

Reports from Faculty of Science

1 Master of Science Biodiversity Management and Research Programme

International joint MSC Programme: University of Namibia and Humboldt University, Germany

JKE Mfuno

The MSc Biodiversity Management and Research Programme is a full time interdisciplinary and international postgraduate programme jointly run by the University of Namibia (Department of Biological Sciences, Faculty of Science) and Humboldt-Universität zu Berlin, Germany. The main goal of the program is to build capacity to increase the number of postgraduate local and regional experts in the field of Biodiversity Management and Research. This program was designed to "Build capacity to manage biodiversity and sustainable development in Namibia" as incorporated in Namibia governments ten-year strategic plan of action for sustainable development through biodiversity conservation (National Biodiversity Strategy and Action Plan, 2001-2010). During the programme, students gain in-depth knowledge of natural-spatial features and biological diversity in Southern Africa with emphasis on Namibia, understand ecosystem functioning and human-induced impacts and the

economic values and importance of biodiversity. Students also acquire skills that will enable them to design and undertake research to solve practical, relevant problems to society, using scientific methods and techniques. Graduates of the programme are employable in any biodiversity conservation and related fields including but not limited to lecturing, working for the Ministry of Environment and Tourism (National Parks, Scientific Services, Tourism), ecotourism, curators of various taxa at Natural History museums, and community based organizations. Our graduates contribute to management of natural resources, conservation and sustainable use of biodiversity and also contribute to poverty reduction through use of natural resources to improve livelihoods of local people.

The MSc Biodiversity Management and Research Programme, hosted at the University of Namibia is jointly taught by lecturers from University of Namibia, Humboldt University and other collaborating institutions. The MSc biodiversity program accepted the first cohort of students in February 2005 and the 5th Cohort in February 2013. Students attend modules in the following general themes: Methods in biodiversity, biosystematics, functional biodiversity of terrestrial and aquatic systems, management of biodiversity and biodiversity research. All modules have a field component to facilitate skills transfer.

All our registered students graduate within the two-year duration of the programme. Graduates of this program find jobs quickly while those that return to their respective jobs get promoted almost immediately. About 5 graduates of the MSc Biodiversity Programme are employed in the University of Namibia as lecturers. The program has attracted students from Namibia, Zimbabwe, Malawi, Swaziland, Canada and Germany.

Lack of funding for successful local applicants is a major problem. Many bright and promising applicants fail to enroll because of lack of funding to provide for scholarships. Funding is also needed to enhance acquisition of scientific skills during field excursions. The need to align with (changing) regulations at the University of Namibia and Humboldt University challenges the smooth running of the program.

2 Centre of Excellence in Telecommunications and Information Technology

J Mbale

Centre of Excellence in Telecommunications and Information Technology (CoE) is a focused research, scientific or competence centre striving for excellence in Telecommunications and related ICTs. It was established on 10th February 2011. It is a collaborative programme between Telecom Namibia, University of Namibia (UNAM), and telecommunications industry to promote research in communication technology and associated ICTs to provide facilities to encourage young scientists and engineers to pursue their area of interests. Its main object is to create an opportunity for graduates to do research in a world-

class environment so that much needed skills can be developed to grow the ICT knowledge power in Namibia. This programme aims to provide the University of Namibia with resources to establish state-of-the-art facilities where students can be challenged to produce real-life solutions to challenges facing Telecom Namibia and the entire industry. It will also provide resources to enable students to study at the university and academic researchers to do international collaboration with similar institutions.

2.1 Core Business of CoE:

- Staff Exchange and Capacity Building: Support the Department of Computer Science to pay the external staffs who come to help in teaching and research. Also to sponsor staff for further training.
- Attachment to Industry: Through the Center of Excellence, the University of Namibia can enhance its prestige by engaging into research and/or projects in conjunction with an esteemed industry partner such as Telecom Namibia, MTC, etc.
- Student Bursaries: A certain number of bursaries are made available to the University of Namibia every year to train students in specific disciplines.
- Funding and Equipment: Telecom Namibia purchases equipment for the CoE. Telecom Namibia also attracts other partners to invest in the CoE.
- Internship: Students at the University of Namibia have an opportunity to undergo internship training at Telecom Namibia and its stakeholders.

- Ad-hoc Projects: Through the CoE, the University undertakes ad-hoc projects that are aimed at improving the state of the CoE.
- Quality Graduates: By establishing the CoE at the University of Namibia, Telecom Namibia has a chance to directly influence the type and quality of graduates the University produces, this will go a long way towards the alleviation of the skills problem the company is currently facing.
- Bursaries: A certain number of bursary is set aside for students who do their research and projects under the CoE. These projects and research are determined directly by Telecom Namibia. In this way Telecom Namibia derives value directly from its investment in student bursary.
- Research and Publication: Students carry out research that are industrial driven.

2.2 Achievements:

From the time the CoE was established, the following results were achieved:

- Postgraduate Sponsorship: CoE has already sponsored two MSc Students.
- Capacity building: Supported and trained about eleven (11) Computer Science staff in Networking who graduated as CISCO Trainers.
- Technology Support: the CoE purchased the following set of equipment: computers, CISCO routers and switches.
- Research and Publication: From the time the CoE was established to date, about twenty-one (21) papers were published at International Journals, and eight (8) at International Conferences.
- Currently training students in developing mobile applications.