

# **14<sup>TH</sup> BIENNIAL INTERNATIONAL CONFERENCE**

**Theme:**

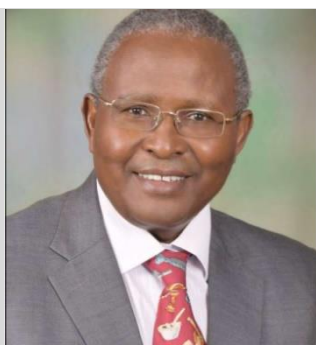
**RESEARCH AND INNOVATIONS FOR  
RESILIENCE IN A CHANGING ENVIRONMENT**

**PROGRAMME  
AND  
BOOK OF ABSTRACTS**

**23<sup>RD</sup> – 25<sup>TH</sup> MARCH, 2022**

**CONFERENCE VIA ZOOM**

# WELCOMING MESSAGE



***Prof. Isaac Kibwage***  
***Vice-Chancellor***  
***Egerton University***

I welcome you to this 14th Egerton University Biennial International conference whose theme is: “**Research and Innovations for Resilience in a Changing Environment**”. Underlying this theme is the acknowledgment that Science, Technology and Innovations are major drivers and enablers of social and economic transformation. The application of knowledge and innovation is necessary to attain sustainable economic growth and competitiveness.

Participants have an opportunity to address this broad theme under seven sub themes namely: Transformative Agri-food Systems; Health Systems, Science and Technology; Innovations in Climate Change and Natural Resource Management; Transformative Education for Social-Economic Adaptability; Resilience and Ruptures in Governance and Geopolitics in Africa; Literature, History and Culture; and Entrepreneurship, Business and Trade

This conference brings together participants from academia, research institutions and other industry experts in various fields to a common forum. The objectives of the conference are to provide a platform for participants:

1. To share their research results, outputs and products
2. To deliberate and exchange innovative cutting-edge development ideas, concepts and actions.

The conference will include keynote speakers, oral presentations, posters sessions, interactive question and answer sessions and exhibitions.

As Egerton University, we are honoured to host you all for this important conference. Over 100 authors will present their work during the next three days. Since this is a virtual conference we encourage you all to visit the conference website (<https://euconference.egerton.ac.ke/>) for additional information on the papers presented under various subthemes.

I thank the Technical Committee and the Secretariat that has organized this conference. I also thank the conference sponsors National Research Fund (NRF), Corteva Agriscience, Transforming African Agricultural Universities to Meaningfully contribute TAGDev and CoELiB.

I wish you fruitful engagements and networking.

**FROM AG. DEPUTY VICE-CHANCELLOR (RESEARCH AND EXTENSION)**



***Prof. Bockline O. Bebe,  
Ag. Vice- Chancellor  
(Research & Extension)  
dvcre@egerton.ac.ke***

On behalf of the Division of Research and Extension of Research and Extension I am glad to welcome you to the 14<sup>th</sup> Egerton University Biennial International Conference under the theme ***“Research and Innovation for Resilience in Changing times”***. This years’ conference comes at a time when our country and the world at large experiences serious challenges that have necessitated new approaches towards accomplishing our day to day tasks. In such an environment research an innovation is crucial for all of us to survive. The aim of this year’s conference is to bring together academia and industry in order to come with new paradigms for the uncharted waters we find ourselves in. I wish you productive engagements and great inspirations

## FROM CHAIR, CONFERENCE ORGANIZING COMMITTEE



**Prof. Nancy Mungai**  
**Ag. Director**  
**(Research and Extension)**  
**director.research@egerton.ac.ke**

On my own behalf and that of the organizing committee, it is my great pleasure to welcome you to this 14<sup>th</sup> Egerton University Biennial International Conference. As a University, we are honoured to host you during this important event in our scholarly calendar. Knowledge dissemination and transfer of research outputs is a key strategic objective of the university, together with increase of registrable innovations; consultancy and public policy analysis, and to engage in priority areas of community outreach and extension.

The theme of this conference “**Research and Innovations for Resilience in a Changing Environment**” encapsulates the strategic objectives and clearly interprets the covid era in which researchers and innovators must refocus, rethink and re-organize how to conduct their business.

Keynote speeches will address the theme by examining the Kenyan Research innovations framework for sustainable development; how greening smallholder agrifood value chains will lead to sustainable agri-food systems; the search for bioactive molecules for the control of human, animal and crop disease pathogens and vectors among other aspects. The stories of strangers in Mamabolo as captured in German Missionary Ethnography, Northern South Africa identify moments of knowledge making in the Woodbush texts with a focus on the topic of “the stranger”.

This conference has attracted 187 abstracts from 37 institutions, mostly universities (30) and other organizations. Over 100 authors will present their work during the next three days presented in three parallel sessions. Carefully interact with the programme to ensure you do not miss any presentation that is of interest. In case of overlap, you will be able to catch up with the presentations of your interest later through recordings which will be posted on the conference website

<https://conferences.egerton.ac.ke/>.

I wish you fruitful dialogues and deliberations

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