



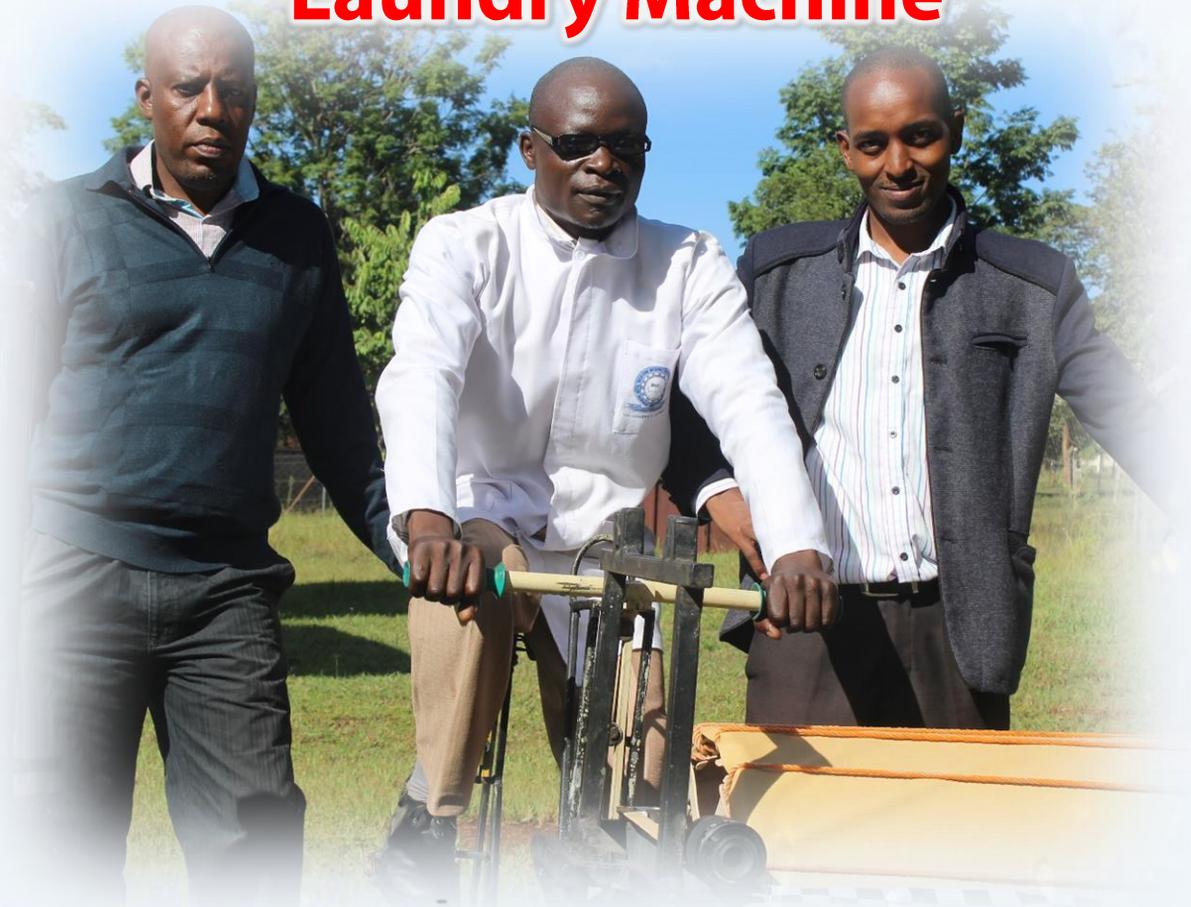
MMUST NEWS

A Weekly Digital Publication of Masinde Muliro University of Science and Technology

Post

Vol 2. Issue 7: 24th February-2nd March 2019

MMUST Student Invents Manual Laundry Machine



Inside: **MMUST Soccer Shines**

UPCOMING
EVENTS



- Career Week 20th-22nd March 2019
- National Youth Summit- 18th March 2019



Editor's Pen



Dear MMUST Community,
We bring you Issue Seven of the MMUST *NewsPost*.
As we go along, more and more sections of the University are sharing their events, functions and happenings. We are grateful for this.
One aim of the MMUST *NewsPost* is to open up spaces and shape discourse at the University. MMUST is a large community and it is the aim of the Editorial Team that every staff member is aware of what the other arm of the University is doing.
We remain grateful and available to you whenever you need us.
Together, let us tell our stories.

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“Write Bankable Proposals to Attract Funding”, Postgraduate Students advised.

By Wangari Mary Wambugu

One Dr. Mary-Louise Kearney once said, “Knowledge generated by research is the basis of sustainable development, which requires that knowledge be placed at the service of development, be converted into applications, and be shared to ensure widespread benefits.” In a bid to encourage the culture of conducting research and to develop winning and ethically sound proposals in MMUST, the Directorate of Research and Postgraduate Support (DRPS) organized a Grant/Proposal Writing Workshop on Thursday 28th February, 2019. This came after the grand Melting Pot Research Seminar which took place on Friday 15th February, 2019.

The one day Workshop was an important forum for staff and postgraduate students to demystify grant proposal writing. Students were encouraged to develop bankable proposals in order to attract funding from the government and other funding agencies. They were also urged to identify elements that can be tapped into to improve communities such as the Big Four Agenda, which are more likely to be funded by the government.

“Graduate students are very beneficial to the society. Lives of communities and families shall be transformed by graduate students,” said Prof. Judith Achoka, the Director of Research and Postgraduate Support.

Prof. Achoka went ahead to advice students to work with professors, and through teams, to achieve their goals and objectives.

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The invited Guest Speaker, Dr. Fredrick O. Nyamwala from the Mathematics Department at Moi University, spoke on 'Writing Grant Winning Proposals for Research' and touched on the things that a student needs to do when writing proposals in order to get funding.

"It is upon the person with the idea to convince the one with money. The funder must know how he or she will benefit from your project. When filing reports with agencies, make sure that your results are visible," he explained.

Dr. Nyamwala further said that while applying for grants, some may be successful while others might be rejected. Successful ones lead to research results that trigger ideas for funding. Unsuccessful proposals can, however, be revised and re-submitted.

According to Dr. Nyamwala, in order to write a successful grant application, one needs to be specific and explicit, be realistic in designing the project, make clear the research questions, objectives, methods, results, projected results, impact and dissemination plans, follow application guidelines exactly, know the mission and vision of the funding body, know the trending themes and sub-themes of funding agencies, if possible, get a copy of a proposal that was successfully funded by the agency and stick to the template provided by the agency.

Another topic of discussion during the event was 'Navigating Through Graduate Research Work', a presentation that was made by Prof. Frank Matanga. Prof. Matanga paid close attention to problems that students face in their postgraduate studies. He referred to these challenges as bottlenecks.

"These are the factors that hinder a student in his or her research work," he stated.

Prof. Matanga went further to group these obstacles into two categories, that is, personal/individual issues and systemic factors. According to him, personal issues are influenced by; the transition from studentship to candidature, lack of a close

working relationship with supervisors, delay in identifying a relevant topic and writing proposals after course work. He described systemic factors as those challenges that are beyond a student's control. They include; inadequate research resources in academic institutions and unhealthy working relationships between graduate students and their employers.

To overcome these problems, the Political Science Professor suggested a number of solutions. "*How to steady the ship in water mass that is experiencing tides,*" he quoted.

The solutions were; departments and faculties should spread out course work to keep tabs on students hence taming the 'disappearance act', students should take upon themselves to look for supervisors, graduate students should be transparent with their employers about their studies and universities should learn to lobby for increased research resources with the government. He also emphasized on the need for universities to prioritize research.

The main issue that was raised during the workshop was the matter of finance. Graduate students and staff lamented about insufficient funds especially in research. It was noted that many graduate students in MMUST are experiencing issues of raising school fees, let alone funds to do research. Those who teach undergraduate students on a part-time basis lamented on delay in payments. Besides that, the University does not speed up the release of research funds.

A number of courses of action were developed to curb these challenges and to ensure that research is enhanced in MMUST. They included; the postgraduate sub-committee should work closely with students, MMUST should come up with a way where financial claims are streamlined, departments and faculties should closely monitor students, institutional support system should be enhanced and internal part-timers should be treated well, among others.

Mr. Joram Moi Omuchenyra,
Innovator



MMUST Student Researcher who invented a Manual Washing Machine

By Wilberforce Shiundu

M Masinde Muliro University Mechanical Engineering student has invented a unique manual hand and pedal operated laundry machines. The student, Mr. Joram Moi Omuchenyra, says the laundry machine is very efficient and is made from locally available materials. Going by the fact that the machine is manually operated, Mr. Moi says it is good for both physical exercise and cleaning services. Compared to other sophisticated laundry machines, this machine is cheaper and affordable.

"I compare this machine to the revolution of *boda boda* in Kenya. It came and took over short distance transport services in Kenya. With the help of Masinde Muliro University management, the Kakamega County government, the Kenya national government or any other well-wisher, I see this project taking over laundry services in Kenya just like *boda boda*"

said Mr. Moi.

The machine was featured on KTN in 2016, on the then 'Innovation TV' program, and in 2018 on the current 'Techno Hammer' program. It is made of two versions, one can wash lighter cloths and another one handles heavy fabrics like blankets. The light-cloth laundry machine washes between 8 and 14 cloths while the heavy fabric machine washes between 12 and 16 cloths at a go, respectively. This makes it time saving and efficient as compared to other laundry machines.

"I compare this machine to the revolution of bodaboda in Kenya. It is good for both physical exercise and cleaning services" Joram Moi

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Mr. Moi notes that from his research, a good number of youths from the community living around the University are willing to get the machine and set up their door to door delivery of laundry services. He says that once he gets proper financial support, he is ready to make such machines in bulk to enable him start a Laundry Company in Kakamega which will eventually employ a good number of unemployed youths. The machines vary in sizes. As a result, the price of each complete machine will differ. Mr. Moi says that the complete laundry machine can be sold at least Ksh. 15,000 to Ksh. 25,000 respectively depending on its size.

Dr. John Muoma, the Director of Science Park Innovation and Incubation Center (SPIIC), says MMUST, as a University of science and technology, should embrace innovations and make it be part and parcel of the University through proper funding.

“As a university of science and technology, achieving the development of Science Park is inevitable. On conventional level, science is fundamentally to provide space for innovators to incubate ideas working closely with their mentors. To

achieve this, we are working on a plan to increase on space available to all prospective innovators” said Dr. Muoma.

He further notes that, so far, through the engagement of an architect, 3D dimension of a prospective Science Park in MMUST is available for execution. Through this, six other aligned prospective innovations will be incubated and, hopefully, commercialized in future. He urges the University management to come in handy and provide enough funds on time for them to work effectively.

Of concern to the community is that all projects at SPIIC are community based. Among the many projects that are underway is the Shoe Polish Technology proposed by a member of the community and the Technology Farm, a project collaborated between Science Park Innovation and Incubation Center (SPIIC), School of Agriculture and Veterinary Sciences and Technology (SAVET) and the Japan International Cooperation Agency (JICA). The laundry machine and other innovative projects align to the Presidential Big Four Agenda as it addresses employment and food security in the country.

PRO-UNI-EDU-WEK MMUST-BRADENBURG-MAGDEBURG UNIVERSITIES COLLABORATION; FOCUS ON AGRICULTURE IN KAKAMEGA COUNTY



By Sandra Dorcas Awuor

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Mechanical and Industrial Engineering (MIE) Department at MMUST hosted a Flying Faculty from Magdeburg University, led by Prof. Dr. Christian Toralf Weber, on the 27th and 28th February, 2019.

The Pro-Uni-Edu-WeK MMUST-Brandenburg-Magdeburg Universities collaboration seeks to promote community development through research. The chief coordinator of the project started an NGO-Agro Kenya, based in Kakamega County. Agro Kenya trains farmers on financial management and leadership skills in order for them to make a decent living from agriculture and provide for their families.

Masinde Muliro University of Science and Technology (MMUST) Mechanical Engineering students and staff members attended a series of lectures by Prof. Weber on Finite-Element Analysis and Optimization. MIE staff and the team from Magdeburg University visited the Civil, Mechanical and Electrical laboratories at the University, checking the equipment and resources available.

“Optimization in Engineering, means improving a start –up design by hand based on engineering experience,” said Prof. Weber.

The structure/parameter optimization with Ansys workbench lecture was insightful and relevant to the project, with possibilities of Masinde Muliro University of Science and Technology (MMUST) partnering with Agro Kenya in mass production of irrigation pumps for farmers in Kakamega County. The solar energy pumps are environmental friendly, quite sustainable and self-operational, thus, easy to use.

The team visited River Lusumu to inspect the pumps (prototypes), which have been a boost to production of farm produce by smallholder farmers in Kakamega County. They also visited Kakamega Forest and Nabongo Cultural Centre, Mumias for retreats. Also in attendance was Dr.Vitalis Ogemah and Mr. Michael Mukolwe from the School of Agriculture and Veterinary Sciences (SAVET) and representatives from Agro Kenya.



MMUST FC Humiliates KONA Rangers

Match day nine captain Nashon Muyeka steered the boys into another emphatic win after a sumptuous performance at the approved grounds in the afternoon. The varsity boys opened their scoring spree through Isaac Otieno who made it two some minutes later. Solomon Koin opened his scoring by converting a sleek through ball from Milton Airo. The team's captain for the day Nashon Muyeka also confirmed his name on the scoring sheet by smashing home a worldie to make it four. David Simiyu continued with his scoring home by nailing the last goal of the day to make it five. Other noticeable brilliances were seen featuring Griffins Amatala, Lewis Ingosi, Garvin Momanyi and Milton Airo. The boys will face Chepkitale FC next weekend.



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