipline

- Akerman, Leigh-Anne, BSc(Hons)** Chemistry
Thesis : Extractives from the Meliaceae and Icacinaceae.
- * **Aliwell, Simon Richard, BSc(Hons)** Chemistry
Thesis : Para-aminobenzoic acid photosensitised dimerisation of thymine.
- Barsby, Jane, BSc(Hons)** Geography
Coursework and Thesis : Spatial and temporal variations in total ozone over South Africa.
- Bean, Timothy Jackson, BSc(Hons)** Applied Mathematics
Thesis : Distances in and between graphs.
- Bodeker, Gregory Elton, BSc(Hons)** Physics
Thesis : The dynamics of the ozone layer between South Africa and Antarctica.
- Bolton, Kim, BSc(Hons)** Chemistry
Thesis : Studies of the photochemical reactions of thymine with selected sensitisers.
- * **Deighton, Andrew George, BSc(Hons)** Computer Science
Thesis : Packing problems on a PC.
- Diegel, Aase, BSc(Hons)** Biology
Thesis : Some investigations of the responses to drying and cryopreservation in two recalcitrant (homoiohydrous) seed species.
- * **Edwards, Sion Charles, BSc(Hons)** Chemistry
Thesis : The complexes of lead with 8-hydroxyquinoline and its 7-Alkyl derivatives.
- Graham, Philip Mark, BScAgric** Biology
Thesis : The response of grasses to fire and bush clearing in the Hluhluwe Game Reserve.
- * **Hansen, Bradley Miles Stougaard, BSc(Hons)** Physics
Thesis : Magnetic reconnection in the Tokoloshe tokamak.
- Maharaj, Vanitha, BSc (UDW), BSc(Hons) (Natal)** Chemistry
Thesis : An investigation of the complexes of zinc and germanium with 8-Hydroxyquinoline.
- * **Mogambery, Moses, BA, BSc (Unisa), BSc(Hons) (Natal)** Mathematics
Thesis : Some Mal'cev conditions for varieties of algebras.

* = Degree awarded *cum laude*

MR VICE-CHANCELLOR,

To transfer electric power from a power station to a distant large city presents special problems of stability known as subsynchronous resonance. Such a resonant condition results in large surges in electric power along the transmission line, and may even break the shaft of the turbo generators in the power station.

Richard Fairbairn has investigated this resonance by computer simulation, as well as by measurements on a laboratory scaled down miniature turbogenerator. He has developed methods to measure various parameters in the turbogenerator while it is delivering power to the network. This avoids having to stop the generator for these tests and yields considerable savings since the electricity from such a large turbogenerator earns 1 million rand or more every 24 hours.

Parts of his thesis have already been published and one of his papers was awarded a prize at a conference in Seattle in 1990.

MR VICE-CHANCELLOR,

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RICHARD EDWARD FAIRBAIRN

MR VICE-CHANCELLOR,

Every day billions of meteoroids collide with the earth's atmosphere and burn up forming trails of ionized gas tens of kilometres long. These trails may be used to reflect radio waves between two distant points on the earth's surface. Robert Mawrey investigated the variation in the arrival rates of meteors and developed models which challenged the accepted method of predicting their non-uniform distribution. His method has received international acclaim and will enable communication engineers to make optimum use of these trails for meteor burst communication systems.

MR VICE-CHANCELLOR,

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ROBERT STANLEY MAWREY

MR VICE-CHANCELLOR,

Visvanathan Pillay's work was aimed at elucidating the fundamental mechanisms that control the filtration of a suspension being pumped through a porous tube.

A cross-flow microfiltration experimental rig was designed, constructed and applied in the generation of data for analysis. In achieving his objective, an effective mathematical model of the turbulent particle transport in the filter was developed.

This outstanding research represents an important step in the application of this new configuration of filtration equipment in industry.

MR VICE-CHANCELLOR,

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VISVANATHAN LINGAMURTHI PILLAY

MR VICE-CHANCELLOR,

The separation of solids from liquids in a tubular filter press is of particular importance to water treatment and environmental control.

Gunter Rencken studied the flow pattern in the filter tubes and, then, the manner in which the solids accumulate as the filtrate permeates the woven fabric of the tube wall. He also investigated the subsequent removal of the solids from the filter. As a result, he developed a mathematical model to describe the complex process and this should prove of great value to industry.

MR VICE-CHANCELLOR,

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DOCTOR OF PHILOSOPHY IN THE FACULTY OF ENGINEERING

GUNTER EDUARD RENCKEN

DOCTOR OF PHILOSOPHY IN THE FACULTY OF ENGINEERING

Discipline

Faber, Ernest Fernand, Dipl-Ing (Uni Karlsruhe T H) Chemical Engineering
Thesis : Comparison between air drying and steam drying in a fluidized bed.

Fairbairn, Richard Edward, MScEng Electrical Engineering
Thesis : Turbogenerator analysis with special reference to subsynchronous resonance and parameter estimation.

Mawrey, Robert Stanley, MScEng Electronic Engineering
Thesis : Predicted and measured arrival rates of meteors over forward scatter links.

Pillay, Visvanathan Lingamurthi, MScEng Chemical Engineering
Thesis : Modelling of turbulent cross-flow microfiltration of particulate suspensions.

Rencken, Gunter Eduard, BScEng (Natal), MIng(Pret) Chemical Engineering
Thesis : Performance studies of the tubular filter press.

~~**Spann, Michael Dwight, MSc (California)** Electronic Engineering~~
~~Thesis : An adaptive protocol for use over meteor scatter channels.~~

HONORARY GRADUAND

(See page 10)

Venter, William Peter, Hon DCom (UOVS)

	Discipline
Monkhe, Thabo Vincent, BSc(Hons) Thesis : Extractives from the Meliaceae.	Chemistry
* Moodley, Manikan, BSc (Unisa), BEd, BSc(Hons) (Natal) Thesis : Conformal symmetries : solutions in two classes of cosmo- logical models.	Mathematics
* Morel du Boil, Pamela Gloria, BSc Thesis : Factors affecting abnormal crystal shape during cane sugar crystallisation.	Chemistry
Olander, Peter Andrew, BSc(Hons) (Rhodes) Thesis : Built-in tests for a real-time embedded system.	Computer Science
Owen, Rodney Kenneth, BSc(Hons) Thesis : The effects of sediment disturbance on the macrobenthos of the St Lucia Narrows, Natal.	Biology
Rees, Rodney Thomas, BSc(Hons) Thesis : Antigens of <i>Cysticercus cellulosae</i> and the serodiagnosis of neurocysticercosis.	Biology
Rutherford, Christine Elizabeth, BSc(Hons) Thesis : The destabilising effects of various cations on a surfactant derivative of poly iso-butenyl succinic anhydride.	Chemistry
* Sherwin, Heather Wendy, BSc(Hons) Thesis : The inter-relations among xylem anatomy, hydraulic conduct- ivity and leaf water status in five sub-tropical tree species.	Biology
Snyman, Sandra Jane, BSc(Hons) (Witwatersrand) Thesis : Development of <i>in vitro</i> culture and gene transfer techniques in sugarcane (<i>Saccharum</i> species hybrids).	Biology
Thangavelu, Kogila, BSc (UDW), BSc(Hons) (Unisa) Coursework and Thesis : Attitudes towards the aged among Indians in Municipal Durban.	Psychology

MR VICE-CHANCELLOR

I HAVE THE HONOUR TO PRESENT FOR THE DEGREE OF

MASTER OF SCIENCE IN ENGINEERING

Discipline

Ferreira, Jacques Henri, BScEng	Mechanical Engineering
Thesis : The effect of oxygen on the creep-fatigue failure of iron-chromium alloys at 600°C.	
Fraser, David Douglas, BScEng	Electronic Engineering
Thesis : Phase effects in meteor-burst communication systems.	
* Govender, Gonasagren, BScEng	Mechanical Engineering
Thesis : The environmental effects of sulphur containing atmosphere on creep-fatigue failure of coated MAR-M002 superalloy at 870°C.	
Molaba, Chiloane Alpheus, BScEng	Mechanical Engineering
Thesis : The effect of SO ₂ bearing atmosphere on high temperature fatigue failure of SAF 2205 and 316 stainless steel.	
Officer, Andrew Knowles, BScEng	Civil Engineering
Thesis : Energy dissipation on stepped spillways.	
Richard, Bernardus Thomas, BIng(Hons) (Pret)	Mechanical Engineering
Thesis : Design and testing of a high pressure ratio (6:1) centrifugal air compressor.	
* Rubin, Nicholas Paul, BScEng (Witwatersrand)	Electrical Engineering
Thesis : Slip estimation for induction motors in speed control applications with particular reference to sensorless field oriented controlled drives.	
Sewnath, Gajadhar, BScEng	Electronic Engineering
Thesis : A packet radio system for an industrial data network.	
Sewsunker, Rathilall, BScEng	Electronic Engineering
Thesis : The choice of telecommunications equipment for rural areas.	
Walker, Mark, BScEng	Mechanical Engineering
Thesis : The effect of H ₂ S bearing environment on the creep-fatigue failure of coated unidirectionally solidified MM-002 superalloy at 650°C.	
Yakar, Babür, BScEng (Dokuz Eylul)	Mechanical Engineering
Thesis : Optimal design of cylindrical shells under strength constraints	

BACHELOR OF SCIENCE (HONOURS)

Discipline

# Badenhorst, Paul William, BSc	Biology
Boswell, Penelope Suzeen, BSc (UPE)	Geography
* Broadbent, Jane Karen, BSc	Chemistry
Bullock, Allan Michael Tinley, BSc	Geology
Burger, Bruce Jonathan, BSc	Geography
* du Preez, John Gustave Crawford, BSc (Cape Town)	Computer Science
Forbes, Andrew, BSc	Physics
Gazzard, Robyn Philippa, BSc	Psychology
Gerber, Priscilla, BSc	Computer Science

* = Degree awarded *cum laude*

Discipline

- Monkhe, Thabo Vincent, BSc(Hons)** Chemistry
Thesis : Extractives from the Meliaceae.
- * **Moodley, Manikan, BSc (Unisa), BEd, BSc(Hons) (Natal)** Mathematics
Thesis : Conformal symmetries : solutions in two classes of cosmological models.
- * **Morel du Boil, Pamela Gloria, BSc** Chemistry
Thesis : Factors affecting abnormal crystal shape during cane sugar crystallisation.
- Olander, Peter Andrew, BSc(Hons) (Rhodes)** Computer Science
Thesis : Built-in tests for a real-time embedded system.
- Owen, Rodney Kenneth, BSc(Hons)** Biology
Thesis : The effects of sediment disturbance on the macrobenthos of the St Lucia Narrows, Natal.
- Rees, Rodney Thomas, BSc(Hons)** Biology
Thesis : Antigens of *Cysticercus cellulosae* and the serodiagnosis of neurocysticercosis.
- Rutherford, Christine Elizabeth, BSc(Hons)** Chemistry
Thesis : The destabilising effects of various cations on a surfactant derivative of poly iso-butenyl succinic anhydride.
- * **Sherwin, Heather Wendy, BSc(Hons)** Biology
Thesis : The inter-relations among xylem anatomy, hydraulic conductivity and leaf water status in five sub-tropical tree species.
- Snyman, Sandra Jane, BSc(Hons) (Witwatersrand)** Biology
Thesis : Development of *in vitro* culture and gene transfer techniques in sugarcane (*Saccharum* species hybrids).
- Thangavelu, Kogila, BSc (UDW), BSc(Hons) (Unisa)** Psychology
Coursework and Thesis : Attitudes towards the aged among Indians in Municipal Durban.

MASTER OF SCIENCE IN ENGINEERING

Discipline

- Blendulf, Lars Johan Gösta, BScEng** Mechanical Engineering
Thesis : Computer modelling of the performance of industrial turbo-compressor sets.
- Brooker, Andrew Gordon Pringle, BScEng** Agricultural Engineering
Thesis : Computer vision system for quantifying engine valve deposits.

* = Degree awarded *cum laude*

§	Govender, Rajendran, BSc	Computer Science
*	Haley, Michael Blake, BSc	Computer Science
*	Harmer, Mark Stuart, BSc	Physics
	Hogan, Charmaine, BSc	Chemistry
	Hutson, Celia Yvonne, BSc	Computer Science
	Jugoo, Vikash Ramanand, BSc	Applied Mathematics
*	Kattenhorn, Simon Allen, BSc	Geology
*	Leat, Neil Grant, BSc	Biology
	Lee, Sarah Joanna, BSc	Chemistry
	Lortan, Darren Brendan, BSc	Applied Mathematics
	Matiwane, Mninawa Litha, BSc (Lesotho)	Biology
	Mayor, Laura Jane, BSc	Geography
*	Meijer, Carl Alko, BScEng	Applied Mathematics
*	Meth, Deanna Lorraine, BSc	Geology
	Miller, David Roy, BSc	Computer Science
	Moollan, Warren Charles, BSc	Chemistry
	Moopanar, Selvandren, BSc	Applied Mathematics
	Moran, Craig, BSc	Physics
*	Nicholson, Gary Dean, BSc	Computer Science
	Niedinger, Sabina, BSc	Biology
*	Patel, Zarina, BSc	Geography
	Pearman, Craig Stuart, BSc	Geology
	Pierzchalski, Sharon, BSc	Chemistry
	Polfreman, James Digby, BSc	Engineering Geology
	Pollock, Anne Margaret, BSc	Biology
*	Porée, Ian Douglas, BSc	Chemistry
	Potgieter, André, BSc	Physics
	Rautenbach, Carl Andrew, BSc	Computer Science
	Rawat, Mahomed Amod Saeed, BSc	Chemistry
	Rebelo, Teresa Maria Gomes, BSc	Geology
*	Rice, William Kenneth MacLeod, BSc	Physics
	Richards, Dean Sean, BSc	Geology
	Singh, Michael Lutchman, BSc (UDW)	Geography
#	Smithdorf, Vivienne, BSc	Applied Mathematics
	Sparks, Andrew Peter Walsh, BSc	Engineering Geology
	Thomas, Kim, BSc	Physics
	van As, André, BSc (Rhodes)	Engineering Geology
	van den Berg, Jennifer Ruth, BSc	Biology
	Walters, Andrew Mark, BSc	Computer Science
	Weerts, Kevin Andrew, BSc	Biology
#	Wittenberg, Ralf Werner, BSc	Physics
	Wood, Gregory Bancroft, BSc	Physics

BACHELOR OF SCIENCE (PHARMACY)

Booth, Heidi
 Buckus, Nazrana
 Budhu, Shalini
 Gold, Cheryl Ann
 Govender, Calvin Marc
 Gregson, Amber
 Hansrot, Shahida
 Harribhai, Priyalata Ratilall
 Hunt, David Alan (Pharmacology)
 Mathapershad, Pradeep

Moffett, Aidan Joseph
 Mould, Wendy Ann
 Rohrs, Robyn (Pharmacology, Pharmaceutical
 Chemistry)
 Strugnell, Beverley-Ann
 Tunguy-Desmarais, Adrian Paul
 Turnbull, Wendy Leigh
 Vanslebrouck, Brenda Martha
 Vahed, Rashida Abdulla
 Weedon, Carol

* = Degree awarded *cum laude*

= Degree awarded *summa cum laude*

§ = Degree awarded posthumously

Major subjects which candidates have passed in the first class are shown in brackets after their names.

I HAVE THE HONOUR TO PRESENT FOR THE DEGREE OF

BACHELOR OF SCIENCE IN ENGINEERING

5

(Chemical Engineering)

Allen, Mark Geoffrey
Barnes, Marc Brian
Coetzee, Bruce Johannes Jacobus
Davis, Rozanne Joy
Diener, Gavin Bryan
Fosteras, Nicholas Constantine
Govender, Pregasen Komarasamy
Govender, Yogathasen
Jefferies, Deborah-Anne
Jones, Rhys Gwyn
Konar, Jayan
Kruger, Paul Petrus
Latimer, Trevor Marc
* Lewis, Kerry-Lynn
MacAdam, Scott
Maharaj, Urvashni
Mahomed, Abdul Kader
Mahommed, Hanif

Maphumulo, Sinothi Duncan, BSc (UZ)
McFarlane, Hugh Walker
Nadar, Poovan
* Omar, Irshad
Pillay, Yugentheran Selveraj
Reddy, Vernen
Redwood, Cindy Dawn
Rogers, Cristopher Jon
Roolvink, Ren   Anton
Schwikkard, Gavin Wyatt
Slettevold, John Henry, BSc
* Sporre, Grant Rense
Titterton, James Richard Herwald
van Wyk, Craig Lionel
Vawda, Safiya
Venkatsami, Les
Williams, Roland Leader
Yates, Sandra Anne

3 6

(Civil Engineering)

Binder, Gavin
Cummings, Gregory
Dix, Michael John
Evans, Richard Warwick
Fr  bel, Thorsten Michael Andreas
Govender, Kevindren
Harvey, Bruce Melville
Heseding, Taco Maarten
Keyser, Justin
Kirkwood, Brendon
Marais, Jean-Pierre
Maud, Christopher John
Mocke, Graham Richard

Molema, Pheladi Wynand
Mottram, Samuel Roy
Nijhuis, Arjen Mart
Phipps, Stanley Allan
Pratt, Andrew Grant
Raaff, Gregory Joe
Ranger, Grant Robert
Robinson, Mark Edgcumbe
Singh, Sunil
Smith, Andrew Malcolm
Tiya, Khwezi Vincent
Verhagen, Willem Andrew
Winkfield, Nicholas John

2 6

(Electrical Engineering)

Barrett, Bruce Andrew
Brown, Douglas Trevor
Buswell, Andrew Michael
Cauvin, Allen Richard
Dhunlall, Ramlall
Fair, Owen Edward
Gavin, Paula Alexandra
Gielink, Andrew Leslie
Goodwin, Craig Grant
Harbhajan, Vikash
Kerr, Angus John MacKay
Kirkpatrick, Stephen James Lowther,
BScEng(Ag)
Lage, Rui Manuel Lino de Jesus
Larsen, Jesper Mollebeak

le Roux, Alban Alexander
Leeb-du Toit, Alan
Magubane, Nelisiwe Veronica Barbara
Mahlaba, Peter Tsepo Joseph
Narotam, Chandresh Keshavlal
Niemand, Frederick Rolf
Parker, David Gordon William
Richards, Bevan Edward
Singh, Naresh
* Spalding, Robert James
Talbot, Kevin John
Tocknell, Donald Eric
Welsh, Robin Mark
Wenzel, Daniel

2 8

* = Degree awarded *cum laude*
= Degree awarded *summa cum laude*

BACHELOR OF SCIENCE IN ENGINEERING

(Agricultural Engineering)

Bentley, Craig William
Donkin, Andrew David
Nicoll, Angus Ralph

Rea, Ian Patrick
Trott, Geoffrey Siward

5

(Chemical Engineering)

Allen, Mark Geoffrey
Barnes, Marc Brian
Coetzee, Bruce Johannes Jacobus
Davis, Rozanne Joy
Diener, Gavin Bryan
Fosteras, Nicholas Constantine
Govender, Pregasen Komarasamy
Govender, Yogathasen
Jefferies, Deborah-Anne
Jones, Rhys Gwyn
Konar, Jayan
Kruger, Paul Petrus
Latimer, Trevor Marc
* Lewis, Kerry-Lynn
MacAdam, Scott
Maharaj, Urvashni
Mahomed, Abdul Kader
Mahommed, Hanif

— Maphumulo, Sinothi Duncan, BSc (UZ)
McFarlane, Hugh Walker
Nadar, Poovan
* Omar, Irshad
— Pillay, Yugentheran Selveraj
Reddy, Vernen
Redwood, Cindy Dawn
Rogers, Cristopher Jon
Roolvink, Reneé Anton
Schwikkard, Gavin Wyatt
Slettevold, John Henry, BSc
* Sporre, Grant Rense
Titterton, James Richard Herwald
van Wyk, Craig Lionel
Vawda, Safiya
Venkatsami, Les
Williams, Roland Leader
Yates, Sandra Anne

3 6

(Civil Engineering)

2 Binder, Gavin
Cummings, Gregory
Dix, Michael John
Evans, Richard Warwick
Fröbel, Thorsten Michael Andreas
Govender, Kevindren
Harvey, Bruce Melville
Heseding, Taco Maarten
Keyser, Justin
Kirkwood, Brendon
Marais, Jean-Pierre
Maud, Christopher John
Mocke, Graham Richard

— Molema, Pheladi Wynand
Mottram, Samuel Roy
Nijhuis, Arjen Mart
Phipps, Stanley Allan
Pratt, Andrew Grant
Raaff, Gregory Joe
Ranger, Grant Robert
Robinson, Mark Edgumbe
Singh, Sunil
— Smith, Andrew Malcolm
Tiya, Khwezi Vincent
Verhagen, Willem Andrew
Winkfield, Nicholas John

2 6

(Electrical Engineering)

2 Barrett, Bruce Andrew
Brown, Douglas Trevor
Buswell, Andrew Michael
Cauvin, Allen Richard
Dhunjall, Ramlall
Fair, Owen Edward
Gavin, Paula Alexandra
Gielink, Andrew Leslie
Goodwin, Craig Grant
— Harbhajan, Vikash
Kerr, Angus John MacKay
Kirkpatrick, Stephen James Lowther,
BScEng(Ag)
Lage, Rui Manuel Lino de Jesus
Larsen, Jesper Mollebeak

le Roux, Alban Alexander
Leeb-du Toit, Alan
— Magubane, Nelisiwe Veronica Barbara
Mahlaba, Peter Tsepo Joseph
Narotam, Chandresh Keshavlal
Niemand, Frederick Rolf
Parker, David Gordon William
Richards, Bevan Edward
Singh, Naresh
* Spalding, Robert James
Talbot, Kevin John
Tocknell, Donald Eric
Welsh, Robin Mark
Wenzel, Daniel

2 8

* = Degree awarded *cum laude*

= Degree awarded *summa cum laude*

(Electronic Engineering)

Askham, Richard John
Asmall, Ismail Goolam Hoosen
Basson, Garth Stuart
* Bruce-Brand, Robert Alan
* Deetlefs, Andre
Dippenaar, Andries Christoffel
Ferguson, Keith Lamont
Ford, Mandy Jean
Gagner, Conrad Paul
Govender, Asogan Navindra
Heins, Leonard James
* Houlding, David Ian
Hutton, Brendon Craig
Jansen van Rensburg, John
Khan, Aslam
Khan, Zaheer
Kiggen, Anthony Leo
Lewarne, Christopher Terence
Lombard, Philip Sean
MacDonald, Dale Trevor
McDonnell, Ciaran Joseph
McQueen, Neil Cameron
Moodley, Kevin Asogeran
Naicker, Ian
Naidoo, Cornelius
Naidoo, Nolan
Naidoo, Sabendren Venkatas

Naidoo, Sundrasen Muliasamy
Pearse, Graeme Charles
Pegram, Adrian Derek
Pereira, Licinio Araujo
Pillay, Vivekanathan
Pons, Jasper Mason
Prentice, John
Pullock, Bradley
Ramnath, Ravindra
* Ramseier, Guido
* Reid, Gregory James
Rethman, Charles William
Rijkenberg, Paul Anthony
Samlall, Anwar Kumar
Shaik Amod, Mahomed Arif
Siedle, David Neil
Singh, Vikesh Chanderlal
Singh, Yogesh
Smit, Andrew Dennis
Staisch, Manfred
Steven, Trevor John
* Tennent, Robert Whitney
Thaver, Kubenderan
Vallabh, Nitesh
van Heerden, Peter Robin
Williamson, James Desmond

5 3

(Mechanical Engineering)

Basson, Francois Stanley
Bisset, Colin
Boustred, Michael John
Breinhorst, Thomas
Bullock, David Sean
Cox, Gavin Raymond
Dunbar, Wayne Douglas
Eglinton, Michael Lyle
Fragale, Flavio
Gibbon, Michael John
Govender, Jacelyn
Hackney, Craig Ivan
Haihambo, Engelhard
Hansraj, Avedh
Hawkins, John Edward
Himchall, Rajeshwar
Inderjeeth, Ranjith
Kock, Christopher
MacKinlay, Andrew Ian
Madonsela, Sipho Ernest
* Martens, Simon Charles
Moore, Lance Barry

Naicker, Kevin Soobramoney
Naidoo, Puvendra Appalsamy
Nell, James Walter
Nicklin, Terrence Dean
Nunn, Andrew Roy
* Odendaal, Paul Stephen
* Parr, Kevin Alan
Patel, Aroon
Paterson, Douglas Grant
Peters, Dieter Walter
Pollock, Brett Fitzgerald
Proctor, Richard Douglas
Quick, Conroy Robert
Reiss, Talmon
* Seitz, Peter Alexander
Spitaels, Roland Jean-Paul
Sweeney, Garnet Trevor
Symons, Bryan Alfred
Thorpe, Hilton Ralph
van Dongen, Bruce Robert
van Eldik, Michael Roy
van Schoor, Gavin Wayne

4 4

(192)

MR VICE-CHANCELLOR

I HAVE THE HONOUR TO PRESENT FOR THE DEGREE OF

BACHELOR OF SCIENCE IN LAND SURVEYING

BACHELOR OF SCIENCE

- | | |
|---|--|
| <p> Aumord, Marian
 Baker, Gregory David
 Banoo, Imraan
 Baxter, Lynne
 Bayat, Zaidh
 Blake, Earl
 Bricknell, Bradley Colin
 Brunet, Desirée Anne
 Campbell, Steven John
 Castle, Shannon Gordon
 Combrinck, Charlene Edwina
 # Crompton, Keith Ewart (Computer Science,
 Mathematics)
 Davis, Leslie Colette
 de Chasteigner Dumée, Jean-Dominique
 Doig, Andrew John
 # Dormer, Lee Anne (Physics)
 Draniias, Nicoleta
 Ellens, Kian
 Erdey, Déon Phillip
 # Gifford Nash, Katherine Lindsay (Geology,
 Chemistry)
 Goodall, Michael Ross
 Goodman, Bernard Michael
 Govender, Dhanasagree
 Govinder, Keshlan Sathasiva
 Graham, Michelle Anne
 Gray, Greer Jillian
 Grenfell, Merrick Quentin
 Hlongwane, Hlengiwe Princess
 Holmes, Archibald Wilfred
 Hope, Belinda Anne
 Ivins, Gregory John
 Jugoo, Vikash Ramanand
 Kamdar, Adam Ebrahim
 King, Georgina Maria
 Kistan, Trevor
 Lees, Roger Stanley
 Leuci, Rio
 MacAllister, Catherine Ruth
 Maken, Daksha Mohan
 Markwald, Karl Randall
 Maurel, Marie Virginie </p> | <p> # Moodley, Bavanisha (Computer Science,
 Mathematical Statistics)
 Moollan, Roland William
 Morton, Michelle Simone
 Naidoo, Amantha
 Naidoo, Nesan
 # Naidoo, Robert (Applied Mathematics,
 Mathematical Statistics)
 Naidoo, Thiloshni
 Nair, Arlene Ruth
 Ogle, Andrew Moses
 Patrick, Barry Gordon
 Pillay, Dayalan Jayasellan
 Preen, Darryl Richard
 Prytz, Michael John
 Rambharos, Shubnam
 Ramlukan, Roshan
 Rangasamy, Thagarajh
 Rasmussen, Michael William
 Reddy, Anusha
 Reddy, Saloshna
 # Roberts, Sianne Lindsay (Chemistry)
 Robinson, Ian David
 # Rose, David Michael (Mathematics,
 Mathematical Statistics)
 Rowan, Kim Morag
 Royston, Tracey Margaret
 Scott, Helen Clair
 Selepe, Gabriel
 Seppings, Kerry Ann
 Shaw, Michael John
 Singh, Shobhana
 Staples, Nicholas Hassaan
 Tedder, Guinevere Lynne
 * Uys, Debbie Caron (Applied Mathematics)
 # van Alten, Clint Johann (Mathematics, Applied
 Mathematics)
 van der Walt, Trevor John
 Velayudan, Theloshini
 Warne, Russell Hylton
 Weerts, Steven Paul
 West, Steven Adrian
 Williams, Jacqueline Ann
 Wolmar, Wendy Alison </p> |
|---|--|

N. B.

DEGREES WILL NOW BE CONFERRED IN ABSENTIA

MR DEPUTY VICE-CHANCELLOR

I HAVE THE HONOUR TO PRESENT FOR THE

POSTGRADUATE DIPLOMA IN ENGINEERING

*as he only
Diplomate is
not present.*

(Electronic Engineering)

Askham, Richard John
Asmall, Ismail Goolam Hoosen
Basson, Garth Stuart
* Bruce-Brand, Robert Alan
* Deetlefs, Andre
Dippenaar, Andries Christoffel
Ferguson, Keith Lamont
Ford, Mandy Jean
Gagner, Conrad Paul
Govender, Asogan Navindra
Heins, Leonard James
* Houlding, David Ian
* Hutton, Brendon Craig
Jansen van Rensburg, John
Khan, Aslam
Khan, Zaheer
Kiggen, Anthony Leo
Lewarne, Christopher Terence
Lombard, Philip Sean
MacDonald, Dale Trevor
McDonnell, Ciaran Joseph
McQueen, Neil Cameron
Moodley, Kevin Asogeran
Naicker, Ian
Naidoo, Cornelius
Naidoo, Nolan
Naidoo, Sabendren Venkatas

Naidoo, Sundrasen Muliasamy
Pearse, Graeme Charles
Pegram, Adrian Derek
Pereira, Licinio Araujo
Pillay, Vivekanathan
Pons, Jasper Mason
Prentice, John
Pullock, Bradley
Ramnath, Ravindra
* Ramseier, Guido
* Reid, Gregory James
Rethman, Charles William
Rijkenberg, Paul Anthony
Samlall, Anwarkumar
Shaik Amod, Mahomed Arif
Siedle, David Neil
Singh, Vikesh Chanderlal
Singh, Yogesh
Smit, Andrew Dennis
Staisch, Manfred
Steven, Trevor John
* Tennent, Robert Whitney
Thaver, Kubenderan
Vallabh, Nitesh
van Heerden, Peter Robin
Williamson, James Desmond

53

(Mechanical Engineering)

Basson, Francois Stanley
Bisset, Colin
Boustred, Michael John
Breinhorst, Thomas
Bullock, David Sean
Cox, Gavin Raymond
Dunbar, Wayne Douglas
Eglington, Michael Lyle
Fragale, Flavio
Gibbon, Michael John
Govender, Jacelyn
Hackney, Craig Ivan
Haihambo, Engelhard
Hansraj, Aveddh
Hawkins, John Edward
Himchall, Rajeshwar
Inderjeeth, Ranjith
Kock, Christopher
MacKinlay, Andrew Ian
Madonsela, Sipho Ernest
* Martens, Simon Charles
Moore, Lance Barry

Naicker, Kevin Soobramoney
Naidoo, Puvendra Appalsamy
Nell, James Walter
Nicklin, Terrence Dean
Nunn, Andrew Roy
* Odendaal, Paul Stephen
* Parr, Kevin Alan
Patel, Aroon
Paterson, Douglas Grant
Peters, Dieter Walter
Pollock, Brett Fitzgerald
Proctor, Richard Douglas
Quick, Conroy Robert
Reiss, Talmon
* Seitz, Peter Alexander
Spitaels, Roland Jean-Paul
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Symons, Bryan Alfred
Thorpe, Hilton Ralph
van Dongen, Bruce Robert
van Eldik, Michael Roy
van Schoor, Gavin Wayne

44

192

BACHELOR OF SCIENCE IN LAND SURVEYING

Baylis, Stuart George
Carter, Christopher John
Chaplin, Bruce Alan
Dansie, Mark Gregory
Davidson, Peter George
Elgie, Graham Peter
Govender, Vadival Rajan

Horsley, Vernon James
Jeffryes, Raymond Lawrence Woodland
Lesch, Douglas Clifford
Mabanda, Thabo George
Manning, Michael John
Rapotu, Tlalampe Nelson
Shai, Herbert Makgoadi

14

* = Degree awarded *cum laude*
= Degree awarded *summa cum laude*

206

BACHELOR OF SCIENCE

- | | |
|---|--|
| <p>Aumord, Marian
 Baker, Gregory David
 Banoo, Imraan
 Baxter, Lynne
 Bayat, Zaidh
 Blake, Earl
 Bricknell, Bradley Colin
 Brunet, Desirée Anne
 Campbell, Steven John
 Castle, Shannon Gordon
 Combrinck, Charlene Edwina
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 Davis, Leslie Colette
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 Govinder, Keshlan Sathasiva
 Graham, Michelle Anne
 Gray, Greer Jillian
 Grenfell, Merrick Quentin
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 Hope, Belinda Anne
 Ivins, Gregory John
 Jugoo, Vikash Ramanand
 Kamdar, Adam Ebrahim
 King, Georgina Maria
 Kistan, Trevor
 Lees, Roger Stanley
 Leuci, Rio
 MacAllister, Catherine Ruth
 Maken, Daksha Mohan
 Markwald, Karl Randall
 Maurel, Marie Virginie
 Mitchell, Stephanie Kathryn
 Monica, Paulo Manuel Vieira</p> | <p># Moodley, Bavanisha (Computer Science, Mathematical Statistics)
 Moollan, Roland William
 Morton, Michelle Simone
 Naidoo, Amantha
 Naidoo, Nesan
 # Naidoo, Robert (Applied Mathematics, Mathematical Statistics)
 Naidoo, Thiloshni
 Nair, Arlene Ruth
 Ogle, Andrew Moses
 Patrick, Barry Gordon
 Pillay, Dayalan Jayasellan
 Preen, Darryl Richard
 Prytz, Michael John
 Rambharos, Shubnam
 Ramlukan, Roshan
 Rangasamy, Thagarajh
 Rasmussen, Michael William
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 Staples, Nicholas Hassaan
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 * Uys, Debbie Caron (Applied Mathematics)
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 van der Walt, Trevor John
 Velayudan, Theloshini
 Warne, Russell Hylton
 Weerts, Steven Paul
 West, Steven Adrian
 Williams, Jacqueline Ann
 Wolhuter, Wendy Alison</p> |
|---|--|

* = Degree awarded *cum laude*

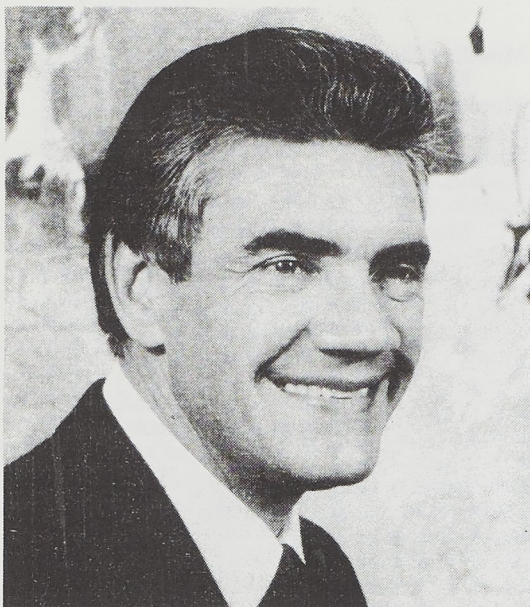
= Degree awarded *summa cum laude*

Major subjects which candidates have passed in the first class are shown in brackets after their names.

DIPLOMATES

POSTGRADUATE DIPLOMA IN ENGINEERING

~~Orwothwun, Tommy, BScEng (Makerere)~~



**CONFERMENT OF THE DEGREE OF
DOCTOR OF SCIENCE IN ENGINEERING
HONORIS CAUSA, UPON
WILLIAM PETER VENTER**

William Peter Venter was born and educated in Johannesburg. He started his career as a pupil engineer in the Department of Posts and Telecommunication Services, qualifying some five years later as an engineer. He then joined Standard Telephones and Cables where he advanced to the position of Group Marketing Manager at the age of 30. He spent two years in Europe working for the international management consultant firm of McKinsey and Company. In 1965 he established Allied Electric (Pty) Ltd., generally regarded as the first wholly South African owned and controlled electronics and telecommunications company.

From the humble base of a small company with three staff and a turnover of one million Rand in 1965, Bill Venter exercised the necessary vision, drive and dedication to build the Altron group of Electronics, Computer and Electrical companies which currently employs 18 000 people locally and 5 000 people abroad and generates a turnover of over R3.5 billion Rand per annum.

In addition to these achievements, Bill Venter has always been mindful of the community he serves and has continually demonstrated compassion for the underprivileged and concern for the needs of individuals. He has been involved personally in many support projects, while his social programmes, particularly in the field of education, have been close to the Mission Statement of this University.

Bill Venter has presented many addresses and papers upon invitation from some of the most august bodies in the country. Numerous institutions such as the Institute of Electrical Engineers, the Witwatersrand Technikon and the Pretoria Technikon have elected him for their premier awards for exceptional service to the technological development of South Africa. He serves on the Economic Advisory Council of the State President and also on the Industry Advisory Committee of the Minister of Economic Affairs and Technology. He is a Council Member of UNISA as well as a Member of the Engineering Council of South Africa.

For his business acumen he has already been honoured by the State President, the Institute of Marketing Management, the South African Institute of Production Engineers, the Institute of Production Management, the Institute of Administration and Commerce, as well as by the University of the Orange Free State who awarded him an honorary DCom degree.

The University of Natal pays tribute to Dr William Peter Venter for his outstanding contribution to the growth and development of the computer, electronics and electrical industries in this country, his dedication to education and training in the fields of technology, electronic engineering and business administration, as well as his concern for and generous contributions to the general upliftment of under-privileged peoples.

