

VUT employees head to Germany on fact-finding mission for green project



Robert MacPherson and Tintswalo Mabuza, stationed at the Science Park's Material and Processing Technology Station

Azande Ralephenya

VUT employees form part of a group of South Africans who have been selected by the Skills for Green Jobs (S4Gj) initiative to gather information from Germany for a new project focused on reducing carbon fuel consumption at the Danone SA plant.

The project focuses on laying the foundation for VUT's Renewable and Energy Efficiency Platform which is being developed at the Science and Technology Park in Sebokeng.

Building this new institutional technological capability will require people with the practical experience and skills to offer services and support to the broader industry.

Robert MacPherson and Tintswalo Mabuza, stationed at the Science Park's Material and Processing Technology Station; academic lecturer, Joseph Basakayi from the Mechanical Engineering Department; two technical experts from Pegasus SA will travel to Germany in March.

The study tour will focus on gathering information on technology development; application of the chosen technology in the field of Combined Heat and Power (CHP); and

Multi-Fuel Combustion Technology for energy saving purposes as well as the reduction of greenhouse gas emissions.

A short interview with Robert and Tintswalo was conducted to find out more about this project.

Briefly explain the project and how it aims to effect positive change through this organisation?

RM: This is a two-phased project. The first part is to utilise the secondary heat output of a power generating process. This means that we use the heat of the exhaust manifold, radiator water and even the hot oil in the engine for heating water and milk in an existing plant.

The second part of the project is to convert a diesel engine to run on 90% natural gas, a process called Diesel Dual Fuel or Multi-Fuel Combustion. These two projects combined will lead to significant energy saving and a lot less harmful pollution released into the atmosphere.

TM: The project entails developing new

technology aimed at reducing the energy demands and operational costs of the milk processing plant at Danone South Africa. This project will apply Multi-Fuel Combustion, combined heat and power technologies to save energy. This will serve as a foundation for the Renewable Energy and Energy Efficiency Platform for the Science Park.

We will gather information and create relationships with manufacturers and researchers in the field

How does VUT tie into the skills for the Green Jobs project, what is VUT's role?

RM: VUT's role is to harness these technologies and become a leader in this field in our country.

TM: As VUT our role is to provide a platform

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to implement and grow these technologies further and thereby become a leader in this field of technology. We plan to share the expertise gained from our research.

What is your role in this project as part of the selected participants for the German tour?

RM: We will gather information and create relationships with manufacturers and researchers in this field. This knowledge will then be brought back to South Africa to be implemented at local companies. The knowledge gained will also be used in Master's studies for further improvements.

TM: I have a background in Mechanical Engineering and, as a selected candidate, I will be one of the people leading this project at the Science Park. I will be engaging with the relevant German companies and institutions that are already implementing this technology to gather as much information as possible. This information will enable us to implement the technology for Danone SA and later, once the technological capability has been established,

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Editorial Message



**Mr Mike Khuboni; Executive Director:
Corporate Affairs**

We would like to welcome you to the 2016 academic year. This year is an important historic milestone at VUT. We are celebrating 50 years of academic existence as an institution of higher learning.

We invite you to watch the space as we will be organising a series of celebratory events and activities to mark this

milestone achievement. Since its inception in 1966, VUT has grown to become one of the greatest institutions in the world drawing students from across the globe, hence our motto: "Your world to a better future". We are proud to announce that registration at VUT were conducted well without any disruptions. It is important to note that the academic programme of the University commenced smoothly as scheduled and is proceeding well. We would like to thank and applaud our colleagues in the Registrar's Office for their dedication and commitment in ensuring that our registration was a success. We salute you for your professional work well done. Keep us informed of all the positive achievements in your faculties and departments so that we showcase them to fly VUT flag high. We count on you to ensure that VUT is projected positively and its image is improved to our stakeholders and the public we serve.

We trust that you enjoy reading our newsletter and please give us your contributions to improve our communication.

We thank you

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Executive Director
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The Science and Technology Park welcomes Sasol entrepreneurs



Technology Station Manager: Mr Jaco La Grange explains various technologies at the Science Park to the students

Manani Hlongwane

"We begin to change the world when we stimulate long-term prosperity using technology and entrepreneurship" Dr Joe Molete, Executive Director Science Park.

It is in this sense that VUT, in association with Sasol, enhances the economy of its geographical reach –by empowering the youth in the Vaal area with basic skills of entrepreneurship.

On 13 February, 53 new students in the VUT-SASOL Entrepreneurship programme's fifth cohort were warmly welcomed by the entire Science Park as well as entrepreneurs who are making a mark in the Vaal community.

One of the previous students in the programme, Lebohlang Phori, shared with the new students how the program changed

his life. Lebohlang now runs his company called COMA which has made R60 000 Profit since it started In January 2015. He encouraged the new group and proved to them that it is possible with dedication and hard work. The aim of this initiative is to empower and encourage youth from disadvantaged backgrounds to start up their own businesses and be change agents within their communities.

Driven By The Love Of Research



*Chemical Engineering lecturer,
Dr Taile Leswifi*

Mpho Rapulane

"I am inspired and motivated to utilise my love for research to change my beloved country and take it to new heights through research," says Chemical Engineering lecturer, Dr Taile Leswifi. She dreams of a country that is sustainably developed, that is economically growing through people with innovative minds/ideas. And where community building is encouraged.

The young doctor, who hails from Phalaborwa in Limpopo Province, continued: "As a young person who loves research I believe in positive mentality and that nothing is impossible as long as you put your mind to it." She believes that students should not limit themselves educationally, adding that it shouldn't be just about attending classes, graduating, and getting a job.

"As an individual you need to aspire for more. Go out there and challenge life and learn more. In life there is no stupid idea so don't be afraid," she advised.

Dr Leswifi obtained her undergraduate, B Tech and Master's degrees at Tshwane University of Technology. In 2009 she left for America where she attained her PhD in Environmental Engineering at Michigan Technological University.

"As a young person myself, I feel that I bring motivation to young people, especially women. I believe that before you excel you need to have passion in what you are doing. All I want is to develop my country and encourage people," she said.

Dr Leswifi provides tutoring lessons for students who require more attention and understanding. She is patient and has the drive to help out whenever she can. Being a lecturer motivates her. She said being in front of students and sharing her knowledge with them brings her so much joy and confidence. "As a lecturer I would love to give my all and share with the students the knowledge and experience that I have gathered through years of partaking in this field. Coming up with research that will improve South Africa as a whole is what I would love to achieve," she concluded.

Displaying of EEA wall charts



*Employment Equity officer, Mr Victor Mashilwane and Mr Cellor Gardner,
The Executive Director: Human Resource*

Khanyisa Peter

For the past two weeks, Employment Equity officer, Mr Victor Mashilwane, has been distributing the summary of the Employment Equity Act (EEA) to the VUT departments and satellite campuses. The wall charts are meant for each and every staff member across all the departments to educate and familiarise themselves with the Act in general.

Clauses 7.2.1 and 7.2.4 of the Code of Good of Practice of the EE Plans of Employment Equity Act provides that all employees should be made aware and be informed of the contents and

applications of the Act as well as amendments in the Act.

"The reason these wall charts are displayed in all departments is to ensure that all employees have access to information and know their employment rights", said Mr Mashilwane.

There are new amendments, such as the principle of "equal pay for work of value", which employees should know about. All staff members are encouraged to read the summary and further read the entire Act.

VUT offers French as an additional language

Qhawekazi Memani

The French Alliance Department is offering VUT students an opportunity to study French as an additional language.

The registration process for 2016 has opened and 60 students have already enrolled. The classes will commence on 1 March 2016 and will not clash with VUT exams. Ms Grace Situnde; Director of French Alliance, advised students to come and register before the deadline: "This will give you an opportunity to learn a new language; you never know where it will take you!" she said.

A benefit of learning an additional language is that it gives insight into different cultures and allows one to connect with other people.

The Alliance is also involved in cultural events like the International Day, usually held in May, it works closely with the Arts Department and specialises in French foods and music. The French Alliance is based behind the VUT Van Schaik bookshop.

It's time for class

Mpho Rapulane

Registrations for 2016 academic year by new students and seniors proceeded smoothly despite the challenge from the #feesmustfall and the in-sourcing campaigns.

There is now a grand total of 17 013 students registered, of which 5 133 are first years. According to a notice issued by the Senior Deputy Registrar, any new registrations will be

considered on an ad hoc basis, depending on space available. The relevant assistant registrars of each faculty will assist with these cases.

With registration and campaign issues behind them, students are able to settle into enjoying their first experiences of a tertiary institution and familiarise themselves with the campus.

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to build the broader industry in South Africa.
How long will you be away on this the tour?

RM & TM: The information gathering tour will be one week (6 -12 March). Later in the year there will be another, longer tour where we will work and be trained by German experts in the field.

What are your personal goals and expectations from this tour?

RM: To take this opportunity and information, make a difference and help give the German colleagues a better understanding of our unique situation and challenges. I am also currently enrolled at NWU as an MEng student and I aim to use this opportunity to gather information for my studies that will benefit the project.

TM: I hope this tour will provide insight into energy saving technology that already has been implemented on diesel engines and give us deeper understanding of the need for renewable energy and energy efficiency in industry. This is also an opportunity for us to share with the German delegates the manufacturing capabilities of the VUT Science Park that can assist with the development of this technology. More about the Skills for Green Jobs (S4GJ) initiative

The South African-German initiative Skills for Green Jobs (SG4J) aims to improve the individual, institutional and societal frameworks in order to provide qualified skilled personnel and adequate technologies for the development of a green economy. Funding is made available by the Department of Science and Technology (DST) for equipment, project specific human capital and provision of interns. The Gesellschaft für Internationale Zusammenarbeit (GIZ), on behalf of the German Ministry of Economic Cooperation and Development (BMZ), is supplementing the project with technical support through technology transfer and capacity development targeted at all levels of project participants, including VUT academic and Technology Station staff, students and industry.

The Technology Localisation Implementation Unit (TLIU) is an initiative of the Department of Science and Technology (DST), hosted and managed by the Council for Scientific and Industrial Research (CSIR). The TLIU has been mandated to act as implementing agency on behalf of the DST for this project (green manufacturing and localisation advancements in renewable energy technology). GIZ appointed Mesopartner Africa and PEM (Germany) to act as implementing partner, working in close collaboration with TLIU.

Tech training aims to improve small businesses



Trainees during the fusion 360 course at the Science Park

Manani Hlongwane

The VUT Science and Technology Park, in association with Modena – the CAD and BIM Autodesk software specialists – has reached new frontiers by improving and exploring better tools to enhance technology in its precinct.

From 8-9 February, 35 technicians, designers and students were trained on Fusion 360 fundamentals.

This software is the first 3D CAD, CAM, and CAE tool of its kind. It connects an entire product development process on a single cloud-based platform that works on both Mac and PC.

The skills training conducted was to upskill individuals but also to enhance the level of technology at the Park.

The training will assist those in the design, engineering, manufacturing and construction fields to optimise their business strategy, to improve processes and workflows, to develop their people and ultimately to drive competitive advantage, productivity and profitability.

The Science Park hopes to nurture this partnership in order to empower communities as well as VUT employees and students in the future.

MODENA is Autodesk's largest reseller in Africa with more than 70 skilled people in offices across southern Africa.

Biotechnology Department plants seeds of environmental education



Learners from Bophelong Secondary School

Khanyisa Peter

Vaal University of Technology is mandated to take upon community engagement projects that will uplift the standard of our communities, especially in the Sedibeng region. To affirm this, the Biotechnology Department heeded the call early in the year by launching the Bright Green project last week.

The project is aimed at improving life in townships through the planting of trees since they provide ample shade, trap dust and break strong winds.

The department identified three schools – Tsolo Secondary School, Sapphire Secondary School and Bophelong Secondary

School – where at least six trees will be planted at each.

To make the project exciting for learners, the Biotechnology Department and the schools agreed that the Grade 8 learners should run the project. Each Grade 8 class, with guidance from teachers, will be responsible for nurturing its tree/s.

At the end of the year, the department will give a prize to the class with the best nurtured tree/s. The learners were also given a task to write an essay entitled 'The importance of trees' to be submitted by the end of June 2016. The writers of the three best essays in each school will be awarded a prize. The motive

behind this is to ensure learners learn the importance of trees and nurturing our environment at large.

The schools' staff members involved are excited about the project and its relevance to the curriculum and beyond. VUT is very proud of the initiative which is under the leadership of Prof Michael Pillay and Dr Cornelius Ssemakalu in the Biotechnology Department. The department would like to thank the University for funding most of the project and Mica, Riverside, for its donation of two trees. The department would appreciate any form of donation that will benefit the project and the lives of those in the townships.

Celebrating outstanding achievement



Ms Nosipho Zwane making VUT proud with 5 distinctions, with her mother

Nontobeko Zondi

VUT Khula Weekend School (KWS) this month celebrates the exceptional achievements of 2015 matric learners who obtained between two and five distinctions in their final examinations.

This year's results represent a record number of 19 distinctions for the school and top achievers were rewarded with bursaries, giving them the opportunity to attain a tertiary qualification.

Top achiever, Nozipho Zwane, walked away with a bursary of R20 000 from Nedbank during the awards ceremony held on 16 January 2016. Other achievers each received R15 000 for three distinctions and R10 000 for two.

Commenting on behalf of the Class of 2015, Nozipho said: "I am grateful for the support we received from our teachers and parents during our studies. I thank KWS for laying a foundation for us. We will continue with the same spirit throughout our University studies."

Officially welcoming delegates to the awards ceremony, VUT's Deputy Vice-Chancellor: Academic and Research, Prof Kuzvinetsa Dzimbo said: "Education is the answer. We are celebrating the success of the achievers, their vision, passion and dreams. To the teachers; you must know that you have touched the lives of many people. Twenty years from now, these boys and girls will be important people in society. We are sowing the seeds in them."

Passionate about the achievements of young people, Prof Dzimbo also thanked parents for their support in ensuring the country's future leaders. He concluded by saying: "It is not what you do for them that counts; it is what you teach them do that make them successful."

In his address, Principal of Suncrest High School, Mr Mtungwa Dlamini urged learners to choose friends carefully and to

always be hungry for success. He told them to look beyond their personal background and challenges. He advised them to be focused and take responsibility, urging them to obtain their tertiary education, come back and add value to society.

KWS students were also hosted by De Beers, the school's main sponsor, at a celebratory session on 14 January. At the event, Head of Human Resources at De Beers, Mr Gerrit Lotz, advised students never to stop learning in order to stay relevant in life. He said they should have self-respect, discipline, clear direction and humility.

Students were further motivated by guest speaker, Mr Simangaliso Dlamini, a filmmaker who shared helpful and encouraging tips for them to upskill as they leave school. He revealed his three pillars in life: desire, planning your work and working your plan.

This was the fourth ceremony since the programme was launched on 26 March 2012 and it receives great support from the Vaal community.

The purpose of the awards ceremony was to celebrate the achievements of learners who have done exceptionally well in their studies at the Khula Weekend School. Learners from Grade 10 to 12 are assisted in the following subjects: Mathematics, Physical Sciences, Accounting, Economics, English and Life Sciences.

"It is not what you do for them that counts; it is what you teach them do that make them successful."

VUT caters for those with disabilities



Mr George Mvalo; Executive Director: Social Justice and Transformation, Mr David Nkwenkwezi; Disability Services Coordinator and Mr Mike Khuboni; Executive Director: Corporate Affairs

Khanyisa Peter

To ensure its commitment to transformation, VUT has appointed Mr David Nkwenkwezi as a Disability Services Coordinator under the Social Justice and Transformation Unit.

Mr Nkwenkwezi brings with him 13 years of experience in disability services as well as a Bachelor's degree in Administration from the University of Free State where he was previously employed.

He aims to raise awareness about disability, improve disability sensitisation and drive advocacy. He is determined to find ways in which the institution, staff and students can reasonably accommodate people with disabilities – both physically and emotionally by breaking down stereotypes and negative attitudes.

The office will contribute in ensuring VUT is the University of Choice for people with disabilities as the choice currently is very limited.

"I am excited to be part of the VUT team, especially as it's the first time the VUT has established an office of this nature," said Mr Nkwenkwezi.

Mr Nkwenkwezi is married with two children. He is multilingual and speaks all South African Official languages except for TshiVenda. He will use a laptop with software – Job Access with Speech (JAWS) – that will enable him to do his work. The software communicates everything that is done on the device in a voice prompt.

VUT applauds SJT for ensuring the dream of having this office has become a reality. Mr George Mvalo, Director-SJT, said: "The establishment of the office indicates a clear commitment of the University to issues of disability."

Senior students keen to serve as mentors

Anne Naidu

Despite the recent disruptions at the Vanderbijlpark campus, senior students are still eager to improve the lives of first years and assisted in the mentorship training programme held at the VIP Room at the Isak Steyl Stadium last week.

More than 50 students, from the four faculties, were selected

to serve as mentors at the programme hosted by the Centre for Academic Development (CAD).

Initially 110 applications were received. The applications, however, were very strictly screened based on the students' academic performance and those with 70 percent and above

were given the prestigious role. Senior co-ordinator Ms Linda Mandewo and the learning committees' and tutor co-ordinator, Ms Valerie Hlubi are most confident about this programme as it proved to be very successful last year and some of the mentors have returned for the second time.

Soil turning for upcoming new building



The Vice-Chancellor and Principal, Prof Irene Moutlana turning the soil in preparation for the building project

Khanyisa Peter

The date, 27 January 2016, will go down in Vaal University of Technology's history as yet another day for new beginnings. A soil-turning event for the new Life and Physical Science Building was held for the Faculty of Applied and Computer Sciences.

VUT management, project team members, members of the media and staff attend the occasion which signifies infrastructural, curriculum and academic growth for the institution. The state-of-the-art building will comprise biotechnology, physics, non-destructive testing and chemistry laboratories, walk-in incubators and other specialised venues. Offices will be for technicians only.

The building forms part of the long-term strategic plan for VUT's infrastructure. It will be the most expensive building for the institution to date, costing around R142-million; 52% funded by DHET and 48% by VUT.

"I am honoured that the University has made this possible. An induction session will be conducted for users," said Prof Raymond Mabuza, Executive Dean: Applied and Computer Sciences.

The Vice-Chancellor and Principal, Prof Irene Moutlana, said: "This speaks volumes about the strategy of the University and its desire to be a sought-after university".

Once the project is started, it will take approximately 18 months to complete.

"I am honoured that the University has made this possible. An induction session will be conducted for users," said Prof Raymond Mabuza,

VUT's 50th anniversary celebrations get off to a powerful start



Delegates that formed part of the Conference

Anne Naidu

The three-day Southern African University Power Engineering Conference (SAUPEC) conference, hosted by the Vaal University of Technology, was held from 26-28 January 2016 at the Three Rivers Lodge under the theme: "Renewable Energy". Prof Irene Moutlana the Vice-Chancellor and Principal of the Vaal University of Technology did the official opening of the SAUPEC conference.

SAUPEC was organised by universities and universities of technology with the main areas of debate and discussions around electrical power engineering. The conference brought together practicing engineers, academics, industry players, students and others with an interest in the field. The conference, which is an established forum for the interaction of professionals and students in related fields in Southern Africa, presents an excellent platform for students to present their research and interact with experts. Considering the present situation in South Africa, the topic was particularly apt with industry and academic professionals united in discussing solutions.

Students share their best VUT moments



Student receives a prize at the Campus Love Vibes event

Nontobeko Zondi

The Alumni Department hosted its annual Campus Love Vibes event on 12 February at the VUT Amphitheatre.

The event aimed at creating awareness of the department and its organised events. It also gave the students an opportunity to share and promote what they love about VUT as well as their most inspirational stories while studying.

The Cooperative Education and Institutional HIV & Aids Unit (IHAU) was also there to present the services it provides to students and how it can best assist students with different issues.

To thank them for sharing, students were given goodies from the Alumni Department.

German students join contingent of VUT international students

Anne Naidu

Four students from the University of Ravensburg, Germany arrived at VUT last week. They will be here for a period of three months.

They are:

1. Adrian Halder – studying IT
2. Manuel Baus – studying IT
3. Katja Schmid – studying Human Sciences
4. Christin Doiker – studying Human Sciences

The anxious students were excited to get into their allocated rooms at the students' residence and get started with their programmes.

"I am excited to explore this opportunity to study at VUT. Our university collaborates with VUT on the student exchange programme and I want to make many new friends here," said Katja Schmid.

Christin Doiker said that she is looking forward to the multicultural experience as she has heard so much about South Africa and its people.

VUT wishes the students an informative and enriching stay.

Make use of every opportunity



ABE BBAILET Trust travel bursary recipients of 2016

Nontobeko Zondi

Master's student Katleho Ralehoko was the first VUT recipient of the Abe Bailey Trust travel bursary and has returned from the United Kingdom fired up to encourage others to take up this fantastic opportunity.

Katleho, who is doing Public Relations Management, said the trip gave him a better understanding of different cultures and encouraged him to embrace those of his own country.

"As the first-ever Abe Bailey inductee from the Vaal University of Technology, I was honoured to represent my University on an international academic platform.

As an ambassador of the Trust, my challenge and responsibility is to identify future candidates who fit the criterion and encourage them to apply for 2016," he said.

The Trust and Travel Bursary were established in terms of the will of the late Sir Abe Bailey who died in 1940. The objective of the Travel Bursary is to broaden the views of young South Africans by enabling outstanding students (third-year and above) or University staff of junior lecturer status who show exceptional leadership qualities, are of good academic standing and have a strong service ethic to travel the UK on a three-week, all expenses paid trip.

Applications close in April 2016.

VUT FM searches for new talent on the airwaves



Delegates that formed part of the Conference

Qhawekazi Memani

VUT FM hosted auditions on Saturday, 6 February 2016, in pursuit of informative, well-spoken, creative and vibrant presenters, news readers, producers and reporters.

The panel of judges comprised two VUT FM representatives, the VUT FM station manager, the SRC President (as an overseer) and an external representative from Radio 2000.

"I wait to go live on radio, I have so much to offer and I now wait in anticipation for the results," said one of the prospective student presenters of this great opportunity.

This event gave VUT students the chance to express their individual talents and skills. One hundred and ten students auditioned and they consisted of news readers, presenters, reporters and producers. VUTFM management selected 12 presenters, 2 news readers, 2 reporters lastly 5 producers. Calls have been made to successful candidates and they will be attending a training with the station before they resume work.

VUT Clinic hosts the Kotex "girlology" workshop

Nontobeko Zondi

The VUT Clinic hosted the Girlology workshop sponsored by Kotex from 8-11 February at the Desmond Tutu Great Hall.

The workshops, which have been running since 2011 in South Africa, are designed to educate and empower young women to feel confident about their femininity. The workshop is a platform for young ladies to learn and share about the challenges that they face in their communities and to challenge any stigmas that have a negative impact on a girl's education and life.

According to Karen Burt, Code Teen and Girlology founder, a unique characteristic about Girlology is that it covers topics that young females want to learn about. Not shying away from subjects that might be considered taboo; it encourages girls to talk about such issues and promote their knowledge to help others in an all-embracing sisterhood movement.

"Success is not your birthright ladies, but it is something that you create," she said.

The workshop was well attended and great prizes were won and goodies given to students who took part.



Karen Burt, Code Teen and Girlology founder

VUT hosts first Orientations for all faculties

Nontobeko Zondi

The four Faculties of the Vaal University of Technology hosted their First year's orientations from the month of January 2016 to beginning of February 2016 at different venues.

The event aimed at welcoming the first year students to the

faculties and introducing them to the different departments. The Executive Deans of each faculty welcomed the students and stressed the important issues that the student's needs to be aware of and encouraged them to participate in various academic activities that will help through their varsity period.

Various other departments were invited to the orientations to explain their departments' operations and how they assist students.