



MICHIGAN STATE  
UNIVERSITY



## MUST-ISP OFFICIAL PROGRAMME OF ACTIVITY



**DECEMBER 4<sup>TH</sup>, 2018**  
**MUST LIBRARY AUDITORIUM**

University Registrar  
Malawi University of Science and Technology  
Off Mugabe Road  
PO Box 5196  
Limbe  
Email: [registrar@must.ac.mw](mailto:registrar@must.ac.mw)

## Table of Contents

<b>Programme of Events</b> .....	<b>3</b>
<b>Remarks by Vice Chancellor</b> .....	<b>4</b>
<b>Remarks by Council Chair</b> .....	<b>5</b>
<b>Remarks by MSU Director</b> .....	<b>6</b>
<b>The MUST ISP 2018-2022</b> .....	<b>7</b>
<b>MUST-ISP Partners</b> .....	<b>9</b>
<b>MUST ISP Advisor Team</b> .....	<b>13</b>
<b>Faculty Scholars</b> .....	<b>33</b>
<b>Administration Scholars</b> .....	<b>40</b>
<b>Networking scholars</b> .....	<b>43</b>
<b>Junior ISP Scholars</b> .....	<b>47</b>

## Programme of Events

TIME (HRS)	ACTIVITY
08.00 – 08.30	Registration of Participants
08.30 – 08.45	Arrival of the Guest of Honour- Hon. Bright Msaka, SC
08.45 – 10.00	Viewing of displays mounted by MUST
10.00 – 10.15	Introductory remarks and introductions by Director of Ceremonies
10.15 – 10.30	Welcome Remarks by Professor Address Malata, MUST Vice Chancellor,
10.30 – 10.40	Remarks by Dr Kurt Richter Deputy Director of Global Centre for Food Systems Innovation
11.40-11.00	Remarks by Chair of Council
11.00-11.20	Remarks by USAID Director Littleton Tazewell
11.20 – 12.00	Official Launch Address - Honourable Bright Msaka, SC Minister of Education, Science and Technology
12.00-13.00	Group photograph and interviews

## Remarks by Vice Chancellor

The Malawi University of Science and Technology Innovation Scholar Programme (MUST-ISP) represents a major shift in the way our University will address capacity building gaps in teaching, research, innovation and entrepreneurship. Since its inception a few years ago, the University has not had a deliberate framework that allowed faculty, administrators and students to work towards addressing specific challenges affecting the community and the nation at large.

The MUST ISP is an innovative, 18-month faculty and administration development program that will serve as a catalyst to advance the overarching objective of MUST, which is to advance the current and next generation of entrepreneurial scientists in Malawi and the region. The program is hosted in partnership with Michigan State University (MSU) and is an extension of the program formerly held at Lilongwe University of Agriculture and Natural Resources (LUANAR).

As a University, through our Schools, Centres and the students' community, generated innovative ideas that, with proper frameworks, could be a source of economic transformation whilst providing solutions to many challenges that the country is facing. However, we had not properly harnessed these innovations to contribute to several pillars in our strategic plan. The MUST-ISP presents one of the platforms that we will use to capacitate our university to support national and global goals with clear partnerships with communities, the private sector and international centres of excellence such as Michigan State University.

I call on all MUST family members and our development partners to reignite their ambitions and actions as we collectively deal with the increasing youth unemployment, environmental degradation, food insecurity, and extreme weather events thereby affecting the attainment of both the Malawi Growth and Development Strategy (MGDS III) and Sustainable Development Goals (SDGs). As a university, we are committed to forge partnerships that will alleviate the sufferings of many Malawians, especially those in rural areas.

The MUSTISP will contribute to realisation of our Vision: '*A world class centre of science and technology education, research and entrepreneurship*' and it is with this vision that I endorse the programme as an instrument of change.

It is very clear that this MUST ISP is also contributing to all pillars in our strategic plan (2017-2022) including **Pillar 1: Quality Education; Pillar 2: Research and Valorisation; Pillar 3: Enabling Environment, and Pillar 4: External Engagement.**

The MUST-ISP recognizes that building human capacity depends on an enabling environment that propels science, technology and innovation. Sustaining such growth requires effective institutional response systems through coordinated investments in human capital. The MUST ISP lays the foundation for our members of staff, students and our partners to advance the university's vision through the design thinking that will be the core pathway for mentorship in the programme.

I champion and stand behind this programme, and expect to witness real change. I therefore call on the coordinating teams here in Malawi, and the Michigan State University to put in all the required attention by acting to work together to achieve the vision of MUST and that of Malawi.

May God Bless Malawi and its People.

### **Remarks by Council Chair**

As a new institution of higher learning, the Malawi University of Science and Technology cannot make a name if it just offers tuition. The university needs to go further and engage in research and outreach activities that have an impact on the lives of people. In so doing, it will be establishing its credentials but also demonstrating its relevance to the community.

This is why I was very excited with the news that the University has partnered Lilongwe University of Agriculture and Natural Resources and Michigan State University to implement the Innovation Scholar Programme (ISP) which we are launching today. Through the programme, some of our students, faculty and industry players in various fields will exercise their innovative minds and come up with projects that will change the face of higher education and help put MUST and its partners on the map.

Let me thank the United States Agency for International Development (USAID) for funding the ISP and MSU, for deciding to work with a new and small university like MUST. I would also like to thank the Government of Malawi for creating an enabling environment for public universities, and private ones as well, to operate freely and independently to realise their full potential.

Looking at the ideas that have come from the scholars that have qualified for the ISP, one is left with optimism that great things will come out of this. However, Malawians have had ideas for some time and probably what was lacking was to turn those ideas into tangibles. I am happy this is the gap the ISP is filling. Once the projects have been completed, we still need to go further to nurture and commercialise them so that the project does not just become another academic exercise. The ideas that have been presented, if pursued to their logical conclusions, have the potential to address some of our major challenges as a nation and as a region. We are talking about issues of food security, processing and technological innovations in various disciplines such as language, engineering, IT, administration, finance and many more others.

Finally, let me wish all the best all the scholars and implementing team of ISP in various capacities. I would be happy if this becomes a landmark project, not only at MUST but Malawi as a whole.

## **Remarks by MSU Director**

Good morning to you all. On behalf of Michigan State University, I would like to extend my warmest welcome to all distinguished guests, MUST Administrators, scholars and all stakeholders present here today.

It is a great pleasure for me to be with you this morning for the Launch of the Malawi University of Science and Technology Innovation Scholars Program. I would like to take a few minutes to talk about the base rock on which all transformation is based....That base rock is trust and partnership. LUANAR and MSU have long been supportive partners. Today, we welcome the addition of MUST to our partnership.

The MUSTISP program is an adaptation of a successful LUANAR based program that LUANAR and MSU jointly developed in 2016. I remember a series of conversations I had with Dr. David Mkwambisi in Dec 2015 where we discussed the need for partnership and support for LUANAR needed to change to better empower LUANAR to attain its strategic plan. The LUANAR ISP was jointly designed with LUANAR and MSU to place the needs of LUANAR at the center of the capacity development project.

I am pleased to represent Michigan State University's Global Center for Food Systems Innovation. GCFSI, as we call it has the mission of fostering innovative solutions to big development problems. The focus of GCFSI is on solutions to problems within the food system, which we take to cover everything from farm production to processing and marketing to final consumers.

I would like to acknowledge the support for these activities that we have received from USAID, both from the USAID/Washington offices that fund GCFSI, and from USAID/Malawi. The official objective of the MUST Innovation Scholars Program is to equip MUST academic and upper administrative personnel and MNEEN membership with the knowledge, skills, and qualities required to advance MUST towards the institutional Strategic Goals and improve the innovation ecosystem in Malawi.

Unofficially, Together, today we take a step towards Malawi crafting its own development path by using the knowledge and power of MUST to reach outside of this beautiful campus to make real change in the development of Malawi. In addition, we are creating a unique set of innovation focused researchers in Malawi, at LUANAR and at MUST, who speak the same language of innovation...who are skilled in using science to solve problems...who can communicate impact to stakeholders...who can listen and learn from stakeholders to understand their problems.

My hope for MUST, LUANAR and Malawi is we create a new way for institutions of higher of education on this great continent to create solutions for development challenges but also produce graduates who are capable of creating local solutions to economic, environmental and social challenges.

## **The MUST ISP 2018-2022**

The Malawi University of Science and Technology Innovation Scholars Program (MUST ISP) is an innovative, 18-month faculty and administration development program that will serve as a catalyst to advance the overarching objective of MUST, which is to advance the current and next generation of entrepreneurial scientists in Malawi and the region. The program is hosted in partnership with Michigan State University (MSU) and is an extension of the program formerly held at Lilongwe University of Agriculture and Natural Resources (LUANAR). Active from 2016–17, the LUANAR ISP was a successful, experiential learning-based faculty development program.

The MUSTISP will consist of three tracks. The **Faculty Track** will challenge MUST faculty to apply their research, via design thinking, to solve a local development challenge. The **Administrator Track** will work to improve the MUST institutional environment to support entrepreneurial research, education and outreach. The **Network Track** will engage members of the Malawi National Engineering Ecosystem Network (MNEEN) to strengthen the innovation system in Malawi. The MNEEN will serve as a bridging institution between MUST, the private sector and the Government of Malawi's (GoM) National Commission of Science and Technology (NCST).

### OBJECTIVES

The objective of the MUST Innovation Scholars Program is to equip MUST academic and upper administrative personnel and MNEEN membership with the knowledge, skills, and qualities required to advance MUST towards the institutional Strategic Goals and improve the innovation ecosystem in Malawi.

Specifically, **all scholars** will be able to:

- (i) Provide solutions for addressing development challenges;
- (ii) Learn new and innovative processes for facilitating student learning;
- (iii) Produce high quality research that can advance the reputation of MUST and lead to policy change that better supports development in Malawi;
- (iv) Improve MUST's engagement with local communities and the private and public sectors; and
- (v) Facilitate organizational change within MUST towards an institutional culture of innovation.

In addition, **Faculty Scholars** will be able to:

- (i) Implement new and innovative processes for facilitating student learning;
- (ii) Design, develop, and conduct high quality innovative research that can address current development challenges;
- (iii) Improve engagement with local communities and both the private and public sectors; and
- (iv) Communicate the nature and importance of their scientific work to diverse audiences.

### **Administrative Scholars will be able to:**

- (i) Understand the nature of innovation and the research around institutionally conducive practices for innovation;
- (ii) Develop, apply, and revise good policies to create an institutional culture that understands the importance of and supports innovation in research;
- (iii) Identify institutional barriers to innovation in teaching, research, and outreach;
- (iv) Develop research management skills such as:
  - a. Planning, design and organization of development research
  - b. Human resource management and incentive structures to reward innovation research
  - c. Research-outreach-community linkages
  - d. Public-private partnerships
  - e. Intellectual property management, technology transfer, and commercialization;
- (v) Develop recommendations to facilitate organizational change within MUST and in their specific sections toward an institutional culture of innovation; and
- (vi) Develop an institutional plan for the sustainability of the Innovation Scholars Program.

### **Network Scholars will be able to:**

- (i) Better communicate the role of science in supporting development in Malawi;
- (ii) Improve the connection between GoM policies and research output;
- (iii) Better function as a bridge between the GoM and higher education institutions (HEIs); and
- (iv) Help HEIs better link with the private sector to address development challenges.

The above objectives will be attained via individual development challenges, short term training and experiential learning activities. Each element of the MUST Innovation Scholars Program will be tied directly to supporting the goals for specific Strategic Plan Pillars.

### **Intended Outcomes**

- Demonstrate a deeper understanding of core knowledge areas that support innovation in agricultural systems;
- Use a toolkit of activities to generate innovative work;
- Communicate the importance of their research to diverse audiences;
- Adapt and incorporate innovative design-thinking in student learning;
- Explain to various audiences the importance of higher education, generally, and of MUST; particularly, within the context of Malawi's economic development;
- Support and incentivize faculty development;
- Develop a toolkit of sustainability strategies (e.g. intellectual property policy, short-courses, consultancies, technology transfer, patents, etc.); and

Use levers of change to begin shifting the paradigm of the University towards a culture of innovation.

## **MUST-ISP Partners**

### [Malawi University of Science and Technology \(MUST\)](#)

The Malawi University of Science and Technology (MUST) was established by an Act of Parliament Number 31 of 2012 with the aim of promoting the development, adaptation, transfer and application of science, technology and innovation for macro- and micro-economic development of Malawi. Its vision is “a world class centre of science and technology education, research and entrepreneurship” which is being realised through the provision of a conducive environment for quality education, training, research, and entrepreneurship, and outreach activities.

The University enrolled its first cohort of students in April 2014 but was officially opened on October 24, 2014 by His Excellency the President, Professor Arthur Peter Mutharika, who is also its first Chancellor. MUST has four operational schools: the Malawi Institute of Technology (MIT), Ndata School of Climate and Earth Sciences (NSCES), Academy of Medical Sciences (AMS), and Bingu School of Culture and Heritage (BISCH). These schools are headed by Executive Deans.

Established in 2014, the MIT is currently offering seven undergraduate and two postgraduate academic programmes in areas of Engineering, Computer and Information Technology, Innovation and Entrepreneurship. The NSCES is currently offering seven undergraduate programmes in earth science, climate science, sustainable energy and water resources. The BISCH was operationalised in 2017 and is offering three undergraduate programmes in sports science, African Musicology and Indigenous Knowledge Systems and Practice.

The last school to be operationalised was the AMS which started its operations in 2018 and is currently offering three programmes at undergraduate level in medical imaging, immunology, and medical microbiology. The school also houses the university's teaching hospital which will run a fully-fledged private clinic and act as a state-of-the-art diagnostics centre apart from carrying out research activities in the school, especially on non-communicable diseases. In total, the university has 20 undergraduate programmes and two postgraduate programmes. The student population has grown to around 2,000 from 120 in 2014.

Starting last year, MUST is now enrolling international students at undergraduate level and has implemented three entry points for all undergraduate students, namely generic, mature and those able to pay economic fees. While other universities took more than a decade to achieve these feats, MUST has demonstrated that despite the uncomplimentary tag of being the youngest and smallest public university in Malawi, it is ready to herald a new thinking in higher education by aligning itself to Malawi's development aspirations. Some of these achievements have come so fast because of the university's decision to work with established institutions of higher

learning and research centres through collaborations. In so doing, MUST has been able to learn and act above its age and size.

Apart from academic schools, MUST also has a Directorate of Postgraduate Studies, Research and Outreach, which is responsible for research and outreach activities. Some outreach activities in the first two years of existence of the University included hosting the University open day in 2015 and the first ever national all-girls science camp in 2016. In terms of research, there have been numerous projects by staff and some students with most of them ending in publications of articles in renowned journals.

MUST is also working on various research projects, both on its own and with partners. It is also hosting a Technology and Innovation Support Centre (TISC) whose main objective is to assist researchers in Malawi to access information on prior art in different technological fields.

The University also boasts a research centre called the Industrial Research Centre (IRC), formerly known as the Malawi Industrial Research and Technology Development Centre (MRTDC) which has been involved in industrial research, technology development and transfer programmes for over 20 years with the aim of improving the quality of life for Malawians. Plans are underway to reposition the IRC to a Centre for Innovation and Industrial Research (CIIR) as the first centre of excellence at MUST. CIIR will drive science, technology and innovation focusing on food industry, renewable energy, natural fibre, essential oil and generating critical thinkers and innovators.

### Michigan State University (MSU)

Founded in 1855, Michigan State University is a major U.S. research-intensive, land-grant university with global reach through innovative teaching, research, and outreach. MSU offers more than 200 programs of undergraduate and graduate study taught by over 4,900 academic staff in 18 degree-granting colleges. MSU enrolls over 47,000 students (including approximately 5,900 international students from 125 countries). The university has been a leader in international research, development and training projects for nearly 60 years in Africa, Asia, Latin America, Europe, and globally. MSU leverages international partnerships with scientists and practitioners from academia, the government, private sector, and strategically chosen research and development organizations to create new knowledge and explore innovative and practical solutions to the world's most pressing problems.

Over the course of nearly six decades of engagement, MSU's Africanist faculty have become well known for their long tradition of collaboration with African organizations and for developing best practices for research, partnership, and study abroad in Africa. MSU today has more than 200 faculty and staff engaged in research, teaching, and development cooperation in nearly every African country. For more than thirty years, Malawi has been a priority for MSU with nearly 50 MSU

faculty members actively engaged in collaborative research with Malawian colleagues and strong institutional partnerships. Units such as the Global Center for Food Systems Innovation (GCFSI), the Alliance for African Partnership, and the Center for Gender in Global Context support MSU's land-grant tradition of research and education that meaningfully address shared global challenges.

#### Lilongwe University of Agriculture and Natural Resources (LUANAR)

LUANAR is one of the public universities which was created by an Act of Parliament No.22 of 2011 and started its operations on 1st July 2012. Its vision is '*to become a world class university*' with a mission '*to advance knowledge and produce relevant graduates with entrepreneurship skills for agricultural growth, food security, wealth creation and sustainable natural resources management, through teaching, training, research, outreach consultancy and sound management*'. LUANAR currently has three campuses viz: Bunda Campus; NRC Campus and City Campus. In addition, LUANAR also runs an Open and Distance Learning Programme (ODL) with satellite centers in Blantyre, Lilongwe and Mzuzu. The oldest and biggest campus is Bunda which has four faculties of Agriculture, Development Studies, Natural Resource Management and Post Graduate Studies. LUANAR currently offers diploma, BSc, MSc and PhD programmes. LUANAR recognizes that capacity building in staff, equipment and materials is central to effective teaching and learning, research, consultancy and outreach activities of any higher education institution. In line with this, LUANAR and Michigan State University's (MSU) Global Centre for Food System Innovation (GCFSI) established the LUANAR Innovation Hub in 2014. Through this hub, LUANAR and MSU GCFSI created the LUANAR Innovation Scholars Programme in 2016 which had both Faculty and academic leaders/administrators tracks in order to improve the human and institutional capacity of LUANAR through experiential learning, workshops, stakeholder engagements, learning tours to universities in Kenya and faculty research grants. Overall, the LUANAR ISP increased the capacity of LUANAR faculty and administrators to teach, research and use science to create innovative solutions to local problems at institutional and national level. In the MUST ISP, LUANAR will provide support through its ISP alumni as co-facilitators and as a member of the MUST ISP Design Team.

## USAID

On behalf of the American people, the U.S. Agency for International Development, promotes and demonstrates democratic values abroad, and advance a free, peaceful, and prosperous world. In support of America's foreign policy, the USAID leads the U.S. Government's international development and disaster assistance through partnerships and investments that save lives, reduce poverty, strengthen democratic governance, and helps people emerge from humanitarian crises and progress beyond assistance.

USAID is the world's premier international development agency and a catalytic actor driving development results. USAID's work advances U.S. national security and economic prosperity, demonstrates American generosity, and promotes a path to recipient self-reliance and resilience. The purpose of foreign aid should be ending the need for its existence, and we provide development assistance to help partner countries on their own development journey to self-reliance – looking at ways to help lift lives, build communities, and establish self-sufficiency.

USAID demonstrates America's goodwill around the world; increases global stability by addressing the root causes of violence; opens new markets and generates opportunity for trade; creates innovative solutions for once unsolvable development challenges; saves lives; and advances democracy, governance, and peace.

Our efforts are both from and for the American people.

## **MUST ISP Advisor Team**

### ***Vice Chancellor***

#### ***Professor Address Malata***

Professor Address Malata holds a PhD in Nursing from Edith Cowan University in Australia. She is currently working as **Vice-Chancellor** of the Malawi University of Science and Technology. She is former **President of Africa Honor Society of Nursing** of Sigma Theta Tau International; former **Vice President of International Confederation of Midwives** and former **Principal** of Kamuzu College of Nursing (KCN), a constituent college of the University of Malawi, where she spearheaded the college's drive to become a **World Health Organisation Collaborating Centre** in 2016.



While at KCN, she facilitated development of five Postgraduate programs: MSc in Midwifery, MSc in Reproductive Health, MSc in Child Health, MSc in Community Health and MSc in Nursing and Midwifery Education. She has undertaken research and consultancy work in sexual and reproductive health and published in several national and international journals. She is also an advocate for girls and women empowerment through education.

She is a **Virginia Henderson Fellow of STI** and an **Adjunct Professor for Michigan State University**. She received a **Doctor Honoris Causa** by University of Oslo in Norway, and an **Award of Excellence in Nursing and Midwifery** by the National Organization of Nurses and Midwives of Malawi. **She is a Fellow of the American Academy of Nursing**. She was awarded a **Medal of Distinction by the University of Malawi** for being one of the first female Professors. She received a **Customer Focused Executive of the Year Award** by the **Chartered Institute of Customer Management** in 2015..

**Deputy Vice Chancellor**  
**Professor Jonathan Makuwira, PhD**

Jonathan Makuwira is a Professor of Development Studies and the current Deputy Vice Chancellor of the Malawi University of Science and Technology (MUST). His research interests gravitate around the role of the non-governmental sector in development. In particular, Professor Makuwira strives to understand the political economy of foreign development assistance; international and local development institutions and their governance in least developed countries; project planning, design, implementation, monitoring and evaluation; and the role of education in development. Jonathan is a Research Associate in the Department of Development Studies at Nelson Mandela University (NMU), South Africa. He is a distinguished scholar in International Development (RMIT University), Comparative Indigenous Studies (Central Queensland University) and Peace Studies (University of New England). He has worked as a Primary, Secondary, and Teacher Educator in Malawi. He is the author of over 35 journal articles, 20 book chapters, and a new book by Routledge titled: *Non-Governmental Development Organisations and the Poverty Reduction Agenda: The Moral Crusaders*.



**University Registrar**  
**Dr. Tarsizius Nampota**

Dr Nampota joined MUST in August 2013, initially on secondment from the University of Malawi (Unima) where he was the Deputy University Registrar. Previously, he had from 1990 to 2006 worked as an Administrative Assistant, Assistant Registrar, College Registrar and Senior Assistant Registrar in Unima. Dr Nampota has vast experience in university admissions, academic management, students' affairs, human resources management and development, strategic planning and management, general administration and institutional policy review and development.



Dr Nampota has had international administrative work experience having worked close to a year as an Administrative Assistant at University of Bath in the UK where he was responsible for Students' Loans Liaison. When he joined MUST, he started as a project coordinator and contributed greatly to the opening of the new University. He was pivotal in setting up of the academic and administrative structures; development of management and administrative operational systems; procurement of goods and services; recruitment of management, teaching and administrative staff of the new university that facilitated the admission of the university's first students in March, 2014 and its eventual official opening on 24<sup>th</sup> October, 2014. He was appointed as the first University Registrar of MUST on 1<sup>st</sup> December, 2014.

He is a seasoned and an accomplished higher education management practitioner and researcher. He holds a PhD in Higher Education Management and Governance obtained from Rhodes University; a Master's degree in Public Administration from University of Botswana and a Bachelor of Arts degree in Public Administration from University of Malawi. He has also acquired professional training in higher education management and governance from Israel, USA, South Africa and China. His research interest is in higher education governance. On community service,

**Director of Research, Postgraduate Studies and Outreach**  
**Dr Alfred Maluwa**

Dr Alfred Maluwa holds a PhD in Quantitative Genetics, which he obtained from the Norwegian University of Life Sciences, Norway in 2006. He is currently working as Director of Research, Postgraduate Studies and Outreach at the Malawi University of Science and Technology. Dr Maluwa has over 20 years of experience as a researcher, six years of which spent on research management. He also teaches Biostatistics to undergraduate students, and, Research Methods and Technology Commercialization to postgraduate students. He is also supervising MSc students and co-supervising PhD students in partner universities nationally and regionally. He has implemented several research and development projects with a number of cooperating partners.

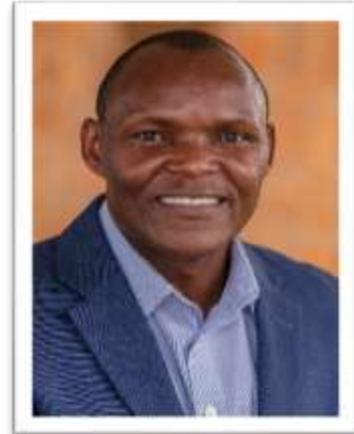


Currently, Dr Maluwa has established the research management system at MUST, is coordinating research and development programs for both students and faculty, leading in innovation development, patenting and commercialization programs and coordinating postgraduate studies and outreach programs for both faculty and students. He is also coordinating national and international cooperation programs between MUST and partners. He has 47 publications in refereed journals and has contributed to six book chapters.

**Executive Dean of the Academy of Medical Sciences (MUST)  
Professor Wilson Lewis Mandala**

Professor Wilson Mandala has a PhD in Malaria Immunology, a Masters degree in Molecular Biology and Biochemistry and a Bachelor of Science degree in Chemistry.

He was appointed Professor in Immunology by the Malawi University of Science and Technology (MUST) in February 2017 and in addition, he is the Executive Dean of the Academy of Medical Sciences (AMS). His current research interests are mainly in malaria, non-typhoidal salmonella (NTS) and HIV/AIDS immunology, with skills in flow cytometry, ELISAs and immunohistochemistry

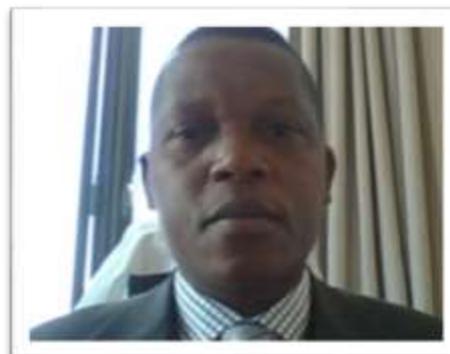


Professor Mandala has previously worked as a Senior Lecturer at University of Malawi's College of Medicine, teaching Biochemistry, Clinical Chemistry and Immunology. He is still serving as an honorary Professor at College of Medicine but has previously also served as an honorary lecturer at Liverpool University. Professor Mandala has research links with collaborators at the University of Glasgow (Scotland), University of California (UC) at San Francisco and UC at Davis, Michigan State University, University of Florida (USA) and the Malaria Immunology Group at Malawi Liverpool Wellcome Trust (MLW), Blantyre, Malawi.

Some of his previous research work has looked at malaria in children, the effect of HIV in pregnancy and also on the effect of cotrimoxazole prophylaxis on the development of natural immunity in HIV-uninfected-but-exposed children born from HIV-infected mothers. He is currently working on the effect of malaria infection on immunity against other infectious diseases and on vaccine efficacy. He is also a co-investigator in a seven year long NIH funded Malawi ICEMR 2.0 project which is aimed at looking at the immunology of asymptomatic malaria in Malawian children. So far, he has successfully supervised five PhD and three MSc fellows. In terms of management, Professor Mandala has served as Director of the Research Support Centre at College of Medicine for two years and also served as Associate Director of the MLW. He also served as the Grant Director of Wellcome Trust funded SACORE and has served as the Malawian Board member on CARTA Board.

**Executive Dean for the Malawi Institute of Technology (MIT)**  
**Dr Davies Emmanuel Mweta**

Dr Davies Emmanuel Mweta is the Executive Dean for the Malawi Institute of Technology (MIT), the first school to be operationalized at the Malawi University of Science and Technology (MUST) in 2014. Dr Mweta joined MUST at its inception in 2014 as a Senior Lecturer in Chemistry and later worked as Head of Basic Sciences Department and Coordinator for Postgraduate Studies before becoming the first Executive Dean for the Malawi Institute of



Technology in January of 2016. Dr Mweta joined MUST from Domasi College of Education where he held several positions of Senior, Principal and Chief Lecturer, Head of Department, Dean of Science and Acting Deputy Principal for a period of 14 years from 2000 to 2014.

Dr Mweta holds an Interdisciplinary PhD in Chemistry and Plant Sciences (2009) from the University of the Free State in South Africa where upon completion of the PhD work, he worked as Postdoctoral Research Scientist in the Biochemistry Laboratory of the Plant Sciences department for one year. In addition, he holds a Master of Science Degree in Applied Chemistry (2006) and a Bachelors degree in Education majoring in Chemistry (1995) from the University of the Malawi, Chancellor College. Dr Mweta is a recipient of the 2011 African Union and Academy of Sciences for Developing Countries Young National Scientist Award (AU-TWAS). His areas of research interests are chemistry of natural products, Value addition (food processing and preservation), and Phytochemical screening of herbal medicines.

## **Executive Dean of the Bingu School of Culture and Heritage (MUST)**

### **Dr Robert Chanunkha**

Dr Robert Chanunkha is the first known Malawian holder of a PhD in Music Education obtained from University of Pretoria in South Africa in 2005. He obtained his Bachelor of Education degree in Music and English at the University of Malawi in 1991 before earning a Master of Arts in Music at the University of South Africa in 2000. His areas of research interest include music as culture, music education, dance as culture, and music as creative economy.



Dr Chanunkha has held various leadership positions, for example, as Head of Department of Fine and Performing Arts at Chancellor College, and President of Pan African Society for Musical Arts Education. He is a composer of the songs and anthems of the University of Malawi (Unima) and Malawi University of Science and Technology (MUST). He has taught music and held membership positions of both academic committees and professional bodies. Dr Chanunkha has been an internal and external examiner for the University of Dar es Salaam, Domasi College of Education (DCE), and University of Jyvaskyla. He has supervised postgraduate students (MA and PhD) in his professional career; developed and evaluated curriculums of music and those that are cultural in nature; published journal articles; presented conference papers; conducted sensitization workshops; and received different awards.

As an educationist, Dr Chanunkha argues that solutions for African music education lie in the African music traditions and philosophies. With that foundation, he has helped to create relevant music programmes at MUST and Unima, which integrate African music practices and principles as well as interdisciplinary studies. He enthusiastically undertakes outreach activities using the musical arts with focus on addressing social problems and reducing poverty. Currently, Dr Chanunkha, as an Executive Dean, heads the Bingu School of Culture and Heritage at MUST. His vision is to see the school become a leading centre of excellence, through culture and heritage, for the development and improvement of human life in Malawi and the world.

**Executive Dean of the Ndata School of Climate and Earth Sciences(MUST)**  
**Dr Leonard Kalindekafe**

Dr Leonard Kalindekafe is an Associate Professor and has a PhD in Mineral Law and Policy obtained in 2007 at the University of Dundee in Scotland. He also has a Masters degree in Geology (Joint University of Malawi and Saskatchewan, Canada). Dr Kalindekafe joined MUST in 2015 and became Executive Dean of the Ndata School of Climate and Earth Sciences in January 2016. The School has four Departments, namely Climate Sciences, Earth Sciences, Water Resources and Sustainable Energy Systems . The main areas of training and research are in earth sciences, climate sciences (including climate change and Disaster Risk Management), water resources and renewable energy.



Dr Kalindekafe has vast experience in mineral resources development, water resources, renewable energy and climate sciences. He has worked in government and rose up the ladders from a geologist to Principal Secretary in the Ministry of Natural Resources, Energy and Environment. Internationally, he is well known having published several papers in international journals, presented papers in several international conferences and holding several positions as follows: Assistant Secretary General of the Geological Society of Africa, President of the UN-Founded Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF), 2009-2013. He is also the Honorary Associate from the Graduate School of Natural Resources, Law, Policy and Management (University of Dundee, Scotland, UK) from December 2014.

## **TNM**

### **Mr Macdonald Chamba**

Macdonald Chamba has 22 years of work experience in the IT industry; two years in telecoms, 16 years in banking and four years in general IT service industry. He is currently working as Head of Business Systems (IT Infrastructure Management) at Telekom Networks Malawi (TNM) Plc since March 2016. He joined Malawi Savings Bank in 1999 as Network Support Officer, promoted to ICT Manager (Deputy Head of ICT) in 2006 and acting Head of ICT from July 2015 to February 2016 before joining TNM. Before that, he worked in various IT positions with other companies such as Computer Connections and Office and Industrial Systems.



He has Masters degree in Information Systems Management from University of Liverpool in the UK obtained in 2014 and Bachelors degree in Electrical Engineering from University of Malawi. Other qualifications include NetApp Storage Cluster Administration, NetApp Storage Data Protection Administration, ISO/IEC 27001 Lead Implementer Certification, ITIL, Resilia Cyber Resilience Foundation, Huawei Technologies Certification in Network Function Virtualization covering FusionSphere Solution Deployment & Management, Huawei E9000 Series Blade Server Deployment & Management and Huawei OceanStor V3 (55T/56T/68T) Storage System Deployment & Management. He also has certification in Voice Over IP, Leadership and Management of Electronic Commerce.

He is a board member of Eletrocard Systems Ltd., one of the leading digital printers, cheque printer and ATM servicing company in Malawi. He was also a member of National Payments Council Standards and Automations Committee from 2012 to 2016. His achievements include introduction of public computing services at TNM in collaboration with PCCW, implementation of first cash deposit on ATMs in Malawi, Integration of Malawi Savings Bank systems with FDH Bank, integration of Malawi Savings Bank systems with National Switch and Reserve Bank for ATM interoperability and Automated Clearing House systems. He was also the pioneer of the largest computer wide area network in Malawi in 2008 when Malawi Savings Bank interconnected 43 outlets online real-time country wide. At the time of leaving, the network was interconnecting 93 outlets excluding those of FDH Bank. MSB was acquired later by FDH Bank.

## MSU Team

### **Co-Director, Alliance for African Partnership**

#### **Dr Amy Jamison**

Dr Amy Jamison is an education, gender, and research specialist with 14 years of experience in education research and project management. Currently, she serves as the Co-Director for the Alliance for African Partnership, which is a consortium of nine universities (Michigan State University and eight African university members). Dr Jamison holds graduate degrees in educational policy, history, and African studies. Her research focuses broadly on African higher education development, educational policy in Africa, gender issues in higher education, and gender in international development. She also has significant project and research management experience.



She has been involved with several grant and research projects in a number of African countries, including Malawi, Rwanda, Tanzania, South Africa, Kenya, Uganda, Senegal, Burkina Faso, and Mali. She has consulted for Michigan State University initiatives in sustainable community development, youth employment and university capacity strengthening. Dr Jamison has also served in a project management and gender advisory role for two USAID-funded university capacity building grants—in Malawi and Rwanda. She has collaborated on and participated in a number of Department of State citizen exchange grants that focus on gender, economic empowerment, agribusiness, and governance issues—in Francophone West Africa; in South Africa and Tanzania; and in Tanzania, Uganda, and Kenya. In 2008, she spent one year on a Fulbright-Hays Doctoral Dissertation Research Abroad fellowship conducting a qualitative study of academics' experiences with research at the University of Dar es Salaam.

**Director of Assessment—  
MSU Hub for Innovation in Learning and Technology  
Dr Bill Heinrich**

Dr Bill Heinrich is the Director of Assessment at the Michigan State University Hub for Innovation in Learning and Technology where he works to enhance the value of experiential learning across the institution. Dr Heinrich's portfolio includes on-campus and international capacity development, focused on assessment skills and mindsets, program evaluation, experiential design, teaching, and learning, human centered design, and student learning. Bill has consulted with universities, facilitated workshops, and conducted research in Malawi, Kenya, South Africa, and Tanzania; as well as throughout the United States.



Dr Heinrich's research has a dual focus on organizational assessment practice and policy and adult and student experiential learning. Recent publications focus on using multiple outcome perspectives to stretch normative practice in experiential learning assessment and using human centered design to enhance training protocols. He also has experience in competency-based education and learning research, learning outcomes assessment, and course design with technology. Dr Heinrich's monitoring and evaluation work supports various university programs, a National Science Foundation grant, and, a private foundation focused on child welfare. He previously worked at the University of California, Santa Cruz, where he administered college student programs ranging from residence education, outdoor recreation, student conduct, and new student orientation. Dr Heinrich holds a PhD in Higher, Adult, and Lifelong Education and a Master of Arts degree in Student Affairs Administration--both from Michigan State University and a Bachelor of Arts degree in Psychology from Northern Illinois University. He also holds experiential education certificates from both The Colorado Outward Bound School and The National Outdoor Leadership School in the United States.

## ***Deputy Director for the Global Center for Food Systems Innovation***

### ***Dr. Kurt Richter***

Dr Kurt Richter is the Deputy Director for the Global Center for Food Systems Innovation and affiliated with the Department of Community Sustainability at Michigan State University. He has over 20 years of involvement in higher education and international development. At GCFSI, Dr Richter is responsible for day to day operations, long term strategic planning and serves as a principal point of contact. He has worked in numerous countries in Africa, Asia and Latin America and has held long term leadership roles in Guatemala, Colombia, Afghanistan and the Republic of Georgia.



Dr Richter was the founding Study Abroad Director for the College of Agriculture, Food and Natural Resources at the University of Missouri. While at the University of California, Davis, Dr Richter worked at the Agricultural Issues Center where he focused on agricultural land uses and urbanization in the San Francisco Bay Area and the Central Valley of California. At Virginia Tech, Dr Richter held the position of Associate Director for Technical Assistance and Special Initiatives where he worked on Human and Institutional Capacity Development projects in numerous countries including Senegal, South Sudan and Tajikistan. Dr Richter's private sector experience includes owning and operating a family feed and farm supply business and developing a locally sourced beef brand in his home region of Southwest Missouri. As a result, he brings a unique set of skills to GCFSI in areas such as program implementation, proposal writing, financial leadership, and cross-cultural communication. He holds BSc and MSc degrees in Agricultural Economics from the University of Missouri and PhD in Economic Geography from the University of California, Davis.

## **Head of Industrial Research Centre**

### **Dr David Mkwambisi**

David Mkwambisi is the Head of the Industrial Research Centre and Associate Professor of Environment and Development at the Malawi University of Science and Technology and he is the Activity Director of the MUST-ISP. He holds PhD and MSc degrees in Environment and Development from University of Leeds and University of East Anglia in United Kingdom, respectively. Dr Mkwambisi is an active faculty member involved in several development and research programmes in Malawi and the region working with rural and urban communities. He has been a global expert on climate change and agriculture and a member of the IPCC committee on Agriculture and Climate Change.



Dr Mkwambisi has contributed to the development of national and regional policies related to climate change, agriculture and livelihoods and he has been an Advisor to climate experts in both SADC and COMESA regions. Nationally, he has undertaken studies to support decision making for government, local and international development partners and local organisations including the World Bank, African Development Bank, Flanders, USAID, UNICEF, UNDP, UNFPA, ActionAid, AGRA, ILO, and GIZ, among others. Before joining MUST, Dr Mkwambisi worked with ICRISAT, Government of Malawi, Monsanto Malawi Limited, Pannar Seed Malawi Limited, Unilever Malawi, and Lilongwe University of Agriculture and Natural Resources.

## **Programmes and Innovation Hub Coordinator--LUANAR**

### **Dr Andy Safalaoh**

Dr Andy Safalaoh is currently the Programmes and Innovation Hub Coordinator at the Lilongwe University of Agriculture and Natural Resources (LUANAR) where he is also an Associate Professor of Animal Nutrition. Dr Safalaoh holds a PhD in Science and Technology Studies (The University of Nottingham, UK); Master of Science in Animal Science-Nutrition (Oklahoma State University, USA); BSc and Diploma in General Agriculture with credits (University of Malawi). He was the pioneer coordinator in the implementation of the LUANAR Innovation Scholars Programme (ISP) in collaboration with Michigan State University's Global Centre for Food System Innovation (GCFSI). At regional level, Dr Safalaoh has facilitated several training sessions on Agriculture, Science, Technology and Innovation (ASTI) in collaboration with Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, Netherlands and under the RAEIN-Africa Innovation Systems Approach Competency Building Training Programme in countries including Namibia, Malawi, South Africa, Swaziland, Tanzania, Rwanda and Botswana. He is also a Leadership for Environment and Development (LEADSEA) Fellow. His current research interests focus on the development and exploration of climate resilient agricultural technologies and innovations as instruments for climate change adaptation and mitigation.



## MUST ISP DESIGN TEAM

### **Head of Climate Sciences Department**

#### **Dr Vincent Msadala**

Dr Vincent Msadala has 11 years of experience mainly in the fields of water modelling and analysis for agriculture, energy production, socio-economic development and general livelihoods. His research, outreach and education interests are on water resources development and management in the context of changing climates and increasing populations. He has worked as a researcher and consultant on projects funded by the World Bank, European Union, African Development Bank, the Malawi Government and non-profit organisations.



For the past eight years, he has been involved in projects related to disaster risk management, climate change assessment, flood based farming systems, flood risk management, drought predictions and operational decision support systems. Dr Msadala is currently the Head of Department in Climate Sciences at Ndata School of Climate and Earth Sciences (NSCES) at Malawi University of Science and Technology. He previously worked with the University of Malawi as a Lecturer in Hydrology and Hydraulics. Prior to joining the University of Malawi, Dr Msadala worked with Blantyre Water Board (BWB) as a Water Engineer. He graduated with a PhD and an MSc in Civil Engineering (hydrology and hydraulics) from the University of Stellenbosch, South Africa (2016 and 2009, respectively) and also holds a Bachelor of Science (BSc) degree in Civil Engineering from the University of Malawi (2006).

**Head of Biological Sciences Department**  
**Dr Gama Bandawe**

Dr Gama Bandawe is head of the Department of Biological Sciences in the Academy of Medical Sciences at the Malawi University of Science and Technology. He holds a BSc in microbiology and biochemistry, an MSc in molecular and cell biology and a PhD in medical virology, all from the University of Cape Town in South Africa. His postgraduate studies were funded by Carnegie Corporation of New York Research Scholarship Award, the Poliomyelitis Research Foundation of South Africa Postgraduate Scholarship Award and the Canada-Africa Prevention Trials Network Academic Scholarship Award.



He was also a Columbia University – Southern Africa Fogarty AITRP Traineeship Awardee and his traineeship was taken up at Duke University Centre for AIDS Research. He was awarded the Colin Kaplan Prize 2014 from the University of Cape Town's Division of Medical Virology in 2014.

Dr Bandawe has extensive experience in medical virology research, laboratory management and publication having worked with several global consortia including the Bill and Melinda Gates Foundation funded Centres for HIV AIDS Vaccine Immunology (CHAVI), the Global HIV Vaccine Enterprise (GHAVE), and the Centre for the AIDS Program of Research in South Africa (CAPRISA).

In 2018, Dr Bandawe and the department became awardees of the Instrumental Access Program of Seeding Labs. He sits on the National Health Sciences Research Committee and is a reviewer for the Malawi Medical Journal.

## **Communications Manager**

### **Mr James Mphande**

Mr James Mphande is a seasoned media, communications and marketing professional with over 15 years of practical experience in journalism, media management and leadership for both radio and newspaper, and marketing communications for corporate, development and public entities in areas of communication and advocacy strategy development, implementation, and monitoring and evaluation. Mr Mphande has also worked as a media and marketing consultant specialising in media training, branding, promotion, web content development and management, corporate publications, advertising, public relations, advocacy, media and stakeholder relations, events management, and media research.



He holds an MBA from University of Malawi focusing on media marketing management and a Bachelor of Education majoring in English Literature, again from University of Malawi. Mr Mphande also has qualifications in marketing, media management, journalism and media and corporate communications from institutions such as the British Broadcasting Corporation, UK, Rhodes University and University of Malawi. He is currently studying with the Chartered Institute of Marketing (CIM).

Before joining MUST as communications manager in 2014, he previously worked with Capital FM Radio, Nation Publications Limited, Malawi Social Action Fund (MASAF), Times Group, World Agroforestry Centre (ICRAF) and did consultancies for organisations such as YouthNet and Counselling (Yoneco), SSDI Communication, ChristianAid, CHRR, ICCO, Bridge Project, Lilongwe Water Board and CARD, among others.

## **Head of Engineering Department**

### **Dr Hunkie Uluko**

Associate Professor Hankie Uluko is the Head of Engineering Department at the Malawi University of Science and Technology (MUST). Dr Uluko holds a PhD (2014) from Chinese Academy of Agriculture Sciences (CAAS), MSc in Agricultural Engineering (2005) from Jomo Kenyatta University of Agriculture and Natural Resources (JKUAT), Masters in Intellectual Property (2011) from Africa University and a BSc in Agriculture (2001) from University of Malawi.

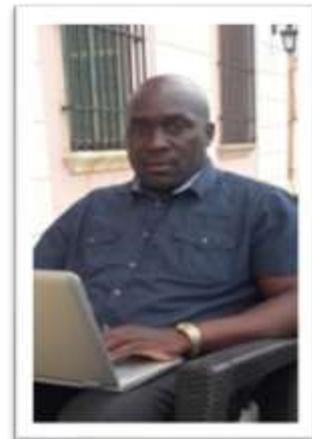
He is an Associate Professor/Reader in Chemical Engineering with special interest in food processing and value addition. He previously worked at the Lilongwe University of Agriculture and Natural Resources (LUANAR) in the Agricultural Engineering Department. He is overseeing the implementation of five engineering programs which are unique including chemical engineering, materials & metallurgy engineering, biomedical engineering, textile engineering and manufacturing engineering which should generate special engineers needed to spur the economic development of Malawi and beyond through innovative technology development and entrepreneurship.



## **Acting Head of Applied Studies Department**

### **Dr Mpasho Mwamtobe**

Dr Peter Mpasho Mwamtobe is the Acting Head of Applied Studies at the Malawi Institute of Technology at the Malawi University of Science and Technology. He holds PhD and MSc degrees in Mathematical Epidemiology from University of the Witwatersrand, Johannesburg in South Africa and University of Dar es Salaam in Tanzania, respectively. He is a researcher in disease modelling and has done research in Tuberculosis, Malaria and Lymphatic Filariasis. Dr Mwamtobe is now working on optimal control of intervention strategies for Lymphatic Filariasis. He is a lecturer in Applied Mathematics.



## **MUST ISP Mentors**

### **LUANAR**

#### ***Zione Kalumikiza***

Ms Zione Kalumikiza is a Nutritionist currently working with the Lilongwe University of Agriculture and Natural Resources (LUANAR) as a Lecturer in Public Health Nutrition. A holder of an MSc in Food Science and Human Nutrition from University of Malawi, her research interests are on approaches for maximizing nutrition impacts from agricultural interventions, and she hopes to generate evidence for programming and policy decision.



Ms Kalumikiza has previously worked with LUANAR as a Research Coordinator for the Scaling Up Nutrition (SUN) Operational Research, Food and Nutrition Officer for the Ministry of Agriculture, and Social Welfare Officer for the Lilongwe City Council. A previous beneficiary of the MSU-LUANAR Innovation Scholars Programme, and, alumnus of the African Nutrition Leadership Programme (ANLP) and the African Women in Agricultural Research and Development (AWARD) fellowship, she is passionate about people development and loves to share knowledge and build skills, beyond her work environment. She has previously taken on leadership positions within her department but currently serves as senate representative to the University Council.

### **Professor Jeremiah Kang'ombe**

Professor Kang'ombe is currently working at Lilongwe University of Agriculture and Natural Resources (LUANAR) in the Faculty of Natural Resources, Department of Aquaculture and Fisheries Science. He obtained his Diploma in Agriculture with Animal Science option in 1992 and a Bachelors degree in Agriculture with Animal Science option in 1994 at the University of Malawi, Bunda College of Agriculture. He completed his MSc in Animal Science with research in Aquaculture Nutrition at University of Malawi, Bunda College, Department of Animal Science in 1997.



He pursued his PhD in Biology with a major in Fish Nutrition at Memorial University of Newfoundland, Canada and finished in October 2004. He served as Head of Department at Bunda College of Agriculture, Department of Aquaculture and Fisheries Science from 2005 to 2007. He has also worked as a Deputy Head of Department and Graduate Programmes Coordinator (MSc and PhD) in the same department up to 2012. He is the first Coordinator of the RUFORUM facilitated Regional Programme in Aquaculture and Fisheries Science PhD program hosted at LUANAR. He is a Professor of Aquaculture Nutrition, a position he was promoted to, in December 2014 after being promoted to Associate Professor in 2010 and promoted to Senior Lecturer in 2007. He was recruited as a Lecturer in Fish Nutrition in September 1999. He currently teaches Fish Nutrition and Aquatic Weed and Predation courses to undergraduate (BSc) in Aquaculture and Fisheries Science students. He also teaches Fish Nutrition and Feed Technology to MSc and PhD students. He has been Dean, Faculty of Postgraduate Studies between 2012 and 2016. He has published more than 40 articles in refereed journals and conference proceedings including manuals and case studies in his area and related fields.

## **Faculty Scholars**

### *Profiles and the Challenge*

#### **Robert William Mkandawire**



Mr Mkandawire holds an MBA with bias in Technology Management, a BSc (Technical Education) and Diploma in Engineering, all from the University of Malawi. Over the years, he has attended several short courses, local and international, leading to vast knowledge and expertise in project management, packaging technology management, environmental management, renewable energy management and intellectual property management.

Mr Mkandawire's work experience includes holding management positions in plastic production, technology development and commercialization, and teaching at under and post-graduate levels. He has 30 years cumulative work experience gained at Plastic Products Limited, Malawi Industrial Research and Technology Development Centre and Malawi University of Science and Technology. He has extensive experience in project management gained from managing development projects in areas of entrepreneurship, employment creation and renewable energy. He has also managed projects sponsored by his employers, Malawi Government and the World Bank through the Local Development Fund, UNDP and the Royal Norwegian Government.

#### **Dr Paul Makocho**



Dr Paul Makocho has teaching experience spanning over 35 years during which he has been involved in teaching at primary school, secondary school, primary and secondary teacher training and teaching of biological sciences and science education at the university level. He holds an A-Level specialised teaching certificate, Diploma in Education Science and a Bachelors degree in Science from the University of Malawi. In 1999, he won a JICA Scholarship under the Lake Malawi Ecology Project and studied for an MSc in Ichthyology focussing on Resource Partitioning among the Lake Malawi rock-dwelling haplochromine fishes.

In 2013, he obtained a PhD under a Commonwealth Scholarship in Science Education specialising in Policy and Practice in HIV/AIDS Education at the University of Leeds in England. While in England, he completed a special Certificate Course in General Microbiology (SGM-Society for General Microbiology). His current focus in research centres around Policy and Practice in HIV/AIDS Education. Other areas of interest include resource partitioning in freshwater fishes, river catchment restoration and improvement of well-being of Lake Malawi Riparian communities through Sustainable Resource Management and Pluriactivity of livelihoods.

### ***Dr Mandayachepa Nyando***



Dr Mandayachepa Chriford Nyando is a senior lecturer and Head of Clinical Sciences Department in the Academy of Medical Sciences at Malawi University of Science and Technology. He is a holder of a PhD in Nursing (2015) from Cardiff University, UK; MSc in Nursing (2001) from University of Wales College of Medicine, UK, BSc in Nursing Education (1995), University of Malawi, Kamuzu College of Nursing (KCN); University Certificate in Midwifery (1991), University of Malawi, Kamuzu College of Nursing; and Diploma in General Nursing (1989), University of Malawi, Kamuzu College of Nursing.

Dr Nyando has over 20 years of experience in university teaching and learning mainly in clinical sciences and practice in nursing and midwifery. He also has over 15 years of experience in research and consultancy with a couple of publications in peer reviewed international journals. For 11 years, Dr Nyando has worked as head of Clinical Sciences Department at University of Malawi, KCN where he was also voted the best lecturer in clinical teaching and learning by Malawi Nurses and Midwives Council in 2007. He was also voted the best research oral presentation at the international research conference in 2016 at University of Cape Town in South Africa.

***Head of Language and Communications Department  
Dr Atikonda Mkochi***



Dr Atikonda Mtenje-Mkochi is the Head of the Language and Communications Department at the Malawi University of Science and Technology (MUST). Prior to joining MUST, she was a linguistics lecturer at Mzuzu University. She holds a PhD and MA in linguistics from University of Cape Town. Dr Mkochi has also been a visiting scholar at the School of Oriental and African Studies of University of London.

Her research interests and published works are in the structures of languages, more particularly African languages and also how languages can be effectively used for national, regional and global development. She has also done consultancy work for institutions and organisations as a translator, editor, proof reader, transcriber and module developer.

***Head of Computer Studies and Information Technology  
Dr Charles Fodya***



Dr Charles Fodya is the Head of Computer Studies and Information Technology Department at MUST. His teaching career spans across Malawi and South Africa, having taught at University of Malawi's Chancellor College and University of the Witwatersrand before joining the Malawi University of Science and Technology.

Dr Fodya holds a Bachelors degree from University of Malawi, a Masters degree from University of Oxford, UK, and a PhD from University of the Witwatersrand, RSA. As a former Head of Mathematical Sciences Department at Chancellor College, Dr Fodya is well known for introducing programmes such as MSc in Informatics, Biostatistics as well as the establishment of the eLearning Center.

***Lecturer in Safety, Health and Environment***

***Mrs Lucy Msungeni***



Mrs Lucy Msungeni is an academic member of staff with teaching duties and has managerial experience from previous employment. She was appointed Lecturer in Safety, Health and Environment (SHE) in the Engineering Department in August 2016. Mrs Msungeni, a previous Dr David Livingstone award holder from the University of Malawi, has vast experience in Environmental Health and holds a Masters degree in Public Health. She is currently a PhD candidate in Safety Engineering. Her research interests have encompassed health and safety in both the engineering and public health sector where she was awarded a contract by the United Nations to conduct an evaluation of a Waste Management project in 2012.

She also conducts research in the renal field where she has co-founded the first renal organization in Malawi that is based on research, the Kidney Research Foundation (KRF), where she was the first CEO. Mrs Msungeni was awarded a research grant in 2014 by the Southern African Consortium for Research Excellence (SACORE) for her renal research. As a SHE lecturer, she has spearheaded the production of two important documents for the University, The Health and Safety Strategic Plan and revised the Laboratory Safety Manual. In 2017 she presented her paper on Health and Safety at the 5th International Conference on 'Managing Organizations in Africa', by the Africa Research Group (ARG), in Mauritius. She demonstrates excellent knowledge of public health and is able to explore issues in the discipline. Through some of the research she has done, the establishment of KRF and her monitoring and evaluation experience, Mrs Msungeni has contributed to national knowledge on important issues. She continues to pursue avenues for creating more impact in her areas of expertise and coupled with her creativity and open-mindedness, have created room for her advancement and excellence.

### ***Lecturer in Engineering***

#### ***Mrs Jennifer Manda Chimwaza***



Mrs Jennifer Manda Chimwaza is a Lecturer in the Engineering Department under the Chemical Engineering section where she teaches Thermodynamics, Heat and Mass Transfer and Fluid Mechanics. She holds an MSc in Thermal Power and Fluid Engineering from the University of Manchester obtained in 2017. Mrs Chimwaza also holds a Bachelor of Science degree in Mechanical Engineering from the University of Malawi, The Polytechnic.

She previously worked as a Management Trainee in the Operations Department at Total Malawi Limited before joining MUST as the youngest faculty in August of 2015. She has done internships throughout her college years but she still yearns to have more contact with the industry so that her teaching is informed by both theory and practice. Her research areas of interest include Computational Fluid Dynamics for Thermo-fluid. Specifically, she is interested in investigating fin effectiveness at different turbulence intensities to aid in designing heat transfer systems; heat sinks and heat exchangers and heat transfer in turbulent boundary layer on vertical

surfaces, in specific; conduction heat transfer through the viscous sublayer due to no-slip conditions on vertical surfaces and Renewable Energy focusing on Aid in developing sustainable energy supplies as highlighted in the Malawi Growth and Development Strategy (MGDS II) for the economic growth of the nation and Investigating the sustainability of Bio-power in Malawi.

### **Staff Associate in Chemistry**

#### **Ms Esmie Mposa**



Ms Esmie Mposa graduated from the University of Malawi, Chancellor College in 2015 with a Bachelor of Education (Science) degree majoring in Chemistry. Since 2015, she has worked with Chancellor College as a Staff Associate in Chemistry and is currently working with the Malawi University of Science and Technology in the same capacity. Her research field of interest is in nanotechnology, a branch of science that is focused on the study of controlling matter on an atomic and molecular scale sized between 1-100 nanometers.

In 2016, she attended a short course in Cairo, Egypt where she was introduced to nanotechnology in depth, covering areas such as what it involves and its major applications in various fields including in the health, agricultural, security, energy and environmental sectors. Under the MUST ISP, she intends to research on how nanotechnology can be used to treat water in Malawi. The project will involve synthesizing magnetic nanocomposites and then using them for the removal of pollutants in water and wastewater. This will curb water quality challenges faced in the country.

### **Lecturer in Biology**

#### **Mrs Shanmuga Priya Samson**



Mrs Shanmuga Priya Samson is a holder of MSc and MPhil degrees in Biotechnology. She has worked in Malawi as a lecturer since 2010 and started off as lecturer in Microbiology at Chancellor College of the University of Malawi. In 2015, she joined MUST, teaching Cell Biology and Biotechnology. As an academician, she is always interested in research where she can use biotechnology as a tool of study in various fields. Although her main interest is in microbial ecology, Mrs Samson also likes to do research in few clinical related conditions. Her current ISP proposal is one such topic that requires attention from every sector of the medical field.

Under ISP, she is focusing on studying the prevalence of Hepatic Disorders with Zomba and Mzuzu as case study areas. This is actually an extended study based on the preliminary research done in Zomba in 2015. Liver disorder is a major disease yet largely preventable, and with respect to the preliminary study, it has been strongly observed that the high prevalence in liver disorder is due to lack of knowledge on its cause among many people, lack of enough and appropriate diagnostic materials, poor treatment methods and lack of enough specialists in Malawi. Thus, it is necessary to strengthen the prevention intervention strategy and help reduce its associated high mortality rates. It is expected that there will still be an increase of liver disease in Malawi if more research studies are not conducted to help fill the knowledge gap.

## **Administration Scholars**

### ***University Registrar***



Dr Nampota joined MUST in August 2013, initially on secondment from the University of Malawi (Unima) where he was the Deputy University Registrar. Previously, he had from 1990 to 2006 worked as an Administrative Assistant, Assistant Registrar, College Registrar and Senior Assistant Registrar in Unima. Dr Nampota has vast experience in university admissions, academic management, students' affairs, human resources management and development, strategic planning and management, general administration and institutional policy review and development. Dr Nampota has had international administrative work experience having worked close to a year as an Administrative Assistant at University of Bath in the UK where he was responsible for Students' Loans Liaison.

When he joined MUST, he started off as a project coordinator and contributed greatly to the opening of the new University. He was pivotal in setting up the academic and administrative structures; development of management and administrative operational systems; procurement of goods and services; recruitment of management, teaching and administrative staff of the new university that facilitated the admission of the university's first students in March, 2014 and its eventual official opening on 24<sup>th</sup> October, 2014. Dr Nampota was appointed as the first University Registrar of MUST on 1<sup>st</sup> December, 2014. He is a seasoned and an accomplished higher education management practitioner and researcher. He holds a PhD in Higher Education Management and Governance obtained from Rhodes University in South Africa; a Master's degree in Public Administration from University of Botswana and a Bachelor of Arts degree in Public Administration from University of Malawi. He has also acquired professional training in higher education management and governance from Israel, USA, South Africa and China. His research interest is in higher education governance.

## ***Director of Finance and Investment***

### ***Mr Macdonald Hudge***



Mr Hudge was appointed as the Director of Finance and Investment from February 1, 2014. He has a plethora of financial skills which is critical to the management and operation of the financial ambit having worked in accounting, finance and grants management functions at Commercial Bank of Malawi, Small Enterprise Development Organisation (SEDOM), LWF/Evangelical Lutheran Development Programme, AFDB funded development projects (Ministry of Health and Population and Ministry of Water and Irrigation Development) and University of Malawi (College of Medicine).

Mr Hudge holds a Masters degree in Development Finance (2011), Stellenbosch University, RSA; an Advanced Diploma in Management Accounting (2002), Chartered Institute of Accountants (CIMA) and a Bachelor of Accountancy (1995), University of Malawi. He is responsible for the financial and investment management functions of MUST and is a member of the Institute of Chartered Accountants of Malawi (ICAM) and the Malawi Accountants Board.

## ***Deputy University Registrar***

### ***Ms Martha Sambani***



Ms Martha Sambani holds a Master of Public Administration from the University of Canberra, Australia, a Bachelor of Arts in Human Resource and a Diploma in Business Studies from the University of Malawi. Ms Sambani is currently working at the Malawi University of Science and Technology (MUST) as the Deputy University Registrar. She joined the University in 2014 as an Assistant Registrar and rose to the current position. Before joining MUST, Ms Sambani worked at The Polytechnic, a constituent college of the University of Malawi in different positions under administration. Her main role in all her previous and current positions has been students' welfare.

During her work at MUST, Ms Sambani has contributed to the establishment of the University and also its growth. She demonstrated leadership strength and proven ability to manage multiple responsibilities in a fast growing University. She is an enthusiastic, reliable, self-motivated and hardworking individual who is able to work in a busy environment.

### **University Librarian**

#### **Mr Martin Thawani**



Mr Martin Thawani is the University Librarian at MUST. He holds a Master of Library and Information Science from University of Botswana; Bachelor of Education and Diploma in Education, both from University of Malawi, Chancellor College; and a Certificate of Liberal Arts from the Catholic Theological Colleges (Seminaries) of Malawi.

Mr Thawani has also attended a number of professional training programmes such as International Visitor Leadership Programme (IVLP); Monitoring and Evaluation of E-Resources Use; Running a Model American Corner; PC Troubleshooting for Library Personnel; Advanced Library and Information Science (ALIS) Programme; Introduction to the Internet, Internet Resources and Services in the Malawian Context; Emerging Technologies for Automated Information Services and Management; and Microcomputer Based Database Management Systems for Information Services.

He has also been instrumental in projects and consultancies i.e being a member of a Project Team of Continuing Education for Building Internet Subject-Based Information Gateways, Africa South of the Sahara, Swedish International Development Agency (SIDA); Polytechnic Co-ordinator for the American Association for the Advancement of Science (AAAS) CD-ROM Pilot Project, Africa South of the Sahara; Consultant as Librarian Trainer in **Bring Me A Book Foundation's Malawi Literacy Project**, Save the Children; and *Effective Records Management*

Training, **Damien Consulting Services**, Reserve Bank of Malawi, Blantyre and Lilongwe.

Before joining MUST, Mr Thawani worked with University of Malawi, first as senior assistant librarian at Malawi Polytechnic and Bunda College of Agriculture (now Lilongwe University of Agriculture and Natural Resources) and Malawi Polytechnic again as College Librarian. He has also worked as secondary school teacher of English and examiner of history at Malawi National Examinations Board (MANEB).

## **Networking scholars Profiles and the Challenges**

### **Ms Lucia Mhango**



Ms Lucia Mhango is an emerging innovator who is currently working as a Network Surveillance Engineer (Core & VAS, IBBS) at Telekom Networks Malawi (TNM) under the Network Management Center (NMC) department in Lilongwe. She has experience in PS and CS Core technologies, Value Added Services and also Broadband Services, which include monitoring network elements 24/7 to detect, escalate and report faults to make sure faults are handled within the agreed Service Level Agreements.

She holds a BSc in Information Technology obtained from the University of Malawi in 2014. The program specializes in Computer Programming, Database Design and Management, Computer Networks, System Analysis and Design, E-Commerce, Electronics, Telecommunications and also graphic designing, among other courses. She has always been a prominent scholar: awarded the best Pupil Award at Kasungu Demonstration Primary School and recognized as the best student in Computer Studies and English Language at Nkhamenya Girls Secondary School. She has always been eager to know the easiest and quality way to doing something and that is what drives her passion in using technology as a tool to simplify and improve livelihoods.

## **Mr Ronnex Wataya**



Mr Ronnex Wataya is a Freelance Software Developer and Founder of Droidfx Technologies. He is currently working on developing cashless payment /automated fare collection system and e-solutions for Public Transport, "smartpay" a Near Field Communication (NFC) mobile payment app.

He is a winner of the 2016 ICTAM Innovation Award with Droidfx Smart Ticket System (Electronic Access Control System). In 2018, Mr Wataya made it to the South Africa Innovation Summit as one of Top 20 finalists in Inventors Garage Competition which was held in Cape Town and he was the only finalist coming out of Malawi

Mr Wataya's got four distinctions during his Malawi School Certificate of Education but could still not make it to the University of Malawi. He thus went to study at the National College of Information Technology (NACIT) where he obtained his NCC Level 4 &5 Diploma in Computing. Determined to progress, Mr Wataya started off on his innovation journey aged 22 when he developed a software for Flexstr8, a company based in Los Angeles, USA. This was a temperature logging app that would program temperature logger devices and is best used in shipping pharmaceutical products. He worked remotely with the company for three years. Currently, Mr Wataya has launched a new start-up firm in partnership with Afri Ticket Pty, a South African company to provide automated fare collection system for public transport in Johannesburg.

### **Maclean Mbepula**



Maclean Mbepula is a female tech-entrepreneur based in Lilongwe, Malawi. She started on her entrepreneurial journey 10 years ago and is still in love with the possibilities that entrepreneurship often provides. Her main business is Shekinah Invest Ltd, a limited by shares that is wholly woman led. She has a Diploma in Computer Programming obtained from National College of Information and Technology (NACIT) and a Bachelors degree in ICT Education from Malawi Assemblies of God University.

In 2016, her business founded an initiative to help entrepreneurs increase their odds of success initially called "Invest Malawi" and now called "Afrineur". So far, she has led Afrineur in channeling business development services through its partners (such as Frankfurt School of Finance & Management, Longevity Development and Enterprise Investment Hub) to entrepreneurs from all regions of Malawi. She has conducted business boot camps on access to finance, business plan development, identifying gaps in the market, pitching to investors and financial literacy. As more entrepreneurs continue to face challenges, Afrineur exists to help them overcome these hurdles. The next goal for Afrineur is to help these entrepreneurs directly access finance through networks or crowdfunding services. Under this arrangement, entrepreneurs would be empowered to impact their communities and societies at large with their businesses thereby contributing collectively toward national development.

### **Fredrick Munthali**



Fredrick Munthali is the Chief Research Services Officer (Engineering, Design, Industry and Energy) at the National Commission for Science and Technology (NCST). He holds a Master of Science in Environmental Engineering from University of Nottingham and a Bachelor of Science in Mechanical Engineering from University of Malawi. As Chief Research Services Officer he is responsible for the development and implementation of research and development projects and programs in engineering, industry, infrastructure and energy; analysing of science and technology research proposals from various stakeholders; providing advice on research policies and regulations; coordinating research programs/ projects and mobilisation of resources for their implementation; and promotion of partnerships amongst Research and Development institutions, and private and public sector players to enhance effective application of Science, Technology and Innovation for the socioeconomic development of Malawi.

Prior to joining the NCST in 2010, Mr Munthali worked in the academia, public and private sectors in various positions: lecturer in Renewable Energy Technologies; Pollution Prevention and Control, and Operations Manager. Over the years, Mr Munthali has developed skills in project management; proposal writing and report writing; survey and experimental designs; participatory approaches and methods; presentation skills and negotiation skills; resource assessment; policy and technology analysis; market assessment and cost benefit analysis; feasibility studies of projects; environmental and energy management systems; and environmental impact assessment. Among other responsibilities, Mr Munthali is an expert member of the International Standards Organisation/ Technical Committee 285 (ISO/TC 285) for the development of International Standards for Clean Cookstoves and cleaning cooking solutions; member of the National Cookstove Steering Committee; and technical member of the National Working Group on Clean Development Mechanism (CDM) in Malawi.



Jane Ziba holds a Master of Arts in Christian Leadership (MACL), which she obtained from the African Bible College (ABC) in 2016. She also holds a BSc in Business Administration from Cyprus Institute of Marketing obtained in 2012. Ms Ziba is a professional administrator and has just completed her contract with a Christian international non-governmental organization (NGO), World Vision International-Malawi Chapter, where she worked for over 30 years. She joined World Vision as Secretary to Senior Projects Coordinator (1988-2005) and later became Sponsorship Coordinator (2005-2006), Human Resources and Administration Officer (2006-2010), Data Processing Officer (2010-2014 and Area Program Sponsorship Analyst (2014 to 2018). Ms Ziba is a self-motivated lady, dedicated and enthusiastic with experience in social work research and development, having organized and led a team of sponsorship development facilitators as a Sponsorship Coordinator where issues of research, monitoring of project activities, outputs, and progress towards anticipated results was key. She has knowledge and progressive experience in handling coordination, administrative support, work planning, maintenance of inventories and updating of inventory records, communication and collaborating with various departments, facilitating flow of information between departments to ensure that each project meets its deadline effectively.

## **Junior ISP Scholars Profiles and the Challenges**

### ***Mr Wesley Israel Msungeni***



Mr Wesley Israel Msungeni is a Master of Science in Entrepreneurship student at the Malawi University of Science and Technology Who has since completed his course work and is working on his research project on the *promotion of innovation and*

*entrepreneurship through incubation as a working model for Blantyre.* Mr Msungeni holds a Postgraduate International Certificate in Innovation and Entrepreneurship Promotion through Incubation attained at the Entrepreneurship Development Institute of India (EDII) in 2017. He also holds a Bachelors degree in Agriculture Economics from University of Malawi, Bunda College of Agriculture. Mr Msungeni is also a certified academic writing expert and a change agent in the fight against gender based violence.

He is a registered private consultant in Entrepreneurship and Leadership and has worked as a volunteer for "Youth to Youth Empowerment" for two years where he was helping the youth on development of business plans, being innovative, self-development and empowerment, among others. Mr Msungeni is a practicing entrepreneur who has founded a start-up logistics and general trading company called ENTRIX.

In 2017, he developed an innovative drink—Rozie—from a local herb called hibiscus sabdarifa and other products such as cinnamon, honey and lemons. The drink was developed to address health problems associated with consumption of refreshment drinks. *Rozie* is a functional drink which has health benefits that detoxifies the toxins that consumers get from other foods and drinks. More importantly, the *Rozie* drink is ideal for consumers who are struggling to lose weight, enhance their mood and control their blood pressure, especially those with high blood pressure. The drink comes with a complimentary product in form of jam that is rich in Vitamin C and has a delicious fruity taste.



Mrs Rose Kaleke is a fashion designer and an entrepreneur currently working as an Associate Lecturer at the University of Malawi, Chancellor College, Zomba. She graduated from Bournemouth University in the United Kingdom with BA (Hons) in Fashion and Textiles in 2008. While in the UK, Mrs Kaleke received two Achievement Awards for "Commitment & Perseverance" and "Top Achieving Student". She was

featured in two newspapers: *Barnet Times* and *The Guardian*, the latter being one of the national newspapers in the UK.

In Malawi, Mrs Kaleke once participated in the Summer Fashion Bonanza in Blantyre and got the first prize. She has a studio in Zomba where she designs and makes ladies and children's wear. As a corporate social responsibility, she pays school fees for needy students both at secondary and college level, mostly girls.

Currently, she is an MSc student in Entrepreneurship at the Malawi University of Science and Technology as she wants to go full time into Entrepreneurship after her retirement. Mrs Kaleke would like to continue with improvements to her Kangaroo Mother Care Gown innovation as she wants to cater for women in Malawi and beyond. Additionally, she strives to create a women's sewing club in the village, where women will be making children's clothing using their old clothes.

### ***Mrs Gloria Washali Namacha***



Mrs Gloria Washali Namacha is a final year student of an MSc in Entrepreneurship program at the Malawi University of Science and Technology (MUST). She holds a Bachelor of Arts (Hons) in Business Management from University of Sunderland and has worked with University of Malawi as Administrative Assistant for five years where she gained administrative, communication and project management skills.

In 2018, she developed an innovative product with the aim of preserving fresh lemons and also to meet the market demand of lemon tea throughout the year. With such a challenge, Mrs Namacha produced lemon powder as a substitute to fresh lemon juice and the powder is packed in porous paper similar to teabags, called Tilonje lemon bag. The lemon bag is used for making lemon tea or lemonade. Tilonje lemon powder has comparable health benefits like regular lemon and is made from natural lemon and does not contain any other ingredients. It is high in Vitamin C which helps to prevent colds and flus, reduces body weight, indigestion, constipation and boosts energy and mood and supports glowing of skin. Tilonje lemon bag has a complimenting product, which is loose lemon powder that can be used in cooking. The product will meet the high demand of lemons and has a great market because most Malawians love lemon tea and nobody uses lemon bag for making lemon tea which is a big opportunity for the product.

### **Mr Gilbert Chimalizeni**



Mr Gilbert Chimalizeni is a Master of Science in Entrepreneurship student at the Malawi University of Science and Technology. He holds a Bachelors degree in Business Administration from University of Malawi. Currently, he works as Managing Director of G&P Car Hire which he founded in 2016 and grew it from scratch. He is managing a profile of more than 10 key customers for his company. He has more than seven years work experience in sales and distribution of FCMGs (fast moving consumer goods), corporate sales management and customer service in Airtel Malawi, a multinational mobile telecommunications operator. He is also an inspiration speaker to young students from colleges and secondary schools in areas of academic excellence and career choices among many others topics.

He is a passionate entrepreneur, innovative and creative, hence as part of his business development project, he produced mushroom powder from oyster mushrooms, a product that is very nutritious with high levels of medicinal values and helps people in reducing cholesterol levels, improving body immunity, and providing the much needed nutrients among many other benefits. The product is very useful as an ingredient in mushroom soup, cake, and can also be used for seasoning salads, and flavouring tea, among many other uses. His vision is to develop an entire supply chain of the product and develop more products related to mushrooms to enable people enjoy the health benefits of mushroom products.

### **Mrs Anne Zumu Mwale**



Mrs Anne Zumu Mwale is a Master of Science in Entrepreneurship student at the Malawi University of Science and Technology. She holds a Bachelor of Arts degree in Education and a Certificate in Business and Entrepreneurship. Zumu Mwale works with the Malawi College of Accountancy as a lecturer in business management and entrepreneurship. Lecturing for many years has seen her developing passion for entrepreneurship and that is why she enrolled for an MSC in Entrepreneurship to get more knowledge and skills. She is also a YALI alumni in the RLC SA cohort 1 in Business and Entrepreneurship.

Apart from working as a lecturer, Mrs Mwale also has a passion for farming and that is where her idea to use organic farm inputs came from. As part of her MSc project, she developed a liquid organic fertilizer which will be used on different types of crops. Although Malawi currently depends a lot on agriculture for its livelihood, the changes in rain pattern and dry spells over the years have affected the way chemical fertilizer dissolves. Farmers use a lot of dry inorganic fertilizers which is dissolved with water. If the rains fail or come late, it becomes difficult for most farmers as the fertilizer does not dissolve completely and gets wasted. Pindula Liquid Organic fertilizer is coming in as a solution to this and other problems that come with inorganic fertilizers. It will help to restore soil fertility which has been greatly affected by the continued use of inorganic fertilizers.

### ***Mrs Patricia Likongwe***



Mrs Patricia Likongwe is a Master of Science in Entrepreneurship student at Malawi University of Science and Technology (MUST). She holds a Bachelor of Science degree in Human Resources Management obtained from University of Malawi, Chancellor College and professional qualifications in Marketing and Business

Administration obtained between 2006 – 2015 from ABE (UK), CIM (UK) and MANCOSA (South Africa).

In 2018, Mrs Likongwe founded Green Eco-Tech Solutions which is the brains behind a product called '**Kilini Pavers**' which are innovatively made out of plastic waste and sand. She believes this is a permanent solution to managing plastic waste which is a non-biodegradable material and has been a problem for the government and communities at large. This approach embeds the triple bottom line objectives of making profits (Economic), creating employment (Social) and preserving the environment (Environmental).

Mrs Likongwe is an active and practicing entrepreneur who in 2017 founded and is currently managing Chasa Manufacturing, a company that makes detergents and surfactants. In 2016 she co-founded and became Chief Operation Officer (COO) of Bethan Trust, a charity organization that works to uplift the lives of HIV positive orphans, the extreme poor and the elderly. She runs on the side a successful recruitment and placement agency which she founded in 2015. On top of that, she is working as Human Resource and Administration Manager for Women's Legal Resource Centre, a non-governmental organization which advocates for the rights of women and girls in Malawi. Mrs Likongwe believes that Malawian youth have the potential to develop their country using innovative solutions as these, if only there is a proper platform with both technical and financial support from government and other partners.

### **Mrs Nyarai Makwiza**



Mrs Nyarai Makwiza is a Master of Science in Entrepreneurship student at the Malawi University of Science and Technology (MUST). She holds a Bachelors degree in Business Management, Advanced Diploma in Business Administration (ABE) and Certificate in Banking (IOB).

She is currently working as Finance and Investment Specialist with Land O'Lakes International Development under MSIKA project, which aims to increase agricultural productivity and expand trade of agricultural products in the fruit and vegetable sector. Her role entails identifying financial or funding needs for all MSIKA beneficiaries, organizing and implementing innovative mechanisms for linking the beneficiaries to financing or lending institutions, reviewing requests for applications solicitations for fund or grants and training them in financial management.

For her MSc project, Mrs Makwiza came up with an idea of adding value to pumpkin by processing it into flour due to high levels of malnutrition, diabetes and high blood pressure in Malawi after noting that pumpkins are not highly consumed as required, mainly because they are seasonal and are not grown at a larger scale due to lack of markets and low consumption trends. Pumpkins are a store house for vitamins, minerals and other healthy nutrients, and their nutritional composition of high carotenoids assist in preventing premature aging and protect the eye against free radical damage. Their potassium and zinc content prevents onset of cardiovascular diseases and hypertension and also prevent osteoporosis, boost immune system and promote reproductive health. The high amount of fiber helps in lowering bad cholesterol levels in the blood and in regulating blood sugar levels.

Mrs Makwiza believes that if pumpkin farming is promoted in Malawi and the idea of value addition is supported, not only will it reduce the high risks of prostate cancer, diabetes, malnutrition and high blood pressure but also increase the economic growth of the country, through promotion of farmers through market expansions and increased export trade.

