

### SECOND SEMESTER OF 2017 / 18 ACADEMIC YEAR BEGINS



Software Engineering students chatting with their Departmental Chairperson and Lecturer Ms. P. Kadebu (left) on campus

The Second Semester of the 2017/18 academic year commenced in earnest on Monday, 12 February 2018 with students expressing delight at returning to the University after the festive season vacation. Some look forward to improving their academic performance, while others will be completing their studies this semester.

All returning students went through the formalities of completing registration and settling into their various halls of residence before the commencement of classes. The Semester Break is scheduled between 2-6 April while SWOT Week is from 14-18 April. Exams will start on 21 May 2018.

Tashinga Tizora, a Part One Financial Engineering student is looking forward to an improvement in Wifi services to help in research activities, while Ranganai Makoni is set to work very hard this semester in order to cope with his workload. "Our Financial Engineering class is doing nine modules this semester and this is a big workload but we are going to work closely together with our lecturers and other students so that we can cope," he said.

Nolan Masimba a Chemical and Process Systems Engineering student in his final year is already working on his Capstone Design Project while preparing for the final year "This is my final year and I am striving to pass my degree with distinctions," said Nolan.



Tashinga Tizora



Ranganai Makoni



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### INNOVATION

### LEADERSHIP

### INTEGRITY

### COMMITMENT

### PROFESSIONALISM

## CHAIRMAN'S STATEMENT TO SENATE

### Introduction

Let me welcome you all to the 20th Senate meeting and our first one for the year 2018.

The last half of the year 2017 was extremely difficult due to the unstable economic environment that resulted in the spiraling of operational costs mainly as a result of the 3tier pricing system that emerged on the market.

The Institute had to closely monitor all expenditures in order to sail through the turbulent period.

### New National Dispensation

The new political dispensation has openly declared that Universities' business must lead in National Development. This was reiterated by His Excellency, the President of the Republic of Zimbabwe, Cde E.D. Mnangagwa during his meeting with Vice Chancellors on 9 January 2018 at the HICC and reinforced by the Minister of Higher Education and Tertiary Education Science and Technology Development, Prof. A. Murwira when he visited HIT in January 2018.

### Tactical Plans

The Deans of Schools, Directors of Centres and other head of Departments have drawn up their Tactical Plans which will guide them as the year progresses. These Tactical Plans were preceded by a critical review of their performance in 2017 and will provide road maps on how the various Institute entities intend to strategically and programmatically execute their duties as they implement their work plans.

All academic departments are expected to take guidance from the Dean's Tactical Plans and prepare their own detailed 2018 Work Plans which should dovetail into the School's Tactical Plans.

### Strategic Plan Review

The Institute Management will this year revisit the Harare Institute Strategic Plan, Designing the Future 'Vision 2020.'

The exercise will enable HIT to review the rationale, relevance, effectiveness, efficiency, impact and financial viability of the various University units in order to make strategic decisions on the way forward.

### New Programmes

The Institute will commence lectures in the BSc Honours in Radiography, Post Graduate Diploma in Medical Ultrasound and Post Graduate Diploma in Dosimetry beginning August this year.

We intent to launch six (6) M.Tech programmes during the course of the year 2018 and this is largely dependent on the speed with which the Accreditation Body (ZIMCHE)

will process the submitted applications.

We are looking forward to introducing more innovative and futuristic engineering and technology programmes in line with our mandate and we remain cognizant of the guiding principle not to compromise on quality as pronounced by His Excellency, the President of the Republic of Zimbabwe Cde E.D Mnangagwa in his speech delivered at the HICC when he met Vice Chancellors of Universities on 9 January 2018. This was further reinforced by the Minister of Higher and Tertiary Education Science and Technology Development, Prof Murirwa when he visited HIT early this year.

### Research and Departmental Journals

Efforts to publish the inaugural HIT Journal are at an advanced stage and those departments that are still to apply for ISSN numbers are urged to work with the Librarian on this issue.

### The Technology Transfer and Licensing Centre

The University appointed a Director to run the Technology Transfer and Licensing Centre. The Director is responsible for technology transfer in terms of training on the commercialisation of inventions and discoveries flowing from research through technology licensing, commercial investments and any other avenues including but not limited to joint venture partnerships, venture capital etc. He will also be responsible for venture mentoring services and establishment of a technopreneurship forum.

### 100/200 Day Deliverables

Government is running with a 100 day deliverables programme to which the Institute submitted a total of seven (7) projects. The Institute has its own programme which is ongoing and currently has thirty-one (31) projects across all academic departments which are both multidisciplinary and interdisciplinary in nature.

### Technoparks Project

The Government embarked on an initiative to establish Innovation Hubs at six selected Universities. The establishment of a Technopark at Harare Institute of Technology is one of the main objects within the HIT Act. Therefore, the University has already embarked on a process to establish a Science Park which it termed the Hi-Tech Development Valley.

The Government has since accepted to fund the construction of the Business Incubator, which is part of the Phase I of the development of the HIT's Hi-Tech Development Valley.

### Membership to Professional Bodies

The Institute is calling for an increase in professional linkages with international professional bodies such as ACM and IEEE

across all disciplines for curriculum benchmarking.

Departments will soon be expected to submit reports and evidence of membership to these bodies as they are fundamental in curriculum development and reviews.

### Student-Lecturer Evaluation and Lecture-Peer Evaluation

It is important that the student-lecturer evaluation exercise be done twice every semester, with one evaluation taking place preferably in the third week of teaching and the other one before students go on SWOT leave and preferably just after Semester Break.

### Research, Development & Innovation

The importance of research in academia need not to be over-emphasised. The Institute's policy is that every lecturer must publish at least two papers per year and Deans and Chairpersons must make sure this is complied with.

The Institute shall continue to support research through the Research Board and the Technology and Innovation Committee.

### Workshops /Seminars

All academic departments are urged to organize international workshops and seminars in their areas of specialization in order to reinforce their research thrust and manifest their presence on the global stage, as well generating the much needed financial resources which can be used in the international travels of a similar nature.

### Invigilation & Results Processing

Chairpersons are once again reminded of the seriousness of examination papers' security. The integrity of the entire University is hinged upon the integrity of its assessment procedures and processes, hence all lecturers need to be constantly reminded of these procedures and processes. Detailed information on Examinations rules and regulations are obtainable from the Examinations Office.

### Conclusion

I wish to urge everyone to continue working with dedication and commitment to duty. I believe that with your support the Institute will continue to occupy its mandated space as the leading Institution in Science, Engineering and Technology.

I thank you!

Eng. Q.C Kanhukamwe.



## HI-TECH DEVELOPMENT VALLEY TAKES OFF



A 3D design plan of the HIT Science Park.

In positioning itself to Government's initiative to support the establishment of Innovation Hubs, the Harare Institute of Technology has initiated the first phase of the implementation of one of its key performance areas derived from the Strategic Plan Vision 2020, which is to set up a Hi-Tech Development Valley.

The Hi-Tech Development Valley manages and exploits the university's Research, Development and Innovation Outputs for commercial value. The establishment of a Science Park is one of the objects within the HIT Act and responds to the Institute's mandate: to develop incubate, transfer and commercialise technology for rapid national industrialisation.

The Park will link the university research, development and innovation outputs with industry and commerce as well as creating start-ups and spinoffs. It will also work to

establish partnerships, supporting emerging local companies seeking to develop and export diverse technology based products, services and intellectual property. The Science Park will also promote and encourage active collaboration between the private and public-sector technology development initiatives, attracting international technology focused companies and research organisations to locate their operations to Zimbabwe.

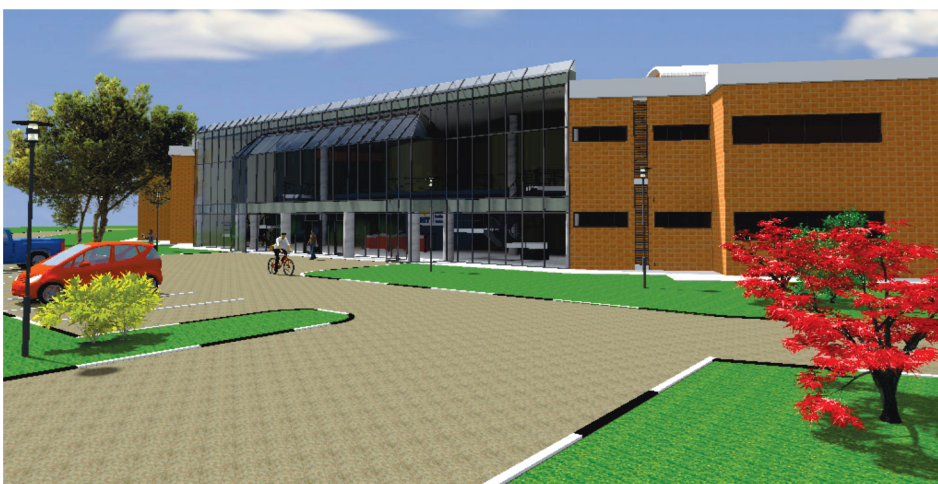
Other than promoting commercialisation of research and development in association with local research centres and universities, the Park shall also promote, create and maintain international and national strategic links, providing modern common-use economic infrastructure for economic growth and diversity.

It is also envisaged that the Park will enable the translation of knowledge output of the

University into tangible products and processes to drive industry and commerce for greater national development. Apart from providing a platform for targeted applied research for university staff and students through internship and work-related engagements with other established technology parks resulting in impactful improvement of the Zimbabwean industry and commerce, the Park will also stimulate job creation through enterprise creation, fostering Foreign Direct Investment (FDI).

An Acting Director has already been appointed to manage the University's Research, Development and Innovation outputs. He will be responsible for negotiating the Institute's technology licensing, transfer and commercialization initiatives. His other duties and responsibilities include consolidating Technology Licensing, Transfer and Commercialization Framework, implementing the Framework for the interface between industry and academia as well as the University Intellectual Property (IP) Policy.

The Director shall also lead the production and nurturing of high value business linkages and partnerships with public and private sector organizations with a view to increasing the Institute's contribution towards industrialisation and modernization through Intellectual Property commercialisation. He is also serving as an educational resource on Intellectual Property and commercialization matters for the University community whilst also promoting University industry consultancy services.





## HIT INTRODUCES NEW HEALTH SCIENCES PROGRAMMES



**Eng. P. Muredzi**  
Dean: School of Industrial Sciences & Technology

The Harare Institute of Technology in collaboration with Parirenyatwa Group of Hospitals is introducing new health sciences programmes at the undergraduate and post graduate level beginning August 2018.

The Harare School of Radiography, an affiliate of the Harare Institute of Technology is currently enrolling students for studies in the Undergraduate Bachelor of Science Honours Degree in Radiography, Postgraduate Diploma in Medical Dosimetry and the Postgraduate Diploma in Medical Ultrasound.

The Undergraduate Bachelor of Science Honours Degree in Radiography programme is designed to give broad knowledge of Therapeutic and Imaging Sciences in Radiography. It will also provide students with the skills and knowledge to help diagnose and treat illness by producing and interpreting medical images. It emphasizes on equipping students with advanced knowledge in the different fields of Diagnostic Radiography which include Computed Tomography, Magnetic Resonance Imaging, Nuclear Medicine, Ultrasound scanning, General X-rays and Special procedures.

In therapeutic radiography students will be equipped with advanced knowledge in computerized planning, mould room techniques, radio-isotope imaging and treatment (nuclear medicine), general radiotherapy treatment as well as current advanced treatment modalities in Radiotherapy. There is also an emphasis on equipping students with research competencies in the field of radiography.

Graduates of the Bachelor of Science Honours Degree in Radiography programme will have career paths as Diagnostic Radiographer, Therapeutic Radiographer, Industrial Radiographer, Medical Dosimetrist, Radiation Protection Officer, Ultra Sonographer and Research Scientist.

The Post-Graduate Diploma in Medical Dosimetry is intended to provide a mechanism for radiation therapists to demonstrate knowledge and competence in the field of Dosimetry, to promote standards of excellence within this clinical area, and to identify those who have met a nationally recognized standard in the practice of Dosimetry. This gives a broad knowledge of radiotherapy planning physics and radiobiology, advanced imaging in radiotherapy, clinical anatomy for radiotherapy planning, dose calculation algorithms, advanced radiotherapy equipment and clinical techniques including Intensity modulated Radiotherapy, Volumetric arc therapy, Image guided radiotherapy, Stereotactic radiotherapy, Tomotherapy, 4D treatment, Particle therapy and quality assurance in radiotherapy. Graduates of the Postgraduate Diploma in Medical Dosimetry programme will have career paths as medical Dosimetrists, Quality Assurance radiographers, Research Scientists in radiotherapy planning.

The Postgraduate Diploma in Medical Ultrasound programme gives broad knowledge of medical imaging in the following areas: Obstetrics and Gynecology, Abdominal Ultrasound, Musculoskeletal, Vascular studies, Small parts, Pediatric ultrasound, F.A.S.T (Focused Assessment Sonography in Trauma) ultrasound techniques and an introduction to Echocardiography. There is also emphasis on equipping all students with research competencies in the field of medical ultrasound. Medical ultrasound is a diagnostic imaging technique based on the application of ultrasound. It is used to see internal body structures such as tendons, muscles, joints, blood vessels and internal organs. Its aim is often to find a source of a disease or to exclude any pathology. This programme will provide would be students with the high quality training they need to become practicing sonographers within their workplace.

Graduates of the Postgraduate Diploma in Medical Ultrasound programme are destined for careers such as Ultra-sonographers and or specialist in different areas of medicine such

as Urology, Ultrasound and Applications specialists.

Dean of the School of Industrial Sciences and Technology Eng. P. Muredzi said that these are full time programmes and teaching is interspaced with field work and internship. "As is our traditional way of teaching and learning, the programmes have substantial components of laboratory and clinical field work to be undertaken at Parirenyatwa group of hospitals were our affiliate – the School of Radiography is domiciled," said Eng. Muredzi.

Dean Muredzi added that these programmes are part of the HIT Strategic Plan – Designing the Future and their introduction is premised on the realisation by HIT that it must play a leading role in availing human resources that will invigorate rapid national industrialisation to capacitate the nation with skilled and competent experts in the fields of health sciences.

"It is envisaged that each class will have at least 35 students in order to maintain and ensure a viable and sustainable good tutor to students. Academics who are experts within the fields, active clinicians and researchers will be teaching these programmes. The School of Radiography already has qualified and competent staff who will be complimented by staff from HIT's department of Pharmaceutical Technology. Our curriculum concentrates on evidence based teaching and is directly influenced by the research happening within the departments which informs radiography, dosimetry and ultrasound policies and practices.

We have long standing and close links with related departments at Parirenyatwa, Chitungwiza, and Harare hospitals, the radiography, dosimetry and ultrasound profession, and industry; all of this offers a challenging yet supportive environment in which to study," said Dean Muredzi.



**Mrs. M. Chahuruva**  
Director - ICTS

### MRS CHAHURUVA APPOINTED ICTS DIRECTOR

The HIT Community would like to congratulate Mrs. M. Chahuruva on her recent appointment as HIT Director of Information and Communications Technology Services.

*Congratulations, Makorokoto, Amhlope!!!*



## FRONT OFFICE STAFF ATTEND REFRESHER COURSE



HIT frontline staff follow proceedings at the workshop.

University frontline staff attended a half day refresher course this month, coordinated by the Human Resources department. The workshop covered topics such as Customer Service, Effective Communication, Grooming and Etiquette, Teambuilding, among others.

Speaking at the event, University Registrar, Mrs Mary Samupindi said the training had come in at an opportune moment, at the start of the year to reinvigorate and remind staff of the important role they play in their various

work stations.

“The workshop is being held to remind us and to prod us on some of the things we may have forgotten. I would like to thank the department for organising this course, which comes hard on the heels of the exhortation by His Excellency, the President of the Republic of Zimbabwe, Cde E.D. Mnangagwa. It's no longer business as usual, and we must earn our month, our week our year. So holding this important workshop at this opportune time helps us to fine tune our professional

skills and serve our customers to the best of our ability,” she said.

Front Office staff from the Registry department, Security and Canteen Services attended the workshop. Acting Deputy Registrar for Human Resources and Administration, Mrs Nzwisaiyi Dewah, Director of ICTs, Mrs Miriam Chahuruva, Public Relations and Marketing Manager, Mrs Sharai Muonwa were also in attendance.



Mrs. M. Samupindi  
HIT Registrar





## DEFENCE UNIVERSITY VISITS INSTITUTE



A delegation from the Zimbabwe National Defence University.

A delegation from the Zimbabwe National Defence University academic and administration departments visited the Harare Institute of Technology to familiarize with the Institute's administration and academic operations.

In his introductory remarks, the leader of the delegation, Group Captain J. Maletе said the purpose of their visit was to learn about the

University's administration and academic operations. "As you are aware that we are in the process of establishing the Zimbabwe National Defence University, we are here to learn about the academic and operations of other local universities," he said.

HIT Registrar, Mrs Mary Samupindi took them through the Institute's main administrative and academic operations and

processes, while Mr. J.L. Maenzanise also explained the operations and services offered by the Institute Library. Mrs. M. Chahuruva also apprised the group of the Institute's Information Communications Technologies department operations and services.

The group also visited the Registration, Admissions and Students Record and Examinations departments.





# HIT HOSTS ZIMBABWE UNIVERSITIES' ICT DIRECTORS WORKSHOP



Participants attending the Zimbabwe Universities' Information Communications Technologies Directors Workshop.

A workshop for Zimbabwe Universities' Information Communications Technologies Services' Directors was held at the Harare Institute of Technology to look into issues of customer needs and strategise on programmes which leverage on internal skills and partnerships.

The three day workshop ran from 26 - 28 February 2018 and was organized by the Zimbabwe Research and Education Network (ZIMREN).

Key presenters at the workshop included Chris

Rohrer from Ubuntu Alliance network, Val Theron from the Association of South African Universities' Directors of Information Communications Technologies Services and Robert Shoniwa, Chairperson of the HIT Information Security and Assurance Department.

HIT Director of Information and Communications Technologies Services, Mrs M. Chahuruva said the workshop discussed key issues facing universities such as capacity building, bandwidth provision by service providers, infrastructure and financing,

applications, disaster recovery, cybersecurity, education technology needs, financing and payments.

In his address at the workshop, HIT Vice Chancellor Eng. Q.C Kanhukamwe highlighted that information communication technologies are an integral component of research and development, playing a major role in binding all activities in in all the facets of universities. "Our ICT Directors play a very important role in our institutions and without their interventions we cannot achieve our goals as universities," he said.



Eng. Q.C Kanhukamwe addressing participants during the Zimbabwe Universities' Information Communications Technologies Directors workshop.

## COMPUTER SCIENCE LECTURER SCOOPS TWO AWARDS AT INDIAN VARSITY

HIT Computer Science Lecturer and Staff Development Fellow, Mr. Chrispen Mafirabadza was awarded a Gold and Silver Medal at the ITM University Convocation Ceremony held on Friday 18 November 2017 at ITM University Gwalior, in India.

Mr. C. Mafirabadza scooped the Gold Medal (Topper) in MTech Computer Science and Engineering and a Silver Medal for second Best Researcher Award (Student Category). Dr. Pallavi Khatri, the Head of the Computer Science and Engineering Department received the awards on his behalf.

Mr. Mafirabadza studied for an MTech Computer Science and Engineering degree at ITM University Gwalior, from September 2014 to September 2016 under the HIT Staff Development Fellowship Programme.