RESEARCHER

to present at prestigious
INTERNATIONAL CONFERENCE

Dr Dinesh C. Jinabhai, Director (Department of Human Resources Management (Business Management)) recently had his paper titled “The Influence of External Stakeholders on the Training and Development of Black Managers in South Africa - Empirical Findings on the Syntactic Model Formulated” accepted for presentation at the “Academy of World Business Marketing and Management Development (AWBMMAD) Conference” to be held from 13 to 16 July 2004 at the Gold Coast International Hotel in Queensland, Australia. Dr Jinabhai is an active researcher who also receives recognition through the following activities:

- Serves as a referee for the National Research Foundation (NRF) evaluators' funding proposals for postgraduate students.
- Serves as a reviewer for the Southern African Institute of Management Scientists (SAIMs) based at Stellenbosch University, evaluating abstracts and paper submissions for conferences and reviewing research proposals for SAIMS Bursaries Awards. He is also a Council member on the Board of the SAIMS.
- Has an invited international reviewer for the EDINEB (Educational Innovations in Economics Business) International Network based in Maastricht University, Netherlands, evaluating conference papers for inclusion in Kluwer International Publications. He is also a member of the EDINEB Network.

The CRMD wishes Dr. Jinabhai well in his conference and in his research endeavours.

NATIONAL INNOVATION COMPETITION: a new Innovation Fund Initiative

The Innovation Fund was established by the Department of Science and Technology to promote the economic competitiveness of South Africa. This is done through investments in technological innovation which lead to the establishment of new enterprises, and the expansion of existing industrial sectors, to the benefit of all South Africans. The Innovation Fund is currently managed by the National Research Foundation. The R&D strategy stresses the need for the Innovation Fund to develop capacity to finance engineering and science students, while still at HEIs and to develop research concepts to prototype products. The Innovation Fund has determined that young, potential entrepreneurs do not have an enabling environment to commercialise their innovative ideas. Therefore, the Innovation Fund has decided to come up with a new initiative - a National Innovation Competition purely for HEI’s in South Africa. The purpose of the National Innovation Competition is to promote entrepreneurship through the commercialisation of the innovative ideas of young entrepreneurs. This instrument will ensure that excellent student entrepreneur ideas have the opportunity to be researched, developed and ultimately commercialised.

The competition guidelines will be presented to the CIT community on the 13th February 2004. The Fund, together with possible sponsors, will invest a large amount of money into this initiative - students will receive prize money for best business ideas. HEIs will also receive funds for operating expenses, to the benefit of, on a national level, HEIs will compete for a grand prize of R1 million. The CRMD will keep you informed of further developments. You can also contact your HODs or Deans for further information.

21. Averweg, U., Petkov, D., Erwin, G. and Moolman, H. (2003). Impact of environmental scanning electron microscopy (ESEM) on study on the scope and nature of research in South Africa, and has explored strategies to improve the utilisation of research. NACI maintains that research used in an appropriate manner drives growth. South Africa needs economic growth to create jobs and eradicate poverty. It needs innovation to become more competitive and promote new products and processes both locally and abroad. Understanding how research can be effectively applied will help the country to spend public money more productively and assist the private sector in allocating skills and resources where they are needed most. NACI makes a number of specific recommendations in its summary report, viz: that R&D Utilisation chocolate the need to set objectives and gauge delivery; that the sectoral networks for innovation be created to improve research communication and professionalisation; and capitalise on available resources; that the custodians of research ensure that the country and its people as a whole benefit from research conducted with public money.

The Department of Labour has awarded the NRF a further grant for distribution to postgraduate students in 2004 in areas where there is a scarcity of skills in South Africa. The fields that have been identified are accounting, auditing, actuarial sciences, agricultural sciences, bioinformatics, biotechnology, chemistry, computer science, demography, engineering, geology, information systems, mathematical sciences, physics, statistics, tourism and transport studies.

DIT lasses scoop “Scarce Skills Scholarships”

The Department of Labour has awarded the NRF a further grant for distribution to postgraduate students in 2004 in areas where there is a scarcity of skills in South Africa. The fields that have been identified are accounting, auditing, actuarial sciences, agricultural sciences, bioinformatics, biotechnology, chemistry, computer science, demography, engineering, geology, information systems, mathematical sciences, physics, statistics, tourism and transport studies.

The CRMD takes this opportunity to congratulate the following students and their supervisors in successfully securing these scholarships:

Researcher: Dr. Jinabhai

The values of the scholarships are R500 000 and R50 000-00 for the D. Tech. and M. Tech. degrees, respectively.
MESSAGE FROM THE DIRECTOR

A time to reflect...

2003 has been a challenging year in more ways than one. Conservation of two institutions that have merged is a long, exotic and sometimes painful journey. Consolidation of differing research cultures and practices is often arduous and tempestuous. But it is often easier to create order out of "chaos" than is to create new order out of existing order.

In my twelve months at the DIT I have met numerous fascinating individuals who have traveled the storm, who have taken on the odds and who have risen to the challenges placed before them. And they have succeeded! In essence, everyone at the DIT is striving for excellence often in different ways. On the research front, when the mist has lifted and you are called to account, it is your output that will be your testament. Higher degree graduate students, peer-reviewed publications, peer-reviewed conference proceedings, patents, exhibitions, public performances, etc. The nature and size of grants you receive in the future will be dependent on the kind of research track record you have established along the way.

2003 has witnessed many positive outcomes. Management, research at the DIT can only grow from strength to strength.

Optimistic. Given the level of commitment and support from the Executive Interim Research Committee, establishing sound policies and procedures, providing user-friendly interfaces, compiling an audit of existing competencies, increasing the level of external research investments, etc. While some advances have been made in certain areas, there are numerous challenges yet to be surmounted. However, we are optimistic. Given the level of commitment and support from the Executive Management, research at the DIT can only grow from strength to strength.

There is much to be done with regard to research from a management perspective. These include, inter alia, installation of an Institute Research Committee to replace the Interim Research Committee, establishing sound policies and procedures, providing user-friendly interfaces, compiling an audit of existing competencies, increasing the level of external research investments, etc. While some advances have been made in certain areas, there are numerous challenges yet to be surmounted. However, we are optimistic. Given the level of commitment and support from the Executive Management, research at the DIT can only grow from strength to strength.

I take this opportunity of congratulating staff and students who have made a positive contribution to enhancing the research profile of the DIT. May your success spawn future success and may it lead you to example.

The research budget for 2004 has been finalised. An amount of R4 million has been made available by the DIT. The National Research Foundation of South Africa has thus far contributed an amount of approximately R3 million with a possibility of further funding being allocated to proposals that are currently being revised. Given the interventions that the CRMD would like to institute to develop and enhance research, the internal allocation appear inadequate. However, we need to be cognisant of the fact that HEIs throughout South Africa are working in financially challenging times and that we need to introduce extraordinary measures to maintain research on track. In this regard, I welcome any suggestions from the DIT stakeholders.

Finally, I wish each of you a very successful and productive 2004. May your research flourish!

Integrated Research Management Application (IRMA)

The CRMD has recently acquired and installed a software package termed IRMA. What is IRMA? IRMA, or Integrated Research Management Application is a web-based data warehouse, with a wide variety of fields in which extensive data on researchers, their areas of interest/expertise, their past, current and future research projects and awards, and their publication records can be stored. The data can be filtered and updated by the researcher from his/her desktop. Filtering and validation of data can be undertaken by research administrative staff. By way of keyword search facilities, administrative and management reports can be drawn as required. This facility will allow staff members to draw personal reports of their various publications and research and view all funding received from external and internal sources. The CRMD is in the testing stages of using this package and will run workshops in the near future to assist academics and researchers.

Distinguished scientist’s link with the DIT

The Department of Biotechnology recently invited Dr. Peter Biely from the Institute of Chemistry, Slovak Academy of Sciences, Bratislava to spend time in discussions with the higher degree students of the Department. The Head of Department, Prof. Suren Singh, actively collaborates with Dr. Biely together with researchers at the Universities of Stellenbosch and KwaZulu-Natal. Dr. Biely assessed the progress of students under Prof. Singh’s and Dr. Permaul’s supervision and engaged the students in scientific debate. Dr. Biely also assisted in the targeting of peer-reviewed publications from the student’s research findings.

In addition, he presented two public lectures titled “Diversity of microbial xylanolytic enzymes” and “Acetylxyelan esterases and their synthetic potential”. Dr. Biely is internationally respected for his research on hemicellulolytic enzymes and has published over 250 papers in this area. It is highly likely that as part of the ongoing collaboration, students from the Department of Biotechnology will spend some time in Dr. Biely’s laboratory to accelerate technology transfer.

The Ten Commandments of good writing

How to Write and Publish a Scientific Paper

Robert A. Day

1. Each pronoun should agree with their antecedent.
2. Just between you and I, case is important.
3. A preposition is a poor word to end a sentence with.
4. Verbs has to agree with their subject.
5. Don’t use no double negatives.
6. Remember to never split an infinitive.
7. When dangling, don’t use participles.
8. Join clauses good, like a conjunction should.
9. Don’t write a run-on sentence it is difficult when you got to punctuate it so it makes sense when the reader reads what you wrote.
10. About sentence fragments.
REVIEW of DIT submissions by the NRFs TRDP

The Technikon Research Programme (TRDP) of the NRF recently reviewed our submissions with various external assessors. The review included interactions with team members and students as well as on-site visits to assess infrastructure and capacity. In general, the feedback has been positive. A number of our established research niche areas (RNAs) will continue to receive funding in 2004. These include, (i) Dynamical systems research; (ii) Composite Materials; (iii) Water and Wastewater Technology; and (iv) Appropriate Design Education for sustainable development. Two RNAs, viz., (i) ICT, and (ii) Chemical Pollutants are still under review. There has also been a request for a revision of some proposals to strengthen the submissions. The TRDP continues to play a catalytic role in helping foster a culture of research at the DIT.

THUTHUKA grant negotiations

DIT is pleased to announce that 14 of the 15 applications submitted to the NRFs Thuthuka programme have been successful. The reviews were positive and all applicants will receive research funding in 2004. The number of applications increased from 5 in 2003 to 15 in 2004. The manager of the Thuthuka Programme congratulated the DIT on the quality of its submissions. The merits of instituting an internal Review Committee is paying dividends.

FORD FOUNDATION (AFRICA) INITIATIVE: increasing access to HEIs from FET Colleges

DIT was approached by the Bronx Community College of the State University of New York (BCC-SUNY) to engage in preliminary discussions on barriers that exist in the transfer of graduates to research and academic programmes from Further Education and Training Colleges (FETCs) to HEIs. The initiative is being funded by the Ford Foundation (Africa). A delegation from the BCC-SUNY visited the DIT on 10 October 2003 and was chaired by Dr. E. Motala from the CEPD. A reciprocal visit to the BCC-SUNY has taken place. A workshop to discuss the initiative with all stakeholders will take place on 26 and 27 February 2004 and will be attended by DIT personnel from REMO, CHED and identified academic Departments. RE@DIT will keep you posted on the deliberations of this workshop.

How to protect your Intellectual Property assets In Europe and an African perspective of Intellectual Property protection

A seminar titled “How to protect your Intellectual Property assets in Europe and an African perspective of Intellectual Property protection?” was held at the University of Natal on 14 November 2003. The seminar was hosted by CIPRO, the European Patent Office and the Office for Harmonization in the Internal Market (OHIM). Representatives from the aforementioned organisations presented information on Intellectual Property (IP).

IP is described as original ideas and creative works - assets which may be of commercial value in the same way as material goods. Establishing and protecting the ownership of ideas and their expression or application is the function of intellectual property rights, such as copyright, patents, trade marks or design rights. The protective right might depend on some kind of registration procedure, as for patents, trade marks and designs.

Further information on IP can be obtained from the CIPRO website at http://www.cipro.gov.za or e-mail cipro@e-centric.co.za.

Workshop on Postgraduate Supervision

The workshop on Postgraduate Supervision was held at the Durban Institute of Technology, Food Marketing and Management Seminar Room from 19 - 21 November 2003. The workshop was presented by Prof. Chris Kapp and sponsored by the NRF and DIT’s Centre for Research Management and Development. Twenty-eight participants from the University of Durban-Westville, Technikon Free State and Durban Institute of Technology attended the workshop. Prof Kapp embarked on an intensive three day course on post-graduate supervision and the programme covered the following topics:

Day One
- Perspectives on postgraduate supervision;
- Problems and issues in postgraduate supervision;
- The effective supervisor: skills, roles and responsibility.

Day Two
- Helping students to identify a research problem and a research topic;
- Helping students to prepare and plan a research proposal;
- Contracting with postgraduate students and project management.

Day Three
- Helping students to do a literature review;
- Evaluating postgraduate work : an overview.

The workshop was part of the CRMD’s initiative in building research capacity. Future workshops are planned for 2004.
Audit of the Centre for Research Management and Development (CRMD)

An internal audit of the CRMD by Price, Waterhouse and Coopers (PWC) was recently commissioned. This was a welcome initiative as it consolidated the CRMDs strategic plan formulated during the year and supported the interventions being instituted by the Centre. The auditors concurred with the threats and weaknesses identified in the Centre’s SWOT analysis and made recommendations in line with the strategic positioning of the Centre. The findings and recommendations were recently presented to the Audit Committee of the DIT.

Researcher Profile:

Prof. Brian Pearce

Brian Pearce is particularly interested in the relationship between art and research, having worked as an actor, theatre director and academic. He completed his MA and PhD at Royal Holloway, University of London, having previously studied at Rhodes University and Natal University. For the last ten years he has worked in the Department of Drama Studies on what is now the Steve Biko campus. “Incidentally”, he said, “I am pleased to be working on the Steve Biko campus. As a student, Steve Biko was a hero of mine and I attended his funeral in King William’s Town in 1977.”

Prof. Pearce was Research Co-ordinator for the Arts Faculty of Technikon Natal prior to the merger. His own research covers such fields as Shakespeare Studies, Performance, Directing Theory and the History of Directing, as well as European, British and South African theatre. He has directed productions of plays by Strindberg, Ibsen, Shaw, Wilde, Beckett, Anouilh, Moliere and Shakespeare. He has taught at a number of institutions including, Rhodes University, Royal Holloway, University of London, Regent’s College and Colby College. He has also worked for a publisher, St James Press in London.

In 1987 he was granted an ORS Award for his PhD studies, awarded by the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom on the basis of “outstanding merit and research potential.”

He has published research articles, reports and reviews in a variety of journals, including New Theatre Quarterly, Comparative Drama, Shakespeare in Southern Africa, South African Theatre Journal, Speech & Drama, Srutiny2, and has written essays for encyclopedias. He has run workshops on “Writing Research Articles” and “Writing Reviews in the Arts and Humanities” and has lectured on Research Methodology within the Arts Faculty. He has also presented papers at conferences and was on the conference committee for Colonial Shakespeare at Rhodes University in June, 2003. Since 2000 he has been the editor of the journal Shakespeare in Southern Africa, which is published by the Institute for the Study of English in Africa at Rhodes University.

As the editor of an accredited journal, his work entails assisting colleagues in preparing their work for publication, while consulting leading international academics in his discipline. Each article published by the journal has to be refereed by members of the Editorial Board before being accepted. This experience enables Pearce to be in a good position to advise researchers at DIT on how to prepare their articles for publication. He is offering to run another workshop on writing research articles and he invites any member of staff or postgraduate student to contact him if they are interested. He can be contacted on 2042194/6 or by email: brianp@dit.ac.za.

Researcher Profile:

Dr Richard Naidoo

Dr Richard Naidoo is an academic and researcher in Mathematics. He places his research activities (past and present) into three categories.

The first category is the research through which he obtained his PhD in Computational Mathematics or as it is more aptly know “Industrial Mathematics”, in which industrial type applications are chosen to apply theory and mathematical solutions. Research done during his doctorate focused on computational fluid dynamics (CFD), thermodynamics, mechanics, control systems and electrotechnology. The success of the research can be attributed to the advent of high speed digital computers combined with the development of accurate numerical mathematical algorithms for solving engineering, science and financial problems.

Computational Mathematics which can be used as a research tool, has revolutionized the way we study and practice technology. On the other hand where experiments are expensive and cumbersome computational mathematics offers an efficient solution. The design of engineering machines such as compressors, turbines, flow ducts, airplanes, electrical circuits, etc. can be accomplished with the aid of computational mathematics. For example, the auto-mobile industry uses computational mathematics to improve the performance of cars and trucks. Other applications include Industrial Manufacturing, Civil Engineering and Ecological systems. Ecological systems, is one of the research niche areas at the Durban Institute of Technology, in which Dr Naidoo is studying the discontinuities or shock waves within the context of ecological systems, for example, sudden changes in climate, number of animals or vegetation, etc.

Dr Naidoo indicates that in order to solve and improve the solutions to the engineering applications, we need excellent algorithms for the numerical mathematics model and/or engineering mathematics model in general. In this regard, he has completed six papers in computational mathematics, three of which have already been published and two which have been submitted for publication. One of the conditions to obtaining his Doctorate was that he had to publish his research findings in two reputable international journals. After the completion of his thesis and research, Dr Naidoo spent a further year publishing two more papers. His papers have been published in “Future Generation Computer Systems”, “Computational and Applied Mechanics”, “Maths and Computers in Simulations”, and “SIAM” (Society for Industrial and Applied Mathematics).

The second category is closely connected to his lecturing of mathematics. He is part of a team researching the teaching and learning of engineering mathematics at Tertiary institutions. It is motivated by the fact that conventional lecturing has failed. This type of research is interesting in that it combines research methodology of the humanities with research methodologies of the sciences and engineering. This type of research combines theories in expert system, artificial intelligence, computer simulations, cognitive science and psychology. According to Dr. Naidoo, eleven papers have been completed and are ready for publication.

The third category of research was performed during his employment in Siemens Telecommunications. His research included 32 mini-type research projects which is equivalent to a portion of the research work performed by masters students. Dr Naidoo was disappointed that he did not use some of these research type investigations for his masters degree whilst he was in industry. He hopes to have it published in suitable journals once permission is granted by the company.

Finally, Dr Naidoo indicates that he agrees with Prof. Ncayiyana when he states that we need to create research relevant and direct to the context in which we are employed. (Monday Edition vol. 2 no. 3). However, Dr Naidoo believes that researchers at the DIT operate under challenging conditions and that a greater level of funding needs to be made available by the DIT if research is to take its rightful place at the Institute.