

KEYNOTE ADDRESSES

OPENING REMARKS

Prof. E. M. Kahangi

Deputy Vice Chancellor, Research, Production and Extension Division, Jomo Kenyatta University of Agriculture and Technology

Ladies and gentlemen, I take this opportunity to welcome you to the Ninth JKUAT Scientific Technological and Industrialization Conference and Exhibitions. Converged in this forum whose theme is **Science, Technology, Innovation and Entrepreneurship for Sustainable Development**, are participants drawn from various parts of the world. We take pride in the fact that this annual event has grown over the years to become a respected platform for showcasing research findings both locally and internationally. In this edition, the conference has attracted participation from Japan, UK, South Africa, Ethiopia, Rwanda, Tanzania, Uganda and the host country Kenya.

Since its inception, the conference has endeavoured to delve into major concerns of contemporary society. During this conference, over seventy papers will be presented in a wide array of areas including agriculture, infrastructure, health, environment, energy, technology and entrepreneurship. In addition, a number of innovations from the university are on display at the exhibition stand.

While the conference serves as an avenue to disseminate research findings, the University remains committed to supporting the research enterprise. For the last 10 years, JKUAT has funded over 70 research undertakings at the total cost of 318.7 million from internally generated resources. Our researchers in collaboration with Kenya Medical Research Institute, for instance are currently developing a new anti-malarial drug as a response to the disease prevalence and resistance to commonly available anti-malarial drugs.

Finally, I wish to recognize the invaluable contribution of all individuals whose collective efforts have made this year's conference a big success.

Thank you.

WELCOMING ADDRESS

Prof. Mabel Imbuga

Vice Chancellor, Jomo Kenyatta University of Agriculture and Technology

The Chief Guest, Prof. Kiyoshi Morita, President, Okayama University, Japan, The Deputy Vice Chancellors, Keynote Speakers, JKUAT Community, Conference Participants and Exhibitors, Ladies and Gentlemen,

I am delighted to welcome you all to Jomo Kenyatta University of Agriculture and Technology, and to the Ninth JKUAT Scientific, Technological and Industrialization Conference and Exhibitions. It is indeed gratifying that this event is taking place at a time when the university is commemorating twenty years of autonomy. Since its inception in 2005, the conference has provided an opportunity for researchers and innovators to showcase and disseminate their research findings and innovations. In addition, the conference has created an opening for collaborations and partnerships at academic and industrial levels.

Esteemed participants, research findings and innovations, critical as they are, may not be sufficient to spur national socio-economic development. It is important to upscale such innovations into viable business enterprises. In appreciation of this reality, the University settled on the theme, **Science, Technology, Innovation and Entrepreneurship for Sustainable Development** for this conference. I therefore challenge the industry, entrepreneurs and investors present to take advantage of the ideas and innovations displayed in this forum for further development and possible commercialization.

Ladies and gentlemen, the sub-themes of this conference were carefully tailored to address present and emerging challenges facing humanity. Food production and security, for instance, is increasingly becoming a matter of global concern. I am pleased to report that more than twenty papers on innovative agricultural sciences and technologies will be presented in the course of this conference. Moreover, JKUAT in collaboration with Lanzhou University, China, recently installed a modern weather station slated to collect targeted climatic data and a demonstration farm that will foster dryland agriculture in Kenya.

Esteemed participants, this conference has dedicated a subtheme to deliberate on sustainable supply of energy whose place in a growing economy such as ours cannot be gainsaid. In this area, under the BRIGHT project, the University in partnership with JICA has been championing renewable energy research.....

Ladies and gentlemen for Kenya to realize Vision 2030, our research institutions must progressively develop new technologies to address existing gaps in various sectors of the economy. In this endeavour, JKUAT has developed a number of innovations including a portable low wind speed turbine, and a thermal biomass gasifier all of which are on display on the exhibition stands.

To support research and related activities, JKUAT has continually committed significant resources every year. In the current financial year for instance, the University has set aside over 90 million shillings for this purpose. As we may all be aware, this level of funding may not adequately cater for the university research needs. Consequently, JKUAT has consistently sought partnerships with the Government and other funding agencies to supplement her research budget. In the last 10 years, the cumulative external funding stands at shillings 1.29 billion. While thanking our partners for their continued support, I wish to appeal to the private sector to join us in supporting research.

Friends and colleagues, this conference brings together accomplished researchers and budding scholars from our student community. It is my hope that we shall engage each other and share experiences and forge strategic networks for the advancement of science and technology.

Finally, I express my sincere appreciation to the Conference organizers who have worked tirelessly to ensure that this day is meaningful. To all our sponsors including Okayama University and Japan Society for Promotion of Science, Japan and the Walker Institute at the University of Reading, many thanks for making this conference a reality.

Once again, welcome.

OPENING SPEECH

Prof. Kiyoshi Morita

President, Okayama University

Ladies and Gentlemen, it gives me pleasure and privilege to preside over this opening ceremony of the Ninth JKUAT Scientific, technological and Industrialization Conference and Exhibitions. This conference is of particular importance to us given our long standing cordial relationship with JKUAT and the very many ventures we have undertaken together over the years, our participation in the past few conferences being a case in point. As the academic fraternity of Japan, we are always constantly reminded of our role in the founding of JKUAT as an institution of higher learning. In this regard, let me take this opportunity to congratulate Jomo Kenyatta University of Agriculture and Technology community as you celebrate twenty years of autonomy.

Further to this, even after the university became autonomous, we have managed to maintain a solid working relationship which is manifested in various projects within the university, many of which have ended up benefiting the society at large. It is our hope that this robust relationship with the University will remain for years to come and will in the long run see the university become a beacon of academic excellence in the region.

I am pleased to note that the conference brings together paper presentations from a wide variety of disciplines with particular focus on challenges faced by the society on a day to day basis. Both developed and developing countries are for instance currently grappling with new and re-emerging human and animal diseases, exerting heavy pressure on already strained resources.

Dear participants, I am pleased to note that two subthemes in this year's conference, that is, **engineering technologies** and **information and communication technology**, particularly address technological aspects of development. Besides these being disciplines that JKUAT has over the years stood out strongly, these are critical economic pillars in the new global dispensation. Similarly, agriculture remains the backbone of many economies worldwide. I am again elated to note that a whole subtheme has been dedicated to this area. It is disheartening, ladies and gentlemen, that despite years of technological training, technological improvements and vast investments of resources, many nations are yet to live to the definition of food security, which is food sufficiency, reliability, quality, safety and timelines. The inclusion of this subtheme is therefore an opportunity for researchers in the area to make viable contributions towards improvement. Further, it behoves us to appreciate that real sustainable development in this area can only be attained through strategic networking especially amongst various disciplines. On this particular count, may I, on behalf of Okayama University pledge our continued support and participation in the conferences to come.

It is now my pleasure to declare the ninth JKUAT scientific, Technological and industrialization conference officially opened.

Thank you and welcome.