

# Tech Innovation Bazaar highlights research and local inventions

The Faculty of Computing and Informatics (FCI) and the Inclusive and Collaborative Local Tech Innovation Hub, hosted 37 local technology inventions, at the first Tech Innovation Bazaar last week. The event formed part of FCI's Annual Research Event, a platform where the Faculty's research efforts are showcased.

## Highlights

The Dragon's Den and the Pitch Auction were some of the highlights of the event. These exciting sessions introduced the most promising inventions. In the Dragon's Den, they competed for support from seasoned business leaders, while the Pitch Auction enabled companies and individuals to pledge financial or in-kind support to their favourite emerging entrepreneurs. MTC came onboard with the biggest sponsorship for the event, along with Cornastone, Veya ICT and Schoemans. The Embassy of Finland funds the running of the Tech Innovation Hub. "We strongly believe local technology innovation has much to give to the nation," said Dr Licky Erastus, MTC's Chief Technology Officer, calling upon other companies to follow MTC's lead.

## The participants

The 37 inventions spanned a wide range of business and social endeavours and many were

applicable to more than one field.

For example, the line-up of local inventions included technologies to ensure safe Internet for children; software and hardware to help in business administration, as well as various digital learning tools that enhance reading skills.

## Key messages

"Many students create technological solutions while studying and once they are done, their graduation from university signals the death of their ideas. Therefore, we need events of this nature to exhibit innovation," said Hon Dr Itah Kandjii-Murang, Minister: Higher Education, Training and Innovation. "We need more enabling platforms", states Prof Heike Winschiers-Theophilus, co-founder of the Tech Innovation Hub. "Our indigenous communities and young people have much to offer in addressing national issues through tech innovation."



ABOVE: Victor Ashikoto, Co-founder: Tech Innovation Hub; Mathias Fikameni; Kauna Ndilula, Managing Director: BFS Group of Companies; Hon Dr Itah Kandjii-Murang, Minister: Higher Education, Training and Innovation; Prof Pramanathan Govender, DVC: Research and Innovation; Prof Anicia Peters, Dean: Faculty of Computing and Informatics; Prof Heike Theophilus-Winchiers, Co-founder: Tech Innovation Hub and Uariaike Mbinge, Tech co-designer from Opuwo.

LEFT: People's Primary School learners showing their app (far left), Mr Uariaike Mbinge with Alphons Koruhama, Computer Science student.

RIGHT: Hon Minister Dr Itah Kandjii-Murang introduced to a novel product by Innovator Simson Kapembe.



## Graduate Talent Acceleration Programme launched

As part of an integrated approach to talent management, NUST's Human Resources (HR) Department has introduced a Graduate Talent Acceleration (GTA) programme, that sets off young Namibian talent on a journey of growth and discovery. The programme is part of a broader strategy to support capacity building efforts from the grassroots of academe.

This initiative is specifically targeted at academic disciplines where the country and NUST in particular, are experiencing a shortage of human resource capacity at Masters and Doctorate levels.

The programme targets Master's degree graduates, who have completed their first degree at the University, with the intention to pursue Doctoral studies. Emphasis is placed on identifying candidates who have demonstrated exceptional academic performance. Potential candidates will be expected to undergo a rigorous screening and selection process.

"This proactive and systematic approach to capacity building and the appointment of Staff Development Fellows (SDFs) under the GTA programme, creates a platform where the Institution is able to identify and develop its own home-grown talent, thereby, compensating for skills shortages. This is in turn essential for

business continuity and the sustainability of the University," remarked Shiwana Ndeunyema, HR Manager: Organisational Development and Learning.

In piloting the programme, the HR Department has partnered with the Faculty of Natural Resources and Spatial Sciences, through its Department of Architecture and Spatial Planning.

The first intake of Staff Development Fellows (SDFs) comprises of two NUST Bachelor of Architecture Honours graduates, Ndeshipanda lita and Elao Martin, who both hold Master degrees in Architecture from the University of Johannesburg, South Africa. The programme is expected to be rolled out institution-wide in scarce skills disciplines, particularly in the Science, Technology, Engineering and Mathematics (STEM) fields.



FROM LEFT: Prof Sampson Umenne, HoD, Architecture and Spatial Planning: Faculty of Natural Resources and Spatial Sciences; Ndeshipanda lita: NUST Alumna; Elao Martin: NUST Alumnus; Shiwana Ndeunyema, HR Manager: Organisational Development and Learning, Human Resources.

## NUST Academic's Patent Approved in the USA

An Associate Professor in Cyber Security in the Faculty of Computing and Informatics, Prof Adnan Akhuzada, recently received approval for his US filed patent application 15/871, 853 entitled "Post-Quantum Cryptographic Communication Protocol [2019]". Cryptographic protocols are used to secure information transmission via the internet and is used in blockchain and bitcoin. Rapid advances in quantum computing over recent years brought about concerns that traditional cryptographic protocols can be breached by such quantum computers. Therefore, this new protocol improves security protocols by using vectors.



FROM LEFT: Prof Hippolyte Muyingi, Professor: Computer Science; Dr Fungai Bhunu Shava, Associate Dean: Research and Innovation; Prof Adnan Akhuzada, Associate Professor: Cyber Security; Dr Suama Hamunyela, HoD: Informatics; Colin Stanley, Associate Dean: Teaching and Learning; Prof Anicia Peters, Dean: Faculty of Computing and Informatics; Prof Guy-Alain Zodi Lusila, HoD: Computer Science.

## Communication students sharpen their sound design skills

Twenty-seven (27) second year students in the Bachelor of Communication programme, in the Faculty of Human Sciences (FHS), recently attended a Sound Design Workshop on campus.

The workshop was facilitated by Prof Josef Gründler, a sound design expert from the FHJ University of Applied Sciences, Austria.

Sound design is the art and practice of creating sound tracks for a variety of needs. It involves specifying, acquiring or creating auditory elements using audio production techniques and tools. Prof Gründler's expertise ranges from electronic music and acoustic to sound interaction and interface design. He is a medical doctor by profession as well as an academic with vast knowledge of media and sound design. He presented on the complexity of the human ear and provided valuable insight into the world of the physical processes of sound and how it can be

used in various fields of communication, such as advertising.

The students learned how to use Sound Wave and Audacity Sound Applications for editing functions, such as cutting and pasting recordings and controlling the pitch of voices. "The workshop participants were all ears throughout the stimulating presentation and hands-on when applying the new knowledge," said Alexandra Tjiramanga, an academic in FHS. The students' recordings of a variety of ambient sounds that can be heard on the NUST campus, as well as voice recordings of their plans for the future can be accessed on the World Sound Map, <https://aporee.org/maps/>.