

# ANNUAL REPORT 2017

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## Chancellor

### The President of the Republic of Zimbabwe

His Excellency Dr Emmerson Dambudzo Mnangagwa

## Principal Officers

### Vice Chancellor

Professor D.J Simbi

PhD (Leeds), BSc Applied Chemistry (Portsmouth), MIM, CEng, FZ'welE, FICorr, FZAS, Hon FZ'welE

### Pro Vice Chancellor

Prof J. Nyamangara

PhD (UZ), MSc in Soil Science (University of Eberdeen, UK) BSc Agriculture (UZ)

### Pro Vice Chancellor

Prof Z. Muranda

D.Phil (UZ), M.Phil (UZ), BBS (UZ)

### Registrar

Dr T.B Bhebhe

D.Phil (BU, Malaysia), MSc Leadership & Change Mgt (Leeds Met UK), MEd Admin(UZ), Post Grad. Dip in HRM (National University of Singapore), BEd Admin (UZ), Cert. in Higher Educ Mgt (Wits), CE (UZ), FIPMZ

### Bursar

Dr O. Sifile

D.Phil (BU, Malaysia), MBA (ZOU), CIS, Dip in Edu (UZ), Cert. in Higher Educ Mgt (Wits), Cert in Mgt (Galilee International Mgt Inst, Israel)

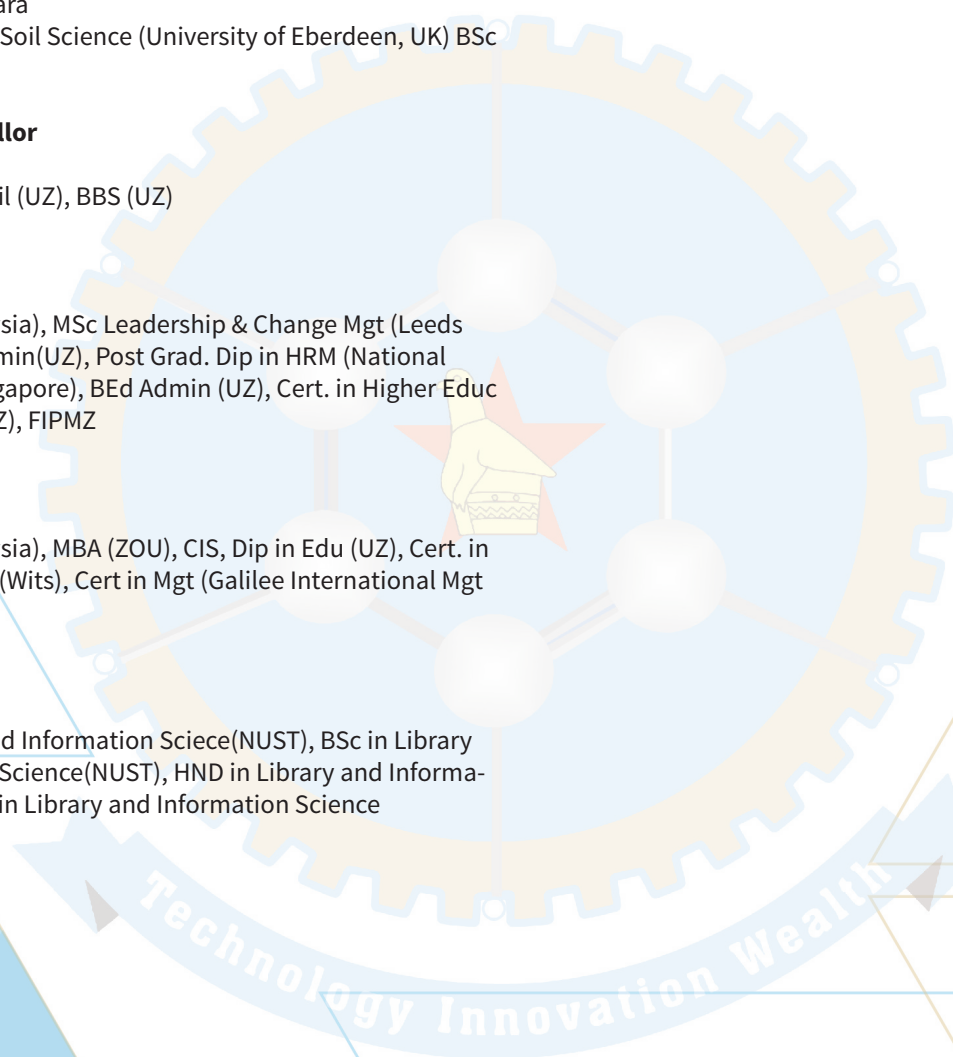
### Librarian

Mr Nyangwaya

MSc in Library and Information Science(NUST), BSc in Library and Information Science(NUST), HND in Library and Information Science, ND in Library and Information Science

## Bankers

- CBZ
- ZB Bank
- Barclays
- Standard Chartered Bank
- Agribank



## Editorial Team

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This Annual Report is as possible accurate and up-to- date as at the time of going to print.  
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## Vision

To be a world-class centre of technological innovation and entrepreneurship and wealth creation.

## Mission

To produce innovative graduates, create knowledge, enhance entrepreneurship and provide community service through quality teaching, training and technologically oriented research.

## Mandate

The University derives its Mandate from the Chinhoyi University of Technology Act Number 15 of 2001, Chapter 25:23 that stipulates the following as the objects of the University:

- i) The development and practice of design and technology,
- ii) The teaching and application of Sciences, Art and Design.
- iii) The preservation dissemination and enhancement of knowledge and skills relevant to the development of the people of Zimbabwe.
- iv) The nurturing of the intellectual, aesthetic, social and moral growth of the students.
- v) The nurturing of entrepreneurship, innovation and creativity on the part of all the members of the University.
- vi) The creation of opportunities for income generation through consultancy work, training and other similar activities, with the ultimate aim of making the University a self sustaining entity.

Technology, Innovation, Entrepreneurship and Wealth Creation are the pillars guiding the development and growth of Chinhoyi University of Technology





# INSTALLATION OF THE CHANCELLOR IN PICTURES

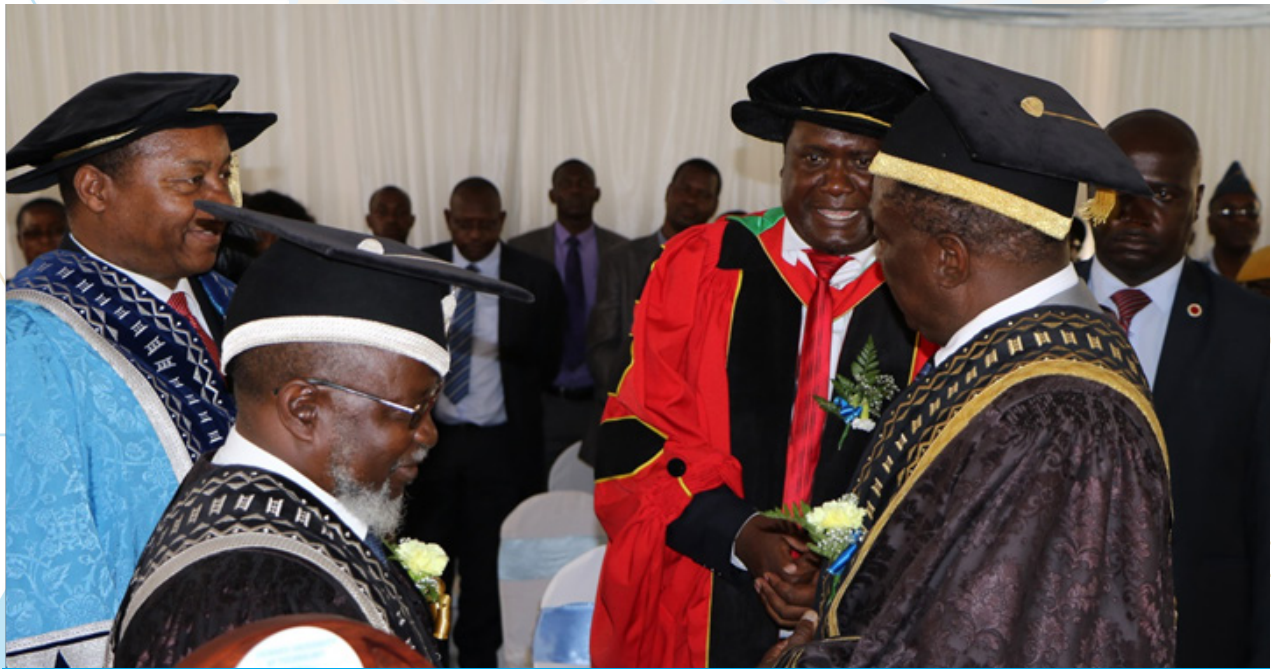


Dr Emmerson Dambudzo Mnangagwa, Chancellor of Chinhoi University of Technology.  
Installed on 1 December 2017.





Installation of the University Chancellor, His Excellency, the President of the Republic of Zimbabwe, Cde E.D Mnangagwa: In the pictures above the Registrar Dr T. Bhebhe helping the Chancellor to put on his Ceremonial GOWN.



The Chairman of Council, Dr O. Moyo (Far left), the Vice-Chancellor Prof D.J Simbi (Second from the Left) and the Registrar Dr T. Bhebhe take turns to congratulate His Excellency, Cde E.D Mnangagwa for being installed as the Chancellor of Chinhoyi University of Technology on 1 December 2017



# Members of the University Council



Dr. Obadiah Moyo,  
Council Chairman



Ms Tsanangurai Chirau,  
Council Vice-Chairlady



Dr Lewis Chasakara



Mrs Melody Mbira-Harry



Mrs Tracey Mutaviri



Mr Daniel Utete



Mr Hashmon Matemera



Mrs Patricia T. Kavayi



Mr Gerald Gore



Mr Kennias Shamuyarira



Dr Godfrey Nehanda



Dr Tendai Danford Mutungamiri

# Members of the University Council *Cont'd*



Eng. Edmond Mukahdira



Mr Wellington Mutikani



Mr Maxwell D. Kaitano



Mr Mike Mutsvairo



Mrs Lahliwe Murefu



Dr Howard Marowa



Mr Berean Mukwende



Eng. Paurosi Mazwazwa



Ms Dorcas Atukwa



Mr Blessing Kapuya Chafesuka



Mr Christopher Mugaga



Eng. Sherpherd Dadi





# Members of the University Council *Cont'd*



Mr Isaac Kwesu



Dr Tichaona Muzuwa

## Senate Members of Council



Professor J. Mapara



Prof S.M Makuza



Eng T.L Hweju



Mrs D. Musiyandaka



Prof I.D.T Mpofu



Prof N. Mpofu-Hamadziripi

# CHAIRMAN OF COUNCIL'S REMARKS



**Dr O. Moyo**  
Dean

It has truly been a great honour for me to be appointed the Chinhoyi University of Technology Council Chairman. I am excited and I give the glory to God, I believe He has a purpose. I promise to live up to the task. Although I have chaired boards of various institutions and organisations in the past, this is my first time to be appointed as a Council Chairman of a University. I am looking forward to positively impact on the development of Higher and Tertiary Education at CUT in particular and Zimbabwe in general. I have always had a passion in Higher Education and I did not think twice to accept this mammoth task because CUT is a young and vibrant institution whose brand has been steadily growing over the years.

My appointment coincided with the coming in of the New Dispensation and I strongly believe that a conducive atmosphere for the execution of our mandate will prevail. The 100' Day targets set by His Excellency the President of the Republic of Zimbabwe Comrade E.D. Munangagwa came at the right time and we have already started to hit the ground running. I am happy to lead a team made up of young and experienced members with diverse skills and experiences.

As a team, we pledge to assist management and the University to deliver projects that were initiated by the past University Council and it is my hope that we will be able to complete some outstanding structures. As Council we are very much aware of the challenges that lie ahead of us and are determined to produce the desired results. I want to sincerely thank the Appointing Authority for the confidence they bestowed on us. I would also want to thank the Vice Chancellor and his team for welcoming us and allowing us to understand the challenges at hand. I strongly believe that with teamwork, we can turn CUT into a cutting-edge University.

# VICE-CHANCELLOR'S REMARKS



**Prof D.J. Simbi**  
Dean

Chinhoyi University of Technology had a very momentous 2017 in which the institution made history by being the first State University in Zimbabwe to install the new President of the Republic of Zimbabwe His Excellency Comrade Emmerson Dambudzo Mnangagwa as the Chancellor of the University. CUT was the first University to have been honoured by having the new President officiate at its 13th Graduation Ceremony. It was indeed a memorable occasion with a huge number of graduates (1221) and a massive congregation to mark the new dispensation for CUT.

The introduction of the Vice Chancellor's Scholarship fund for all Science related programs at post graduate level was meant to drive our parent Ministry and Government's thrust on Science, Technology, Engineering and Mathematics (STEM) subjects. The scholarship did not target CUT students only but was a national program also targeting students from other Universities who are interested in pursuing MPhil and DPhil studies. The objective of the program while focusing on promoting STEM, was introduced as CUT's contribution to extend its mandate nationally frontiers knowledge in Sciences, technology, Engineering and Agriculture.

CUT in an effort to expand teaching and learning space and cater for our valued block release students, opened offices for the first time in Harare with the hope of harnessing a large chunk of prospective students from the capital city and surrounding areas. This move is expected to bring the University close to its prospective students and ensure the visibility of the CUT brand in the capital city. It is our belief that this will reduce costs for students who want to study with CUT as they will be able to enroll in Harare. It is our hope that through a thorough market assessment we will open weekend School for Post graduate students in 2018.

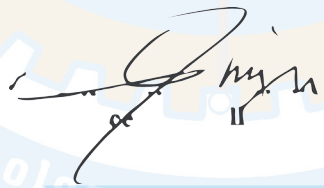


The University opened the New Engineering Block for our Engineering programs and this has de-congested and reduced pressure on the teaching and learning space on campus. In the same vein the construction of the Deans block as an Administration centre for Deans and Directors commenced in earnest utilizing internal resources to create more office space for our critical mass who have tremendously increased over the years.

Chinhoyi University of Technology farm as one of the University's Strategic Business Units, entered into tobacco production in order to, as a strategy increase its revenue base to meet its ever increasing demands and augment government support for CUT and also earn foreign currency for the country. More tobacco barns were constructed and a vehicle was purchased to improve efficiency in the tobacco production section. An additional bus was bought to alleviate transport challenges for students to and from college and also for their educational tours. The University purchased two kariba properties in its endeavor to improve the teaching/learning space for Schools like the School of Wildlife Ecology and Conservation.

The institution continued to observe good corporate governance and transparency. Financial auditing by external auditors showed that the University is operating on a sound footing due to efficient control systems. Prudent financial management has helped CUT to sustain additional salary bills for Lecturers. Sound financial administration strategies were put in place to minimize leakages and the auditors did not qualify our accounts. Good corporate governance helped all systems to function well and there were no disturbance or mishaps throughout the year. The University Council continued to interrogate and assist functions of the University.

A new Council was ushered in and an array of skills and new dimensions were brought into the running of the University and this is expected to take CUT to greater heights. The short time that we have worked with the new Council has convinced us that positive changes are not very far and as administration we are more than happy to work with such a vibrant and results oriented team. Although the University has experienced its fare share of challenges, we have managed to attract highly qualified human resource critical mass especially in the STEM related areas. We will continue to improve delivery of service and do what we consider to be the best for our beloved students who



Technology Innovation Wealth



# PVC ACADEMIC AFFAIRS AND ADMINISTRATION'S DESK



**Prof J. Nyamangara**

The year 2017 was filled with momentous events like the installation of His Excellency the President of the Republic of Zimbabwe Comrade E.D. Munangagwa as the Chancellor of Chinhoyi University of Technology and Graduation Ceremony on the 1st of December 2017. The graduation Ceremony was the best organized ever and 1 221 graduates who included seven (7) PhD and four (4) MPhil graduates were capped by the Chancellor. However there was a 27% decrease on the number of Graduates compared to 2016 when 1418 graduates were capped. The recipients of the Vice Chancellor's Postgraduate Excellency Scholarship marginally increased to seven (7) students in 2017 compared with six (6) students in 2016 bringing the number of beneficiaries of the scholarship to thirteen (13) students. The Scholarship is awarded to students who attain first class undergraduate degree passes to enable them to study for a Master of Philosophy degree at CUT. To qualify for sponsorship, the area of study should be in line with the mandate of the University (Technology, Innovation and Entrepreneurship) and relevant to the developmental needs of Zimbabwe.

Currently the scholarship is only open to former CUT students and the target is to award one student per School/Institute annually. Overall, forty two (42) students are registered for MPhil and sixty six (66) for PhD studies across the seven (7) Schools and two (2) Institutes of the University. However funds for research, innovation and development remain limited due to current national economic challenges and has negatively affected output in these critical functions of the University. Chinhoyi University of Technology has continued to develop its academic staff, and some non-academic staff, focusing on PhD studies also to recruit qualified staff in the areas of need. Currently there are fifty eight (58) members studying for Doctorate degrees at local University SADC region, Asia and Europe. The current academic staff establishment includes seventy one (71) PhD holders, seven (7) Associate professors and sixteen (16) full Professors.

# PVC BUSINESS DEVELOPMENT & RESOURCE MOBILIZATION'S DESK



**Prof Z. Muranda**

The office of the Pro-Vice Chancellor (Business Development and Resource Mobilization) had a busy 2017 in which a number of the University business units have done fairly well. It is our hope that the ushering in of the new dispensation will create a conducive atmosphere for increased profitability of the business units. Most business units made profit but urgently need expansion.

The farm has been on an upward trajectory and a number of projects have put the University on the limelight. The cattle artificial insemination program that covered parts of Mashonaland West and Matebeleland Provinces has proved to be very popular with the new farmers benefiting immensely. CUT received two hundred ninety four thousand seven hundred and fifty United States dollars for cattle breeding project from Higher and Tertiary Education, Science and Technology Development. Overall, farm commercial operations have been performing quite commendably and are now the major supplier for the Students' canteen and the University Hotels.

A lot of infrastructural developments are underway at the farm in order to make these units more productive. The University has commissioned ten additional barns for tobacco curing and an additional five are under construction. Ten hectares of flue cured tobacco were planted and a grading

shed was constructed to handle the cured crop in readiness for marketing. The University constructed a poultry slaughter facility and is also expanding poultry production facilities by constructing additional fowl runs with the aim of a capacity of ten thousand birds.

The CUT hotels continued on a recovery path in 2017. They made a profit after many years of losses. Efforts are now underway to consolidate the recovery process so that they are sustainable going forward.

The first phase of the Engineering Complex is now complete and is currently being used for lectures. The University still requires the other two phases to be done so that the school of Engineering Sciences and Technology has adequate space for lectures, workshops, and laboratories. The roofing of the canteen extension is now almost complete. The Deans and Directors office block is now also almost complete except for a few touch-ups. This should reduce office space shortages considerably.

CUT held a very successful fundraising dinner at Rainbow Towers which was well attended. The University is greatly indebted to its valued stakeholders for making the event a success.

An over-subscribed golf tournament at the Royal Harare was also a resounding success. The University also held an Alumni Launch at the Andy Miller hall which will serve as a medium for tapping ideas and resources from former students within and outside the country.

A number of Memoranda of Agreement were signed with various partners and many are already producing the desired results. As expected the University will continue to engage in partnerships and collaborate in areas of mutual interest.

The brand of the university continues to grow and the year 2017 saw doubled effort to grow the student population. For the first time the student population breached the eight thousand student mark following a lot of marketing and publicity work. A revamp of the ICT backbone and laboratory equipment started in 2017. Efforts will continue into 2018 to totally modernise the system. Our financial management system continued to

perform extremely well under serious resource constraints. Audited financial statements were published on time without qualification.

The Directorate of Innovation and Technology Transfer has embarked on the process of patent registration. So far there has been success in registering some patents and the utility models.

Finally, the Students Affairs division continued to prioritise students welfare throughout the year. Due to alertness to students' needs peace and tranquility has continued to prevail at CUT. An open door policy to student issues continues to define the engagement between students and my office.

Year 2018 will see more developments as we pursue fulfillment of the 2016 - 2020 Strategic Plan. Teamwork is the guiding principle in business development and resource mobilisation.



# SCHOOL OF AGRICULTURAL SCIENCES & TECHNOLOGY



**Prof S. Makuza**  
Dean



The School offers seven (7) unique undergraduate degree programmes and the MSc in Post-Harvest Science and Technology. The School, through the Department of Biotechnology, also coordinates the Zimbabwe Institute of Public Administration and Management (ZIPAM)'s Bachelor of Science Degree in HIV/AIDS Management and Community Development.

A six-member School Advisory Board was appointed for 3 years and they attended the 13th Graduation Ceremony on 1st December 2017.

## Teaching

Teaching was conducted extensively and students signed attendance registers within the School throughout the year as per credit system requirements. Examination question papers were sent to External Examiners for moderation.

Assessment and evaluation of students on Industrial Attachment were conducted systematically but sometimes late due to financial and transport constraints.

The refurbishment of the Animal Production and Technology laboratory was completed and procurement of equipment is in progress. The new laboratories will enhance and strengthen research and practical skills of our students and staff. The School is grateful to University

Management for their unwavering support in refurbishing and equipping these laboratories.

The students enrolment in the School in 2017 increased by an average of 10%. The School graduated a total of 82 undergraduate students, 4 of whom received the Vice Chancellor's Awards and 10 had First Classes; one (1) DPhil, one (1) MPhil and fourteen (14) Masters in Post-Harvest Science and Technology students during the 13th Graduation Ceremony on 1st December 2017.

Students Sponsorship of Awards and Patentable Projects Miss Vimbai Gobvu was awarded a Food hamper worth \$100.00 by National Foods Pvt. Ltd. for being the best graduating Student in Animal Production and Technology in 2017.

Mr Willard Chirenje from the Department of Agricultural Engineering worked on "Development of a Button Mushroom Synthetic Composting Poly tunnel".

Kanengoni Nichola, Makamure Cassandra, Mapeto Stewart and Nyarusanga Pelugens manufactured oral anti-diarrhoeal solution and anti-flu oil rub.

Kamupenda Tariro J., Mukwata Vimbai, Matte Tichaona and Chitauro Tariro B. developed the following novel products: Health orange juice with antioxidants extracted from green algae, Anti-microbial cream (both antifungal and antibacterial) and antibacterial hand sanitiser.





## Farm Research, Teaching and Extension Unit

The School Farm Research, Teaching and Extension Unit (FRTEU) Crop Section harvested 200 tonnes of maize and got \$37 000.00 from tobacco sales in the 2016/17 cropping season. By December 2017, the FRTEU at CUT Farm had 223 beef cattle, 141 pigs, 93 goats, 21 sheep, 178 indigenous organic chicken and 2500 broiler chickens. Many research activities happened at the University Farm in 2017, all of which were led by our senior academics and researchers. Specifically, the following research works were happening in 2017: Conservation Agriculture, Fertilizer evaluation trials, cotton production, Jatropha, Irish Potatoes, Sunflower, Sorghum, Sweet Potatoes, Cowpeas, Buck-weed, Tobacco, Tomatoes, Vegetables, Mushroom Production, Pasture trees, grasses and legumes seed multiplication, Bird Eye Chilies and Orchard fruit production..

The following developments were done at the FRTEU at the University Farm in 2017:

- irrigation infrastructure was set up on 40 ha at the CUT farm;
- 22 ha of tobacco planted;
- 3 ha of groundnuts breeder's seed for multiplication under irrigation;
- Started pure breeding (pedigree / stud breeding) lines of Brahman, Tuli, Mashona, Nkone, Charbray, Boran, Bonsmara, BeefMaster, Simmental and Simbra beef cattle;
- Built ablution facilities at the piggery unit;
- Built Chicken Abattoir;
- A 30m x 15m crop storage and processing shed was completed at a cost of \$200,000;
- Built 17 rocket and solar tobacco curing barns;
- Constructed a 55m x 12m tobacco grading shed at a cost of \$90,000;
- Nine (9) goat paddocks were constructed;
- Dr Samuel Kaveto Mbambo, Governor for Kavango East in Namibia and his 35-member delegation visited the FRTEU on Wednesday 14th June 2017 on a five day fact finding mission of Mashonaland West Province.

Seed companies such as Seed Co, Pannar / Pioneer and Mukushi conducted variety and fertilizer testing trials at the FRTEU and are continuing in the 2017/18 cropping season. The FRTEU participated at the Harare and Chinhoyi Agricultural Shows in 2017. The following prizes

were awarded:

<b>1st prize:</b>	Mashona Jnr Bull (Beef Animal) Crossbred Snr Bull
<b>2nd prize:</b>	Simmental Bull
<b>Reserve Champion:</b>	Charbray Bull Simmental Bull

## Research and Extension Funding

Professor Robert Musundire and Professor Francis Themba Mugabe with collaborators from Kenya, Uganda, Italy and Germany won a Total grant of 137 000.00 Euros from ACP-EU Co-operation Programme in Higher Education (EDULINK II) for three (3) years on "Enhancing nutrition and food security through improved capacity of agricultural higher education Institutions in East and Southern Africa". The focus for Chinhoyi University of Technology is to strengthen and capacitate our MSc Postharvest Science and Technology programme.

Dr Crispin Murungweni won a competitive INREF grant for 25 000.00 Euros with Wageningen University on up scaling and out scaling Zhombwe results.

Another USD 20 000 research grant/scholarship spread over four years was won by the DPhil student, Nilton Mashavakure, from DAAD (Germany) with assistance in the application from the Department.

Professor Justice Nyamangara was awarded a research grant of \$9 000.00 for 3 years by The International Plant Nutrition Institute (IPNI)-sub Saharan Africa program to study "Long-term evaluation of the effects of tillage systems and ISFM on crop productivity and soil properties".

Dr Sibonani Sandra Mlambo was awarded a research grant of \$12 000.00 by the International Foundation for Science (IFS) to study "Use of integrated biomarker response in largemouth bass (*Micropterus salmoides*) to determine endocrine disruptive activity and health risk in the Manyame catchment area".

Professor Irvin D. T. Mpofu won a SANBio / BioFISA grant awards with the University of Swaziland (UNISWA) and the University of Fort Hare (UFH) of R3.2 million for Goat pellets and Beef block lick commercialization projects. We have Nine (9) SERC funded research projects running in the School.

## School of Agricultural Sciences and Technology | Research Publications

Name of Author	Title of Paper	Details of the Journal
Gomo C., K. Kanonhuwa, F. Godobo, O. Tada and S. M. Makuza	Temporal and spatial distribution of Lumpy Skin Disease (LSD) outbreaks in Mashonaland West Province of Zimbabwe from 2000 to 2013	Tropical Animal Health and Production 02/2017: DOI: Volume 49 Issue 3, pp 509-514.10.1007/s11250-017-1222-y
Muposhi V.K., E. Gandiwa, S. M. Makuza and P. Bartels	Ecological, physiological, genetic trade-offs and socio-economic implications of trophy hunting as a conservation tool: A Narrative Review	The Journal of Animal & Plant Sciences, 27(1): pages 1-14. ISSN: 1018-7081
Mhuka C., F. P. Chatiza, F. Chidzwindo, I. Sithole-Niang, S. M. Makuza and S. S. Mlambo	Use of RAPD-PCR for breed/ genotype identification in Zimbabwean cattle	Journal of Cellular Biotechnology 2 (2):131-137. April 2017. DOI:10.3233/JCB-15033
Gororo E., S. M. Makuza, F. P. Chatiza, S. Gwatibaya, Gahadzikwa and F. Chidzwindo	The potential of reproductive technologies in breeding smallholder cattle populations in Zimbabwe	International Journal of Livestock Production. Vol. 8(10), pp.168-179, October 2017. DOI:10.5897/IJLP2017.0395. ISSN 2141-2448. <a href="http://www.academicjournals.org/IJLP">http://www.academicjournals.org/IJLP</a> .
S. M. Makuza	Use of Livestock Assisted Reproductive Technologies in Zimbabwe	Health and Disease, Agriculture and Biotechnology, The Environment. Holiday Inn, Harare, Zimbabwe 14-15 December 2017. Abstract pp 18.
Mpofu-Hamadziripi, N. Bangira C, Mapara, J and Chiweshe	African languages in science, technology and sustainable development	Issues of Sustainable Development in Zimbabwe. Chapter 9 pp78-89, CUT Printing Press.
Chirindo, N., Jambwa, D., Rwakatiwana, P., Chisadza, Z. and Bangira, C	Development of an efficient low cost emergency tobacco curing barn for small scale tobacco growers in Zimbabwe.	Journal of Basic and Applied Research International 20(4): 244-256, 2017 ISSN: 2395-3438 (P), ISSN: 2395-3446 (O)
Svubure O., Struik P.C., Haverkort A.J., Steyn J.M. (2017).	Analysis of the potato ( <i>Solanum tuberosum</i> L.) value chain in Zimbabwe	Outlook on AGRICULTURE, 46(1), 49-56, DOI: 10.1177/0030727017690655.
Masvaya, E.N., Nyamangara, J., Descheemaeker, K., Giller K.E	Tillage, mulch and fertiliser impacts on soil nitrogen availability and maize production in semi-arid Zimbabwe	Soil and Tillage Research, 168, 125-132. (Elsevier) (DOI:10.1016/j.still.2016.12.007).
Musiyiwa, K., Harris, D., Leal Filho, W., Gwenzi, W. and Nyamangara, J.	An assessment of smallholder soil and water conservation practices and perceptions in contrasting agro-ecological regions in Zimbabwe	Water Resources and Rural Development, 9, 1-11. (Elsevier). (DOI: 10.1016/j.wrr.2016.09.001).
Muisa, N., Nhapi, I, Manyuchi, M.M and Ruziva, W	Potential application of water treatment alum sludge for phosphorous removal in municipal waste water: A review	Proceedings of the 18th WAFSA/GWPA/Waternet Symposium, 24-27 October, Swakopmund, Namibia
Chemura, A., Mutanga, O., and Odindi, J.	Empirical modelling of leaf chlorophyll content in coffee ( <i>Coffea arabica</i> ) plantations with Sentinel 2 MSI data: Effects of spectral settings, spatial resolution and crop canopy cover	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 10(12), 5541-5550



Name of Author	Title of Paper	Details of the Journal
Svubure O., Struik P.C., Haverkort A.J., Steyn J.M.	Comparative Analysis of Irish Potato ( <i>Solanum tuberosum</i> L.) Production in the Farming Sectors that Emerged from Zimbabwe's Radical Land Reform of 2000	Potato Res, 60 (1)pp 1–22, DOI: 10.1007/s11540-017-9333-4.
Mhuka C., F. P. Chatiza, F. Chidzondo, I. Sithole-Niang, S. M. Makuza and S. S. Mlambo	Use of RAPD-PCR for breed/genotype identification in Zimbabwean cattle.	Journal of Cellular Biotechnology 2 (2):131-137. April 2017. DOI:10.3233/JCB-15033.
Goredema, N. E., E. Sivotwa, G. Soropa, N. Goredema, S. Musiyandaka, and A. B. Mashingaidze	Evaluation of different early drought tolerant maize genotypes under low nitrogen conditions	African Journal of Plant Science
Mandizvo, T., T. Nyamupingidza, S. Tsekenedza, E. Sivotwa., G. Soropa, S. Musiyandaka and A. B. Mashingaidze	Evaluation of common bean ( <i>Phaseolus vulgaris</i> L.) genotypes for disease tolerance under rain-fed conditions	Agriculture & Forestry, Vol. 63 Issue 3: 97-108, 2017, Podgorica.
Mabheka S., Sivotwa E. and Katsaruware, R. D	The effects of relay cropping sweet potato ( <i>Ipomoea batatas</i> ) and cowpea ( <i>Vigna unguiculata</i> ) on the productivity of the component crops.	African Journal of Agricultural Research
Chabikwa D., Sivotwa E. and Katsaruware R. D.	Controlling the diamondback moth (DBM) ( <i>Plutella xylostella</i> ) by intercropping rape ( <i>Brassica napus</i> ) and garlic ( <i>Allium sativum</i> )	African Journal of Agricultural Research
Gotosa, F., Sivotwa E. and Katsaruware R. D	Effects of different rates of organic and in-organic basal and topdressing fertilizer combinations and application rates on growth and yield of cucumber ( <i>Cucumis sativus</i> L)	African Journal of Plant Science
Nyajeka, M., Sivotwa E. and Katsaruware R. D	Effects of grass ( <i>Hyperrhenia</i> spp) mulching rate on the development and yield of okra ( <i>Abelmoschus esculentus</i> ) under drip irrigation	African Journal of Agricultural Research. Vol. 12(37), pp. 2817-2823, 14 September, 2017 DOI: 10.5897/AJAR2017.12225 Article Number: 62B1C8E65987 ISSN 1991-637X Copyright ©2017
Byiringiro B., S. Birungi, A. Musoni and A. B. Mashingaidze	The effect of planting date on weed density, biomass and seed yield in common bean ( <i>Phaseolus vulgaris</i> L.) in the semi-arid region of Nyagatare, Rwanda	Tropical Agriculture 94 (4): 335-345.
Ngadze E., A. B. Mashingaidze, J. Sibiya	Weed density and biomass are reduced and plant growth and seed yield increased in common bean after solarisation with clear and black plastic.	South African Journal of Plant and Soil. DOI.org/10.1080/02571862.2017.1370560.
Nyamasoka, B., Marumbi, R., Shumba, A., Nyamugafata, P., Madyiwa, S. and Nyamangara, J	Yield, nutrient and heavy metal uptake of leafy vegetables grown in domestic sewage sludge and poultry manure amended soils	South African Journal of Plant and Soil, 5, 403-406. (DOI: 10.1080/02571862.2017.1317850).
Masvaya, E.N., Nyamangara, J., Descheemaeker, K., Giller K.E	Is maize-cowpea intercropping a viable option for smallholder farms in the risky environments of semi-arid southern Africa?	Field Crops Research, 209, 73-87. (Elsevier) (DOI: 10.1016/j.fcr.2017.04.016).

Name of Author	Title of Paper	Details of the Journal
Chemura, A., Mutanga, O. Sibanda, M. and Chidoko, P	Modelling coffee leaf rust severity with non-linear radial basis function-partial least squares regression and field spectroscopy at Sentinel 2 MSI spectral resolutions	Tropical Plant Pathology, 43 (1), 324-332.
Dube, T., Mutanga, O., Sibanda, M., Shoko, C., Chemura, A	Evaluating the influence of the Red Edge band from RapidEye sensor in quantifying leaf area index for hydrological applications specifically focusing on plant canopy interception	Physics and Chemistry of the Earth A/B/C, 100, 73-80.
Chemura, A., Mutanga, O and Dube, T	Remote sensing leaf water stress in coffee ( <i>Coffea arabica</i> ) using secondary effects of water absorption and random forests	Physics and Chemistry of the Earth A/B/C100, 317-324
Mudzengi, C. P., A. Murwira, F. M. Zengeya, and C. Murungweni	Screening key browse species in a semi-arid rangeland	Cogent Food & Agriculture 3: 1285854.
Mudzengi, C.P., A. Murwira, M. Tivapasi, C. Murungweni, J. V. Burumu & T. Halimani	Antibacterial activity of aqueous and methanol extracts of selected species used in livestock health management	Pharmaceutical Biology, 55:1, 1054-
Madzimure, J., Chimonyo, M., Muchenje, V., Hugo, A., Bakare, A.G. and Katiyatiya, C.L.F	Physico-chemical quality attributes and fatty acid profiles of pork from Windsnyer and Large White gilts	South African Journal of Animal Science, 47 (1): 1-8.
Gomo C., K. Kanonhuwa, F. Godobo, O. Tada and S. M. Makuza.	Temporal and spatial distribution of Lumpy Skin Disease (LSD) outbreaks in Mashonaland West Province of Zimbabwe from 2000 to 2013	Tropical Animal Health and Production 02/2017:DOI: Volume 49 Issue 3, pp 509-514.10.1007/s11250-017-1222-y.
Mhuka C., F. P. Chatiza, F. Chidzwoondo, I. Sithole-Niang, S. M. Makuza and S. S. Mlambo	Use of RAPD-PCR for breed/ genotype identification in Zimbabwean cattle	Journal of Cellular Biotechnology 2 (2):131-137. April 2017. DOI:10.3233/JCB-15033
Madzimure, J., Bakare, A.G., Gwiriri, L. and Masaka, L.	Growth performance of broilers fed on sprouted-roasted guar bean ( <i>Cyamopsis tetragonoloba</i> ) based diets	Tropical Animal Health and Production. DOI: 10.1007/s11250-017-1293-9

### University and Community Service

Dr C. Danha, the Chairperson of the Department of Environmental Science and Technology is a member of the Waste Management Committee of Chinhoyi Municipality.

Mrs N. Muisa-Zikali of the Department of Environmental Science and Technology presented a Review on the “Potential application of water treatment alum sludge for Phosphorous removal in municipal waste water”: Proceedings at the 18th WAFSA/GWPA/Waternet Symposium, 24-27 October, Swakopmund, Namibia.

The Department of Irrigation Engineering, through funding from the Water Research Commission (South Africa), is conducting a project on pit latrine faecal sludge man-

agement in peri-urban areas of Chinhoyi and Harare for improved water, sanitation, energy and food security. In this project faecal sludge is anaerobically digested to generate biogas which is used for cooking and lighting. The digested sludge is being evaluated for use as a fertilizer and soil amendment for improved food security. The community of Shackleton, Chinhoyi, has already benefited from harnessing biogas from the bio-digester which was constructed in 2015. Scientific knowledge generated by this project has also benefited residents of Brundish, Chinhoyi, by improving the management of faecal sludge from their Skyloo toilets. Two bio-digesters were constructed in Hopley (Harare) and one in Hatcliffe, Harare. This project is being implemented in collaboration with Municipalities and Non-Governmental Organisations. The Project Coordinator is Dr C. Bangira.



The Department of Food Science and Technology is working with the Cluster Agricultural Development Services in community development, research, product development, dried fruits and technology transfer for value addition of agricultural products. Products from Amaranth (*Amaranthus cruentus*) were developed at Chinhoyi University of Technology Laboratories. These products included amaranth biscuits, amaranth snack bars, amaranth porridge. The products were exhibited at the Harare Agricultural show. The next step is to upscale production of these products. A Memorandum of Understanding has been signed with Meikles Hotel in Harare to supply dried fruits.

The Department of Food Science and Technology is also working with farmers in Kadoma in value addition of agricultural products. These farmers are producing food products from the raspberry (*Rubus idaeus*) fruits. These food products include alcoholic and non alcoholic products, peanut butter and coffee. The focus of Department of Food Science and Technology is on quality and safety aspects of these products. The Department also trained farmers in Nyanga on jam production.

The Department of Animal Production and Technology is running a National cattle breeding project of pure breeding (pedigree / stud breeding) lines of Brahman, Tuli, Mashona, Nkone, Charbray, Boran, Bonsmara, BeefMaster, Simmentaal and Simbra beef cattle. Cattle in Zvimba, Makonde and Hurungwe districts were artificially inseminated in 2016. The project Team Leader is Dr F. P. Chatiza.

### Collaborations/External Relations

Professor S. M. Makuza is the African Network for Agriculture, Agroforestry and Natural Resources Education (ANAPE) Southern Africa Regional Forum for Training (SARAFT) Chair and Member of ANAPE Board from 2014 to Present).

Prof S. M. Makuza is the Board Chairman, Cross Border Health Solutions (CBHS), Chirundu, Zimbabwe PVO 17/2017. 27 July 2017 - Present.

Professor S. M. Makuza is a member of the FAO Domestic Animal Diversity Network (DAD-Net).

Professor S. M. Makuza was appointed Peer Reviewer of the Journal of Zimbabwe Studies: Science, Technology and Health and University of Fort Hare Papers Journal.

Mr D. Jambwa, A. G. Mavima, V. Gatsi, G. Soropa, S. Musiyandaka, R. Mhundwa and A. Muchandiona from the Departments of Agricultural Engineering and Crop Science and Postharvest Technology are External Examiners for Chibero and Gwebi Agricultural colleges.

Dr A. C. Mpfu was appointed External Examiner in the Department of Food Science and Nutrition, Faculty of Agriculture and Natural Resources at Midlands State University (MSU).

Farm Research, Teaching and Extension Unit staff members are judges at Chinhoyi Agricultural Shows.

Professor J. Nyamangara appointed Associate Editor of the South African Journal of Plant and Soil July 2015 to 30 June 2018.

Professor I. D. T. Mpfu gave a Keynote address on “Mineral Nutrition in Sheep” at the Dorper Sheep Association Field Day, 16 March, 2016, Van De Ruit Farm – Ruwa.

### Quality Assurance and Enhancement in Teaching, Research and Community Service

Dr S. S. Mlambo, the Deputy Dean of the School of Agricultural Sciences and Technology, Chairs, Spearheads, Implements and Monitors the School Quality Assurance and Enhancement Committee and Policy.

A Quality Assurance Action Plan was in place and diarized meetings were held.



# SCHOOL OF ART & DESIGN



**Dr V. Muzenda**  
Dean

## Introduction

The School of Art and Design focuses on the development of the creative arts and fashion designs. The School has seen an increase in the enrolment of students from 2016 to 2017 when the two new degree programmes; Visual Communication and Multimedia Design and Creative Art and Industrial Design were launched. The School had a total of 587 students in 2017. The degree programmes running in the School are:

- Bachelor of Science Honours Degree in Creative Art and Industrial Design;
- Bachelor of Science Honours Degree in Visual Communication and Multi-media Design;
- Bachelor of Science Honours Degree in Fine Art and
- Bachelor of Science Honours Degree in Clothing and Fashion Design.

## Teaching

The School has sixteen (16) full-time lecturers of whom five (5) are PhD holders, and three (3) Teaching Assistants. The School is well staffed with a teaching load distribution of three courses for each lecturer and two courses for chairpersons. A variety of teaching methodologies were used including educational trips, guest lecturers and fashion shows and exhibitions. The level 4.2 students held lively fashion exhibitions around the country showcasing innovative fashion designs and artworks which increased visibility of the School to the community. In addition, the School of Art and Design hosted the third edition of the Chinhoyi Film Festival in November.

The festival was a success. Three of the students in the department scooped major prizes for their outstanding films. The School worked on the Masters of Science Degree in Fashion Design programme regulations and these were sent to the Academic Programmes Committee for consideration.

## Conferences, Workshops Attended and Paper Presentations

- Mlenga, T. and Nyamubaya, J.C. presented a paper titled: 'Graphic Design Inclusivity: Health Education Campaigns for the Visually Impaired in Zimbabwe' at the University of Zimbabwe.
- Dewa, V. and Mlenga, T. presented a paper titled: 'Towards Clothing and Fashion Design Inclusivity' at the University of Zimbabwe.
- Dzikite, C., Dandira, T. and Chimbindi, F. presented a paper titled: '3D Technologies in Clothing Manufacturing: Implications for Higher Education at the University of Zimbabwe Faculty of Education 2nd International Conference', 12-14 July 2017.
- Muzenda, V. presented a paper titled: 'Quality Assurance in Institutions of Higher Learning' at the 5th Annual Quality Assurance and Accreditation in Higher Conference, 25- 29 Sept 2017, Johannesburg, South Africa.

Name of Author	Title of Paper	Details of the Journal
Dzikite, C., Nsubuga, Y.& Nkonki, V.	Lecturers' Competencies in Information and Communication Technology (ICT) for Effective Implementation of ICT-Integrated Teaching and Learning in Textiles and Clothing Degree Programmes	International Journal of Educational sciences, Vol 17, 2017, Issue 1-3
Chipambwa, W.,& Nyathi, J.A	Expansion of natural dye colour gamut for use by the local textiles and craft industry	Current Trends in Fashion Technology and Textiles Engineering, 1 (2), 1-6
Dzikite, C., Dandira, T., & Muzenda, V.	The Art of Men's Body Modifications. Issues in Art and Design	Chinhoyi: CUT Publications. ISBN 978-0-7974-8279-1
Dandira, T., Dzikite, C., & Muzenda, V.	Inspirational Sources for designers. Issues in Art and Design	Chinhoyi: CUT Publications. ISBN 978-0-7974-8279-1
Muzenda, V., Dandira, T., & Dzikite, C.	Designing for Usability: Input of Aesthetic and Comfort in Fashion Design,	Chinhoyi: CUT Publications. ISBN 978-0-7974-8279-1
Muzenda, V	Implementing a new curriculum with specific reference to Home Economics in Primary Schools in Bindura District.	IJRDO-Journal of Educational Research Volume-2 Issue-2 February, 2017 Paper
Muzenda, V.	The Impact of Computers in Teaching the Fashion and Fabrics curriculum.	IJRDO-Journal of Educational Research Volume-2 Issue-2 February, 2017 Paper

## FUNDRAISING

### Production Unit

The School, through the Production Unit, raised \$42 000 from designing and production of curtains, protective clothing, uniforms and gowns. The increase in profit from the Production Unit enabled the School to acquire a four head embroidery machine for use in all embroidery work.

### Studio Production Unit

The Studio Production Unit, through the module Non-Linear Video Editing, produced a number of short films and documentaries. Five films have been accepted by ZBC for broadcasting.

### Community Engagement

The School through the approval of management donated 3 sewing machines to Musoromuchena Skills for Life organisation. It was observed that the organisation had very few sewing machines for use by a number of vulnerable students enrolled at the organisation. The school also donated stationery to two schools: Manyamba and Anthens.

Students participated at Pink Fashion Show held in Hara-

re. Twenty-two students and two lecturers attended the event. A training workshop was held for art students at Lomagundi College on casting and throwing ceramics pottery making. The School of Art and Design is also offering Filming and Video courses to the community.



Students and film-maker (Andy Cutta) working on a video production project

# SCHOOL OF ENGINEERING SCIENCES & TECHNOLOGY



**Eng E. Manyumbu**  
Dean

## Introduction

This report summarizes activities undertaken by the School of Engineering Sciences and Technology (SEST) in 2017.

The School comprises five departments:

- Department of Mechatronics Engineering,
- Department of Production Engineering,
- Department of ICT and Electronics,
- Department of Environmental Engineering and
- Department of Fuels and Energy.

## Teaching

All courses were taught as scheduled in both semesters of 2017. To complement full-time staff in Departments, part-time lecturers from sister universities were engaged. Part of the equipment needed for practical lectures and experiments was acquired in order to consolidate and improve teaching. There is still need for more in order to meet with the changing trends and also compete strongly on the higher education market.

About 75 percent of the staff are registered or in the process of registering with professional bodies such as the Zimbabwe Institution of Engineers (ZIE), Engineering Council of Zimbabwe (ECZ) and the Computer Society of Zimbabwe (CSZ).

## Research

Although the School faced a myriad of challenges, it managed to complete three book chapters yet to be pub-

lished and eight journal articles. Several engagements with industry were initiated and possible research areas were identified.

## Collaborations

- The School established initial working relations with Big Wave Automation in terms of offering joint training courses in PLCs, SCADA and AC drives. The School is currently in the process of signing an MOU with Big Wave Automation in 2018. The School has also initiated some collaborative work with Almin Metal Industries.
- One member of the School was seconded to Zimbabwe Power Company (ZPC) under the Royal Academy of Engineering Program in order to gain exposure particularly in the fields of Mechatronics.

## Community Engagement

The School actively engaged in the following activities during the year:

- Exhibited at the International Trade Fair, Harare Agricultural Show, Mashonaland West Agricultural Show and the RIOSET and MINE ENTRA Bulawayo. Selected SEST students were availed the opportunity to participate at the NESAC annual competition held at NUST;
- The Mechatronics Engineering department continues to assist local authorities with the provision of solar powered traffic lights and is highly involved in the repair and maintenance of traffic lights in Chinhoyi.





- They also developed solar dryers required by the University's School of Agriculture for its post-harvest programmes;
- In collaboration with the Fuels and Energy Department, the Mechatronics Engineering department is developing the electronic controls of the Solar Powered barn, a project which is being sponsored by ZERA.
- The Department of Fuels and Energy installed solar traffic lights signal systems at two intersections for Rusape Municipality at a project cost of \$45 000.00. They also installed a solar pumping system for CUT farm at a cost of \$6000.00;
- The Department of Fuels and Energy engaged Ruwa Town Board for possibilities of design and make of a BFB for medical waste disposal;
- The Department of Fuels and Energy also participated in the drafting of Renewable Energy Policy for Zimbabwe, a project spearheaded by the Ministry of Energy and Power Development;
- The Department of Production Engineering developed a grass baler and a prototype which is currently being tested and has been fabricated.

### Resource Mobilisation

- The Department of Environmental Engineering secured scholarship funding for Doctorate studies at Tongji University, Shanghai, China;
- The ZERA-funded project on a tobacco curing barn utilizing solar energy is 85% complete;
- A Memorandum of Understanding with 'Teaching and

Research in Natural Sciences for Development in Africa' (TReND) was successfully signed and a partner was identified for possible donation of laboratory equipment;

- The School was also awarded a tender to install solar traffic lights for Rusape Municipality and the project was executed and completed;
- A total of \$4450.00 was generated from the motor mechanics short course;
- The Environmental Engineering department secured two major water audit contracts with Rusape and Chinhoyi Municipalities which generated the bulk of the funds for the School;
- An amount of approximately \$85 553.21 was generated through workshop fabrication in the Production Engineering department.

### Graduation

The 2017 Graduation was a success, with the School of Engineering Sciences and Technology having one hundred and forty-four (144) Graduands from its five Departments.

### Tracer Studies

The School developed a Graduate Tracer Study instrument. The instrument is an important way of understanding the relevance and quality of our programmes as well as their relevance to the labour market. The tracer study is at pilot implementation stage.

Name of Author	Title of Paper	Details of the Journal
Masamh, T. & Mkandhla, E.	Critical success factors for Information and Communication Technology (ICT) projects: a meta-synthesis	International Journal of Software Engineering (IJSE)
Kavu, T., Raeth, G., Dube, K. & Hapanyengwi, G.	Human Action Prediction Using Sentiment Analysis on Social Networks, A Characterisation and Framework for User-Centric Factors in Evaluation Methods for Recommender Systems	International Journal of ICT Research in Africa and the Middle East, Volume 6 • Issue 2 • July-December 2017
Sango, I.	An Investigation into the Household Climate Change Adaptation Strategies in Makonde Communal Lands of Zimbabwe	Journal of Human Ecology- ISSN 0970-9274
Sango, I.	Challenges and opportunities in addressing the environment-economic growth conflicts in urban development	Addis Ababa Ethiopia. A book chapter copy, AISA, pp 107-122

Name of Author	Title of Paper	Details of the Journal
Munamati, M., Nhapi, I. & Misi, S.	Exploring the determinants of sanitation success in sub-Saharan Africa. Types and distribution of improved sanitation technologies in sub-Saharan Africa	IWA Journal of Water Sanitation and Hygiene for Development Mar 2017, washdev2017123; DOI: 10.2166/washdev.2017.123, (refereed).
Gara T., Li F., Nhapi I., Makate, C. & Gumindoga, W.	Health Safety of Drinking Water Supplied in Africa: A Closer Look Using Applicable Water-Quality Standards as a Measure	Exposure and Health (2017), p 1–12, doi:10.1007/s12403-017-0249-7 (refereed).
Kativhu, T., Mazvimavi, D., Tevera, D. & Nhapi, I.	Factors influencing sustainability of communally-managed water facilities in rural areas of Zimbabwe,	Physics and Chemistry of the Earth Parts A/B/C, DOI: 10.1016/j.pce.2017.04.009 (refereed)
Kapuya, E.T., Takawira, M., Tinarwo, P. & Chirere, E.	A 2 Kilowatt Ferrite Core Transformer Based Inverter	Scientific, Industrial Research and Development Centre, 1574 Alpes Road, Hatcliffe, P. O. Box 6640 Harare

### Conference Paper Presentation

Name of Author	Title of Paper	Details of the Conference
Musiyanadaka, D.	Interaction of factors influencing new ICTs adoption by SMMEs	17– 18February 2017, 11th ZIRS, HICC, Harare, Zimbabwe
Masamha, T., Mkandhla, E. & Jaison, A.	Logistic regression analysis of ICT projects` critical success factors: A focus on computer networking projects	IEEE AFRICON 2017, 18-20 September 2017, Cape Town, South Africa.
Masamha, T. & Mkandhla, E.	Mathematical modelling of critical success factors for the management of computer networking projects using logistic analysis.	SAICSIT 2017, 26-28 September 2017, Bloemfontein, South Africa
Kapuya, E.T., Takawira, M., Tinarwo, P. & Chirere, E.	A 2 Kilowatt Ferrite Core Transformer Based Inverter	Research Council of Zimbabwe Symposium, February 2017
Dera, H.N., Kapuya, E.T., Mlambo, P., Chihota, K., Chiweshe, E.R. & Chipuri, I.	Design and Development of a Cartesian Robot for PCB Drilling: A Systematic Mechatronic Approach	EAI International Conference for Research, Innovation and Development for Africa, June 20–21, 2017, Victoria Falls, Zimbabwe
Chihota, K. & Dera H.	Development of a Sensor Integrated Mechatronic System (SIMS) for Agriculture Industrialization – Poultry Management.	9th ZIE Biennial Congress-2017, 5 September 2017 ,9 September 2017, Caribbea Bay Hotel (Kariba, Zimbabwe)
Chihota, K., Dera, H. & Mushiri, T.	Multi-Disciplinary Engineering Programs in Resource Constrained Environments – Mechatronics Engineering in Zimbabwe	10th Sanord Annual International Conference Victoria Falls, Zimbabwe, 29 Nov-01 Dec 2017
Musaidzi, H., Bvekerwa, S. & Simango, D.	Issues and Anxieties of Engineering interns: A departmental perspective.	9th ZIE Biennial Congress 2017, 5 September 2017-9 September 2017, Caribbea Bay Hotel, Kariba, Zimbabwe



Name of Author	Title of Paper	Details of the Conference
Mlambo, P., Dera, H.N., Chiweshe, E.R. & Jonathan, E	Inductive Metal Detectors and the Design of Prospecting Robots: A Possibility	June 20 EAI International Conference for Research, Innovation and Development for Africa, 21, 2017, Victoria Falls, Zimbabwe
Mlambo, P., Chawasarira, H., Mambumba, T., Ngandu, K., Bhogodho, N. & Jonathan, E.	Design of a Flexible Automated Bottle Filling Machine	11th Zimbabwe International Research Symposium 11 -12 February 2017
Simango, D., Musaidzi, H., Rangi, B.P., Mlambo, P. & Muvunzi, R.	Design of a Real Time Tyre Pressure Monitoring System	11th Zimbabwe International Research Symposium, 11 -12 February 2017

### Conclusion

The School expects a steady growth in its income generating potential to bring in more funds that would be used for much needed teaching and research laboratory equipment. We also continue to work towards increasing our students enrolment through marketing of existing programmes as well as introducing new programmes.



“No matter how brilliant your mind or strategy, if you’re playing a solo game, you’ll always lose out to a team.” - **Reid Hoffman**

# SCHOOL OF ENTREPRENEURSHIP & BUSINESS SCIENCES



**Dr Tukuta**  
Dean

## Introduction

The School of Entrepreneurship and Business Sciences adopted its new name in 2014 as it situates itself under the Entrepreneurship mandate as enshrined in the University Act under paragraph (f) of the objects of the University which states that the University shall ensure, “the nurturing of entrepreneurship, innovation and creativity” The School offers five undergraduate and four taught masters degree programmes and provides lecturing services for University-wide courses in Entrepreneurship. The undergraduate degree programmes are Bachelor of Science Honours(BSc) in Entrepreneurship and Business Management, Accountancy, International Marketing, Retail Management and Consumer Science, and Supply Chain Management. The Mastersdegreeprogrammes are Master of Science (MSc) in Strategic Management, Supply Chain Management, Applied Entrepreneurship, and Masters in Business Intelligence (MBI).

The School’s strategic goal is to develop optimum quality in academic proficiency and entrepreneurial skills in all University students. The School has therefore developed unique strategies and programmes to reach out to all students and staff. In striving to fulfil the object of the University mandate, the School is nurturing entrepreneurial skills, innovation and creativity to students and members of the University community. The School is Entrepreneurial-centric but closely connected with other Schools, and the experience of its graduates will be distinct. Our objectives sit within a structure that integrates strategies in research, learning and teaching, resource mobilisation and

in increasing collaboration with industry to positively impact the Zimbabwean economy by driving innovation and boosting business competitiveness.

## Teaching

In an effort to promote internationalisation of higher education, the School is working with the International Collaborations Office to enter into the following MOUs:

- CUT Binary MOU – DBA Programme (9 scholarships were awarded to the school’s staff members in 2017);
- 9 members of the School also graduated with a Doctor of Philosophy in Management degrees with Binary University Scholarships;
- Setting up an ACCA centre – The Association of Chartered Certified Accountants (ACCA) is one of the Department of Accounting Science and Finance’s strategic partners. Currently, our graduates are exempted from 9 of the 14 modules for an ACCA qualification. ACCA has accorded CUT an Accredited Learning Provider status. The Department and ACCA are in the process of formalising an agreement that will see CUT offering tuition for ACCA students within the Chinhoyi catchment area, a development that the Department want to leverage in mobilising financial resources for the University.
- Setting up a SAGE Pastel Centre – The Department of Accounting Science and Finance is also working with Sage South Africa to promote use of the Pastel package by Accounting Students. A member of staff was sent by the University to the Pastel Centre for training. students will as a result, be trained to



use this package before going for industrial attachment (work-related learning).

## Research

### Patents, Copyrights, Trade Secrets & Potential stakeholders

Most of the researches which were carried out by students were responding to societal problems. This was done in order to promote re-industrialization & modernization.

Product Prototype	Market Gap	Potential Stakeholders
E-FarmZIM	The major problem is lack of transparency in inputs distribution leading to theft and misuse of inputs impeding government efforts to eradicate poverty. There is also Information breakdown due to poor information networks systems; some farmers do not get information on when or where to get inputs in time which causes planting delays. There is also poor auditing of input allocations, reselling of inputs and inputs larceny where farmers with less hector -age get more inputs than they should get.	Ministry of Agriculture Command Agriculture SchemeFarmers' Union AGRITEXFarmers Government Auditors
E-voucher	The Zimbabwe Revenue Authority is losing millions of dollars annually due to false declaration, under valuation of motor vehicles and other valuable goods and theft.This is because of the disintegration of State Bonded Warehouses with its important stakeholders. The E-Voucher is a special device which was designed for customs to monitor goods in and out of the state warehouses to avoid under valuation, false declaration, in transit delays and theft.	Ministry of Finance Ministry of Transport ZIMRA SFAAZ VID CVR
SMART COMMUNITY REFUSE SEPARATOR	Waste management has become one of the topical environmental issues of concern in most of Zimbabwe's urban centres. Increasing population, rapid urbanization, industrial growth, the construction boom, improved lifestyle and unsustainable consumption patterns have all contributed to the growing solid waste problem. Pollution is an eyesore that results in the loss of aesthetic value of land, taking away the beauty of cities and towns.	EMA City Councils/Municipalities
e-TRHU Concept	e-Thu is a concept that came around in an effort to automate some of the processes of commercial customs clearance. Its aims at reducing human interface thereby improving efficiency in the overall system. Ideal for Regional Trade because it rides on the use of Single Administrative Document (S.A.D)	ZIMRA SFAAZ
Customs APP	Non-compliance due to illiteracy, unfamiliarity, unawareness, inexperience or lack of knowledge or information has led to loss of goods by innocent civilians. Civilians have lost their hard earned incomes to fines and penalties due to ignorance and some have had law suits because ignorance is no defence in the court of law. The Authority has allocated some appreciable effort to fill the information gap, however there are claims in public that there is a mismatch between the information on the ZIMRA website and what some ZIMRA officials tell clients. The researcher believes introduction of a CUSTOMS APP will help fill the information fissure that is causing non-compliance by most port users. It will be effective in improving compliance by port users by readily providing information on their smart phones.	ZIMRA SFAAZ

Product Prototype	Market Gap	Potential Stakeholders
E-SEAL	Smuggling goods and tempering of goods in transit in Africa, Zimbabwe not being left out has led to the introduction of an E-SEAL to improve supply chain risk management. The E-SEAL will be a watch dog to goods in transit. It will monitor and protect goods in transit from smuggling, tax evasion and revenue leakages	ZIMRA Freight –Forwarding Industry
E-Liquid Detector	The E-liquid detector is a special device which is designed for customs authority to detect and monitor liquid substances destined for Zimbabwe and those in transit. This device is also designed to close the gap that the current scanners are failing to address. The main objective of developing this device is to reduce revenue leakage and enhance regional trade. Real time detector which depicts the liquid in 5 seconds and interlinks across all ZIMRA Stations using the ZIMRA Intranet Network.	ZIMRA

### Resource Mobilisation

The School of Entrepreneurship and Business Sciences runs five (5) Strategic Business Units (SBUs) whose achievements are as follows:

- Photocopying Unit - Net income after taxes and interest was sixteen thousand and thirty one dollars (\$16 031) as at 30 June 2017;
- Micro-finance - Profit before interest and tax was twenty three thousand six hundred and seventy four dollars and thirty one cents (\$23 674.31) as at June 2017;
- Printing Press - Net income after taxes and interest was eleven thousand nine hundred and eleven dollars (\$11 911) as at 30 June 2017;
- Econet Shop - Net income after taxes and interest was four thousand five hundred dollars (\$4 500) as at 30 June 2017;
- University Shop - Profit after interest and tax was twelve thousand nine hundred and sixty nine dollars and eighty three cents (\$12 969.83) as at 30 June 2017.

### Students' Venture Creations

These ventures are student-based and live companies arising out of a deliberate push by the School to promote entrepreneurship. Students are expected to embark on the course, Venture Creation in interdisciplinary teams. They are expected to create, register and run a venture as a going concern. The thrust comes from a realization that former graduates of the programme have not lived to expectation and have not responded favourably to the dynamics in the economic environment. It is hoped that with this new thrust, student ideas and creativity can be harnessed into something that can be exploited to build viable businesses. After formation, the companies come under the umbrella of the Entrepreneurship Centre under

the department of Business Management and Entrepreneurship for incubation for a period of up to 3 years after which time they are weaned off.

This move is in sync with the mandate of the School of Entrepreneurship and the University motto of wealth creation. All lecturers in the department are involved in the process. The move has not been without challenges, chief among which is the need to change the mindset of the students to accept this new approach of learning and creating the necessary resources to support the programme.

### Quality Assurance and Enhancement in Teaching, Research and Community Service

Dr. Makanyeza was appointed as the Acting Deputy Dean of the School of Entrepreneurship and Business Sciences in August 2015 to Chair, Spearhead, Implement and Monitor the School Quality Assurance and Enhancement Committee and Policy. The School Quality Assurance Framework is in place and the School is working closely with the Quality Assurance Directorate.



	Name of Company	Level	Business
1	Cleopad Investments Clothing Company	2:2	Garment making
2	Mepole Investments	2.2	Supplies
3	WealthGold	4:2	Mining
4	Digicam	4:1	Filming
5	Mhofu and Company Debt Collectors	4.1	Debt Collection
6	Design Den	3.2	Creative Designs
7	Integrated Renewal Power Systems	2.2	Solar Tiles
8	Continental Holdings	1.2	Broiler Breeding
9	Internship Africa Zimbabwe	4.1	Attachment placement
10	Zimbabwe Young Apiculture Association	4.2	Bee Keeping
11	Lenox Laundry and Dry Cleaners PVT LTD	2.2	Dry Cleaning
12	Kingplaza PVT LTD	2.2	Retailing
13	Agro-boost	4.1	Retailing of agricultural inputs and products
14	Sans-Exposure PBC	4.1	Fashion design

### Postgraduate Studies by Research

Supervisor(s)	Student	Title	MPhil/ DPhil
Dr. M. Tukuta Dr. R.G. Ndoda Prof S.M. Makuza	Muronda David	Reengineering Agricultural Value Chains and performance of small-holder farmers in the Zambezi Basin.	DPhil
Prof. Z. Muranda Dr. C. Makanyeza	Mazarire Rosemary	The significance of reputation: A case of the registrar's office.	DPhil
Dr. G. Munyoro	Mhlanga Wonai	Small business sector and its contribution to industrial development.	DPhil
Dr. G. Munyoro	Hove Tsitsi Patience	Open Innovation in Higher Education and its contribution to Industrial Development.	DPhil
Dr. G.P.K. Ngoro-ra-Madzimure Dr. C. Makanyeza	Mabenge Kudzai Blessing	A framework for innovation and growth of Manufacturing Small and Medium Enterprises (SMEs) in Zimbabwe.	MPhil
Dr. G.P.K. Ngoro-ra-Madzimure Dr. C. Mkanyeza	Majongwe Colleen	Formalization of HRM Practices in SMEs in developing countries: Zimbabwe family business scenario.	DPhil
Dr. G. Munyoro	Rashid Elias	Quality Management in Higher Education.	DPhil
Prof. Z. Muranda	Gwangwava Edson	The relationship between strategic cost management accounting and company performance.	DPhil
Dr. M. Sikwila Dr. W.P. Mkumbuzi	Muzurura Joe	Investment in Zimbabwe's Manufacturing sector.	DPhil

Supervisor(s)	Student	Title	MPhil/ DPhil
Dr. N.Z. Kakava Dr. C. Makanyeza	Muchandiona Cherity	Consumer Ethnocentrism on acceptance of Imported and Domestic Grocery Products in Zimbabwe.	MPhil
Dr. C. Makanyeza Dr. N.Z. Kakava	Nyengerai Sarah	The Impact of Green Marketing on the Performance of Small to Medium Enterprises.	DPhil
Dr. D. Nikisi Prof. E. Gandiwa	Mhaka Precious	Wildlife Conservation and Sustainable Financial Model: A Case Study of Zimbabwe Parks and Wildlife Management Authority (ZPWMA).	DPhil
Dr. D. Nikisi Dr. D. Chavunduka	Dube Fanuel	Sustainability Strategies for Small and Medium Enterprises in Zimbabwe.	DPhil
Prof. Z. Muranda Dr. D. Chavunduka	Murebwa Shepherd	Influence of Organizational Personality on Entrepreneurial Behaviour and Performance of organizations.	DPhil
Dr. E Chinamasa Dr. F. Manuere	Sibanda Rose	Factors affecting Strategy Implementation in Zimbabwe: The Case Study of Government Departments in Harare.	DPhil
Prof. Z. Muranda Dr.C. Makanyeza	Tapera Julias	Implementation of Strategic Plans in listed companies in Zimbabwe: Challenges, Opportunities and the way Forward.	DPhil
Dr. G. Munyoro Dr. G.G Masanga	Masaire Rosemary Farai	Reputation Management in the public sector	DPhil
Prof. Z. Muranda Dr. M. Tsvere	Dowe Bernard	Business Incubation and the Acceleration of Technology Based Business Start-ups: The Case of Zimbabwe.	DPhil
Dr. I. Nzero Mr. E. Muguti	ChikonhiTapiwa	Informal Sector Taxation in Zimbabwe	MPhil
Dr. M. Tukuta Prof. E. Gandiwa Dr. F. Manuere	Choto Peter	Sustainable aqua-culture business models with white meat production in Mashonaland West Province	MPhil
Mr. M. Musanzikwa Dr. M. Tukuta, Dr. R. G. Ndoda	Muchine Nancy	Contract Management strategies in procurement and impact on infrastructure projects in State Owned Enterprises	MPhil







Name of Author	Title of Paper	Details of the Journal
Karedza, G. & Sikwila, N. M.	The impact of packaging designs on consumer buying behaviour of FMCG during the hyperinflationary and after the dollarisation era in Zimbabwe.	Asian Journal of Social Sciences and Management Studies, 4(1), 20-30.
Munyoro, G., Nyandoro, Z., Tanhara, J. & Munyoro, G.	The significance of the Microfinance sector in the development of Artisanal Small Scale Mining Sector in Zimbabwe: A Case Study of Mashonaland West.	African Development and Resource Research Institute Journal, ISSN-L, 2343-6662, vol. 26(3(4), 29-43.
Munyoro, G., Kutesera, P., Tanhara, J., Mazuvawanda, P. & Muganhu-Mhere, B.	The significance of Mobile Money Transfer Facility to Zimbabwean Economy: A Case of Ecocash.	International Journal of Research in Business Management, ISSN(E), 2321-886X, vol. 5(3), 1-20.
Bhebhe, T. B. & Karedza, G.	An Investigation into the Problem of Human Capital Burnout in Zimbabwe.	Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Vol. 19(2). Pp 99-114.
Karedza, G., Sikwila, M. & Bhebhe, T. B.	The Impact of Psychological Influence on Consumer Buyer Behaviour of SMEs' Products: A Case Study of the Manufacturing Sector in Zimbabwe.	Asian Business Research Journal, Vol. 2(1), pp 1-7.
Munyoro, G.	The evolution of industrial clusters: A case study of Scotland.	International Journal of Research in Business Management, vol. 5, (6), P. 17-44. ISSN (P) 2347-4572, ISSN(E) 2321-886x
Masanga, G.G., Munyoro, G. & Mugwagwa, P. F.	An evaluation of business models in the private health care services sector in Zimbabwe: A case study of three health care companies in Harare.	International Journal of Research in Business Management, vol. 5, (5), P. 117-136. ISSN (P) 2347-4572, ISSN(E) 2321-886x.
Chavunduka, D.	Rethinking the model of funding social transformation among Non-Governmental Organizations (NGOs) in Zimbabwe.	Noble International Journal of Social Sciences Research, ISSN:2519-9722, paper ID: NIJSSR-243.
Chavunduka, D.	Enhancing Sustainable strategic management practices at the Zimbabwe National Parks and Wildlife Management Authority: A post 2000 survival strategy.	The International Journal of Social Sciences and Humanities Invention, Vol. 4(6): 3561-3567; ISSN:2349-2031
Makanyeza, C., Chitambara, L.T. & Kakava, N.Z.	Does corporate social responsibility influence firm performance? Empirical evidence from Harare, Zimbabwe.	Journal of African Business. Routledge, Taylor & Francis Group: United Kingdom, <a href="https://doi.org/10.1080/15228916.2017.1410047">https://doi.org/10.1080/15228916.2017.1410047</a> .
Makanyeza, C.	Determinants of consumers' intention to adopt mobile banking in Zimbabwe.	International Journal of Bank Marketing, 35(6), 997 – 1017. Emerald Group Publishing Limited: United Kingdom.
Bhebhe, T. B. & Karedza, G.	An investigation of Factors Affecting Employee Performance among Millennials in the Public Service in Zimbabwe.	Journal of Economic and Finance (IOSR-JEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925. Vol. 8 (1). Pp 90-108.

Name of CUT Author(s)	Title of Paper	Details of the Journal
Makanyeza, C. & Du Toit, F.	Consumer ethnocentrism in developing countries: Application of a model in Zimbabwe.	Acta Commercii, 17(1), a481, <a href="http://dx.doi.org/10.4102/ac.v17i1.481">http://dx.doi.org/10.4102/ac.v17i1.481</a> . AOSIS Publishing: South Africa.
Makanyeza, C. & Chikazhe, L.	Mediators of the relationship between service quality and customer loyalty: Evidence from the banking sector in Zimbabwe.	International Journal of Bank Marketing, 35(3), 540 – 556. Emerald Group Publishing Limited: United Kingdom.
Nzero, I.	The implications of public interest considerations on the interpretation and application of the failing firm doctrine in South African merger analysis	Journal for Contemporary Roman-Dutch Law
Viriri, P. & Phiri, M.	Determinants of Customer Satisfaction in Zimbabwe Telecommunication Industry	Journal of Communication, Vol: 8(1) 101. DOI: 10.1080/0976691X.2017.1317495
Viriri, P. & Phiri, M.	Customer Retention Strategies Applicable to Zimbabwe Telecommunication Industry (A Customer Relationship Management Perspective).	Journal of Economics Vol. 8 (1) Pp50-53.
Manuere, F.	The effect of firm resources on firm activities: An empirical study of SMEs in Harare.	International Journal of Economics, Business and Management Research, Vol. 1(5) Pp191- 202, ISSN: 2456-7760.
Manuere, F.	Corporate governance and customer loyalty in Zimbabwe: An empirical investigation.	International Journal of Research in Business, Economics and Management, Vol. 1 (3), Pp 102-121.
Manuere, F.	Human capital development programmes and their effect on the job satisfaction of workers in Zimbabwe urban municipalities: The case of Chinhoyi	Human Resource Management Academic Research Society (HR-MARS), Vol. 7(10), Pp 186-204, ISSN: 2222:69990.
Chavunduka, D., Muchanyukwa, L., Sifile, O. & Mamimine, P. W.	Enhancing Sustainable strategic management practices at the Zimbabwe National Parks and Wildlife Management Authority: A post 2000 survival strategy.	The International Journal of Social Sciences and Humanities Invention, Volume 4(6), pp. 3561-3567.
Sikwila, M. N., Karedza, G., & Sikwila, L.	Foreign Direct Investment Inflows into Zimbabwe	Mediterranean Journal of Social Sciences, Vol. 8(5)
Kakava, N. Z. & Fields, Z.	Technopreneurial Attitude in the Zimbabwean Food-processing Sector.	Journal of Social Sciences, 51(1-3), 115-124.
Makanyeza, C., Chitambara, T. L. & Kakava, N. Z.	Does Corporate Social Responsibility Influence Firm Performance? Empirical Evidence from Harare.	Zimbabwe Journal of African Business, 1-19.
Munyoro, G. & Dube, F.	The Significance of Indigenous Banks to Economic Development in Zimbabwe: A Case Study of Harare Metropolitan.	Information and Knowledge Management: <a href="http://www.iiste.org">www.iiste.org</a> ISSN 2224-5758 (Paper) ISSN 2224-896X (Online): Vol.7, No.3.
Munyoro, G. & Gumisiro, C.	The Significance of Entrepreneurial Culture in the Security Sector: A Case Study of Zimbabwe Prisons and Correctional Service.	International Journal of Research in Business Management (IMPACT: IJRBM) ISSN(P): 2347-4572; ISSN(E): 2321-886X: Vol. 5, Issue 5, Pp 15-28.
Munyoro, G., Ncomani, D. & Muganhu-Mhere, B.	The Significance of Special Economic Zones in the economic development of Zimbabwe: A Case Study of ZIMASSET.	International Journal of Management, Information Technology and Engineering (BEST: IJMITE) ISSN (P): 2348-0513, ISSN (E): 2454-4728: Vol. 5, Issue 5, Pp 1-18.



Name of Author	Title of Paper	Details of the Journal
Karedza, G. & Govender, K.K.	Enhancing the Export Performance of the SMEs in the Manufacturing Sector in Zimbabwe.	Academy of Marketing Studies Journal, 21(2), 1-19.
Munyoro, G.	The Relationship between Firm Size Distribution and Agglomerations in the Scottish Industrial Clusters.	International Journal of Research in Business Management (IMPACT: IJRBM); ISSN (P): 2347-4572; ISSN (E):ISSN (E): 2321-886X: Vol. 5, Issue 7, Pp 31-60.
Munyoro, G.	The Significance of Regional Policy to the Scottish Economy.	International Journal of Research in Business Management (IMPACT: IJRBM); ISSN (P): 2347-4572; ISSN (E):ISSN (E): 2321-886X: Vol. 5, Issue 10: Oct 2017, 17-50.
Munyoro, G, L. & Chenyika, W.	The Role of Entrepreneurship in Sustaining Non-Governmental Organisations' Operations in Zimbabwe: A Case Study of Harare.	International Journal of Research in Business Management, ISSN (P): 2347-4572; ISSN (E):ISSN (E): 2321-886X: Vol. 5, Issue 11, 131-152.
Munyoro, G. & Chirimba, F, T.	The Contribution of Microfinance to the Development of Rural Farming in Zimbabwe: The Case of Domboshava Rural Farmers.	International Journal of Research in Business Management (IMPACT: IJRBM); ISSN (P): 2347-4572; ISSN (E):ISSN (E): 2321-886X: Vol. 5, Issue 10, Pp 153-166.
Munyoro, G. & Cristopher, R.	The Significance of the Department of Immigration in Promoting Small Businesses Sector: A Case Study of Women Cross Border Traders in Zimbabwe: BEST:	International Journal of Management, Information Technology and Engineering (BEST: IJMITE) ISSN (P): 2348-0513, ISSN (E): 2454-4728: Vol. 5, Issue 05, Pp 1-18.
Masanga. G. & Zinyuku. L.	Strategic choices in turbulent times. A case of the Bread Manufacturers in Zimbabwe.	ADRRI Journal, Vol. 26, No 6(4), pp 47-61.
Masanga G.G. & Jera, M.	The significance of microfinance to urban informal traders in Zimbabwe.	ADRRI Journal, Vol. 26, No 3(4), pp44-61.



*“Those who know, do. Those that understand, teach.” - Aristotle*

# Biogas Project for Shackleton Community



*"There is nothing I fear more than waking up without a program that will help me bring a little happiness to those with no resources, those who are poor, illiterate, and ridden with terminal disease." - Nelson Mandela*



# SCHOOL OF TOURISM & HOSPITALITY



**Dr Chikuta**  
Dean

## Introduction

The School of Hospitality and Tourism has two Departments:

- Department of Hospitality and Tourism and the
- Department of Travel and Recreation.

The School offers three degree programmes: BSc Honours degree in Hospitality and Tourism, BSc Honours degree in Travel, Leisure and Recreation, and MSc degree in Hospitality and Tourism. The School boasts of being the only Hospitality and Tourism School/Faculty in Zimbabwe which has two fully fledged hotels that are used as both teaching laboratories and commercial entities. The School's motto is "Producing cutting-edge tourism and hospitality professionals", which is in line with its mission of nurturing innovative thinkers and expanding the frontiers of technology for wealth creation and meeting the changing needs of the hospitality and tourism industry.

## Teaching

The School started to implement the revised regulations for its two BSc degree programmes after extensive consultations with stakeholders. This move is expected to increase enrolment in the BSc Honours degree in Hospitality and Tourism and the BSc Honours degree in Travel, Leisure and Recreation programmes. Regulations for the BSc Honours degree in Culinary Science were revised and are ready for consideration by the Academic Programmes Committee (APC). The regulations for the BSc Honours Degree in Event Design and Technology are still

being attended to and are now ready for submission to the Zimbabwe Council for Higher Education (ZIMCHE) for approval.

External Examiners moderated examination papers and marked scripts. Integration between the hotels and academic departments was enhanced in 2017 with Hotel Practice being launched as an examinable practical module. As part of exposing our students to the international world of hospitality and tourism, two of our students participated at the 2017 Future Leaders Forum in South Africa.

The Department of Travel and Recreation had two of its staff members trained in IATA Foundation courses so that they can infuse the airline management courses in their teaching. The School also invited members from the Association of Zimbabwe Travel Agents (AZTA) and the President of the Zimbabwe Council for Tourism to coach students on industry expectations and general etiquette. Our students on attachment performed very well with one student being awarded the Best Attaché at African Sun's Troutbeck Resort.

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## Research | Journal Articles

Name of Author	Title of Paper	Details of the Journal
Chikuta, O., Du Plessis, E. & Saayman, M.	Nature- based travel motivations for people with disabilities.	African Journal of Tourism and Leisure, Vol. 6(1)
Zengeni, N.	Stakeholders perceptions on the impact of the Zimbabwe Tourism Policy on destination competitiveness	Annals of Social & Behavioural Sciences, Chinhoyi University of Technology
Mutanga, C. N., Vengesai, S., Chikuta, O., Muboko, N. & Gandiwa, E.	Travel motivation and tourist satisfaction with wildlife tourism experience in Gonarezhou and Matusadona.	Journal of Outdoor Recreation and Tourism, <a href="http://dx.doi.org/10.1016/j.jort.2017.08.001">http://dx.doi.org/10.1016/j.jort.2017.08.001</a>
Kabote, F., Mamimine, P.W. & Muranda, Z.	Domestic tourism for sustainable development in developing countries: a conceptual paper	Revista de turism-studii si cercet
Mutanga, C.N., Gandiwa, E., Muboko, N. & Vengesai, S.	Protected area staff and local community viewpoints: a qualitative assessment of conservation relationships in Zimbabwe	PLoS ONE, 12(5), e017
Mutanga, C.N., Gandiwa, E., Muboko, N. & Vengesai, S.	Prospects for Wildlife conservation: local community views and factors influencing conservation relationships in Zimbabwe.	Annals of Social and Behavioural Sciences, Chinhoyi University of Technology
Mutanga, C.N., Gandiwa, E. & Muboko, N.	An analysis of tourist trends in Northern Gonarezhou National Park, Zimbabwe, 1991-2014	Cogent Social Science, 3(1), 1392921
Madzikatire, E., Mamimine, P.W., & Javangwe, G.	A theoretical lens of nexus between spa technology consumption and one's psychosocial and economic development in Zimbabwe	IOSR Journal Of Humanities And Social Science (IOSR-JHSS) Volume 22, Issue 8, Ver. II (August. 2017) PP 26-33 e-ISSN: 2279-0837, p-ISSN: 2279-0845. <a href="http://www.iosrjournals.org">www.iosrjournals.org</a>
Kanokanga, P.F. & Mabwe, B.	The potential contribution of film tourism to destination image	African Journal of Hospitality and Leisure
Mahakata, S., Tsokota, T., Mupfiga, P. & Chikuta, O.	Framework for enhancing information sharing and collaboration within the tourism industry in Zimbabwe.	African Journal of Hospitality, Tourism and Leisure, 6 (3) - (2017).

## Conference Paper Presentations

Presenter(s)	Title of Presentation	Conference Details
Mumbengegwi, P.W. & Kazembe, C.		2nd Multi Disciplinary Conference University of Namibia

## Postgraduate Studies

Three staff members completed their doctorate degrees, namely, Dr. B. Hurombo (Northwest University), Dr. N. Zengeni (Northwest University) and Dr C.N. Mutanga (Chinhoyi University of Technology). Two academic staff members completed their Postgraduate Diploma in Higher Education being offered by the University's Academy of Teaching and Learning.

## Income generation

In 2017, the School generated a total net profit of \$16 256.64 from its income generation activities that included the provision of teas for postgraduate students and the Veranda Restaurant, where students prepare and serve lunches to the university community.

### Collaborations/External Relations

The School made efforts towards forging a relationship with Eden University from Zambia as the aftermath of the 2017 ZATEX visit. Eden University representatives visited the university in December 2017 to look at possible areas of collaboration and an MoU with Eden University is now scheduled for signing during the first quarter of 2018. MOUs with the Hospitality Association of Zimbabwe (HAZ) and Zimbabwe Tourism Authority are still pending. Public lectures by the Zimbabwe Tourism Authority (ZTA) and Zimbabwe Council for Tourism were hosted. The CUT Hotels General Manager, Mr Innocent Manyera, was elected President of the Hospitality Association of Zimbabwe (HAZ) in 2017. We wish him a successful term of office.

### Challenges

The renovation and refurbishment of the Department of Hospitality and Tourism kitchens (demonstration laboratories) and the Kariba project were behind schedule and will now be completed during the first half of 2018. Customised teaching and learning software for the hospitality and tourism industry could not be purchased as planned due to financial constraints.

### Retirements

Two long-serving founding members of staff, Mrs Felistus Chimutingiza and Mrs Theresa Makoni retired in December 2017 after having served the School of Hospitality and Tourism diligently from its inception. We wish them a restful, peaceful and joyous retirement.

### Conclusion

Generally 2017 was a fruitful year despite the challenges encountered. Team spirit in the School was witnessed by way of assisting each other in terms of bereavement, lighter moments during birthdays and professional collegial mentorship.



*“People will forget what you said, forget what you did, but people will never forget how you made them feel.”*  
– Maya Angelou



*“True hospitality is welcoming the stranger on her own terms. This kind of hospitality can only be offered by those who’ve found the center of their lives in their own hearts.”* – Henri Nouwen





# SCHOOL OF NATURAL SCIENCE & MATHEMATICS



**Prof E. Jonathan**  
Dean

## Introduction

This report summarises the main activities of the School of Natural Sciences and Mathematics in 2017. The School comprises four Departments:

- Department of Chemistry,
- Department of Physics,
- Department of Biology and the
- Department of Mathematics and Statistics.

The School had one group of graduands from the Department of Chemistry in 2017.

## Teaching

All modules provided for in the regulations were taught by both full-time and part-time lecturers. In some instances, course loads for staff in full-time employment was increased as a result of the recruitment freeze. The School serviced the following university-wide modules: Engineering Mathematics, Engineering Physics and Introduction to Statistics. The serviced modules have a total enrollment of over 3 000 students. Interventions instituted by the School in the teaching of module Introduction to Statistics (CUMT105) resulted in improved pass rates.

Most practicals were conducted using laboratory facilities in the Chemistry and Biology Departments. Refurbishing of the School's laboratories was completed in 2017 and this resulted in minimal outsourcing of laboratory facilities at the University of Zimbabwe and the Scientific and Industrial Research and Development Centre (SIRDC).

The School developed regulations for a new programme,

the Bachelor of Science Honours degree in Instrumentation and Microprocessor Technology which is set to start in 2018.

Examination question papers were prepared on time and sent to External Examiners for quality assurance. The External Examiners presented themselves at the University to moderate written examinations. Student course and lecturer evaluations and peer assessments were conducted at the end of every semester.

## Research

The School is involved in life-changing research which has resulted in two provisionally registered patents and one start-up company. The Department of Biology negotiated an MoU with the Cape Peninsula University of Technology. The School made preliminary contacts with the United Refinery Company with a view to conduct collaborative research on waste generated.



### Community Service

The School conducted outreach programmes aimed at interesting A'level students to pursue studies and carriers in science. In Masvingo Province, our team met the schools at Silveira High School; Mashonaland Central Schools were addressed at Bradley High School and Manicaland Schools were met at Vengere High School. The visit are beginning to bear fruits as A' level students continue to make enquiries and promise to join the School once they pass.

The School was represented at various Agricultural Shows and Exhibitions throughout the country.

The School attracted a large number of high school students to its stand on the Open Day because of the nature activities displayed.

The Dean was a reviewer and member of the Programme Committee of the 14th International Conference on Education and Training in Optics and Photonics, May 29-31 2017, China.

### Conference Paper Presentations

Presenter(s)	Name of the Conference/Workshop
Ndlovu, J.	Non-aligned Movement on Science and Technology Technical meeting on Industrial Biotechnology to promote value addition and beneficiation September 2017 (Harare, Zimbabwe) Techniques in genomics and introductory phylogenetics March 2017 (Johannesburg, South Africa)
Tinago, T., Mwabvu, T. & MacDonald, A.H.H.	Evidence of multiple divergent mitochondrial lineages within the Southern African diplopod genus Bicoxidens Attems, 1928 (Spirostreptida). The entomological society of southern Africa and the Zoological society of southern Africa Pretoria, South Africa

### Post Graduate Degrees by Research

Name of Post-grad Student	Title of Research	Level of study	Supervisors
Tom Mzenda	Matabolomic and genomic profiling of Fadogia Ancyrantha: Towards cultivation strategies	MPhil	Dr J. Ndlovu (CUT), Prof Kambizi (Cape Peninsula University of Technology, South Africa) Dr R. Shoko (CUT).
Sipho Sibanda	Investigating Brachystegjaboehmii and other plants for phytochemicals used in burn wound healing	MPhil	Dr J. Ndlovu (CUT); Prof Katerere (Tshwane University of Technology, South Africa); Prof Kambizi (Cape Peninsula University of Technology, South Africa); Dr R. Shoko (CUT, Zimbabwe).
Emmanuel T. Sero	Urban- Wastewater nutrient resource recovery through algal-based biofuels production	MPhil	Dr. N. Siziba Dr. T. Bunhu Dr. R. Shoko Prof. E. Jonathan
L. Mangori	Bioremediation of mine contaminated	DPhil	Prof J. Nyamangara Dr C. Bangira Dr J. Ndlovu



Name of Post-grad Student	Title of Research	Level of study	Supervisors
Emmanuel N. Goredema	Isolation, Selection and Characterisation of streptomycete Biocontrol agents from CUT farm.	MPhil	Dr T. Nyamupingidza Dr R. Shoko

## 2017 Research publications in Refereed Journals

Name of Journal	Author(s)+	Article Title
Mine Water and the Environment,	W. Gwenzi, C. C. Mushaike, N. Chaukura, T. Bunhu	Removal of Trace Metals from Acid Mine Drainage Using a Sequential Combination of Coal Ash-Based Adsorbents and Phytoremediation by Bunchgrass (Vetiver [Vetiveria zizanioides L])
African Journal of Biotechnology	S. Nyoni, E. Satiya, N. Mukaratirwa-Muchanyereyi, M. Shumba	Comparative Bio-sorption of Pb <sup>2+</sup> ions Using Moringaoleifera biomass: equilibrium modeling, kinetic and thermodynamic studies (accepted and not yet published)
International Journal of ChemTech Research	N. Mukaratirwa-Muchanyereyi, N. Matirekwa, S. Nyoni, M. Mupa	Adsorption of Victoria Blue by Acid-Treated Maize Tassels
International Journal of ChemTech Research	N. Mukaratirwa-Muchanyereyi, E. Mapfumo-Murehwa, S. Nyoni, M. Mupa	Removal of atrazine from aqueous solution using untreated and sulphuric acid treated maize cobs biomass.
African Journal of Biotechnology	N. Muchanyereyi-Mukaratirwa, J.N. Moyo, S. Nyoni +, C. Musekiwa, Corresponding author	Synthesis of silver nanoparticles using wild Cucumisanguria: Characterization and antibacterial activity.
Journal of Nanomaterials & Molecular Nanotechnology	N. Mukaratirwa Muchanyereyi, T. Muchenje, S. Nyoni+, M. Shumba, M. Mupa, L. Gwatidzo, A. Rahman, Corresponding author	Green Synthesis of Silver Nanoparticles Using Euphorbia Confinalis Stem Extract, Characterization and Evaluation of Antimicrobial Activity.
Wave Motion	C. Sumanya, A.G. Every, J.D. Collins	Surface, Brillion, Scattering in Titanium Carbide Filus
African Journal of Agricultural Research	W. Munanga, C. Kufazvinei, F.T. Mugabe, D.J. Simbi	Development of a low lost and energy efficient tobacco curing barn in Zimbabwe
African Zoology	T. Tinago, T. Mwabvu, A.H.H. MacDonald	Evidence of multiple divergent mitochondrial lineages within the southern African diplopod genus Bicoxidens Attems, 1928 (Spirostreptida)
<b>Environmental Science and Pollution Research</b>	N. Siziba, A. Matshisela, T. Mwedzi, T. Bere	Macroinvertebrate communities in riverine systems of buffer areas of protected wildland, rangeland and city areas: implications for conservation of riverine systems on urbanising watersheds
<b>Ecological Engineering</b>	N. Siziba	Effects of damming on the ecological condition of urban wastewater polluted rivers. Ecological Engineering

# SCHOOL OF WILDLIFE, ECOLOGY & CONSERVATION



**Prof E. Gandiwa**  
Dean

## Introduction

The School of Wildlife, Ecology and Conservation currently has two running undergraduate programmes, namely:

- Bachelor of Science Honours Degree in Wildlife, Ecology and Conservation and the
- Bachelor of Science Honours Degree in Freshwater and Fishery Science

The School also offers research degrees at MPhil and DPhil levels. The School has made efforts to introduce more programmes and the MSc Degree in Biodiversity Conservation was approved by ZIMCHE in 2017 and is to commence in 2018. Regulations for the Bachelor of Science Honours Degree in Environmental Conservation and Geo-informatics were awaiting ZIMCHE accreditation by the end of 2017.

## Honours, Awards and Promotions

Professor E. Gandiwa received an Award under the Natural and Environmental Sciences category at the Zimbabwe International Research Symposium 2017 organised by the Research Council of Zimbabwe.

## Staff Development

All Lecturers in the School with Masters Degrees are studying towards acquiring a DPhil/PhD degree and based on the periodic reports, their studies are progressing as scheduled, though at various stages. Out of the three staff members with Masters degrees, two are registered at CUT and one is registered at the National University of Science and Technology (NUST).

## Teaching

Teaching was conducted as scheduled and comments from External Examiners who acknowledged the high standards were encouraging. The School continues to uphold high academic standards in the content of the taught programmes, student academic assessment, final examinations, coursework, student attachment assessment and in research output where the thrust is on quality.



School of Wildlife, Ecology and Conservation Staff and Students doing field research



# DIVISION OF STUDENT AFFAIRS



**Mr Sengerayi**  
Acting Dean of Students

## Introduction

The Division of Student Affairs continues to excel in its pursuit of developing a holistic graduate endowed with soft skills, entrepreneurship and unhu/ubuntu. It is against this background that the Division of Student Affairs has deliberately embarked on a policy of training all its student leaders in order to develop responsible and community-centred leaders. Further, the Division strives to create and sustain a vibrant and stimulating learning environment in which respectful relationships are maintained.

## Achievements

- o Successful orientation of first year students was held in March and August 2017. In March 2017, one thousand (1000) students were oriented while one thousand three hundred (1300) were oriented in August 2017.
- o Students' Representative Council elections were successfully held.
- o Student Leaders were trained and equipped with skills to participate meaningfully in University governance systems.
- o Peace and tranquility were maintained throughout the year as a result of the Division's open door policy.

## Campus Life and Students Development Programmes

- o The Section managed to accommodate all students requiring on campus accommodation provided they had paid all fees.
- o The Section introduced e-accommodation whereby students apply and get allocated on line accommodation on first come first served basis.
- o Eight hundred (800) new mattresses were purchased for all hostels.
- o The Section hosted ZIMSEC markers successfully throughout the year, and they expressed satisfaction with our service delivery.
- o Student edutainment enhanced through the purchase of pool tables and DSTV.
- o Additional water tanks were installed.
- o The BOOST – Enactus Club won first prize in the Financial Literacy National Competitions.

## Off Campus Life and Student Development Programmes

- o The quality of student life off campus continues to improve with an increasing number of Landlords providing beds, stoves, fridges, wi-fi, water tanks, reading desk, chair and water tanks.
- o Various students development activities were held which empowered our off campus students to be responsible institutional citizens and good University ambassadors in the community.



- o Three hundred and fifty (350) first year students (1:1) were assisted to get off campus accommodation in March 2017, while four hundred (400) were assisted in the August to December 2017 semester.
- o The Off Campus database of Landlords now has three hundred and eighty (380) registered Landlords with a capacity of five thousand one hundred (5100) beds, and the database is easily accessed on the CUT homepage website.
- o The Section organised two highly successful meetings with the landlords in February and July 2017.
- o The Section organised an Off Campus security awareness campaign in collaboration with the ZRP and CUT Campus Protection Services.
- o A Whatsapp group was created for off campus landlords for ease of communication.
- o The Off-Campus Director, as the Secretary of the Open Day, coordinated the successful hosting of the University Open Day in partnership with Econet. The event was attended by sixty nine (69) high Schools, twenty (20) corporate organisations and more than five thousand (5000) visitors.



### Counseling and Life skills

- o More than two hundred (200) students were given individual counseling.
- o Issues of relationships and drug abuse were dominant among other cases brought forward for counseling.
- o Road shows and talk shows were held centering on stress management



# QUALITY ASSURANCE DIRECTORATE



**Dr R. Jingura**  
Director

## Introduction

The Directorate of Quality Assurance (DQA) celebrated its 5th Anniversary in 2017. It was established in 2012 to superintend the internal quality assurance (IQA) portfolio. The DQA functions as the central coordinating unit for all IQA activities in the University. It also serves as the link between the University and its disparate stakeholders including Zimbabwe Council for Higher Education (ZIMCHE), professional and regulatory bodies.

In 2017, DQA continued to place its focus on the main purposes of IQA in the University. Our thrust was on maintaining and enhancing the quality of educational services experienced by our students and the quality of research undertaken by our staff. Our focus areas were based on the student lifecycle from admission to completion of studies. The Directorate ensured that our students had an experience in 2017 that guaranteed student success and enhanced employability of our graduates. As per our tradition, we guaranteed the following:

- Quality of academic programmes
- Quality and standards of teaching and learning
- Objective student assessment
- Quality of the learning environment
- Quality of support services

## Academic Programmes

The University places great emphasis on the quality of its academic programmes. DQA ensured both internal and external validation of our academic programmes. A Master of Science in Biodiversity Conservation was

accredited by ZIMCHE in 2017. Programme monitoring and reviews are integral components of the quality assurance system of our academic programmes. All academic Departments continued to monitor their programmes in 2017 and necessary adjustments to teaching, content and assessment regimes were done in order to match best practice. The following programmes were reviewed in 2017:

- Bachelor of Science Honours in Hospitality and Tourism
- Bachelor of Science Honours in Travel and Recreation

The review process included industry, alumni and other stakeholders as a means to ensure fitness of purpose of these programmes and enhance graduate employability.

## Teaching and Learning

In line with the University's philosophy of teaching as the practice of enabling students to learn, the University had various endeavours in 2017 aimed at enhancing the competencies of our teaching staff. The University was on course in terms of increasing the proportion of its teaching staff holding PhD qualifications. The following can be noted for 2017:

- A total of 42 members of staff were registered in various staff development programmes at local, regional and international universities
- About 67% of these members of staff were enrolled on PhD programmes
- The proportion of teaching staff who were either Professors or PhD holders in 2017 was 37%
- Twenty members of staff were enrolled on

- the Postgraduate Diploma in Higher Education. This brought to 60 the total number of teaching staff who hold university teaching qualifications offered by the Academy of Teaching and Learning.
- Teacher-to-student interaction in large classes was enhanced through tutorials. Our student to staff ratios were 20:1 for STEM programmes and 50:1 for the other programmes.

### Student Progression and Success

The undergraduate to graduate student ratio improved to 14:1 in 2017. The University thrives to create a learning environment where undergraduate and graduate students interact. This creates a fertile learning environment for our students. Graduate students provide academic leadership, support and mentorship to undergraduate students.

There was a remarkable improvement in the graduation rate of undergraduate students from 92% in 2016 to 96% in 2017. This high rate of throughput is a reflection of the quality of our learning environment. The proportion of the final year students who graduated with a grade point average (GPA) 2.5 increased from 41% in 2016 to 44% in 2017 (maximum attainable GPA in the University grading system is 4.0). GPA in the range 2.5-4.0 designates the attainment of learning outcomes by the students at a very high level of performance.

### Student Assessment

Internal and external validations of student assessment are integral parts of our IQA. To assure the quality and standards of assessment, the University hired 30 External Examiners from local, regional and international institutions. The External Examiners provided independent feedback through reports on all academic programmes and awards, and contributed to the maintenance of threshold academic standards by advising on academic standards, good practice and opportunities to enhance academic provision.

### Information available on Internal Quality Assurance (IQA)

The DQA developed several quality assurance documents and guidelines in order to broaden the literature available in the University on IQA. The major ones include:

- Guide on Quality Assurance for Students

- Students Handbook on University Credit System
- Standards and flowcharts of Key Processes
- External Certification of Quality Management System

In 2017 and in line with the Strategic Plan, the University moved to seek external certification of its quality management system. A conscious decision was made to seek ISO 9001:2015 certification of the University. The DQA put together the preliminary work towards implementation of ISO 9001: 2015 standard.

### Participation in the Community of Practice

The DQA was quite active in the quality assurance community of practice in 2017. The Directorate participated in several activities in order to strengthen quality assurance and build strategic partnerships. The following were the major milestones:

- Directorate provided mentorship to Directors of Internal Quality Assurance units in five local Universities
- Developed the Guidelines on Programme Design and Credit Weighting for the Zimbabwe Credit Accumulation and Transfer System (ZIMCATS)
- Participated in several workshops organized by ZIMCHE

### Scholarship and Research in the Directorate of Quality Assurance

The DQA developed a research agenda with respect to quality assurance and enhancement in order to contribute to the IQA body of knowledge. Implementation of the research agenda commenced in 2017. In 2017 the following manuscripts were prepared and submitted to refereed journals for consideration:

- Jingura, R.M. & Kamusoko, R. A framework for enhancing regulatory cooperation in external quality assurance in Southern Africa.
- Jingura, R.M., Ndoorwi, H., Kamusoko, R., Muzinda, A., Munikwa, S. & Tapera, J. Evaluation of the quality and standards of module outlines: Case of Chinhoyi University of Technology, Zimbabwe.
- Rashidi, E., Jingura, R.M. & Tapera, J. A review of performance management systems in higher education institutions
- Jingura R.M., Tapera, J. & Kamusoko, R. A critical analysis of applicability of the ISO




9001 standard in higher education institutions.

- Jingura, R.M., Kamusoko, R., Muzinda, A., Munikwa, S., Ndoorwi, H. & Tapera, J. A model for enhancing student engagement in quality assurance in higher education institutions.
- Jingura, R. M., Kamusoko, R., Muzinda, A., Munikwa, S. & Ndoorwi, H. Analysis of the 'third space' concept with reference to internal quality assurance in higher education.
- Jingura, R. M. & Kamusoko, R. A competency framework for internal quality assurance in higher education.
- Jingura, R. M. & Kamusoko, R. Institutionalisation of quality assurance in higher education: Experience of Chinhoyi University of Technology.
- Jingura, R.M., Kamusoko, R., Muzinda, A., Munikwa, S. & Ndoorwi, H. Analysis of the impact of internal quality assurance in higher education.

### Discipline-specific Scholarship

As blended professionals, staff in the DQA published papers in their academic disciplines in order to embolden their standing as scholars. The following papers were published:

- Kamusoko, R. & Jingura, R.M. (2017). Utility of *Jatropha* for phytoremediation of emerging contaminants of water resources: A review. *CLEAN- Soil, Air, Water*, 45(11): 1-8.
- Jingura, R. M. & Kamusoko, R. (2017). Methods for determination of biomethane potential of feedstocks: A review. *Biofuel Research Journal*, 4(1): 573-586.
- Jingura, R. M. & Kamusoko, R. (2017). Technical options for valorisation of *Jatropha* press-cake: A review. *Waste and Biomass Valorization (WAVE)*. 1-13. doi:10.1007/s12649-017-9837-9
- Jingura, R.M. & Kamusoko, R. (2017). Temporal and spatial analysis of electricity generation from biomass sources in sub-Saharan Africa. *Congent Engineering*. 4(1): 1-11.
- Jingura, R. M. & Kamusoko, R. (2017). Comparative analysis of bioenergy production and consumption in Africa, *Renewable Energy Research*, 2(5-1): 1-6.



*“What you get by achieving your goals is not as important as what you become by achieving your goals.”*

-Zig Ziglar

# MARKETING & PUBLIC RELATIONS



**Dr M. C Tapera**  
Director

## Introduction

Higher and tertiary education has been one of the fastest growing sectors in Zimbabwe and the region hence the competitive terrain appears to be getting more complex and the Marketing and Public Relations Department continued to seek new ways for effective market penetration strategies and establishing a distinct Chinhoyi University of Technology brand. There was need for innovative and unique strategies at a time when the Resource Mobilization and Alumni portfolios were also added to the Department whose challenge was to continue posting positive results for the University against a backdrop of limited fiscal space. In 2017 the Department had to run with the new vision that cascaded from the new Central Government administration's new dispensation that hinges on the production of goods and services which should revive the national economy. It is however pleasing to note that despite the myriad of challenges that beset the University, the Marketing and Public Relations Department strategically aligned its activities to ensure that the University effectively continued to attract more science-related post A-level students to enrol for the University's specialised and unique degree programmes. These and other strategies were aimed at creating a distinct corporate brand and to foster congenial internal and external stakeholder relationships.

## The New Dispensation Era

The change brought about by an era that ushered in new political leadership also brought about a new vision that precipitated in the formulation of new policies/projects

which were meant to enhance the relevance of University education to economic transformation through increase in the productivity of goods and services. The Department was also instrumental in the formation of the Chinhoyi University of Technology Alumni Association as a development arm of the Institution. The CUT external stakeholders and sponsors have remained committed amidst a contrived macro-economic environment and they have stood by the University in its Resource Mobilization activities notably the CUT Fundraising Dinner held at Harare International Conference Centre (HICC) which was very successful. We are grateful to all our sponsors who generously donated in cash and kind towards the building and refurbishment of our laboratories at CUT. We continue to salute the Nyaradzo Group of Companies for their annual sponsorship of a Golf Tournament at Royal Harare Golf Sports Club. The proceeds were directed towards capacitating the University's laboratories. The CUT Golf team also competed during the tournament. Despite challenges, the University increased its market share in the Higher and Tertiary Education Market as shown by increased enrolment. The Marketing and PR Department maintained continuous visibility and enhanced information dissemination through the production of a 2017 Graduation Supplement where a thousand free copies of the The Herald were distributed to graduands, guardians and parents/attendees at the 2017 Graduation Ceremony. The copy had wide coverage of the progress and activities at CUT for the information of our valued stakeholders who made 2017 a successful year.



ZBC TV advertisements on University events such as the CUT Alumni, Golf Tournaments and Graduation Ceremony went a long way in reaching out to our stakeholders. The Marketing and PR Department will forever be grateful to strategic partners who made 2017 a successful and memorable year. These included among others, Nyaradzo Group of Companies, NetOne, Stanlim Business Solution P/L, MIB, Bustech P/L, Zimpapers and ZBC.

During the beginning of 2017, outreach programmes were highly successful with the involvement of Schools/Faculties. Despite transport and financial challenges, the University was able to attend all major exhibitions such as the ZITF, Chinhoyi Provincial Agricultural Show, Harare Agricultural Show, Kadoma and Midlands Agricultural Shows. The University also branded the Chinhoyi Show Grounds Main Gate for visibility and market positioning purposes. The establishment of the Harare Office was largely a brainchild of the Marketing and PR Department. This Office is strategically situated at Zimdef House to capture the Harare Metropolitan Province and its nearby environs. The University won several awards at the following exhibitions:

- Chinhoyi Provincial Agricultural Show
- Kadoma Agricultural Show
- Harare Agricultural Show
- Midlands Agricultural Show
- Overall winner SMEs Expo
- 1st Position at ZNCC Awards (Northern Region) Universities Category
- Contact Centre of Zimbabwe- CUT was the 1st runner up in the Customer Service Excellence Award

In 2017, the Marketing & Public Relations Department with the valued assistance of Schools/Faculties attended a total of 25 Career Guidance and Outreach programmes which helped to reach out to 823 secondary schools. There was an increased Open Day attendance by schools from all over the country. A total 67 Schools came for the 2017 Open Day, 3416 students, 257 teachers and 21 companies exhibited. However, the Department applauds the Schools/Faculties for the pivotal role they played during Career Guidance and related Outreach programmes. The Works and Estates Department's Transport Section should also be applauded for their timeous provision transport for the Department to be able to attend several Outreach programmes throughout the country. However,

a dedicated vehicle would be a long term solution to the transport challenges currently being faced by the Department.

Student admission numbers have grown tremendously. The 2017 March intake was 939 and the August intake increased to 1173 and we could not enrol more due to resource constraints such as teaching and learning space because at CUT we believe in quality. The Director of Marketing and PR played a pivotal role in the Marketers Association of Zimbabwe Nation Branding initiative.

### Market Penetration and Publications

The growing recognition of communication in organizational effectiveness has seen the PR desk intensifying its internal and external information dissemination functions. To enhance its effectiveness, the Office has been purchasing its own equipment in the form of cameras and recording devices. The CUT Weekly Magazine has had a phenomenal impact on the University community by covering most of the major corporate events that took place in the University. These publications have helped in marketing the University's specialised and unique degree programmes to the public.



## Digital Media

As a Department, we are quite aware of the importance and effect of digital media marketing as we communicated the University's 2017 story to our target market. Digital marketing refers to any media that are encoded in machine-reachable formats that can be created, viewed, distributed, modified and preserved on digital electronic devices. Digital media has a significant broad and complex impact on society and culture. Combined with internet and personal computing, digital media has become a market leader as an innovation in publishing, public relations, education, business development and academia. The ubiquity of digital media and its effects on higher and tertiary education in particular and society in general suggests that we are at the start of a new era in Information Age which perhaps leads to a paperless society in which all media are produced and consumed on computers including tablets and smart phones. To this end, the Department has embarked on a robust use of all available digital platforms such as Facebook, WhatsApp, Twitter, YouTube, Imo, Instagram and LinkedIn.



## Human Resources and Staff Compliments

Members of staff in the Department continued to upgrade themselves academically and professionally. The Director of the Department attained a PhD in Management. Members were also encouraged to join such professional bodies as MAZ, ZIPR and ZNCC. Staff re-deployments within the Department were meant to re-capacitate the Department. The return of our Graphic Designer in the Department will go a long way to make sure that the Department produces improved publications, both internally and externally.



# ICT Department



**Mr A. Dikito**  
Director

## Introduction

ICT's strategy is to continue to offer innovative and trending ICT systems and services in support of the University's vision of quality teaching, technological innovation and entrepreneurship. Flexible ICT helps to attract and inspire students and researchers, but requires continued investment in hardware, software and staff for ongoing support, renewal and development. Whilst the ICT Department strives to achieve the budget reductions required to safeguard the University's financial position, it is concerned that under-investment could prejudice the quality, availability and relevance of the ICT service. As a support service in the University, we endeavour to listen, adapt, learn and change.

Academics require innovative ICT for research e.g. standard computers, high speed networks (bandwidth), access to HPC (High Performance Computing), data repositories for teaching, and e-learning. They want administration streamlined via better, more task oriented and user-friendly IT to free up time to increase their potential for innovative research. Students expect innovative, exciting IT increasingly delivered to their mobile computing devices as well as access to functional wireless access. They expect access to applications online in real time on time every time.

The following goals guided the ICT Department in its service delivery to the university staff and students in 2017:

- o Sustainable procurement.
- o Provision of new or updated systems enabling academics/administrators to gain efficiency and reliability by providing technology that improves the society.
- o Providing technology solutions that work and deliver measurable results.

## Achievements

Over the past year we have made significant progress in implementing our 2017 strategic plan.

## Internet

The University's Internet bandwidth is at 320 Mbps and we continue to target a bandwidth of 1 Gigabyte. In order to create a robust connection, we have rationalized our Virtual Private Network (VPN) Bandwidth for the Town Campus and the Orange Grove Campus. The Town Campus is at 7 Mbps while Orange Grove was downgraded from 9Mbps to 6 Mbps (\* no financial cost was involved).

## High Performance Computing (HPC)

The university is now connected to the HPC hosted at the University of Zimbabwe (UZ). The connection is done through a VPN link, connecting to an HPC server via an IP address. It has a capacity of 10MB and it is used in complex engineering solutions and mathematical functions.

### WI-FI Coverage Extension

The ICT network team embarked on a process of reorienting access points (APs) to ensure that they provide Wi-Fi internet coverage to areas that are convenient to users. Six APs were reoriented and some were relocated. An additional of six (6) outdoor and six (6) indoor Ruckus access points were purchased and delivered and awaiting installation. This enables effective coverage of all the open spaces, hostels, classrooms and staff houses in and around the University Campus. This has enabled the University to successfully decongest computer labs as students are able to access Internet and Intranet services from the comfort of their rooms and the various previously grey areas. Wi-Fi network monitoring exercise is being conducted on a daily basis with rogue devices being eliminated.

### Software Purchases

To increase security, we purchased Eset Anti-Virus license at a cost of \$10, 719.00 from IDSS.

### e-Sadza

eSadza is a new product crafted from the software section. It comprises of two types of user interfaces: Android – which means students can shop and top-up their portals using mobile phones; Portal shopping basket – Students can edit their order from inside their student portals. The project was successfully developed in December 2017. It will be rolled out from March – June 2018.

### Use of the Ecocash Platform in conducting transactions in the University

Ecocash is not a new product. Instead new features have been added. As of now students are now able to pay for their fees which include specifying exact fees codes, and also with the option of topping up accounts through android and student portals. Besides biller code, the University now has a merchant number, which means we are able to query and interrogate ecocash platform programmatically. This comes with huge flexibility and convenience in line with application to application exchange of data real time. To our clients, the students and staff, it means elimination of queues for payment.

### Projectors

Ten projectors were purchased in 2017 bringing the total of projectors to 65. Our desire is to create interactive classrooms and hence the projector enhances

presentations.

### Facilitating ICTs for the Zimbabwe School Examinations Council (ZIMSEC) Marking Project

The July 2017 ZIMSEC project was a success as indicated by the ZIMSEC personnel through oral feedback. The labs were equipped to capacity and all the computers were functional. In addition, there were at least 10 stand-by backup computers in each lab. The average lab occupation of 63.324 was recorded.

### Cloud Hosting of CUT E-Mail Service

In line with current global best standards and storage capacity challenges of our email servers, we managed to migrate our email systems to Google Cloud (G-Suite). The G-Suite Cloud solution provides the following benefits:

- No installation, maintenance and operational costs
- Quality monitoring reports
- Secure and free from malwares and viruses using Google scanning tools
- Free anti-spam modules
- 24/7 Support (email and chat)
- Once on G-Suite, no more blacklisting
- Unlimited storage space for all users

### Training

Eagle refresher training courses continue to be rolled out towards the end of every semester as the department in conjunction with Registry in a bid to improve and increase efficiency and effectiveness of results processing and publication.

### Acknowledgments

We would like to thank management and the university community as a whole for making 2017 a success.



# WORKS & ESTATES DEPARTMENT



**Engineer T.L Hweju**  
Director

## Introduction

The Department fared well in all its operations despite the financial challenges in 2017. During this period, the Works and Estates Department anticipated to receive US\$1,5million dollars from the fiscus for PSIP projects, but no funds were disbursed from central government for infrastructural development during the period. What follows is an outline of the works that were conducted in 2017.

## Capital projects

### Construction of Engineering Complex

The first phase of the block was completed and is fully operational providing a lot of teaching, learning and office space for the University. The utilization of the complex will also ensure its safe keep from deterioration. The building exterior works were done and completed; rain water pipes, storm-water drainage works were completed during the course of the year.

The University is now looking at initiating works in the second phase of the complex. The complex has three phases of construction.

### Construction of Canteen Extension

The University managed to mobilize financing for the project towards the end of 2017 to the tune of \$230,000. This financing was used to do the roofing trusses and roofing sheets. A subcontractor was engaged and work started in December. We anticipate that the roofing will be completed in the first quarter of 2018. Once the structure is roofed, the remaining works; floor and wall

finishes, plumbing and electricity fix and fittings will require attention before the structure is declared ready for occupation. Completion of this structure would create additional sitting, cooking and storage space for the canteen.

### Construction of University Boardroom ablution facilities

The department constructed ablution facilities for the University boardroom, thereby making the place self-contained. Construction of the ablution block was subcontracted and managed within the department.

### Construction of the Deans' Office complex

The department started working on the construction of a two-storey office complex in 2016, with the intention of completing it in 2017. Much of the work was done save for the finishes on the partition work and painting which we hope to have completed by the end of the first quarter 2018 making the building ready for occupation. The office complex has a total floor area of 1260m<sup>2</sup> with offices, ablutions and a boardroom. Once completed this will create the much needed office space for the University academic staff.

### Establishment of the Kariba Campus

The University purchased two spacious complexes in Kariba town with the aim of establishing a campus in the town. The department was working on the repairs and rehabilitation of one of the complexes and 75% of this work was done.

### **Retro-fitting laboratories**

Two laboratories were created in the year 2017: a biology laboratory and an animal production laboratory. These were created after retro-fitting two lecture rooms in the main campus. This has gone a long way in the provision of laboratory space for the two departments which cannot fully function without such facilities. Previously students had to attend laboratory sessions in Harare which limited their scope of activities.

### **Farm Infrastructure Projects**

#### **Tobacco Processing facilities**

Five additional tobacco curing barns were constructed through an agreement with the Tobacco Industry Marketing Board (TIMB). To date, the University has 15 tobacco barns. The tobacco growing and processing project is one of the University's fund-raising projects.

#### **Construction of poultry fowl runs**

The University through the School of Agricultural Sciences and Technology has ventured into poultry production, to supply the students' canteen and hotel. The department constructed two fowl runs with a combined capacity of 4000 birds.

#### **General Repair and Maintenance**

The department managed to carry out most of the maintenance works requested within the University. The department is still working on its planned major maintenance works in all its campuses. We managed to install water tanks and booster pumps at three of the male hostels and the project has been rolled over to 2018 so that the remaining 5 hostels are covered with stand-by water provision services.

#### **Provision of Transport Services**

The department managed to service most of the transport requisitions from various departments in the university. The department managed to procure three vehicles for use in work related learning activities for schools and this has gone a long way in relieving pressure in the schools. Four single cab vehicles were also purchased to service the farm and the Works and Estates Department. These additional vehicles have been of great assistance especially on farm operations and errands. A 63 seater bus was purchased during the period under review, bringing the University bus fleet to 6 x 63 seater buses and 2 x 30 seater buses.

### **Conclusion**

The department managed to perform well despite the financial situation within the University and the foreign currency shortages in the country that existed in 2017. The uncompleted projects have been carried over into 2018 and are targeted for completion within the first quarter so that attention will be given to the planned projects for 2018.

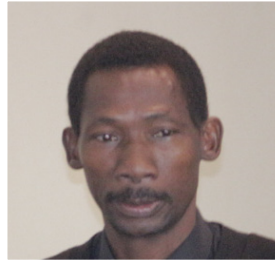






**Good, better, best. Never let it rest.  
'Till your good is better and your bet-  
ter is best.- St. Jerome**

# INTERNAL AUDIT DEPARTMENT



**Mr. Murazvu**  
Chief Auditor

## Introduction

The country's economy moved out of the deflationary mode that prevailed in the previous years and we ended the year 2017 with a year on year inflation of 2.9%. On the political front, major events took place resulting in a new leadership being ushered in towards the end 2017. The new political dispensation immediately crafted and introduced new policies in a bid to attract new foreign direct investment into the country and increase investor confidence. The general performance of the economy in 2017 was adversely affected by a number of unfavourable macro-economic fundamentals such as high budget deficit, severe cash shortages and unavailability of foreign currency. These challenges persisted throughout the year and negatively impacted on the operations and performance of many organizations in Zimbabwe including CUT. The operations of most institutions including those in the higher and tertiary education sector were adversely affected by these factors and many organisations experienced virtually no growth in terms of revenue during 2017. It should also be emphasized that most of the unfavourable conditions that prevailed in the previous year (2016) remained unresolved in 2017 and continued to impact negatively on the viability of most organisations - including government institutions.

Some of these conditions include the following:

- Government staff recruitment freeze

- High unemployment
- Declining financial support from the government to cover operational costs and complete existing projects.
- Company closures that incapacitated many breadwinners, parents and guardians
- Unavailability of cheap finance on the local market
- High financial and transacting costs
- Operational risks associated with expanding scope of academic programmes
- Exposure to IT security vulnerabilities and data breaches
- Higher risk of fraud due to economic hardships

Universities, like any other government institutions, had to adopt a number of survival tactics that included implementing cost cutting measures, adopting aggressive credit control policies, expanding revenue bases through increasing student enrolment and introducing more income generating projects. These survival initiatives that were adopted by universities also resulted in increased risks demanding proper risk management. Internal Audit had to play a proactive role in advising management on the best options to adopt in order to mitigate the effect of the resultant risks caused by these challenges.



The department provided assurance on the integrity of existing internal control systems through carrying out various tests at the main university and its strategic business units. Compliance checks were also carried out to ensure that there was total compliance with all statutory requirements.

### Achievements made by Internal Audit in 2017

During 2017 - Internal Audit carried out various assignments in line with its Annual Audit plan and it managed to accomplish a total of twelve (12) audit assignments. Audit Reports in respect of these assignments were circulated to relevant stakeholders. Findings and exceptions noted by the Audit team were discussed with management and the final audit reports were then presented to the Audit Committee in line with good corporate governance. The department also conducted follow up audit procedures on prior year audit findings made by External Auditors and checked on the implementation status by management. Furthermore, the department also supported the conduct of the audit of 2016 Financial Statements by carrying out status of records review before the commencement of the audit. The initiative resulted in cost savings to the University by ensuring that minimum time was taken by the External Auditors to accomplish their year-end audit. Audit fees payable in respect of the 2016 year-end audit therefore remained unchanged. Below is a summary of the audit assignments that were accomplished in 2017:

#### Internal Control Systems Review

- Audit of Specific Funds (ZIMDEF Funds)
- Audit of procurement procedures on imported goods
- Audit of Student Debtors and Paynet Trade Payments System review
- Audit of CUT Group of Hotels Safeguarding of Assets
- Year End Verification of Stocks
- Verification of all obsolete fixed assets disposed of in 2017

#### Compliance checks with statutory requirements, rules, regulations and ordinances.

- Compliance checks at the Main University covering a period of seven months
- Compliance checks at CUT Group of Hotels -

covering a period of seven months

#### Value For Money Audits focusing on major cost drivers:

- Stationery, Toner cartridges and other consumables
- Canteen provisions
- Internet expenses
- Telephone expenses
- Water bills and other municipal rates

#### Follow Up Reports:

- Students Affairs Clinic report
- ICT Equipment (Projectors)
- 2016 External Audit findings

#### Status of Records Review in preparation of 2017 External Audit

- Main University
- CUT Hotel

#### Income generating projects

- Water Audit for the Municipality of Chinhoyi

#### Assessment of Internal Controls, Compliance with statutory titles and utilization of resources

Major Internal Control Systems at the main university and the university's strategic business units were tested and found to be functioning properly. Exceptions noted were rectified during course of the year.

Compliance with applicable regulations, policies and ordinances by the main university and CUT Hotel was observed to be quite satisfactory. No major instances of non-compliance were noted during these scheduled audits.

#### Liaison Services

Internal Audit served as the liaison between the university departments the outgoing External Auditors (BDO Zimbabwe Chartered Accountants) and the newly appointed auditors – AMG Global Chartered Accountants of Zimbabwe. The department ensured that documentation and information requests by external auditors were understood and met. In addition, the department facilitated communication and coordination between University staff and External Auditors to minimize disruptions during the execution of the audit process.

Internal Audit also attended External Auditors' engagement and exit meetings and acted as the linking point between the External Auditors and university staff members.

### Advisory role

Internal Audit continued to play its advisory role by obtaining vital information updates on the latest developments on the market with respect to trends, new offerings, price fluctuations etc. on various products/services. The department appraised Management and provided them with updates on the best available options and measures to adopt in order to contain costs and operate more efficiently.

### Outlook

Issues pertaining to cash shortages and liquidity constraints remained largely unresolved in 2017 and it seems this trend is going to persist in the short-term. The positive initiatives that have been put in place by the new dispensation of adopting positive policies are likely to create investor confidence and may attract significant new foreign direct investment. Some of these positive initiatives are set out in the 2018 National budgetary statement and the new monetary policy presented by the Central Bank. These initiatives are likely to yield positive results and may partly address the issue cash shortages in the near future. Financial support from central government is expected to improve in 2018. In fact many institutions are going to be forced to rationalize their operations in line with the new policy initiatives that were introduced by new government. As a department, we are therefore going to play an important role in providing assurance on the functionality and integrity of key Internal Control systems at the University and its strategic business units.



“Losers react, leaders anticipate.”  
-Unknown



*Innovation distinguishes between a leader and a follower.*

*-Steve Jobs*

# REGISTRY



**Dr T. B Bhebe**  
Registrar

The year 2017 presented exciting moments as University staff continued to grow intellectually and professionally with some members completing their PhD studies bringing the number of academic staff with PhD degrees in the University to over 100. The number of academic staff pursuing PhD studies locally and abroad through split-site arrangements also increased. Registry continued with its creativity, teamwork and innovativeness through the On-site Admission and Registration exercise.

## Achievements

Registry successfully enrolled and registered two thousand one hundred and twelve (2112) First-Year students in 2017 ; that is, nine hundred and thirty nine (939) in the March-June Intake and one thousand one hundred and seventy three (1173) in the August-December intake.

The 13th Graduation Ceremony for Chinhoyi University of Technology was successfully held on 1 December 2017 with a total of one thousand one hundred and fifty-two (1152) graduands who were lucky to be the first to be capped by the Chancellor Cde Emmerson Dambudzo Munangagwa who was installed as the Chancellor on Graduation Day. Graduands were drawn from seven (7) Schools, the Institute of Lifelong Learning and Development Studies and the Academy of Teaching and Learning.

## Students Enrollment

The University's students enrolment by December 2017 stood at eight thousand three hundred and eleven (8311) comprising twenty-five (25) postgraduate diploma students, four hundred and fifty-three (453) taught Masters students, eighteen (18) Master of Philosophy students, twenty-four (24) Doctor of Philosophy students and seven thousand seven hundred and ninety-one (7791) un-

dergraduate students.

The total postgraduate students enrolment was four hundred and twenty (420) representing 19% of total enrolment, whilst the undergraduate students enrolment was seven thousand seven hundred and ninety-one (7791) students representing 81% of the overall enrolment. The total enrolment for undergraduate students by gender stood at four thousand one hundred and eighty-seven (4187) male and three thousand six hundred and four (3604) females translating to fifty-four percent (54%) males and forty-six percent (46%) females. There has been a significant increase in student enrolment in the Schools of Engineering Sciences and Technology and School of Agricultural Sciences and Technology with enrolment having increased by twenty-seven percent (27%) and twenty-nine percent (29%) respectively in the two Schools between 2016 and 2017.

The enrolment for undergraduate students for 2016 was seven thousand and ninety-two (7092) and in 2017, the number increased to seven thousand seven hundred and ninety-one (7791) representing an increase of ten (10%) percent.

## Human Resources

As the staff grew intellectually, Registry welcomed their maturity, discipline, focus on core business and increased work output in all facets of academia namely; teaching, research, community engagement and resource mobilisation.



The University had a total staff complement of eight hundred and seventy-five (875) based on the December 2017 payroll. This figure includes thirty-one (31) Teaching Assistants and short term contract workers. This total shows a slight drop from the total number of full-time staffers which stood at eight hundred and ninety-eight (898) as at the same time in 2016. The drop is attributed to several factors among them retirements and resignations on one hand and the significant slowdown in recruitment on the other hand.

The total number of PhD holders rose to hundred and two (102) by the end of December 2017. This figure represents a thirty-three (33%) percent increase as compared to that of December 2016. During the same period, the number of Professors leapt by sixty (60) percent from fifteen (15) in 2016 to twenty-four (24) by December 2017.

### Staff Recruitment

In light of the recruitment moratorium by the Ministry of Higher and Tertiary Education, Science and Technology Development, the University has significantly slowed down its recruitment drive despite the debilitating vacancy rates. Recruitments in 2017 were only centred around replacing deaths, resignations, retirements or where a new unit was created.

### Senior Appointments

The University appointed a new Dean for the School of Entrepreneurship and Business Sciences in October 2017. The Director of the Institute of Material Science, Processing and Engineering Technology was also appointed to lead the new unit and the position of Director for the Graduate Business School was filled in December 2017. The position of Dean of Students fell vacant in September 2017 when the incumbent's contract expired and he opted not to renew it due to ill-health. As this is a critical position, the recruitment process to fill in the void is expected to commence in early 2018.

As at 31 December 2017 the University's vacancy rates among academic posts by School/Institute were as shown below.

### SCHOOL/INSTITUTE Vacancy Rates as at DECEMBER 2017

Agricultural Sciences and Technology	32%
Engineering Sciences and Technology	32%
Hospitality and Tourism	42%
Wildlife, Ecology and Conservation	54%

Entrepreneurship and Business Sciences	35%
Institute of Lifelong Learning & Development Studies	22%
Art and Design	21%
Natural Sciences and Mathematics	49%
Graduate Business School	50%

In pursuit of the value addition thrust, the University established the Institute of Material Science, Processing and Engineering Technology.

### Staff Development

The University had a total of seventy-two (72) academic staff members on Staff Development pursuing doctoral studies. Of this number, thirty-one (31) were registered with Chinhoyi University of Technology. The remaining forty-one (41) are studying with other universities including institutions in Europe, Asia and the SADC region. There are also eight senior non-academic staff on staff development pursuing doctoral studies. The benefits of this deliberate and accelerated staff development effort embarked upon shortly after dollarization are beginning to bear fruits and is responsible for the exponential rise in the number of PhD holders which was mentioned above.

A total of twenty-one (21) Staff Development Fellows completed their studies in 2017. Eighteen (18) graduated with PhD and of these, fifteen (15) graduated from international Universities while three (3) graduated from CUT.

### Retirement

Three (3) academic staff members retired on 31 December 2017 following attainment of the statutory retirement age of sixty five (65) years. Two (2) non academics, a driver and a general hand also retired on 31 December 2017.

### Resignations & Deaths

While fourteen (14) staff members resigned from University employment between January and December 2016, the period under review has seen a twenty-nine (29) percent drop in the number of resignations as ten staffers resigned in 2017. Details for the period under review are as shown on the Table 2.

6	4
7	1
8	2
9	1
12	1
<b>TOTAL</b>	<b>10</b>

**Table 2**

Grade	Resignations for January to December 2017
5	1
6	4
7	1
8	2
9	1
12	1
TOTAL	10

In 2017 the University lost three (3) employees due to death. These comprised a Bus Driver, a Kitchen Porter and a Till Operator. For more information, see the Obituary Section. May their souls rest in peace.

### Leave and Leave Pay Promotions

In the period under review, the University lost two thousand five hundred and twenty-seven (2 527) days valued at eighty-eight thousand and twenty-seven dollars and fifty-one cents (\$88 021.51) due to sick leave. The number of days lost due to sickness has seen a marginal increase of two (2) percent over that recorded in 2016. As at 31 December 2017, University had an Ordinary Leave liability of one million seven hundred and eighty-five thousand three hundred and eighty-seven dollars (\$1 785 387). Measures are underway to reduce this liability in 2018 by reminding staff within given thresholds to proceed on ordinary leave.

### Workshops and Seminars

The University Human Resources Department facilitated training workshops and seminars for all staff categories in 2017. Cumulatively, the cost of such training and workshops was nineteen thousand one hundred and fifty dollars (\$19 150.00). This translated to seventy-three (73%) percent increase over the amount provided in 2016. The Academy of Teaching and Learning continued to compliment efforts of the Human Resources Department by holding workshops and seminars which have an academic bias.

### Awards to Staff

The inaugural Long Service Awards were conducted in 2017. One hundred and twenty-seven (127) staff members were awarded Long Service Certificates for attaining five years of service with the University. Eighteen (18) staff members were recognised for ten years of service to the University and these received monetary awards over and above certificates. Only staff in their fifth and tenth anniversary received awards.

### Challenges

The increasing number of staff members that are becoming eligible for Contact Leave and Sabbatical leave is presenting a huge challenge as Treasury is not funding such obligations. The University continues to use its internal resources to support such leaves but these are not enough. Schools and Departments were advised to help raise funds to assist their members to proceed on Contact Leave and Sabbatical leave.



*“Good employees make mistakes and good leaders allow them to.”*

- **Unknown**



# STRATEGIC PLAN

## IMPLEMENTATION PROGRESS REVIEW



**PURPOSE (MISSION)** To produce innovative graduates, create knowledge, engage in resource mobilization, enhance entrepreneurial skills and provide community service through quality teaching, training and technological-oriented research

OBJECTIVE/ DELIVERABLE	RESOURCES REQUIRED	PROGRESS TO DATE
OVERALL GOAL (VISION) Our vision is to be a world-class centre of excellence for technological innovation, resource mobilisation and entrepreneurship	US\$830,000 by Dec 2020	30% (Plans to construct teaching and learning infrastructure, students' hostels and the administration block using PPPs are at an advanced stage)
• Establish Centres of Excellence	US\$100,000 by Dec 2016	50% (We now have a Cattle Breeding Centre for restocking the national herd)
• Establish a Publishing House	US\$130,000 by June 2016	100% (Publishing House is now in place)
• Establish Mining ventures	US\$100,000 by Dec 2016	0% (Project could not take off because the Ministry of Mines could not deal conclusively with existing artisanal miners who hold Claims)
• Establish a Clothing Business	US\$130,000 by Dec 2016	100% (Clothing factory with up-to-date machinery is now in place)
• Establish campuses in other towns in the country	US\$350,000 by Dec 2016	75% (Harare and Kariba campuses were established and Kadoma campus is pending)
• Develop Energy Efficient Sadza Cooker	US\$20,000 by Dec 2018	75% (Prototype now in place. It now awaits commercialisation)
<b>KEY RESULT AREA 1: Excellence in Teaching and Learning</b>		
a) Increase access and enrolment prioritizing STEM	US\$100,000 ongoing	<b>50%</b> (Enrolment has increased from 6,500 to the current 8,500 but the increase in STEM areas is slow due to supply-side problems)
b) Promote contemporary teaching and learning methodologies	US\$800,000 ongoing	<b>75%</b> (The Academy of Teaching and Learning and the ICT Department continue to upgrade the skills of our lecturers and students)
c) Prepare competent graduates by providing high quality education	650,000 ongoing	<b>60%</b> (This is being continuously done)
d) Develop and maintain a well-resourced Library	US\$1,200,000 ongoing	<b>50%</b> (Access to e-library resources has been expanded)
e) Develop an integrated data management system dealing with programme inquiries, admissions, student progression, requirements for completion and graduation	US\$200,000 by Dec 2020	<b>50%</b> (This was almost complete but had to be put on hold at a certain stage due to compatibility problems)
f) Increase recruitment of highly qualified teaching staff	US\$500,000 ongoing	<b>90%</b> (This has been largely achieved and enhanced by the upgrading of current staff which has made the number of staff with PhD to rise from 45 by end of 2015 to 100 by the time of going to print)
g) Offer research opportunities for students	US\$400,000 by Dec 2016	<b>75%</b> (The University now has a Vice Chancellor's Scholarship Fund which admits students with First Class for MPhil and DPhil studies)
h) Attract and retain high quality staff	US\$400,000 by Dec 2017	<b>100%</b> (This has been achieved by offering free accommodation to all staff with PhD qualifications)
i) Create an enriching campus life experience for students	US\$500,000 ongoing	<b>75%</b> (Posts for Dean of Students and other senior posts have been filled)
j) Strengthen the monitoring and evaluation of staff performance	US\$50,000 ongoing	<b>75%</b> (The relevant instruments have been developed and are now in use)
k) Undertake tracer studies of CUT graduates	US\$100,000 bi-annual	<b>0%</b> (Tracer studies are yet to be done. Modalities are currently under way following the launch of the Alumni Activities)



l) Enrich the Curriculum with experiential learning	US\$250,000 ongoing	<b>75%</b> (Work-related learning has been enhanced and field trips to industry have now increased together with the increase in buses. Each of the 7 Schools now has an all-terrain vehicle dedicated to Work-related Learning visits)
m) Strengthen Quality Assurance Systems	US\$100,000 ongoing	<b>80%</b> (This has been a success with the deployment of Deputy Deans to oversee quality issues in each School and the expansion of quality enhancement activities by the Quality Assurance Directorate. The University is now moving towards attaining ISO Certification)
n) Establish School of Rehabilitative Sciences and Technology	US\$100,000 Dec 2018	<b>0%</b> (An emergent strategic move has led to the abandonment of this plan)
o) Establish School of Computer Sciences and Engineering	US\$100,000 by Dec 2017	<b>10%</b> (The University has opted for the normal School growth strategy where a Department must fully operate under another School and how potential for growth before it can be weaned to become a stand-alone School. This came after earlier formation of Schools indicated viability challenges)
p) Establish School of Medical Sciences and Technology	US\$100,000 Dec 2019	<b>20%</b> (The Department of Medical Laboratory Sciences and Technology now has a Coordinator and some Programmes have now been sent to ZIMCHE for accreditation. The programmes will be offered in collaboration with AiBST.)
q) Conduct curriculum review every cycle	US\$300,000 ongoing	<b>100%</b> (This is being done)

## KEY RESULT AREA 2: Research, Scholarship, Creativity and Innovation

a) Undertake quality research that advances knowledge and addresses national and global imperatives	US\$150,000 ongoing	<b>75%</b> (With the increase in the number of senior academics with PhD qualifications, the quality of research activities has seen a huge improvement)
b) Increase number of grant applications	US\$200,000 ongoing	<b>30%</b> (The increase is slow due to many factors beyond our control)
c) Develop a Research Policy	US\$3,000 by June 2016	<b>40%</b> (The Policy is now being fine-tuned)
d) Encourage collaborative research with national and international research partners	US\$55,000 ongoing	<b>30%</b> (This thrust has just started with the establishment of the Graduate Studies Directorate and the International Collaborations Office)
f) Ensure that research by students is guided by the Department/School and embraces national priorities	US\$300,000 ongoing	<b>80%</b> (This is being progressively achieved)
g) Increase cooperation between Industry and University	US\$50,000 ongoing	<b>50%</b> (This is being addressed and as the industrial sector is resuscitated, this plan will be achieved)
h) Develop intellectual Property Policy	US\$3,000 by June 2016	<b>100%</b> (The IP Policy is now in place)
i) Establish an Intellectual Property and Technology Transfer Office	US\$100,000 by Dec 2017	<b>100%</b> (The Office is now in place headed by a Director)
k) Increase number of postgraduate programmes	120,000 ongoing	<b>80%</b> (The number of graduate programmes has increased from two in 2015 to 7 by 31 December 2017)

## KEY RESULT AREA 3: Infrastructure and Accessories

a) Maintain campus facilities	US\$2,500,000 ongoing	<b>60%</b> (Maintenance programmes were put in place)
b) Build houses, lecture theatres, administration block, laboratories, chapel and staff offices	US\$14,500,000 ongoing	<b>0%</b> (The University's PPPs initiatives have not yet started bearing fruits)
c) Upgrade existing laboratories	US\$1,200,000 ongoing	<b>100%</b> (This has been done)
d) Build student hostels	US\$16,000,000 by Dec 2019	<b>0%</b> (The University's PPPs initiatives have not yet started bearing fruits)

e) Upgrade Library facilities	US\$2,000,000 ongoing	<b>30%</b> (The library was extended courtesy of ZIMPLATS)
f) Complete construction projects	US\$5,000,000 Dec 2017	<b>70%</b> (The Engineering Complex and Deans Office Blocks are complete but the Dining Hall extension is now left with internal finishes)
g) Invest in irrigation at the Farm	US\$300,000 Dec 2017	<b>50%</b> (Additional 40ha was put under irrigation in 2017)

#### KEY RESULT AREA 4: Investment and Resource Mobilisation

a) Establish viable SBUs for Institution wide and School based businesses	US\$60,000 Dec 2016	<b>50%</b> (Only the School of Natural Sciences and Mathematics, School of Wildlife, Ecology and Conservation and the Institute of Lifelong Learning are yet to start SBUs)
b) Grow existing business ventures	US\$200,000 ongoing	<b>60%</b> (There has been diversification and expansion of business projects in the Schools of Agricultural Sciences and Technology, Hospitality and Tourism and Art and Design)
d) Adopt the business model as basis for Institutional reform and management	US\$150,000 June 2016	<b>50%</b> (Some Units have now adopted a business model)

#### KEY RESULT AREA 5: Quality Assurance Systems

a) Seek accreditation with national and international bodies	US\$250,000 ongoing	<b>70%</b> (A lot of progress has been made. Most of our programmes are now accredited by respective professional bodies. The University re-newed its membership to AAU, ACU, SARUWA and is accredited to the local regulatory authority ZIMCHE)
c) Improve University ranking	US\$1,200,000 ongoing	<b>0%</b> (No progress has been made as yet)
d) Ensure buildings and other facilities meet standards		<b>30%</b> (This is work in progress. The University's PPPs initiatives have not yet started bearing fruits)
e) Benchmark programmes and core curricula against accreditation requirements and international standards	US\$200,000 Dec 2020	<b>90%</b> (This has been done for all programmes and this is ongoing).

#### KEY RESULT AREA 6: Corporate Governance and Organizational Stewardship

a) Establish effective Policies, administrative procedures and support systems	US\$15,000 ongoing	<b>80%</b> (Most administrative policies and procedures are now in place)
b) Produce monitoring and evaluation reports timeously	US\$100,000 ongoing	<b>70%</b> (Performance Management Reports were produced timeously)
c) Promote a service-oriented culture throughout the institution	US\$175,000 ongoing	<b>60%</b> (This is work in progress)
d) Further develop human resources management systems	US\$450,000 ongoing	<b>60%</b> (The HR Management Information System is in place and will continue to be improved)
e) Develop a Code of Conduct	US\$10,000 by Dec 2016	<b>90%</b> (The Code of Conduct was finalised but it is yet to be registered by the relevant Ministry)
f) Continuously develop and maintain sound financial management systems	US\$300,000 ongoing	<b>50%</b> (This is work in progress)

#### KEY RESULT AREA 7: Information and Communication Technologies

a) Strengthen ICT infrastructure	US\$1,700,000 ongoing	<b>75%</b> (This is work in progress)
b) Train staff and students on effective use of ICT resources	US\$45,000 ongoing	<b>75%</b> (The Academy of Teaching and Learning, ICT Dept and Library continue to hold workshops to help staff and students to effectively use ICTs)

#### KEY RESULT AREA 8: Outreach and Community Engagement

a) Develop community-based programmes and projects	US\$500,000 ongoing	<b>40%</b> (The Artificial Insemination cattle breeding programme has been rolled out to communities country-wide)
b) Offer non-degree courses and programs that meet the needs and aspirations of community	US\$50,000 ongoing	<b>50%</b> (The Schools and the Institute of Lifelong Learning held many short-courses in 2017)



c) Offer advisory services and consultancy work	US\$50,000 ongoing	<b>75%</b> (This is work in progress by Schools, Institute and individual lecturers)
d) Develop community engagement policy	US\$35,000 by Dec 2016	<b>0%</b> (The Policy is still being crafted)
e) Create platforms with development partners in industry to attach and train student	100,000 ongoing	<b>40%</b> (The University continues to work with professional bodies e.g. ZIE, IATA, ACCA, CIPS, AiBST)

### KEY RESULT AREA 9: Distinct Institutional Brand

a) Enhance University's corporate identity and image	US\$250,000 ongoing	<b>60%</b> (This is work in progress)
b) Produce and sell high quality memorabilia	US\$100,000 ongoing	<b>90%</b> (The Marketing and PR Dept has ensured that memorabilia of the University are of high quality and this has been confirmed by the University's clients)
c) Internationalise the University's brand	US\$100,000 ongoing	<b>20%</b> (This is work in progress and the newly formed International Relations Office is seized with the matter)
d) Develop Alumni programmes and increase alumni engagement	US\$30,000 ongoing	<b>40%</b> (The Alumni Association of the University was launched in 2017)
e) Establish an Endowment Fund	US\$10,000 ongoing	<b>0%</b> (No progress has been made so far and this has been attributed to the harsh economic environment)

### KEY RESULT AREA 10: Well Groomed Student

a) Offer Pastoral Services to staff and students	US\$50,000 ongoing	<b>100%</b> (This has been done and work continues to be done)
b) Offer healthy and affordable cafeteria services	US\$300,000 ongoing	<b>90%</b> (The University continues to subsidise food and to ensure that the quality of food served to students and staff is of high quality)
c) Review Students' Conduct and Discipline Rules (Ordinance 2)	US\$5,000 ongoing	<b>0%</b> (This yet to be done.)
d) Upgrade Sporting Facilities	US\$1,750,000 ongoing	<b>10%</b> (This is work in progress. Limited space for sportsgrounds could inhibit efforts)
e) Establish Special Needs Students' Office	US\$200,000 ongoing	<b>0%</b> (This is work in progress)
f) Nurture appropriate behaviour in students	US\$100,000 ongoing	<b>50%</b> (This is work in progress)

# BURSARY



**Dr O. Sifile**  
Bursar

Financial functions were undertaken in a very difficult economic environment that was characterized by cash shortages, delays in salary grants disbursements and failure to get PSIP and recurrent grant support. The fiscus availed the salary grant support 10 to 15 days after the end of the month. The grant had a shortfall of about \$100,000.00 every month. This shortfall is a result of teaching staff that were recruited in 2014 to fill vacancies in Schools with new degree programmes. The University has carried this burdensome shortfall since 2014 using internal financial resources.

Government remains the major source of funds which constitute 60% of the total budget, with student fees contributing 32% and other income at 8%.

## Key Successes in 2017

- The 2017 budget was compiled and approved by the Budget Committee, Finance Committee and Council. It was timeously distributed to all Budget Holders in the University – Deans, Heads of Departments and Chairpersons;
- Management Accounts were compiled quarterly;
- Idle funds were invested on the money market;
- Organized and provided advice and secretarial services to the following: Budget, Finance, Pension Board of Trustees, Resource Mobilization and CUT Hotel Finance

Committees;

- Successful audit of 2016 Final Accounts;
- Cost cutting measures were implemented.

## Conclusion

Cost-cutting measures implemented in 2017, though painful and unpopular, have allowed financial prudence from our internal stakeholders. The huge financial demand of STEM – related degree programmes continues to require more measures that will ensure that there are sufficient resources to support teaching and learning. The Bursary thanks CUT Management and all staff for their financial stewardship.

# LIBRARY



**Mr B. Nyangwaya**  
Librarian

## Print Collection

The Library endeavours to have a print collection that meets the needs of its clients as well as purchasing books that would have been requested by schools. Approximately six hundred and ninety eight (698) books were added to the library print collection in 2017. Two hundred and sixty five (265) books were received as a donation, mainly from Book Aid International.

## Digital Collection

Through the Zimbabwe University Library Consortium (ZULC), the Library managed to subscribe to 46 major databases of ebooks and ejournals, thereby giving students an opportunity to access relevant and current e-resources.

## Outreach

A Committee to work on the training of secondary school librarians and help to establish libraries in these schools was constituted. The first assignment was to visit Magunje High School and the main tasks were the refurbishment of their library, automation of the library, collection development and technical issues.

## Workshops

The Librarian and the Deputy Librarian attended the Strategic Plan Review Workshop held in Kariba from 15th to 17th August 2017. The Deputy Librarian and the Librarian for the School of Agricultural Sciences and Technology Library attended a workshop in Harare whose theme was 'Leading Libraries' that was held at

the Bronte Hotel and the University of Zimbabwe (UZ) from 25th to 28th September 2017; and Bronte and the Harare Institute of Technology (HIT) from 4th to 6th December 2017. The Librarian and the Deputy Librarian attended the ZULC scheduled meetings.

## Repurposing of the Library Space and Use

The Reserve Section of the Library was collapsed and converted into the component of the Research Commons Section. Some books from the Reserve Section were retained and others were donated to colleges.

## Familiarization Tours

Some members of the Library Marketing Committee visited UZ and Morgan ZINTEC for a familiarization tour.

## Information Literacy Skills

Orientation was held on 9th March 2017 and 17th August 2017, respectively. Information Literacy Skills Tutorials were held from 20th March 2017 to 4th May 2017 and from 28th August to 17th December 2017, respectively.

## Referencing Style

The University, through the Directorate of Graduate Studies, adopted the American Psychological Association (APA) as the approved referencing style. The Library went on to acquire the APA Referencing Guide.



*“A genuine leader is not a searcher for consensus but a molder of consensus.”*

*-Martin Luther King Jr*





*“Education is the most powerful weapon  
which you can use to change the world.”*

-Nelson Mandela



*Without hard work, nothing grows but weeds.*

-Gordon B. Hinckley



# CAMPUS PROTECTION SERVICES UNIT



**Mr Miti**  
Chief Security Officer

## Introduction

The department experienced mixed fortunes during the year. There were challenges emanating from the critical shortage of manpower. However, there was general success which was marked by the department's receiving an award as the best security team in the Tertiary Education Sector during the year.

## Manpower Levels

The department experienced critical manpower challenges as a result of the emergence of new posts and the transfer of staff to other departments. Six CPS Assistants were transferred to Technical Assistants duties to various University Schools, other six CPS Assistants were assigned to the Farm Dog Section and three others were deployed to the Kariba Complex. There were no replacements for these members of staff. The University Farm is relying on six months contract Farm Guards.

## Security Operations

The department provided security to the main campus, CUT hotels, executive houses, Shankuru and Dilmitis town campuses, CUT farm and the Kariba premises. Despite the critical shortage of manpower, these areas continued to receive deployments from the department. Armed and Dog patrols were intensified at the farm to deal with illegal gold panners, stray animals and trespassers.

Community Policing Initiatives (CPI) greatly assisted the department to prevent crime on campus. The critical shortage of manpower was making it impossible to have physical manpower at each and every point. Hence, Community Policing Initiatives (CPI) were used to fill this gap by educating members of the university community to 'police' themselves and be able to secure their properties.

Examination venues where most thefts of laptops were occurring were tightly monitored. The department implemented the 'Problem Solving Approach' which entailed immediately taking custody of all valuables left by students outside examination venues to the Control for safekeeping. The same approach was also applied at the Main Library and Research Computer Laboratory.

## Crime Management

Overall crime increased from ninety six (96) cases in 2016 to one hundred and seven (107) cases in 2017. Unlawful entry and theft cases rose from five (5) cases recorded in 2016 to thirteen (13) cases in 2017. Similarly, theft cases rose from forty (40) cases in 2016 to forty two (42) in 2017.

## Achievements

The Department's efforts in fulfilling its mandate were shown by clinching the "Security Team of the Year Award in the Tertiary Education Sector" in the Zimbabwe Private Security Awards for 2017. The department was awarded the prize in recognition of its quality service delivery, customer care and use of initiative.

Strengthening of Community Policing Initiatives (CPI), including formation of Crime Consultative Committees, Hostel Officer's Scheme, On/Off Campus Crime Awareness Campaigns, Whatsapp Security Chat Groups and Security Alert Flyers. Students, staff members, other guests (such as ZIMSEC Markers) and security stakeholders such as the Zimbabwe Republic Police were involved for the success of these initiatives. The first phase of implementation of the CCTV Security System was done with its approval by management and the acquisition of quotations from reputable local installers. The stage is now set for the rollout of the project in 2018 at a cost of forty seven thousand seven hundred and sixty one dollars ( \$47, 761.00).

The department acquired ten stun guns for use for crowd control and other violence prone duties in campus and at the farm. Ten special ZX-2128 rechargeable led searchlights (heavy duty torches) for effective night patrols in campus and at the farm were also acquired.

The department initiated the expansion of Canine (Dogs) Unit by acquiring ten wooden kennels. The Works and Estates Department is now working on the roof, concrete platform and fencing for the kennels. The expansion is expected to accommodate the dog breeding project for the department.

Partnerships with vital stakeholders such as the Zimbabwe Republic Police, Zimbabwe Prisons and Correctional Services, Municipal Police and Zimbabwe National Parks were cemented by holding joint operations, sports galas and general networking. There was also close association with security departments from University of Zimbabwe, Midlands State University and Bindura University of Science and Technology through exchange visits and sports.

## Conclusion

The department performed satisfactorily despite the negative effects of the critical manpower challenges.

It has now become clear that the department should focus on total implementation of technology based security systems because of these staff shortage challenges.

Internal Audit also attended External Auditors' engagement and exit meetings and acted as the linking point between the External Auditors and university staff members.

## Advisory role

Internal Audit continued to play its advisory role by obtaining vital information updates on the latest developments on the market with respect to trends, new offerings, price fluctuations etc. on various products/services. The department appraised Management and provided them with updates on the best available options and measures to adopt in order to contain costs and operate more efficiently.

## Outlook

Issues pertaining to cash shortages and liquidity constraints remained largely unresolved in 2017 and it seems this trend is going to persist in the short-term. The positive initiatives that have been put in place by the new dispensation of adopting positive policies are likely to create investor confidence and may attract significant new foreign direct investment. Some of these positive initiatives are set out in the 2018 National budgetary statement and the new monetary policy presented by the Central Bank. These initiatives are likely to yield positive results and may partly address the issue cash shortages in the near future. Financial support from central government is expected to improve in 2018. In fact many institutions are going to be forced to rationalize their operations in line with the new policy initiatives that were introduced by new government. As a department, we are therefore going to play an important role in providing assurance on the functionality and integrity of key Internal Control systems at the University and its strategic business units.



# Obituaries

## **Mr Arthur Mbewe**

### **Till Operator in the Dining Hall**

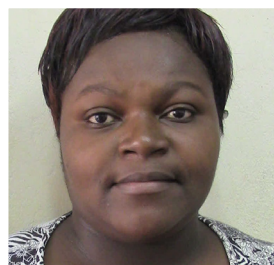
Mr Arthur Mbewe, a Till Operator in the Canteen passed away on the 16th of January 2017 at the age of 37 after a short illness. Arthur was born in Kariba District on the 13th of March 1979. He started his career in the Hospitality Industry in 2001 at Kariba Breezes Hotel as a Waiter. He later joined Carribea Bay Hotel in March 2002 as a Waiter and left in January 2003 to join Lake View Inn. Searching for greener pastures led Arthur to join Orange Grove Motel in September 2003 as a Waiter/Barman where he worked for 4 years before joining Chinhoyi University of Technology in February 2012 as a Till Operator. He is survived by his wife, Auquilena and three children, Isaac, Tatenda and Takudzwa. Arthur was laid to rest in Kariba. May his dear soul rest in peace.



## **Mr Peter Musarurwa**

### **Bus driver**

Mr. Peter Musarurwa, a Bus Driver in the Works and Estates Department passed away on the 20th of July 2017 at the age of 63 after a long illness. He was born in Chegutu District on the 7th of August 1954. Peter held a Class one driver's licence and an Advanced Driving Certificate. Before joining Chinhoyi University of Technology, he had worked for several organisations as a Driver. His career started in 1977 at Coca-Cola Bottling Company before moving on to Tauya Coach Services in 1992. Peter joined ZUPCO in 1996 and parted ways with the Company in 2003. He later joined Kukura Kurerwa Bus Company in May 2010 where he worked before moving to Chinhoyi University of Technology in November 2011. He is survived by three wives - Jane, Loveness and Netsai and four minor children - Diana, Peter, Dorothy, Sydney, amongst others. His body was interred at his rural home in Mhondoro. May his soul rest in eternal peace.



## **Ms Evidence Joymore Magadza**

### **Kitchen Porter in the Dining Hall**

Ms Evidence Joymore Magadza, a Kitchen Porter in the Canteen passed away on the 21st of November 2017 at the age of 30 after a short illness. Evidence was born in Harare on the 14th of October 1987. She joined Chinhoyi University of Technology as a Temporary Technical Assistant in the Central Services Department in April 2012. She held a degree in Media Studies. Evidence later rose to the post of Acting Records Clerk in the same Department in November 2012. She temporarily left the University in 2013 and rejoined in April 2014 as a Kitchen Porter, a position she held up to the time of her death. She is survived by her husband, Moffat and a daughter, Tatendaishe Bethel. Her body was interred at her Raffingora rural home. May her dear soul rest in eternal peace.

# 2017 Graduation In Pictures



Lupane University VC: Prof Kuipa



From Left: Dr Dandira, Dr Manuere, and Dr Masanga



Council Member: Dr Mutungamiri



Council Member: Dr Nehanda



Dr Chihobo



Dr Sifile



Poets



Prof D. J Simbi (Center) and Dr O. Moyo (Right)



Guests discussing



Dr T.B Bhebhe



Prof Mwenje: VC BUSE



Chancellor at work

# 2017 Graduation In Pictures *Cont'd*



Senior Academics and guests following proceedings



Chancellor and Vice-Chancellor



SRC Members



Guests



PhD Graduates





From Left: Professor Muranda and Dr Sifile



From Left: Eng. Dadi & Eng. Mazwazwa



From Left: Dr Sifile, Dr Chavunduka and Dr Kakava



From Left: Dr Murungweni and Dr Chihobo

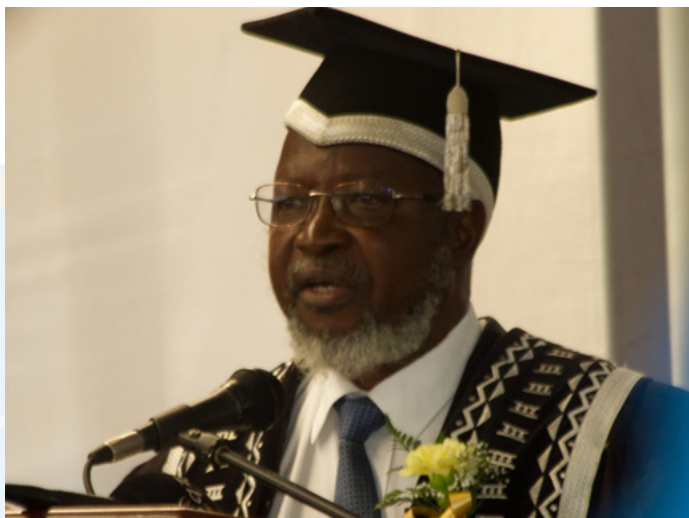


From Left: Mr. Pumhayi, Dr Mlambo, Dr Mutopo and Dr Mubaya

# 2017 Graduation In Pictures



Chancellor following proceedings



Vice-Chancellor delivering his speech



Graduation Procession



CUT Staff



The Chancellor Cde E.D Mnangagwa(Front row centre) with the University Council and members of the Executive



Poet



PhD Graduands



Choir



Airforce Band



Airforce Band



Graduands

**Table 1: Undergraduate Student Enrolment**

Institute/ School	Year 1			Year 2			Year 3			Year 4			Year 5			Total
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
School of Agricultural Sciences and Technology	118	101	<b>219</b>	118	82	<b>200</b>	112	115	<b>227</b>	109	102	<b>211</b>	18	0	<b>18</b>	<b>875</b>
School of Engineering Sciences and Technology	299	97	<b>396</b>	223	56	<b>279</b>	275	61	<b>336</b>	194	48	<b>242</b>	78	18	<b>96</b>	<b>1349</b>
School of Wildlife, Ecology and Conservation	3	4	<b>7</b>	5	5	<b>10</b>	21	15	<b>36</b>	8	4	<b>12</b>				<b>65</b>
School of Natural Science and Mathematics	12	6	<b>18</b>	18	9	<b>27</b>	18	7	<b>25</b>	7	4	<b>11</b>				<b>83</b>
School of Hospitality and Tourism	30	83	<b>113</b>	25	73	<b>98</b>	24	56	<b>80</b>	26	54	<b>80</b>				<b>371</b>
School of Art and Design	105	123	<b>228</b>	69	104	<b>173</b>	86	93	<b>179</b>	29	58	<b>87</b>				<b>667</b>
School of Entrepreneurship and Business Sciences	557	610	<b>1167</b>	547	568	<b>1115</b>	646	669	<b>1315</b>	406	378	<b>784</b>				<b>4381</b>
<b>Total</b>	<b>1124</b>	<b>1024</b>	<b>2148</b>	<b>1005</b>	<b>897</b>	<b>1902</b>	<b>1182</b>	<b>1016</b>	<b>2198</b>	<b>779</b>	<b>648</b>	<b>1427</b>	<b>96</b>	<b>18</b>	<b>114</b>	<b>7791</b>

**Table 2: Comparative Schedule for Undergraduate Enrolment in the Years 2015, 2016 and 2017**

Institute/ School	2015			2016			2017		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
School of Agricultural Sciences and Technology	371 (55%)	308 (45%)	<b>679</b>	389 (54%)	338 (46%)	<b>727</b>	475 (54%)	400 (46%)	<b>875</b>
School of Engineering Sciences and Technology	873 (83%)	185 (17%)	<b>1058</b>	874 (81%)	211 (17%)	<b>1085</b>	1069 (79%)	280 (21%)	<b>1349</b>
School of Wildlife, Ecology and Conservation	59 (61%)	37 (39%)	<b>96</b>	54 (62%)	33 (38%)	<b>87</b>	37 (56%)	29 (44%)	<b>65</b>
School of Natural Science and Mathematics	18 (60%)	12 (40%)	<b>30</b>	40 (70%)	17 (30%)	<b>57</b>	56 (67%)	27 (33%)	<b>83</b>
School of Hospitality and Tourism	211 (40%)	314 (60%)	<b>525</b>	165 (37%)	280 (63%)	<b>445</b>	105 (28%)	266 (72%)	<b>371</b>
School of Art and Design	155 (28%)	257 (62%)	<b>412</b>	186 (40%)	279 (60%)	<b>465</b>	289 (43%)	378 (57%)	<b>667</b>
School of Entrepreneurship and Business Sciences	1975 (53%)	1779 (47%)	<b>3754</b>	2222 (53%)	1997 (47%)	<b>4219</b>	2156 (49%)	2225 (51%)	<b>4381</b>
Institute of Lifelong learning	2 (100%)	0 (0%)	<b>2</b>	4 (57%)	3 (43%)	<b>7</b>	0 (0%)		
<b>Total</b>	<b>3664 (56%)</b>	<b>2892 (44%)</b>	<b>6556</b>	<b>3934 (55%)</b>	<b>3158 (45%)</b>	<b>7092</b>	<b>4187 (54%)</b>	<b>3604 (46%)</b>	<b>7791</b>



**Table 3: Masters in Philosophy**

Institute/ School	Year1			Year 2			Year 3			Year 4			Total
	M	F	T	M	F	T	M	F	T	M	F	T	
School of Agricultural Sciences and Technology	-	-	-	1	1	2	-	1	1	4	-	4	7
School of Engineering Sciences and Technology	1	1	2	1	-	1	-	-	-	3	-	3	4
School of Wildlife, Ecology and Conservation	4	1	5	-	-	-	-	-	-	-	1	1	1
School of Natural Science and Mathematics	2	1	3										
School of Hospitality and Tourism	1	-	1	-	-	-	-	-	-	1	1	2	2
School of Art and Design	-	-	-	-	1	1	1	2	3	-	-	-	4
Institute of Lifelong Learning and Development Studies	1	-	1	-	-	-	-	1	1	-	-	-	1
<b>Total</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>2</b>	<b>10</b>	<b>19</b>

**Table 4: Doctor of Philosophy**

Institute/ School	Year1			Year 2			Year 3			Year 4			Total
	M	F	T	M	F	T	M	F	T	M	F	T	
School of Agricultural Sciences and Technology	3	-	3	2	1	3	1	2	3	-	-	-	6
School of Engineering Sciences and Technology	1	-	1	-	-	-	-	-	-	-	-	-	2
School of Wildlife, Ecology and Conservation	2	-	2	2	1	3	1	-	1	-	-	-	4
School of Hospitality and Tourism	-	-	-	-	-	-	3	1	4	1	-	1	5
School of Art and Design	1	-	1	-	-	-	-	-	-	-	-	-	1
Institute of Lifelong Learning and Development Studies	-	-	-	2	-	2	1	2	3	-	-	-	5
School of Entrepreneurship and Business Sciences	3	2	5	3	1	4	-	-	-	-	-	-	4
<b>Total</b>	<b>10</b>	<b>2</b>	<b>12</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>6</b>	<b>5</b>	<b>11</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>24</b>

**Table 5: Master of Science Degree Programmes**

Institute/ School	Year1			Year 2			Total
	M	F	T	M	F	T	
Master of Science degree in Post Harvest Science and Technology	5	2	7	1	1	2	9
Master of Science degree in Hospitality and Tourism	8	13	21	2	10	12	33
Master of Science degree in Applied Entrepreneurship	9	1	10	7	7	14	24
Master of Science degree in Strategic Management	66	36	102	37	18	55	157
Master of Science degree in Supply Chain Management	65	34	99	89	19	108	207
Master of Business Intelligence	-	-	-	4	-	4	4
Master of Science degree in Sustainable Technologies and Livelihoods	16	7	23	-	-	-	23
<b>TOTAL</b>	<b>169</b>	<b>93</b>	<b>262</b>	<b>140</b>	<b>55</b>	<b>195</b>	<b>456</b>

Table 6:

Institute/ School	2015			2016			2017			Per-centage	Increase/ Decrease
	M	F	Total	M	F	Total	M	F	Total		
<b>School of Agricultural Sciences and Technology</b>											
<b>Bachelor of Science (Hons) degree in Environmental Science and Technology</b>	7	5	<b>12</b>	1	1	<b>2</b>	5	-	<b>5</b>	150	increase
<b>Bachelor of Science (Hons) degree in Food Science and Technology</b>	9	18	<b>27</b>	12	19	<b>31</b>	5	13	<b>18</b>	(42)	Decrease
<b>Bachelor of Science (Hons) degree in Agricultural Engineering</b>	5	1	<b>6</b>	10	2	<b>12</b>	6	5	<b>11</b>	(8)	Decrease
<b>Bachelor of Science (Hons) degree in Biotechnology</b>	11	6	<b>17</b>	8	19	<b>27</b>	11	8	<b>19</b>	(30)	Decrease
<b>Bachelor of Science (Hon) Degree in Irrigation Engineering</b>	8	2	<b>10</b>	12	4	<b>16</b>	-	-			
<b>Bachelor of Science (Hons) degree in Crop Science and Technology</b>	-	-		-	-		6	3	<b>9</b>		
Bachelor of Science (Hons) degree in Animal Production and Technology	-	-	-	-	-	-	5	4	<b>9</b>		
<b>Master of Philosophy degree</b>	1	-	<b>1</b>	1	-	<b>1</b>	-	2	<b>2</b>	100	Increase
<b>Master of Science Degree Post Harvest Technology</b>	-12	5	<b>17</b>	5	3	<b>8</b>	10	4	<b>14</b>	75	Increase
<b>Doctor of Philosophy</b>	-	-	-	-	-	-	-	1	<b>1</b>		
<b>Total</b>	<b>53</b>	<b>37</b>	<b>90</b>	<b>49</b>	<b>48</b>	<b>97</b>	<b>58</b>	<b>44</b>	<b>102</b>	<b>5</b>	<b>↑</b>
<b>School of Engineering Sciences and Technology</b>											
<b>Bachelor of Science (Hons) degree Information Technology</b>	55	12	<b>67</b>	89	74	<b>113</b>	49	15	<b>64</b>	(43)	decrease
<b>Bachelor of Engineering (Hons) degree in Fuels and Energy</b>	8	5	<b>13</b>	19	6	<b>25</b>	10	5	<b>10</b>	(60)	decrease
<b>Bachelor of Engineering (Hons) degree in Mechatronic Engineering</b>	25	1	<b>26</b>	70	5	<b>75</b>	35	4	<b>38</b>	(48)	decrease
<b>Bachelor of Engineering (Hons) degree in Production Engineering</b>	27	2	<b>29</b>	45	6	<b>51</b>	20	6	<b>26</b>	(49)	decrease
<b>Bachelor of Science (Hons) Degree in Environmental Engineering</b>	-	-	-	-	-	-	2	2	<b>4</b>	(	
<b>Master of Philosophy Degree</b>	-	-	-	1	-	<b>1</b>	-	1	<b>1</b>		Increase
<b>Doctor in Philosophy</b>	-	-	-	2	-	<b>2</b>	-	1	<b>1</b>	(50)	Decrease
<b>Total</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>267</b>	<b>8</b>	<b>2</b>	<b>150</b>	<b>(44)</b>	<b>Decrease</b>



**Table 7:**

Institute/ School	2015			2016			2017			Per-centage	In-crease/ De-crease
	M	F	Total	M	F	Total	M	F	Total		
<b>School of Entrepreneurship and Business Sciences (Non-STEM)</b>											
<b>Bachelor of Science (Hons) degree in International Marketing</b>	86	54	<b>139</b>	62	69	<b>129</b>	33	24	<b>57</b>	(56)	Decrease
<b>Bachelor of Science (Hons) degree in Entrepreneurship and Business Management</b>	62	55	<b>117</b>	54	59	<b>113</b>	50	45	<b>95</b>	(16)	Decrease
<b>Bachelor of Science (Hons) degree in Retail Management</b>	36	16	<b>52</b>	9	5	<b>14</b>	-	-	<b>-</b>		
<b>Bachelor of Science (Hons) degree in Retail Management and Consumer Science</b>	-	-	<b>-</b>	27	27	<b>54</b>	24	34	<b>58</b>	(7)	Decrease
<b>Bachelor of Science (Hons) degree in International Purchasing Logistics and Transport</b>	126	73	<b>199</b>	26	8	<b>34</b>	-	6	<b>6</b>	(82)	Decrease
<b>Bachelor of Science (Hons) degree in Supply Chain Management</b>	-	-	<b>-</b>	95	74	<b>169</b>	85	59	<b>144</b>	(44)	Decrease
<b>Bachelor of Science (Hons) degree in Accountancy</b>	96	119	<b>215</b>	136	130	<b>266</b>	122	95	<b>217</b>	(4)	Decrease
<b>Bachelor of Sciences (Hons) degree in Public Finance and Accounting</b>	-	-	<b>-</b>	-	-	<b>1</b>	1	-	<b>1</b>		
<b>Masters degree in Business Intelligence</b>	14	2	<b>16</b>	24	3	<b>27</b>	5	-	<b>5</b>	81	Increase
<b>Master of Science degree in Strategic Management</b>	123	40	<b>163</b>	95	40	<b>135</b>	86	42	<b>128</b>	(5)	Decrease
<b>Master of Science degree in Applied Entrepreneurship</b>	-	-	<b>-</b>	-	-	<b>-</b>	6	7	<b>13</b>		
<b>Total</b>	<b>543</b>	<b>358</b>	<b>901</b>	<b>526</b>	<b>383</b>	<b>911</b>	<b>409</b>		<b>766</b>	<b>(16)</b>	↓
<b>Institute of Lifelong Learning and Development Studies</b>											
<b>Postgraduate Diploma in Higher Education</b>	-	-	<b>-</b>	-	-	<b>-</b>	28	15	<b>43</b>		
<b>AFFILIATE INSTITUTE OF CHINHOYI UNIVERSITY OF TECHNOLOGY</b>											
<b>Bachelor of Science degree in HIV/AIDS Management &amp; Community Development (STEM)</b>	25	18	<b>43</b>	9	34	<b>43</b>	7	3	<b>10</b>	(77)	Decrease
<b>Bachelor of Science (Hons) degree in Office Administration and Technology (NON-STEM)</b>	-	11	<b>42</b>	2	31	<b>33</b>	-	42	<b>42</b>	27	Increase
<b>Total</b>	<b>25</b>	<b>29</b>	<b>54</b>	<b>11</b>	<b>65</b>	<b>76</b>	<b>3</b>	<b>49</b>	<b>52</b>	<b>(32)</b>	↓
<b>Grand Total</b>	<b>831</b>	<b>587</b>	<b>1418</b>	<b>920</b>	<b>721</b>	<b>1681</b>	<b>687</b>		<b>1221</b>	<b>(27)</b>	↓

## CHINHOYI UNIVERSITY OF TECHNOLOGY

STATEMENT OF CASH FLOWS  
year ended 31 December 2017

	Note	2017 \$	2016 \$
<b>NET CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Operating cash flows</b>			
Surplus for the year		1 835 892	591 769
Adjustments for:			
Depreciation		1 810 670	1 783 952
Fair value adjustment to biological assets		21 033	(9 319)
Loss/(gain) on disposal of equipment		69 111	(2 455)
Interest received		(28 861)	(22 787)
Amortised deferred revenue		(90 345)	(195 032)
Births of biological assets		(7 049)	(17 758)
Deaths of biological assets		2 779	33 496
Net operating cash flows before working capital changes		<u>3 613 230</u>	<u>2 161 866</u>
<b>Working capital changes</b>			
Decrease/(increase) in inventories		26 982	(48 830)
Decrease in trade and other receivables		271 790	237 241
(Decrease)/increase in accounts payable		(969 402)	654 621
Net cash flows from operations		<u>2 942 600</u>	<u>3 004 898</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment		(2 912 108)	(3 324 008)
Proceeds from disposal of assets		79 707	12 688
Finance income		28 861	22 787
Additions to biological assets		(46 224)	(59 544)
Disposal of biological assets		23 421	14 504
Net cash flows from investing activities		<u>(2 826 343)</u>	<u>(3 333 573)</u>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>			
Repayment of long term loan		-	(140 000)
Decrease in specific funds		(7 803)	(125 371)
Capital grants received		1 015 034	883 899
Net cash flows from financing activities		<u>1 007 231</u>	<u>618 528</u>
<b>INCREASE IN CASH AND CASH EQUIVALENTS</b>		<u>1 123 488</u>	<u>289 853</u>
<b>CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR</b>		787 542	497 689
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR</b>		<u>1 911 030</u>	<u>787 542</u>





## CHINHOYI UNIVERSITY OF TECHNOLOGY

### STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME year ended 31 December 2017

	Note	2017 \$	2016 \$
<b>INCOME</b>			
Student fees	13	10 054 683	9 418 248
Grants from the Government of Zimbabwe	14	18 566 840	17 542 264
Other income	15	912 141	860 211
		<u>29 533 664</u>	<u>27 820 723</u>
<b>EXPENDITURE</b>			
Staff costs	16	19 232 771	19 216 488
Operating expenses	17	6 451 344	5 507 348
Allowances for credit losses		99 565	577 199
Expenditure grants	18	103 422	143 967
Total expenditure		<u>25 887 102</u>	<u>25 445 002</u>
Surplus for the year before depreciation charge		3 646 562	2 375 721
Depreciation charge for the year	4	(1 810 670)	(1 783 952)
Surplus for the year		<u>1 835 892</u>	<u>591 769</u>
<b>Other comprehensive income</b>		-	-
Total comprehensive income for the year		<u>1 835 892</u>	<u>591 769</u>

## CHINHOI UNIVERSITY OF TECHNOLOGY

STATEMENT OF CHANGES IN RESERVES  
year ended 31 December 2017

	Specific funds \$	Revaluation reserve \$	Non distributable reserves \$	Accumulated fund \$	Total \$
At 31 December 2015	382 752	672 102	-	29 500 956	30 555 810
Realisation of revaluation reserve	-	(672 102)	-	672 102	-
Total comprehensive income for the period	-	-	-	591 769	591 769
Receipts	164 740	-	-	-	164 740
Payments	(290 111)	-	-	-	(290 111)
Balance as at 31 December 2016	257 381	-	-	30 764 827	31 022 208
Total comprehensive income for the period	-	-	-	1 835 892	1 835 892
Receipts	264 932	-	-	-	264 932
Payments	(272 735)	-	-	-	(272 735)
Balance as at 31 December 2017	249 578	-	-	32 600 719	32 850 297





**CHINHOI UNIVERSITY OF TECHNOLOGY HOTEL**

**STATEMENT OF FINANCIAL POSITION**  
**as at 31 December 2017**

	Note	2017 \$	2016 \$
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property and equipment	4	172 981	167 188
<b>Current assets</b>			
Inventories	5	42 310	29 182
Trade and other receivables	6	207 482	157 424
Bank and cash balances	7	50 982	28 137
		<u>300 774</u>	<u>214 743</u>
<b>Total assets</b>		<u>473 755</u>	<u>381 931</u>
<b>RESERVES AND LIABILITIES</b>			
<b>Reserves</b>			
Capital contribution from University		163 796	163 796
Accumulated fund/ (loss)		13 401	(33 401)
		<u>177 197</u>	<u>130 395</u>
<b>Current liabilities</b>			
Trade and other payables	9	296 558	251 536
<b>Total liabilities</b>		<u>296 558</u>	<u>251 536</u>
<b>Total reserves and liabilities</b>		<u>473 755</u>	<u>381 931</u>

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**Board of Trustees Chairperson**

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**General Manager**

**30 May 2018**

**CHINHOI UNIVERSITY OF TECHNOLOGY HOTEL****STATEMENT OF CASH FLOWS**  
year ended 31 December 2017

	Note	2017 \$	2016 \$
<b>NET CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b>Operating cash flows</b>			
Profit before tax		46 802	8 479
Adjustments for:			
Depreciation		43 549	42 850
Loss on equipment write off		3 861	-
Net operating cash flows before working capital changes		94 212	51 329
<b>Changes in working capital</b>			
(Increase)/ decrease in inventories		(13 128)	13 225
Increase in trade and other receivables		(50 058)	(71 156)
Increase in trade and other payables		45 022	54 270
Net cash flows from operations		76 048	47 668
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Acquisition of property and equipment		(53 203)	(29 756)
<b>INCREASE IN CASH AND CASH EQUIVALENTS</b>		22 845	17 912
<b>CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR</b>		28 137	10 225
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR</b>		50 982	28 137

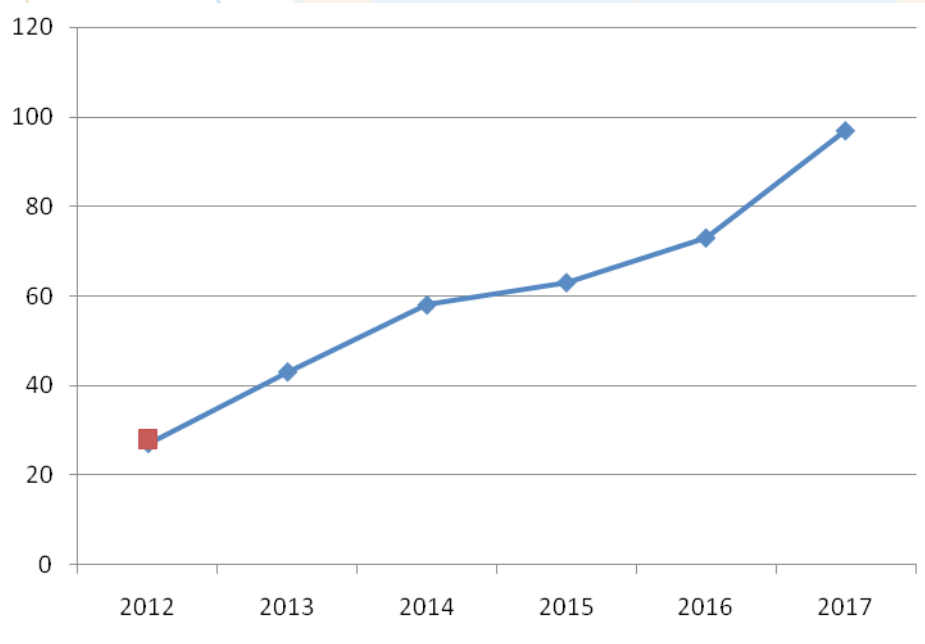


Figure 1

The University staff statistics as at 31 December 2017 is shown on the attached Appendix 1.

