

UNIZULU second university to operate LiDAR lab in Africa

THE University of Zululand (UNIZULU) is proud to be the second university in South Africa to install and operate the mobile light detection and ranging (LiDAR) lab, a state-of-the-art atmospheric laser radar intended to, among other functions, boost existing systems of monitoring the air quality in the City of uMhlathuze Municipality.

Housed at UNIZULU's main KwaDlangezwa Campus, the installation of the LiDAR was proposed by UNIZULU researcher, Dr Nkanyiso Mbatha, in conjunction with Prof Sivakumar Venkataraman of the University of KwaZulu-Natal, where the first LiDAR is operated.

The lab system was then designed and constructed by the Council for Scientific and Industrial Research (CSIR), with consultation from the two researchers, through the CSIR National Laser Centre Rental Pool Programme.

The LiDAR system uses



laser pulses to measure atmospheric constituents such as aerosols particles, water vapour, clouds, ice crystals and

traces gases in the ozone layer. The lasers, according to Dr Mbatha, "offer great advantages over convention light sources in terms of peak power, narrow spectral width, as well as narrow beam width.

"This kind of calibration is best conducted late in the evenings, particularly on a clear day to avoid interference with the laser." Thereafter, the system is able to provide profiles of these atmospheric components as a function of altitude and location, which is particularly necessary for weather forecasting, climate modelling and environmental monitoring of air quality.

The City of uMhlathuze is a developing industrial area with aluminium smelters, chemical fertiliser plants and paper mills, among others.

Dr Mbatha said that over the years, those industries had emitted continuous combustion pollution, which had significantly changed the atmospheric chemistry of the area and its surroundings. That had

affected the environment and impacted negatively on the health of the population living in or nearby those areas.

One of Dr Mbatha's concerns is that although the Richards Bay Clean Air Association was established to monitor air quality in the uMhlathuze region, their techniques are limited because they only conduct measurements on the surface.

However, the advanced nature of the UNIZULU LiDAR system allows for more conclusive data such as a detailed profile of aerosols from the surface to the troposphere.

With the LiDAR lab up and running, Dr Mbatha said the Department of Geography and Environmental Studies, in conjunction with the Department of Physics, now planned to run university-wide exhibitions aimed at demonstrating the functions and applications of the newly installed system.

He hopes that that will enhance the appeal of laser physics as a career choice.

UNIZULU dedicates Mandela Day to cleaning its premises

IN CELEBRATION of Mandela Day, on July 18, University of Zululand (UNIZULU) students and staff lived out the "charity begins at home" saying by embarking on a drive to clean up the institution.

Nelson Mandela is remembered for his selfless nature, peace and reconciliation efforts and, most importantly, his humanitarian acts. In honour of the late statesman's legacy, on Mandela Day, and every other day, the global population is encouraged to dedicate 67 minutes to making a positive change by being of service to their communities, the same way Madiba was of service to his people.

For the most part of the internationally celebrated day, various UNIZULU student societies and staff, clad in their cleaning gear, devoted their time to taking care of one of the university's most important resources – its environment. From picking up litter to sweeping and mopping lecture rooms and student residences, the university community did it all.

Student Representative Council secretary-general Mduduzi Mngayi said: "We were commemorating the life of Nelson Mandela through the cleaning campaign. We prom-



UNIZULU Student Representative Council members did their bit in honour of the Struggle stalwart Nelson Mandela by cleaning the university's premises

ised the university that we will mobilise all structures and societies to comply with the national call."

For Bachelor of Arts student Lungelo Zulu and other second- and third-year students in the Creative Arts Department spring-cleaning the Drama Theatre was their way of "showing appreciation" to the department's designated cleaners "by giving them a break because Mandela taught us to be humble, respect each

other and work together".

UNIZULU's Green Campus Initiative team, which strives to preserve the institution's environmental-friendliness, not only spent the day picking up litter around the KwaDlangezwa Campus, but they also raised awareness about the impacts of harming nature.

Also, the team educated fellow students about the various job opportunities available in the waste management industry.

UNIZULU rugby team sets record at USSAs

FOLLOWING a record-breaking victory over Durban University of Technology (DUT) at the University Sports South Africa (USSA) tournament, recently held in Braamfontein, Johannesburg, the University of Zululand's (UNIZULU) rugby team were crowned the 2018 rugby champions.

The Buffels also made history as the first UNIZULU rugby team to scoop the coveted first prize at the annual sports tournament. USSA is the controlling body of all sports that are played at tertiary institutions in South Africa.

Similar to other years, the body held another entertaining tournament that saw numerous universities in the country battling it out for honours and bragging rights.

The Buffels were among other UNIZULU teams competing in different sporting codes in this year's tournament.

Their 25-10 win against DUT in the finals earned them a spot in the Varsity Shield Cup play-offs against Rhodes University from August 19 to 21.



UNIZULU Buffels players, after being recently crowned USSA rugby champions

Describing what clinching the title means for him, team captain Inamela Mosiuoa said: "This is extra-special because I've been playing for this club since 2011. We have never qualified to go and play at this level. It's funny because all the three teams that we defeated on our way to the winning of the final

are the exact same teams that gave us a whipping last year. This is a very big achievement for us as it will play a huge step moving forward."

According to utility back Leonard Agwuna, having an experienced coach and an excellent game plan is what contributed to the team's achievement.

The team is now rigorously preparing for their next big challenge. Should it win against Rhodes University in the play-offs, that will grant it a spot in the Varsity Shield log.

Cosmos Hlatshwayo, the Sports and Recreation Head, acknowledged the university's executive management, the De-

More UNIZULU victories at USSAs

1. Bodybuilding: The team was named national champions for the fourth consecutive year;
2. Boxing: Participants won silver medals while some were runners-up;
3. Volleyball Men- Selected participants won silver medals and made it to the finals;
4. Karate: The team scooped second position;
5. Softball: The team took third place, with two of its players selected to play in the national team;
6. Football: The ladies team qualified to play in the 2019 Varsity Football challenge. Following the 2017 results, they will play in the upcoming 2018 Varsity Football in September;
7. Netball: The team defended and maintained Section A status.

partment of Housing, Finance Departments, Procurement Office and the Office of the Dean of Students for the support given to the various sporting codes.



The Green Campus Initiative team demonstrate their love for the environment by picking up litter around the KwaDlangezwa campus



Creative Arts Department second- and third-year students cleaned up, giving the department's designated cleaners a break on Mandela Day



Head of Business Management Department Dr Makhosazana Vezi-Magigaba; Law Department senior lecturer Dr Lizelle Calvino; Acting Head of Public Administration Department Nokukhanya Jili; Deputy Dean: Research and Internationalisation in the Faculty of Commerce, Administration and Law (FCAL) Prof Irrshard Kaseeram; UNIZULU Vice-Chancellor Prof Xoliswa Mtose; FCAL Dean Prof Dev Tewari and Department of Business Management lecturer Shalen Heeralal, during the inaugural MBALI International Conference in 2016

AUGUST 1 will mark the commencement of University of Zululand's (UNIZULU) second International Management, Business, Administration and Legal Initiatives (MBALI) International Conference at the Umfolozi Casino in Empangeni.

The MBALI International Conference is a biennial event that was initiated by UNIZULU's Faculty of Commerce, Administration and Law. It was launched in 2016 as part of the Faculty's Research Capacity Development Programme.

It provides a platform for faculty staff and postgraduate students to present research papers in an interactive international setting that exposes them to the current national and international research practices while also enabling them to network with and learn from a wide-ranging cohort of national and inter-

UNIZULU geared up for second International MBALI Conference

national researchers.

There will be 110 papers that will be presented during the three-day conference, under the theme "Redefining management, business, finance, administration and legal initiatives for inclusive growth and development in an emerging economy".

Prof Irrshard Kaseeram, the Deputy Dean: Research and Internationalisation in the Faculty of Commerce, Administration and Law, said: "The theme was chosen because of the challenges in South Africa and the world at large, where there is a growing gap between the

rich and the poor, hence understanding what initiatives can be taken for an economy's wealth to be spread out in a more equitable manner without jeopardising the ability of businesses and enterprising individuals to continue to innovate and raise productivity."

He added that he hoped the presentations would provide richer insights into the approaches that could be used in the various disciplines to address poverty, inequality and unemployment.

The conference is funded by ABSA, which also sponsored the inaugural event. The funds

have been directed entirely towards the faculty's Research Capacity Development Programme.

The official handover ceremony of the R500 000 cheque took place earlier this month at the KwaDlangezwa Campus.

ABSA Provincial Head Public Sector and Enterprise and Supplier Development explained that social ills such as youth unemployment and lack of economic opportunities for young people are what led the company to invest in such a programme. He also mentioned that the conference is fundamentally linked to ABSA's

Shared Growth strategy which covers Education and Skills as well as Enterprise Development and Financial Inclusion/ Inclusive Banking. Our main and primary focus is to enable the employment and empowerment for the next generation. "This generation is our future leaders in business, government, enterprise, health, education and law, among other sectors. Additionally, we shall help people start, run and grow their businesses to generate income and employment," he added.

The conference will end on August 3.