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MMUST News Post

Editor's Pen

Dear Reader,

We are glad that you are still keeping it with us.

In this edition, we bring you excellent steps that different sections of the University are taking to make this institution a true University of Choice. Read about the Directorate of Research and Postgraduate Support (DRPS) on the need for Research Documentation as well as the School of Computing and Informatics (SCI) as it pushes for the Fourth Industrial Revolution (Industry 4.0).

We congratulate the ten Journalism and Mass Communication female students on their graduation from the International Association of Women in Radio and Television (IAWRT) Mentorship Program. We wish them well as they put into practice what they learnt during the one-year long training.

We also congratulate MMUST Rugby Team on their historical maiden entry into Kenya Cup.

We urge you to continue reaching to us via pr@mmust.ac.ke. We shall be happy to carry your story in our next editions.

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MMUST News Post

Workshop Tackles Key Milestones and Gaps in Research Documentation

Workshop participants pose for a photo at the Kakamega Sports Club after training on 12th February,2021

By Awuor Sandra Dorcas [sdorcas@mmust.ac.ke]

The Directorate of Research and Postgraduate Support at Masinde Muliro University of Science and Technology (MMUST) held a two-day training on Research Documentation for staff at the Directorate and representatives of Schools on 11th -12th February, 2021 at Kakamega Sports Club.

Prof. Peter Bukhala, the Director of Research and Postgraduate Support said that the training provided an opportunity for capacity building of staff on Research Documentation which is an important area in research.

"Documentation provides an opportunity to build the future form of kept information. What is not written, is not remembered," said Prof. Bukhala.

He urged researches at MMUST to provide their résumés and publications for proper documentation, adding that staff CVs are important for visibility of the Schools, Departments and the researcher as well.

Devolution of some research functions to Schools, which will act as gatekeepers, is one of the ways that the Directorate of Research and Postgraduate Support plans to enhance proper research documentation.

Prof. Bukhala emphasized on the need for proper research documentation citing its importance such as providing attribution to original research works, easy access and retrieval of information, enabling readers to follow the continuum of research and verification of accuracy and completeness of research work.

According to Prof. Bukhala, researchers at the University should be encouraged to come up with more publications and grant-winning proposals through incentives for researchers who publish in high impact journals. He said that a Research and Documentation Policy is also in the works.

> " Everyone can play a role in the research output of the University. Our undergraduate students should not be overlooked. Their research can be published by the University. "
>
> -PROF.PETER BUKHALA
>
> Director, Research and Postgraduate Support

The quality and cost of publishing in journals was also a matter of discourse during the training. Prof. Bukhala noted with concern the high cost students incur to publish in Indian journals. He added that the cost of publishing should be reduced in order to encourage more publications from students. He also emphasized on the need for researchers to form multidisciplinary teams to further drive the research agenda.

Speaking on the importance of documenting research information, Dr. Caroline Wekullo, a staff in the Directorate, explained the concept and process of documentation in research with keen interest on the importance of research documentation in Web-metric ranking of the University.

Ms. Eunice Rapado contributed to the discussion, adding that staff and postgraduate students should be empowered in research in order to increase University visibility.

Dr. Damaris Ochanda, a lecturer and researcher in the Department of Nursing Research, Education and Management at MMUST, noted that there are no standards that guide researchers in documentation. She indicated the urgency of a structured system of organizing research work in order to ensure traceability.

"In research, the only evidence that remains to attest to our work is documentation," she said.

Research at the University is monitored and evaluated based on the number of publications, conferences, seminars and expenditure on research among other important factors.

According to Mr. Henry Wati, who is the head of the Performance Monitoring and Evaluation Unit at the institution, MMUST is doing relatively well, however, he noted that there should be a guideline on how research activities are carried out in the University, focusing on their impact.

"The number of publications has increased and most of them are by our students," he said.

He indicated that some researchers are reluctant to let the University share their research work, urging more sensitization on the matter. Mr. Wati added that some seminars and workshops also go on undocumented and unrecognized. The Performance Monitoring and Evaluation Unit is set to publish departmental reports and analysis of research work.

The workshop also tackled the different ICT Software used in research documentation and digital record management and documentation. Dr. Jairus Odawa, a member of staff in the Computer Science Department, said that there are conference management systems which keep track of all submitted papers, reports and paper submissions. He said that staff should go through an extensive training on the different ICT research documentation software. The University is gradually transitioning into a paperless system which will enable easier movement, access, storage and retrieval of documents.

The issue of ethics in research documentation was also covered by Dr. Gordon Nguka in his capacity as the Chairperson of the Institutional Ethics Review Committee. Dr. Nguka said that researchers should have ethical issues in mind while doing research.

Dr.Jairus Odawa making his presentation.

"Even if the study will be beneficial, is it ethical? The main intention of ethics is to preserve social, emotional and physical consequences," said Dr. Nguka.

Dr. Nguka urged School administrators to practice quality documentation management and virtue ethics to ensure ethical documentation.

Dr. Bernadette Sabuni, the Dean, School of Engineering and the Bu Environment, made a virtual representation on quality assurance in research documentation, laying emphasis on documentation in paperless form. She added that there are key issues for quality assurance in research such as approval of documents for adequacy prior to issue, accessibility, record of changes, legibility of documents and prevention of obsolete documents from unintended use. Dr. Sabuni also recommended that Schools should have respective research champions.

Dr. Alice Ndiema, the Ag. Registrar in charge of Research and Planning, lauded the depth of knowledge MMUST researchers have. She encouraged staff members to make use of the training in order to make MMUST a better place.

The workshop participants discussed the way forward, led by Dr. Francis Muyekho, the Chairperson of the Research Board. The development of a strong editorial team to help document projects was recommended as a way to improve research documentation in the University.

Workshop participants pose for a group photo at Bishop Stam Pastoral Centre.

School of Computing and Informatics Leads Varsity in Preparing for the Fourth Industrial Revolution

By Wangari Wambugu [mwangari@mmust.ac.ke]

The Masinde Muliro University of Science and Technology's School of Computing and Informatics (SCI) is in the process of mapping its research to the Fourth Industrial Revolution (Industry 4.0). In a bid to draft grant proposal topics, SCI is currently working on five (5) research thematic areas which were intensively discussed in a Capacity Building Workshop held at Bishop Stam Pastoral Centre from 11th to 12th February, 2021.

"Industry 4.0 has been triggered by ICT. It is the automation of traditional manufacturing, as well as industrial practices and processes. For IT, it is much more than automation. It is about making things intelligent," said Prof. Geoffrey Muchiri, Associate Professor at Murang'a University of Technology, who was the Keynote Speaker at the Workshop.

"So, how do you connect your research to 4.0? You need to identify your traditional IT areas and map them to one of the modern areas like the Big Four Agenda," he added.

As stated by the renowned academician, choosing a good research topic guarantees better funding prospects.

"A good topic must have a customer. It must be alive. In addition, if you want to move to a competitive research, investigate a fundamental topic that has application to the hot emerging areas of Industry 4.0," he advised.

"You need to ask yourself, what are my contributions to theory? What contributions will I make to the Industry?"

Conducting multi-disciplinary and multi-institutional research is one of the tips that Prof. Muchiri gave for writing proposals that can win funding. Secondly, he emphasized on the need for well-written proposals, adding that staff should ensure that proposals 'make sense'.

"Organize seminars internally for peer review, apply funding to the right financier and follow instructions strictly."

He urged researchers to liaise with colleagues as well as the Industry. Further, he advised them to form research groups in order to strengthen the quality of research at the School level.

The Acting Deputy Vice Chancellor, Planning Research and Innovation, Prof. J.S.K. Achoka, said that SCI should take lead on the issues of technology.
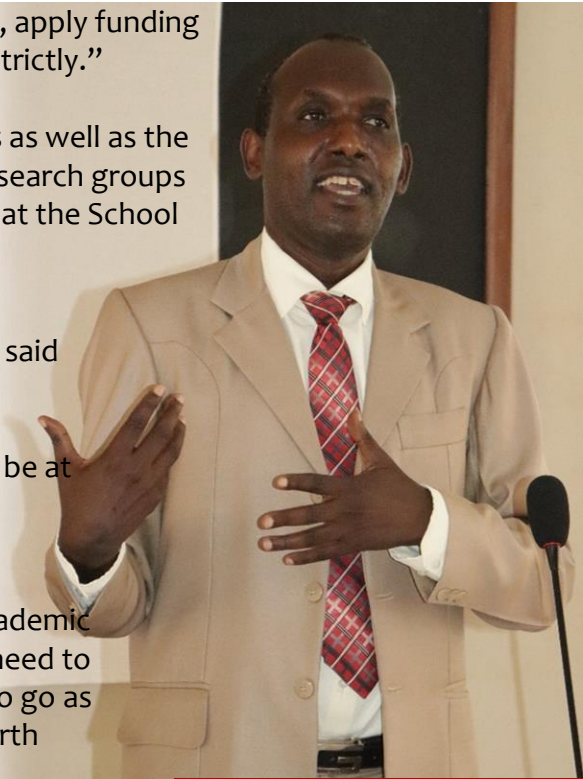"The University Management expects you to be at the forefront of producing high quality publications," she stated.

"This Workshop is one of its kind and each academic year we need a theme that reflects what we need to do. Let's remain focused on where we want to go as a School and let's work on winning grants worth millions," said the Acting Dean SCI, Dr. Daniel Otanga.

The Directorate of Research and Postgraduate Support (DRPS) in MMUST has changed the way things are done in terms of research.

According to the Director, Prof. Peter Bukhala, DRPS is championing for research to be done at the School or Departmental level. "This is because there are different interests for everybody. Now, we are able to tackle what each School thinks is crucial for them."

"I want to thank you for a School you are building carefully. I also want to thank this School for taking a chance to hold this Workshop. SCI needs to work together as a team and the idea of becoming a niche programme in MMUST will become a reality," said Prof. Bukhala, adding that the Directorate expected SCI to compile a post-Workshop report so as to have proposals.

"Organize seminars internally for peer review, apply funding to the right financier and follow instructions strictly."

-PROF.GEOFFREY MUCHIRI
Associate Professor, Murang'a University of Technology

INDUSTRY 4.0

Research Thematic Areas

Cloud Computing: An Emerging Trend -Presented by Michael Ujunju

Cloud Computing is a giant technology within which we can get areas to explore in research. It is described as a virtual resource where many users have access to. Security is a major challenge as far as Cloud Computing is concerned. Therefore, we need algorithms that manage these kind of situations.

Artificial Intelligence and Cognitive Computing -Presented by Dr. Raphael Angulu

When you go to Google or when you are posting on Facebook, you are interacting with a machine learning technique. Cognitive Computing is a study that focuses on how the human brain works. It is about making machines that mimic the human brain/intelligence. A computer learns and improves performance from experience.

Machine learning can be applied everywhere from Agriculture, Business, Banking, Education, Security and Surveillance to Medicine. Machine learning has been there and for students who want to do research on it, there are many areas that they can contribute.

Smart Manufacturing and Smart Factory -Presented by Dr. Jairus Odawa

Smart manufacturing is the process that employs computer controls, modeling, big data and other automation to improve manufacturing efficiencies. Developing countries have not explored the concept of smart factories in terms of research yet there are so many things that can be done.

Cyber-Physical Systems -Presented by Dr. Daniel Otanga

Embedded computers and networks monitor and control the physical processes with feedback loops where physical processes affect computations and vice versa. The engineering research field of Cyber-Physical Systems (CPS) has drawn a great deal of attention from academia, industry and the government.

Emerging Trends with a Focus on the Internet of Things -Presented by Dr. Collins Odoyo

The ultimate goal of the Internet of Things (IOT) is to try and automate all aspects of the human life. The term 'Internet of Things' was coined by Kevin Ashton who believed IOT could turn the world into data. Industry 4.0 and IOT are the center of the new technological approaches for development and logistics management.

IAWRT mentorship program graduates take a photo with their lecturers and IAWRT mentors

MMUST's Ten Female Journalism Students Graduate from the International Association of Women in Radio and Television (IAWRT) Mentorship Program

By Linet Owuor and Awuor Sandra Dorcas{ lowuor@mmust.ac.ke; sdorcas@mmust.ac.ke }

Masinde Muliro University of Science and Technology's ten female Journalism and Mass Communication students are the current fresh graduates of the International Association of Women in Radio and Television (IAWRT) Mentorship Program. The students were awarded their Certificates in a colorful ceremony that took place on Thursday 4th February 2021 at Sheywe Guest House.

The students are the 4th cohort of graduates engaged and trained by renowned and established women in the field of journalism for a period of one year. This places MMUST as the 4th University in Kenya to engage its students in the prestigious women in media empowerment program. The IAWRT program seeks to empower young female journalism students. This is in order to counter the challenge of under representation of women in media industry.

The certificate awarding ceremony was graced by MMUST's Acting Vice Chancellor, Prof. Solomon Shibairo, who presented the certificates to various participants of the program.

Prof. Shibairo applauded the partnership with the United States Embassy that has since led to training of the female journalism students.

"You should be known as people who will build the society. The training you have received should enable you write about issues that create peace rather than divide people. Most of all, I urge you to be very wise even as you will be facing the job market. Go out there and cause a change in the society" stated Prof. Shibairo.

Ag.Vice Chancellor, Prof.Solomon Shibairo presents a certificate to one of the IAWRT mentorship program graduates.

Speaking during the event, Mr. Victor Bwire from the Media Council of Kenya challenged the mentees to adopt multi-media journalism in order to secure chances in the international media houses. He further urged the students to focus on self-employment by utilizing the skills they have acquired during their one-year training by IAWRT.

One of the mentors, Ms. Caroline Wafula who is the Regional Editor of Nation Media Group in Kisumu tackled the issue of deficiency of female journalists in the field. She said that more women are needed in the newsroom. "We want to see you taking the lead in newsroom management and interviews," added Ms. Wafula.

A presentation was also made virtually by a representative of the Press Office at the US Embassy. The representative encouraged the graduates to increase the voices of women in the Media industry. She said that mentoring is an important part in training journalists to become professionals. In her final remarks, she advised the mentees to use their mentorship experience to build up themselves and do the same for others in the future.

The mentees attested to the exemplary training they received from the Association. The training was very interactive and educative. "We learnt skills to be purposeful journalists that will create an impact on the feminine world," said Ms. Anne Akoth.

The other members of the University who attended the event included the Dean, School of Public Health and Biomedical Sciences and Technology Prof. Eric Wamukoya, the Dean, School of Arts and Social Sciences, Dr. Rose Auma, Director, International Relations and Linkages Dr. Catherine Aura, Chairperson, Department of Journalism and Mass Communication Mr. Wafula Nyongesa, Mr. Tom Ouko, Ms. Lilian Mukoche, Ms. Marvin Wangatia and Mr. Joel Okwayo.

MMUST RUGBY TEAM FINALLY SETTLES SCORE WITH MEAN MACHINE

MMUST Rugby Team's Tyson Juma in action. The player secured the first try and conversion ,placing the team on a 7-6 lead at kick off

By Diana Nyatichi and Ashiono Harriet [dianyatichi@gmail.com; ashionoharriet@gmail.com]

The Masinde Muliro University of Science and Technology's Rugby team, alias the *Makaka* has been elevated to the Kenya Cup after their big win on Saturday,13ᵗʰ February 2021.

This was after a tough battle during the finals with the University of Nairobi's *Mean Machine* where they carded twenty-one points over their opponents' twelve points. The MMUST Rugby team which has stood unbeaten for a whole season, has thrown yet another wave of excitement to its loyal fans and institution by securing a spot at the well sought-after Champions League this year.

The Boys celebrate after the win

Being the Kenya Cup Promotion Playoff, the game was tough from the start with both teams strong and with the aim of winning. The first half was not so promising with *Mean Machine* leading with nine(9) points while the *Makaka* stood at seven(7). The latter, however, bounced back flooring the field with renewed energy and speed leaving the audience in awe, as they were declared winners after a 21-12 lead. The teams had batted heads before after a game which saw the *Makaka* win with a single point that the *Mean Machine* called sheer luck. The win on Saturday was a confirmation that *Makaka* players are the real deal.

The players, however, may not bask in their glory for long as they are already preparing for their next game against Kabras Sugar RFC.

"We are newbies who have been thrown in the lake to swim with the gurus in the Kenya team but we are ready," Abuga, the Captain confidently stated.

It is a challenge but one that the MMUST Rugby Team is ready to take. The team, which is made up of students on Talent Scholarship courtesy of the University, looks promising and ambitious as they take MMUST's Sports to another level.

Congratulations Team Makaka!

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