



Ms Daphna Bitalo, a BSc student, and Mr Willem Botes of the plant-cultivation laboratory

SU wins research contracts worth R9,3 million

This year, Stellenbosch University (SU) entered into two unique contracts in the field of electrical and electronic engineering and of plant cultivation. These research contracts of R4.8 and R4.5 million, respectively, will ensure that the projects that will be financed through these contracts are sustainable in the longer term.

According to Dr Gert-Jan van Rooyen, Director of the recently established Electronic Media Laboratory at the Department of Electrical and Electronic (E&E) Engineering, a research laboratory has already been established with the first portion of funds received from the media and financial-services company MIH Holdings Ltd.

In this laboratory - an interdisciplinary research area where E&E Engineering, Computer Science and Applied Mathematics are already working together - research will now be done to develop new projects in respect of internet, web, cell-phone and software-technology. The project has already been launched with master's students from the various academic disciplines, who are being financed from this contract, to undertake

research on the application of electronic media.

The objective is to create an environment where students can undertake research that not only exploits new media technology but that also creates inventive new communication methods with the aid of existing technology.

More information on research opportunities is available at www.dsp.sun.ac.za/medialab.

Bio-ethanol production in the Western Cape

During the past few years, SU has been the only institution in both South Africa and on the continent to run a korog-cultivation programme. Now, with research funds from PlantBio - a non-profit organisation that serves as a national innovation centre for plant biotechnology - SU will also be able to investigate the development of spring korog for bio-ethanol production in the Western Cape.

The R4.5 million-research contract extends over a period of four years and will be managed through the plant-cultivation laboratory at the Welgevallen experimental farm.

The laboratory - which falls under the Department of Genetics - has been investigating korog cultivation for the past few years. Two commercial cultivars have again been developed and released under licence agreements with partners in the industry over the past two seasons.

PlantBio, says Mr Willem Botes of the plant-cultivation laboratory, has been particularly interested in the korog-cultivation programme, which is what ultimately led to the contract.

"This research is just the beginning," Mr Botes continues. "If a bio-ethanol industry were to become established in the Western Cape, the korog-cultivation programme could, via income from the cultivars that are released, become self-sustainable in the long term - indeed an attractive prospect for any research environment!"



Quantum physicist leads NITheP

The National Institute for Theoretical Physics (NITheP) has a new person at the helm: Prof Frederik Scholtz, who was - until recently - head of the Department of Physics.

The main centre of the NITheP, a geographically distributed institute focusing on training in theoretical physics, is situated at the Stellenbosch Institute for Advanced Study (STIAS). Regional centres are situated at the universities of KwaZulu-Natal and the Witwatersrand. The NITheP is financed by the Department of Science and Technology through the structure of National Facilities, which is managed by the National Research Foundation (NRF).

Prof Scholtz's appointment follows the NITheP's establishment at STIAS in May. On this occasion, the world-renowned theoretical physicist Stephen Hawking described the establishment of the NITheP as "a significant development for the basic sciences in South Africa and on the continent of Africa".

Prof Scholtz is well equipped to lead the NITheP. His extensive management experience includes a number of terms as Head of the Department of Physics and Chairperson of the NRF's Physics Evaluation Panel.

This internationally regarded quantum-field theoretician, who works on applications in condensed matter and nuclear physics, has already made numerous original contributions to mathematical formalism in his field. He is currently part of a successful bilateral programme, together with a number of eminent Indian researchers.



SU academic wins first place at dti prize-giving

Prof Cornie Scheffer of the research project on biomegatron

instrumentation at the Technology and Human Resources for Industry Programme in the Department of Mechanical and Megatron Engineering was recently nominated winner in the category for small, medium and micro-developments at the technology prize-giving of the Department of Trade and Industry (dti) in Bloemfontein.

These prizes aim to make people aware that technology can be used to make undertakings more competitive.

Prof Scheffer's research focuses on developing instruments that gather the necessary patient

information both digitally and non-intrusively without the presence of a doctor. This information can then be stored digitally and sent to a doctor, who - on the basis of the results - can make a diagnosis without seeing the patient physically. Such technology could drastically improve the provision of primary health care, particularly in rural areas where there is a great shortage of doctors.

"The prize is a big compliment. Our success is due to the excellent work and dedication of the students and co-workers at the Biomedical Engineering Research group. We really hope that our work will improve the quality of life of many people in the future. That is what inspires us," says Prof Scheffer.