



## Celebrating Innovation: championing Technopreneurship

OCTOBER/NOVEMBER 2015

### PRESIDENT MUGABE CAPS 320 HIT GRADUATES



President Cde Robert Mugabe capping a HIT graduate on the occasion of the Institute's Sixth graduation ceremony.



HIT Vice Chancellor Eng. Q.C Kanhukamwe addressing the gathering at the Institute's Sixth Graduation Ceremony

His Excellency the President of the Republic of Zimbabwe and HIT Chancellor, Cde Robert Gabriel Mugabe capped 320 graduates at the University's Sixth Graduation Ceremony that coincided with the institution's 10th Anniversary Celebrations.

President Mugabe conferred the graduands with Bachelor of Technology Honours degrees. Among the graduates were 105 students from the School of Engineering and Technology, 40 from Industrial Sciences and Technology, 124 from Information Science and Technology and 51 from Business and Management sciences.

Out of the 320, 14 passed with first-class degrees.

Among the outstanding graduands was a female student, Cecilia Tengani who is physically different. Tengani graduated with a Bachelor of Technology Honours degree in Information Technology and won two HIT Book prizes for the Best Graduating Student in Technopreneurship, and for the Best Design and Innovation Project.

Martin Muduva graduated with distinction in the Bachelor of Technology Honours degree in Information Security and Assurance. He was also the recipient of six

academic prizes: two HIT Book prizes for the best graduating student in Technopreneurship and for the Best Design and Innovation Project, the Vice Chancellor's Prize for the Best Graduating Student in Information Security and Assurance, the Ministry of Defence Prize for the Best Graduating Student in Cryptography and Security, the Integrated Digital Security Solutions, (IDSS) prize for the Best Graduating Student and the Microsoft Corporation Prize for the best graduating student.

Turning to the graduands, Eng Kanhukamwe challenged them to be patriotic technocrats who stimulate technological development, incubation, transfer and commercialisation.

Engineer Quinton Kanhukamwe hailed the government's 10-point plan for economic growth as it resonates with the institution's thrust. "The 10-Point Plan for economic growth has facilitated some of the university's research, development and innovation outputs. Your unwavering commitment to the total emancipation and empowerment of Zimbabweans as witnessed by massive investment in education and higher education has made this day possible," he said.



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#### Global Entrepreneurship Training from 25-30 January 2016

The Harare Institute of Technology, in partnership with the Handong Global University will host the Global Entrepreneurship Training from 25-30 January 2016.

For more details on the training, please contact the following Programme Coordinators: Mr W. Ukama, wukama@hit.ac.zw, Mr W. Chaduka on getsadc@hit.ac.zw, and Prof Gihong Kim on gihongkim1@gmail.com

# HIT INNOVATIONS AMAZE MICROSOFT



HIT graduate Martin Muduva (left) receiving his prize from Microsoft Corporation Services Chief Technology Officer for Middle East and Africa, Mr Emil De Villiers (right).

Recipients of Microsoft Corporation Prizes with their Proline Tablets.

**M**icrosoft Corporation has been amazed by innovations that are being churned out by the Harare Institute of Technology.

Speaking at a handover ceremony of graduation prizes to the best graduating students from the School of Information Science and Technology, Mr Emil De Villiers, Microsoft Corporation Services Chief Technology Officer for Middle East and Africa, Mr Emil De Villiers said the Capstone Design projects in emerging ICTs technologies like big data and cloud computing were exceptional.

“Your projects are phenomenal and there is so much innovation coming out of HIT. Therefore as Microsoft, we want to recognise these top students and thank them for their academic excellence and Capstone Design projects. It is absolutely fantastic to see how these students

have progressed,” he said.

Mr De Villiers added that as a result of the innovations, his organisation has been attracted to HIT and this was the beginning of a smart partnership. “Microsoft Corporation would like to continue to engage in looking for some specific areas where we can design some curriculum and some other projects that can enrich people's lives together. It's great that these students' innovations are on technologies that are applicable here in Africa, addressing the challenges that we face in our communities, thereby contributing to better lives in the continent,” he said.

In his remarks, the Dean in the School of Information Science and Technology Dr. T. Padenga said by giving prizes to students, Microsoft was recognizing academic excellence within the school which is staffed with people

with requisite qualifications in emerging ICT fields such as Big Data, Internet of Things and Cloud Computing.

HIT Vice Chancellor Engineer Q.C Kanhukamwe highlighted that the Harare Institute of Technology is a young, dynamic, innovative and entrepreneurial university looking for great collaborations with Microsoft Corporation and is optimistic that the partnership will take foot as soon as possible.

The students, Martin Muduva: Information Security and Assurance, Kudakwashe Muparuri: Software Engineering, Stephen Maduveko: Information Technology and Walter Mutembwa: Computer Science received Proline Tablets from Microsoft Corporation Middle East and Africa Cluster.

## NEW PROGRAMME IN FORENSIC ACCOUNTING AND AUDITING LAUNCHED

**T**he School of Business and Management Sciences has recently launched a programme in Forensic Accounting and Auditing.

The new programme is in line with national interest and agenda of pursuing an Anti-Corruption thrust.

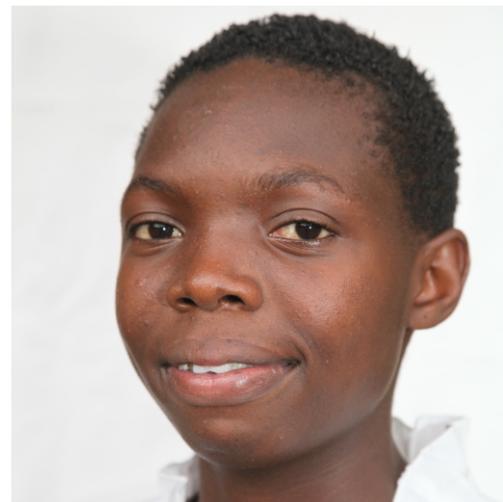
The robust programme seeks to develop human capital with the technical capacity for fraud detection, investigation, prevention as well as providing appropriate fraud remedial action.

Through this programme, students will be equipped with technologies and scientific methodologies used to investigate crime so that appropriate evidence is availed in the courts of law, institutional disciplinary

hearings, regulatory and public discussions relating to the different evidential dispute and litigation situations.

The programme is for a duration of four years and is being offered on a full time basis.

Milka Pedzai a pioneer student of Forensic Accounting and Auditing says the programme is unique and a first in Zimbabwe.



Milka Pedzai

## LECTURER GETS GLOBAL RECOGNITION FOR INNOVATION



Eng. Mercy Manyuchi  
Chairperson: CPSE Department

**E**ngineer Mercy Manyuchi, Chairperson of the Chemical and Process Systems Engineering department has been nominated for the 2015/2016 Africa Prize for Engineering Innovation by the Royal Academy of Engineering.

Her project is on the Production of 'Motocharcoal' briquettes from agricultural waste for use as a heating source.

The project seeks to produce briquettes from agricultural waste (saw dust, vegetables, cow dung, corn stover). The briquettes have a higher heating value than wood and coal and have low carbon emissions. The project seeks to address deforestation, especially for the rural communities as well as possible employment creation through waste management. Furthermore, the briquettes will provide alternative energy source for schools, hotels and even the manufacturing industry

Zimbabwe produces about 480,000 tonnes

of corn waste every year, from which bio-briquettes can be produced as an affordable and environmentally-friendly energy supply.

"As an upcoming female Engineer and technopreneur, I was humbled by the nomination and I believe I am going to make a difference especially to the young children and mothers who are in constant need of clean energy every day," said Manyuchi.

Out of 12 nominees, Manyuchi is the only Zimbabwean. For the next 6 months (October 2015-March 2016), the nominees will go through entrepreneurship training, after which each nominee must have developed their idea to the commercialisation stage.

The Africa Prize, now in its second year, is Africa's largest award dedicated to engineering innovation. It covers all engineering disciplines from mechanical, civil and computing to agricultural, biomedical, oil and gas, mining and electronics.

## HIT GRADUATE SCOOPS FIRST PRIZE AT 2015 NATIONAL ENGINEERING STUDENTS AWARDS COMPETITION AGAIN



Auxilliah Chiwanga  
NESAC 2015 First Prize Winner

She beat seven other contestants from the University of Zimbabwe, National University of Science and Technology and Chinhoyi University of Technology.

Chiwanga scooped the Zimbabwe Institution of Engineers' Shield for the Prize after her project on the **Design of a Plant to produce virgin paper from Bagasse** was voted the best by a panel of judges from the Zimbabwe Institution of Engineers. She won both the Eng. Paul Kodzwa Floating Trophy for 2015 and Miniature Trophy that shall remain forever in her possession. Her prizes were iced with a ZTE Smartphone, a certificate and US\$1000.00 cash.

Last year, Tatenda Nengiwa from the Department of Chemical and Process Systems Engineering won the First Prize at the competitions held at the University of Zimbabwe with her project on the **Design of a Plant for Refining 1 TPD using Lubricating Oil**

This year's National Engineering Students Competition Awards were jointly organized by the Zimbabwe Institution of Engineers and TechnoMag, running concurrently with TechnoMag's Techno@School Seminar which was addressed by the Permanent Secretary in the Ministry of Higher and Tertiary Education, Science Development and Technology Dr Machivenyika Mapuranga and a number of prominent business people including Dr Shingi Munyeza, Netone's C.E.O Eng. Reward Kangai, Econet C.E.O Douglas Mboweni, ZERA C.E.O Gloria Magombo and Nicole Finneman from United States Embassy Public Affairs delivered inspirational and motivational speeches to students and other invited guests.



**H**arare Institute of Technology graduate, Auxilliah Chiwanga from the Department of Chemical and Process Systems Engineering has won the First Prize at the 2015 National Engineering Students Competition Awards held at the Harare Institute of Technology.

## LECTURER SCORES A FIRST CLASS



Mr. T. Madzokere

**T**atenda Madzokere, a lecturer in the department of Chemical and Process Systems Engineering at the Harare Institute of Technology has been awarded a first class degree in the M.Tech in Nanotechnology from the SRM University in Chennai, Tamilnadu, India.

Madzokere graduated with distinction at a graduation ceremony held on 8 November.

"I appreciate the opportunity given to me by the Institute to study a hands-on programme," said Madzokere. "The programme resonates with the Institute's mandate and we can no doubt cascade this knowledge to our B. Tech programmes.

Madzokere says Nanotechnology is a new science and engineering discipline still to be embraced in Zimbabwe and Africa as a whole. However, he adds, nano-materials have the potential to transform lives because of their ability to have multiple uses.

"I am really happy to have this qualification and my hope is to pursue doctoral studies in mineral extraction and environmental pollution control.

Madzokere joined HIT in 2009 as a Teaching Assistant. He is part of the research fellows who have been sent abroad for staff development programmes in various specialist areas covering science, technology, engineering and mathematics. Over 100 fellows have been trained to date.



## HIT ENTERS INTO MOU WITH AVM AFRICA



Vice Chancellor Eng. Kanhukamwe and Honourable Musanhi of AVM (Pvt) Ltd exchanging documents at the signing ceremony

The Harare Institute of Technology has entered into a Memorandum of Understanding with AVM Africa (Pvt) Ltd.

The MoU was entered into on 1 October 2015 at the Harare Institute of Technology campus.

The scope of the MoU allows HIT to work with AVMAfrica (Pvt) Ltd in the following areas:

- Produce working drawings for various parts and components where necessary
- Research and design leadership in the development of a new bus body designs
- Facilitate internship for HIT students and staff training programmes for AVM Africa trainees.

The MoU is for an unspecified period, with bi-

annual reviews by both parties.

AVM Africa, Pvt Ltd is a company responsible for the manufacture of buses and trucks, including components and accessories for the AVM Brand. It's interest in HIT is derived from the need for value addition on their bus product in order to come up with a new AVM brand of buses in line with market demands using the latest technology.

The Harare Institute of Technology was represented by the Vice Chancellor, Engineer Quinton Kanhukamwe, and the AVM (Pvt) Ltd was represented by Honourable Musanhi.

## VICE CHANCELLOR ADDRESSES FRESHMEN – HIGHLIGHTS THEIR ROLE IN NATIONAL DEVELOPMENT



HIT Vice Chancellor Eng. Kanhukamwe addressing the Institute's first year students.



Harare Institute of Technology's Vice Chancellor, Engineer Quinton Kanhukamwe has urged the Institute's first year students to take their studies seriously as they are the tools to develop Zimbabwe into a first world country.

In his remarks at the Vice Chancellor's address to First Year students, Engineer Kanhukamwe said the Harare Institute of Technology is a platform and pedestal for the

new students to benefit and add value to themselves. "Our business here at HIT is to make sure that we develop the appropriate tools to fulfill and deliver on our mandate, achieving the technological revolution and technological advancement," he said.

"Let me congratulate you at the onset of enrolling at the Harare Institute of Technology. By enrolling here you have made the right choice. You have enrolled at the

Innovation and Entrepreneurial University where you will be constantly challenged to come up with alternatives and solutions to solve our national challenges," said the Vice Chancellor.

Over 500 first year students, among them international students from South Sudan and Namibia, have enrolled into various Bachelor of Technology Degree programmes in the Institute's four Schools.



## HIT COMMUNITY CELEBRATES OPEN ACCESS WEEK



Mr. J. Maenzanise  
HIT Librarian

The week –long celebrations were led by the HIT Library and were held as part of the 10<sup>th</sup> Anniversary celebrations.

Various activities made up the celebrations such as an Open Access seminar for the senior management team and a seminar for students, visits to schools, an outreach programme to students and other student -centred interactive activities.

The seminars, conducted by the HIT Librarian Mr. J. Maenzanise, examined Open Access as a model for scholarly communication dwelling on its origins, statements/declaration, and effects on the digital environment and diminishing library budgets.

Mr. Maenzanise said that the main beneficiaries of the Open Access are researchers as it increases their ability to find and use relevant literatures, enhancing interdisciplinary research and accelerating the pace of research, discovery and innovation. Other beneficiaries include research funders, the public and students.

“Business and industry also stand to benefit from Open Access as it enables access to cutting-edge research, encourages innovation,

stimulates new ideas, new services, new products; creating new opportunities for job creation and enabling vibrant research and development, backed by a strong knowledge and information base”, said Mr. Maenzanise.

Open Access is so much in the interest of research funders and employers, that an increasing number of them around the world are introducing Open Access policies.

Open Access Week, a global event now entering its eighth year, is an opportunity for the academic and research community to continue to learn about the potential benefits of Open Access, to share what they’ve learned with colleagues, and to help inspire wider participation in helping to make Open Access a new norm in scholarship and research. “Open Access” to information – the free, immediate, online access to the results of scholarly research, and the right to use and re-use those results as you need – has the power to transform the way research and scientific inquiry are conducted. It has direct and widespread implications for academia, medicine, science, industry, and for society as a whole.

## CONGRATULATIONS! MAKOROKOTO! AMHLOPE!

The HIT Community would like to congratulate Ms. Hamunyari Mashonganyika, a Technical Instructor in the Technology Centre department who graduated with a Bachelor of Technology Honours Degree in Industrial and Manufacturing Engineering.

We also congratulate the Institute’s Registrar- Mrs M.E. Samupindi on the graduation of her son Tawanda Lloyd Samupindi and Mr S. Buruwe, the Acting Deputy Finance Director on the graduation of his daughter Linda Melissa Buruwe. Both graduated with Bachelor of Honours Degrees in Pharmacy.



Ms. Hamunyari Mashonganyika, a Technical Instructor in the Technology Centre department graduated with a Bachelor of Technology Honours Degree in Industrial and Manufacturing Engineering



Tawanda Lloyd Samupindi, son of the HIT Registrar, Mrs M.E. Samupindi graduated with a Bachelor of Honours Degree in Pharmacy.



Linda Melissa Buruwe, daughter of Mr S. Buruwe, the Acting Deputy Finance Director who graduated with a Bachelor of Honours Degree in Pharmacy.