



NEWS @ NUST

A newsletter of the National University of Science and Technology

November 2018

NUST INSTALLS CHANCELLOR AND VICE-CHANCELLOR DURING THE 24TH GRADUATION CEREMONY



Prof. Eng Mqhele Dlodlo robes President Emmerson Mnangagwa during the 24th Graduation Ceremony.

PRESIDENT Emmerson Mnangagwa capped 2 507 graduates and was installed the Chancellor of NUST in a graduation ceremony on Friday the 9th of November. The ceremony also saw the installation of Prof. Eng. Mqhele Dlodlo as the third Vice-Chancellor.

President Mnangagwa stated that the National University of Science and Technology has a clear mandate to spearhead the development of human capital for industrial and socio-economic transformation through science and technology based solutions. He added that the university was established to be the epicentre of science and technology cadreship in the country.

He encouraged the university to rise to the occasion of its statutory obligation by continuously churning out graduates with skills and knowledge which can positively transform the economic, scientific and technological landscape of Zimbabwe by 2030.

“I encourage NUST not to deviate from its mandate as it is the bedrock for new business models, innovation and technology.

The university must appropriately respond to regional and global developments coupled with our present national focus of developing new learning modules,” said the President.

President Mnangagwa congratulated the graduands on their achievements and encouraged them to be employment and wealth creators as well as dispensers of knowledge.

“As Chancellor I call upon graduands to pursue endeavours which probably contribute to the socio-economic transformation agenda in our country. You have been academically empowered with knowledge and skills to adequately play your part in building the Second Republic, the President said.

According to the President the recent launch of the Zimbabwe National Space Agency and discovery of oil and gas deposits must motivate institutions of higher learning to expand our country’s skill base in the associated fields.

He challenged institutions to make cutting edge breakthroughs arising from such opportunities and to always seek education

with production and economic development in mind.

In his address Prof. Eng. Mqhele Dlodlo said the university was ready to accelerate partnerships with industry and public sector to bring back economic freedom for the nation.

“We’re committed to continue finding new solutions that are globally incomparable yet locally relevant and appropriate. The opportunities are mind boggling,” Prof. Eng Dlodlo said.

According to the Vice-Chancellor NUST is not just open for

business but it’s already in business, producing market ready products of the highest quality fit for purpose. The university also produces well educated minds and solutions.

Among notable figures that attended the ceremony was the Minister of Higher and Tertiary Education, Science and Technology Development, Professor Amon Murwira, Minister of State for Bulawayo Provincial Affairs Judith Ncube, Ambassadors from Cuba, Nigeria and South Sudan.

NUST 2018 GRADUATION IN PICTURES



NUST COMMERCE STUDENTS WIN IPAZ COMPETITION



From left; Obvious Khumalo, Lynet Koteni, Memory Singadi, Tanaka Mupatsi and Andrew Dewah.

Students from the National University of Science and Technology (NUST) were named as the winners of the CFA Institute Research Challenge in Zimbabwe.

Following their victory, the students advanced to the next level of the world's leading investment research competition and will compete against universities from Europe, Middle East, and Africa.

The regional finals will be held on 10th and 11th of April 2019 in Zurich, Switzerland and will be hosted by CFA Society Switzerland. The local challenge was the first step of two for a local team to advance towards the global final in New York, US, on April 25, 2019.

The Nust team consists of Andrew Dewah, Obvious Khumalo, Lynet Koteni, Tanaka Mupatsi and Memory Singadi. Simbarashe Mangwendeza of Old Mutual Securities mentored the team while Cludio Chikeya, a lecturer at Nust advised the team. Other universities that competed at the local research challenge were from, Africa University, Chinhoyi University of Technology, Harare Institute of Technology, Midlands State University, Solusi University, and University of Zimbabwe. Each university sent a team of three to five students to participate in the local challenge.

The students presented their analysis and buy/sell/hold recommendations on ZSE listed Padenga Limited. Their presentation at the local final was the culmination of months of research; interviews with company management, competitors, and clients; and presentation training.

For the students it was a great moment with some seeing that as a big step towards the professional life.

“It feels so good to win though it was very challenging. For me the experience is a stepping stone to the future and my career.”

One of the students, Memory Singadi said.

Obvious Khumalo, another member of the winning team felt the competition gave them “a practical feel of the corporate world”. CFA local host coordinator Ranga Makwata was full of praise for the competing teams especially on how they were able to grasp key concepts of the competition such as financial analysis and equity valuation over a three months mentorship programme. “With this kind of enthusiasm and talent the future of the investment profession in the country is very good and that can only improve our capital markets further,” he said.

Source: Herald



NUST REPRESENTATIVES AT WASHen CONFERENCE

NUST SOLTRAIN WINS BRONZE MEDAL

NUST Soltrain, a project of the Industrial Manufacturing and Engineering won a bronze medal award in the Water, Sanitation, Hygiene and Energy (WASHen) conference on the 15th and 16th of November at the Zimbabwe International Trade Fair Grounds.

The annual WASHen 2018 Conference, organized by the ZITF Company is a two day event that allows business executives, academia, labour and civil society organizations in the Environment and Waste Management industry to discuss challenges facing Zimbabwe. The conference also gives attendants a platform to propose innovative solutions to counter these challenges, thereby fostering economic growth.

The theme for this year's exhibition was 'Catalysing Socio-Economic Transformation through Wash Synergies'. The main highlight of this year's event was the inaugural Climate Change conference which emphasized the need for action to mitigate climate change and its global challenges.

Eng. S. Mhlanga, B. Sarema, A. Mkandla and G. Munhuwamhambo represented NUST in showcasing the Solar Thermal Mobile Training Unit (SOLTRAIN). The SOLTRAIN was towed to the venue on the 14th of November in readiness for the exhibition. The solar water heating and PV system on the trailer justified its relevance to the theme of the exhibition.

According to Eng. Mhlanga, the event went well with exhibitors explaining key concepts on the need to harness renewable energy technology. He added that the professional contact and

enthusiasm by the team did not go unnoticed as the team did not only scoop a medal but also received uplifting comments from the judges. They were encouraged to venture into manufacturing and installation of the solar water heating and photovoltaic units.

Speakers during the event included Energy and Power Development permanent Secretary Engineer Gloria Magombo, Renewable Energy Association of Zimbabwe (REAZ) Chairman Mr Isaiah Nyakusendwa as well as senior representatives from the Infrastructural Development Bank of Zimbabwe, ZESA and Distributed Power Africa, among others.

Social media pages:



National University of Science and Technology



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NUST zimbabwe

NUST INVENTORS WIN BIG!



NUST INVENTORS CLUB WINNING TEAM

The #SANBioLabHack2018 took place in Pretoria, South Africa, this week with 17 undergraduate students coming together to turn their passion for innovation by addressing afro-centric solutions to common lab issues.

The 2nd place winning team from the Zimbabwe National University of Science and Technology's (NUST) Young Inventors Club impressed the judges with their low-cost PCR machine, which is also known as a Thermocycler that is commonly used to amplify segments of DNA.

Aimed to bring the ideas and ideology of the open hardware movement to the African education community, LabHack opens up opportunities for equipping labs in novel and sustainable fashions by facilitating the open design of key laboratory equipment.

When asked what inspired their prototype, Team Zimbabwe captain and NUST Electronics Engineering student Clifford Mutsave said the team wanted to live up to their name, Young Inventors.

According to the team, the best centre in Zimbabwe only has two PCR machines mainly because they are very expensive.

The cheapest PCR machines on the market cost in the range of forty thousand US dollars and are thus often unaffordable by the institutions offering science and technology education, resulting in students lacking a practical exposure to how these kinds of equipment are operated.

"In high school we were also victims of theoretical lessons on how to operate the lab equipment, resulting in a lack of overall appreciation on how to use these pieces of equipment. As NUST students who have their country at heart – especially young scientists in the high schools – we have come with a design of a low cost and economic yet effective PCR machine," Mutsave states.

Mutsave's team also included Applied Chemistry student,

Miriam Guni – the only female participant in the group – and Industrial and Manufacturing Engineering students Ropafadzo Manyuchi and Nakai Mashamba.

The team were also accompanied by their mentors, Nigel Nyathi, Givemore Kanyemba along with Tafadzwa Banga who is the founder and president of a non-profit organisation Young Inventors from NUST.

Young Inventors was established in 2017 after getting support from the Yali organisation with the idea to give innovative African youths the platform to engage in shaping their communities.

"As an organisation, we want to ensure that youths who are innovative get recognition as much as those in the academic sector do. It has been a trend for the past in Africa, Zimbabwe specifically, that a child who excels in academics is considered to be more important than others whilst those who are innovative are not so much appreciated. As of now we have managed to establish a club at NUST and what we seek is to break departmental barriers by allowing students from different departments to work together. Winning this award is just the beginning of more great things to come," Banga said.

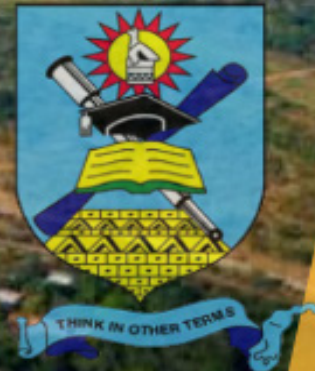
The LabHack model was first piloted in Zimbabwe and conceived by University of Oxford researchers, Dr Louise Bezuidenhout and Helena Webb with the intention to be a competitive and educational event where multidisciplinary teams of students compete around three challenges to build low-cost laboratory equipment.

The South African edition of LabHack was supported and hosted by SANBio / BioFISA II Programme which is a shared biosciences research development and innovation platform for working collaboratively to address some of Southern Africa's key biosciences issues in health, nutrition and health-related intervention areas

SOURCE: SANBIO

UPCOMING EVENTS

INTERNATIONAL PHYSICS CONFERENCE



**THEME: PHYSICS FOR SUSTAINABLE
DEVELOPMENT**

19-21 AUGUST 2019

VENUE: ELEPHANT HILLS RESORT, VICTORIA FALLS, ZIMBABWE

SUB THEMES

- Renewable Energy
- Physics Education
- Material Science
- Optics and Photonics
- Medical Physics
- Geophysics
- Electronics and Instrumentation
- Astrophysics

FIRST CALL FOR ABSTRACTS

1 NOVEMBER 2018

DEADLINE : 31 DECEMBER 2018

REGISTRATION FEES

NORMAL: \$400 | STUDENTS : \$250

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SHE-CAN CAMPAIGN EMPOWER WOMEN THROUGH SCHOLARSHIPS



NUST and SHECAN members

A Zimbabwean based NGO called SHECAN launched an MBA scholarship and a leadership fellowship programme in conjunction with the NUST Graduate School of Business and the Ministry of Women Affairs, Gender and Community Development.

The scholarship will be offered to a select few high caliber postgraduate young women scholars between the ages of 25 – 45 years. This initiative aims to provide exceptional educational opportunities, develop a network of leaders, and thereby help to build women leadership capacity in Zimbabwe. The MBA Scholarship will be offered through evening full time study (12 months) at the NUST Graduate School of Business (GSB) and is available both in Bulawayo and Harare.

According to SHE CAN coordinator, Louise Staddon, 40 scholarships will be offered to a few out-standing post graduate young women scholars. She added that the students should meet all NUST entry requirements and hold relevant undergraduate degrees from an accredited university. Applicants should also have at least one year work experience gained at supervisory level.

In 2019 the Fellowship Programme will bring together up to 200 young women leaders (Ages 18 – 35) to NUST for two

intensive Cohort sessions that include Academic Coursework, Leadership training, Community Service, Networking and organized cultural and civic activities.

Miss Staddon said the initiative is aimed at leadership capacity building among young women, which will assist in economic development. She said the programme also seeks to strengthen efforts on girl's education and in turn meet the 5 th goal in the 2030 United Nations Sustainable Development Goals which seeks to achieve gender equality and empower all women and girls.

Dr. Thando Sibanda a non executive trustee at SHE-CAN explained that the scholarship is a fully paid programme which will cover transport, accommodation, food and tuition for the entire programme. He stated that Application forms are available on the SHE-CAN website and applications will close on January 31, 2019.

Vice-Chancellor Prof. Eng. Mqhele Dlodlo who amongst the guests during the launch commended the efforts by SHE-CAN to empower and capacitate female students through education. He added that he was glad that NUST was part of such a major partnership as it is the first of its kind to have so many scholarships offered to students at once.

NUST ENACTUS POWER TEAM WIN MONEY TO INVEST IN THEIR COMPANY

E NACTUS Clubs from different universities took turns pitching their business ideas under the theme 'Make a Difference' at Rainbow Hotel recently. NUST, LSU and GZU formed a power team under one company name called Caste Elite. Their business pitch resulted in the group securing first position and \$3730 to invest in their company after showcasing recycled products from delta used cans and containers.

This competition supported by Delta Co-operation in partnership with Boost Fellowship saw five power teams namely Caste Elite, Technovative, Nanoalum, Afriwaste and Planet Heroes competing for the grand prize. Delta Co-operation and Boost Fellowship encourages Enactus Clubs to establish companies that are involved in recycling Delta solid waste containers.

In their pitch, NUST produced travel neck pillows through the use of shredded plastic from Delta used containers. Their counterparts LSU and GZU produced a roofing material using plastic containers mixed with sand and aluminium 3-legged pots respectively.

According to the President of NUST Enactus Club, Nigel Nyathi, their business is focused on research and development which opens space for creating new products that will uplift the company. He added that they don't want the company to be defined by one product which might end up being uncompetitive.

“When it comes to investment, we understand that it is not about the products but it's about the company because a product goes through a lifecycle,” Nyathi said.

NUST, LSU and GZU's team are going to use their money to register their company Caste Elite and commercialise their products on the market. The President of NUST Enactus noted that they have other products like mattresses and doorframes made from Delta recycled products

RISK AND MANAGEMENT SOCIETY ENGAGE STUDENTS WITH INDUSTRIES

The NUST Risk and Management Society (RMIS) hosted its first seminar on the 6th of November in the Large Lecture Theatre. The seminar was run under the theme, 'Bridging the Gap between Theory and Practice.'

The Risk and Management Society was established by a group of dynamic students who wished to engage with local, regional and international industries in the field. The society consists of a committee of 17 members who are elected at the beginning of each academic year.

According to the society's president Blessing Zhou, the aim of the seminar was to challenge students in their thinking and help bring out the best of their intellectual capabilities in solving

present problems in the industry. He added that students would also gain an attitude of professionalism, corporate governance and social responsibility.

The competition brief for Part 4 students was to select an insurance company and design a visual aid that would accompany the company's policy document. The first prize went to Fernando and friends who did a promotion video for Metropolitan Namibia. Prizes included NUST branded pens and exercise books.

Present organisations during the seminar were First Mutual, Tristar Insurance and NicosDiamond.

NUST CONDUCTS ANTI-LITTER CLEANUP CAMPAIGN

NUST students and staff worked together to clean up the campus in a successful Anti-Litter Campaign organised by Campus Security and Health Committee on Monday the 5th of November.

The Anti-Litter Campaign was an initiative inspired by rampant littering at NUST campus. Most students were on semester break and were not able to take part in the campaign; however, students from NUST Enactus and the Environmental club participated.

According to Mr. Abednego Dube, one of the organisers, the campaign was initially organised as a request from the Vice-Chancellor Prof. Eng. Mqhele Dlodlo. The aim was make people aware of the need to keep the environment clean.



WITH DEEPEST SYMPATHY

Mr. Lantern R. Fusire, will be remembered for his dedication to the Library profession as well as his contribution to the Department of Library and Information Science.

Mr. Fusire will be sorely missed within the Department, Zimbabwe and beyond.



Prof. Eng. Dlodlo who also attended the campaign stated that the Anti-Litter Awareness program must be added as an official event in the university calendar. He added that the campaign should be carried out regularly by staff and students and should extend beyond the NUST campus as most students reside in neighbouring suburbs.

“This is an important initiative not only because we need to live and work in a clean environment, but also because it is part of the University’s corporate responsibility portfolio to demonstrate to the community and be an example of an environmentally clean campus,” Prof. Eng. Dlodlo said.

He advised that the university must conform and comply with the Environmental Management Act (Chapter 20:27), Section 83 which states that “it is an offence to discard, dump or leave any litter on any land, street or road except in a container provided for such purpose or at a place which has specifically been designated for such purpose.”

According to the Vice-Chancellor, the Department of Environmental Science and Health must play a leading role in ensuring that the university complies with the provisions of the Act in order to enhance its status ‘Cooperate Social Responsibility status.’

ANTI-LITTER CLEANUP CAMPAIGN IN PICTURES



News Letter Design and Stories Compiled by: Mightyman M. Nsingo and Nobukhosi Zondo