

HIT WINS BIG AT THE INAUGURAL PRESIDENTIAL INNOVATION FAIR



The Harare Institute of Technology (HIT) scooped five awards at the Inaugural Presidential Innovation Fair, which was officiated by His Excellency, the President Dr Emmerson Dambudzo Mnangagwa at the Harare International Conference Centre (HICC) from the 19th to the 20th of April 2023.

The University was awarded the Presidential Innovation Award for the Best Innovating University, Best Innovation in ICT for the Matsimba Technologies, Best Collaborative Research/Innovation undertaken by industry and academia (LADS - HIT and Several Local Authorities) -, Second Best Innovation in Health for Medical Devices Manufacturing and First Runner-up Award for Best Woman Innovator, Dean Eucaria Mushoso for her innovation on the production of Ultra-sound gel.

The awards were in recognition of the Institute's outstanding innovations.

Running under the theme, "Innovation Excellence for Vision 2030 and Beyond," the Presidential Innovation Fair was aimed at showcasing current innovations and technologies by institutions that have, and will contribute to improving Zimbabwe's resilience by providing technologies, goods and services that Zimbabwe wants. The Fair was also targeted at building an innovation ecosystem that promotes knowledge

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INNOVATION

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generation and technology products for economic development. Its main objective is to create a platform for engagement among Government, industry, innovators, researchers and development stakeholders as well as attract local and international investment in innovation.

The two-day event was organised by the Ministry of Higher and Tertiary Education, Innovation Science and Technology Development to award outstanding universities, colleges, Government scientific agencies and industrial training centres for their innovations. The fair will be held annually and is targeted at building and reinforcing a thriving innovation ecosystem through exhibitions and expos of current work from tertiary institutions, while attracting venture capital, both local and international, in an environment which permits ideas sharing, benchmarking and standardisation of initiatives.

The Presidential Innovation Fair, which is a brainchild of the President saw 35 institutions of higher and tertiary education, Government scientific agencies and industrial training centres participating.

President Mnangagwa challenged institutions of higher and tertiary education to take the lead in innovations aimed at producing goods and services in line with the “Nyika inovakwa nevene vayo/Iлизwe lakhiwa ngabanikazi balo” mantra.

“My Government is in the process of implementing various policies and programmes which have seen our economy transitioning from stabilisation to growth,”



said President Mnangagwa.

“To maintain this momentum, my Government is investing in innovation and industrialisation. Given the shift from concentrating on the teaching of theory to practicals and entrepreneurship, our various institutions of higher and tertiary education should be torch bearers of innovations aimed at producing quality goods and services,” he said.

President Mnangagwa added that to beat the effects of the illegal sanctions imposed on the country by the West over 20 years ago, it was necessary to fast-track the country's industrialisation and modernisation through science, technology and innovation and changing of mindsets, dubbed “Chimurenga Chepfungwa”.

“In this regard, it is encouraging that, through the innovation hubs and industrial parks, our institutions of higher learning are nurturing start-ups, registering a record number of patents as well as developing prototypes. Start-ups should not perennially remain in the innovation hubs. They should graduate to become profitable and employment-creating organisations that produce quality products, provide value for end-users and the quality of life of our people,” he added.

The President pledged continued government support for start-ups as they unlock the human potential necessary for Zimbabwe to become a global superpower.

The government has set up Innovation Hubs at higher and tertiary institutions in all the country's 10 provinces



so that they lead in the production of goods.

President Mnangagwa said the innovation hubs were the only way to transform people's lives. "Benefiting from the Heritage Based 5.0 model, Zimbabwe has achieved tremendous milestones that have completely changed our nation's innovation landscape.

"Last year, we managed to launch ZimSat-1, our first ever satellite, into orbit. This milestone was achieved by our scientists and engineers from the Zimbabwe National Geospatial and Space Agency using our resources. The launch is a milestone expected to enhance mineral exploration, environmental monitoring, as well as mapping of human settlements and disease outbreaks, among other capabilities," he said.

President Mnangagwa added that the Presidential Innovations Fair, which will become an annual event, will in future incorporate players from the private sector, Zimbabweans in the Diaspora and others from the region.

The President also toured stands at the Fair. "I am so happy that after introducing innovation hubs in all our State universities, every product and service coming from those hubs will improve our economy. "Every country grows if it invests in science and technology; that's why we are investing in science and technology. 'Nyika inovakwa nevene vayo/Iлизwe lakihiwa ngabanikazi balo'. Our boys and girls in institutions of



higher education must produce the products which our communities want. I do not doubt that Zimbabwe is on track to develop and catch up with the rest of the world," he said.

"We shall leap-frog our development, modernisation and industrialisation as a result of our young boys and girls who are talented," said President Mnangagwa.

The President handed awards to various institutions in 17 categories, with Verify Engineering winning the overall prize for the best innovation, for producing medical oxygen which was critical in the fight against Covid-19.

In his remarks during the event, the Vice President and Minister of Health and Child Welfare, Honourable General (Rtd) Dr. C. D. G. N. Chiwenga commended the shift towards a mindset of innovation and industrialisation in the new generation of thinkers inspired by the Education 5.0 philosophy. "To date, universities have produced more than enough sanitisers for the nation," he said.

Minister of Higher and Tertiary Education, Innovation, Science and Technology Development, Professor dr. Amon Murwira also highlighted that by launching the Education 5.0 doctrine, President Mnangagwa inaugurated the 'Chimurenga Chepfungwa' journey to spur the development of the country. "Correct education is that which gives appropriate knowledge, skills and attitudes," said Professor dr. Murwira.

HIT INDEPENDENCE DAY CELEBRATION ADVERT



CELEBRATING ZIMBABWE'S INDEPENDENCE

The Harare Institute of Technology Board Chairperson, Engineer Farai Mavhiya-Bhiza and the entire Institute Board, the Vice Chancellor Dr Engineer Quinton C. Kanhukakmwe, Senior Management, Staff and Students join His Excellency, the President of the Republic of Zimbabwe and HIT Chancellor Dr E. D. Mnangagwa and the entire nation in commemorating the 43rd Anniversary of Zimbabwe's Independence.

Once again, we stand to revel in the enjoyment of the fundamental freedoms of democracy, equality, liberty and fraternity which were guaranteed by the heroic fight by the gallant sons and daughters of Zimbabwe against colonialism for the attainment of our Independence in 1980.

We applaud His Excellency Dr E. D. Mnangagwa on his efforts to consolidate Zimbabwe's political, economic and social status through his various policies that are promoting Zimbabwe's global competitiveness and economic growth.

HIT will remain resolute to its mandate of developing, incubating, transferring and commercialising technology for the modernisation and industrialisation of our country.

Independence celebrations invoke and renew the spirit of patriotism, Ubuntu, national pride, dignity and identity as well as our avowed determination to make a lasting footprint on our nation's development trajectory.

We therefore, restate our unwavering commitment to Your Excellency's vision to spur Zimbabwe's development through the commercialisation of our research, development and innovation outputs for the ultimate attainment of Vision 2030.

**FOR
PERFORMANCE EXCELLENCE
IN
2022**
Long Live Zimbabwe!

Congratulations, Makorokoto, Amhlope!!

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HIT STUDENTS IMPRESS NOTTINGHAM VARSITY STAFF



In a collaborative effort with the University of Nottingham, the Harare Institute of Technology (HIT) ran a challenge for undergraduate students in the School of Information Sciences and Technology to identify a challenge connected to the moderation of end-to-end encrypted online communications, where the Binary Scientist Team came first.

HIT students worked in groups to identify and discuss the challenges connected to the moderation of end-to-end encrypted online communications. The teams wrote their brief outlines proposing how to address them. After the judges went through the initial proposals, 6 top teams were invited to submit short videos explaining their ideas in more detail.

The videos were also judged and the best teams were given some prizes.

The Binary Scientists Team won the first prize. The team comprised Panashe Lunga, Artwell N. Muzoroza, Shawn Chikono and Joshua Chikomo.

Team Binary Scientists put forward a very good presentation of their idea about flagging questionable content, even with E2E encryption in place. They displayed a good depth of knowledge and original thinking. They also explained the background issues and their solution very well.

The Trailblazers Team came second after displaying excellent knowledge, showing that they understood the key issues and their innovative solution. The team outlined

multiple facets of the potential solution to the problem, including mentioning stakeholders and the value of education. Their animation style worked very well in communicating the team's solution. Michael Meuka, Tapiwa Kasosera, Anotidaishe Mutendzwa and Tawanda Ndaba made up the Trailblazers Team.

Digital Avengers Team of Tadiwanashe Muteera, Raldo Chimwendo, Tafadwa Kativu and Tadiwanashe Chiku, came third displaying a lot of technical knowledge about E2E encryption and their visual representation of their solution was included in the video. The team presented collectively and put forward a simple, but workable, idea.

Among the judges were Dr Helena Webb, Transitional Assistant Professor at the Horizon Digital Economy Institute of the University of Nottingham, Mr Calvin Mugauri, Acting Chairperson of the Department of Information Security and Assurance at the Harare Institute of Technology (HIT), Dr Nicholas Gervassis, Assistant Professor in Law, University of Nottingham, Dr Virginia Portillo, a Research Fellow at the Horizon Digital Economy Institute, University of Nottingham, Dr Anna-Maria Piskopani Research Fellow at the Horizon Digital Economy Institute, University of Nottingham, Mr Ephraim Luwemba, PhD student and Research Assistant at the Horizon Digital Economy Institute, University of Nottingham.

Commenting on the students' submissions, Mr Mugauri, who travelled to Nottingham University to join the other adjudicators, said the judges were very impressed with all the video submissions. "The student teams worked very hard on the task and engaged passionately with the question of how to address moderation issues arising from end-to-end encrypted online communications. We were also impressed by the fact that the students approached the question in different ways and put forward various ideas. We also felt that the students displayed a great depth of knowledge and presented some insightful solutions," he said.

The judging criteria included the depth of topic knowledge, originality of ideas, clarity of presentation and quality of presentation.

TRAINING OF TRAINERS (TOT) PROGRAMME

The Harare Institute of Technology (HIT) is hosting a 3-month Training of Trainers (TOT) programme by some Indian experts and organized by the Government of the Republic of Zimbabwe in collaboration with the Government of India, through the Ministry of Higher and Tertiary Education, Science, Innovation and Technology Development.

A team of experts from India shall be training the trainers in various disciplines which include courses in Tool and Die Making, Computer Numerical Control (CNC), Technology and Part Programming, Tool Design, Machine Tool Maintenance and Food Processing.

HIT was selected as one of the two training venues because of the availability of the necessary resources required for a successful training programme. The other venue is the National University of Science and Technology (NUST) in Bulawayo.

All the courses on offer will run for a period of 3 months beginning Monday the 17th of April 2023, except for the Food Processing course which will run for a period of a minimum of 45 days.

90 participants are expected to be trained under this Training of Trainers (TOT) programme and have been drawn from local Higher and Tertiary Education institutions which include universities, polytechnic colleges, technical colleges and vocational training colleges across the country.

This Training of Trainers (TOT) programme is being coordinated by Mr S. Mangoma, R. Katsamudanga and J. Masango from the Ministry of Higher and Tertiary Education, Science, Innovation and Technology Development.



HIT @ZITF



The Harare Institute of Technology (HIT) participated and exhibited at the annual Zimbabwe International Trade Fair 2023 held in Bulawayo from 25th – 29 April 2023 running under the theme, “Continuous Innovation, Global Competitiveness.”

The University exhibited some of its research, development and innovation outputs which include the Local Authorities Database (LADS) that promotes smart-cities technologies, medical technologies and devices, manufacturing, materials engineering and technologies, solar products as well as chemical products from its InsiTech Holdings Strategic Business Unit (SBU).

Speaking to ZTN Television on the sidelines of the University's exhibition at ZITF 2023, HIT Vice Chancellor Dr Engr. Quinton Kanhukamwe said that in its quest to “design the future” and contribute to the realisation of Vision 2030, the University is developing solutions for the future. “Our framework has allowed us to establish various ventures that are embedded and interact within our various academic programmes. As we carry out our research development and innovations we make sure that the outputs are commercialized.”

“This has been enabled by the Education 5.0 thrust taken by our Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development that

has reconfigured our education system to produce goods and services. Therefore, HIT is meaningfully contributing to our economic development through its various interventions by establishing enterprises which are beginning to create employment and numerous revenue as well as import-substituting various products that would have been imported,” Vice Chancellor Kanhukamwe said.

Quite a number of visitors came to the HIT stand at the ZITF 2023 to enquire about the University's undergraduate and postgraduate programmes including short courses on offer. Others also approached the HIT Exhibition Team seeking to partner and collaborate with the Institute on various projects.

HIT Board member Ms Ruth Ncube also visited the HIT stand to interact and acquaint herself with the research, development and innovation outputs on showcase.



ZITF IN PICTURES

