



# UNIVERSITY OF NAIROBI

## CBPS ANNUAL RESEARCH WEEK

14<sup>TH</sup> TO 16<sup>TH</sup> OCTOBER, 2020



**12-16 OCT. 2020**

Register today to attend any of the 13 conferences at the Research Week 2020!

#ResearchWeek2020

**VIRTUAL CONFERENCE**

<https://uonresearch.org/researchweek2020>

*"Sciences and cross disciplinary research and practices transforming society for sustainable development"*

### PROGRAMME

**Wednesday, 14th October 2020**

8:30 – 9:30 Online Registration

9.30 – 10:00 **Official Opening Ceremony (Chair: Prof J M Onyari )**

- CBPS OC Chair makes remarks (5 Minutes)
- CBPS Principal makes remarks (5 Minutes) & Invites DVC-RIE
- DVC-RIE makes remarks (5 Minute video) & Invites VC
- VC Gives Opening address to the physical and online audience, Opens the Conference (10 minutes Video)
- CBPS OC Chair –Gives Programme Overview (5 Minutes)

**Session 1: Science, Technology and Innovation in Industry for Sustainable Socio-Economic Transformation (Chair: Dr. George Outa)**

1. 10.00- 10.30 **Keynote 1: Prof Laban A. Ogallo:** Water, Agriculture and Food security challenges under changing weather and climate threats

10.30- 10:40 **Session Q and A and Discussions**

2. 10:40 - 10:55 **Franklin J. Opijah:** Predictability of Some Rainfall Parameters over Kenya Using Hybrid Empirical-Dynamical Modelling on Seasonal Timescales
3. 10:55 - 11:10 **Richard R. Muita, Joseph Mutemi, Andrew J. Dougill, Stella Aura, Richard Graham, David O. Awolala, Elias Nkiaka, Linda Hirons, Franklin Opijah:** Understanding the Role of User Needs and Perceptions Related to Sub-



1. 15:30 – **Keynote 3: Lydia Olaka - Hydrology across scales: Sensitivity of Kenyan Rift Lakes to Climate Shifts**  
16:00

**16:00 - 16:10 Session Q and A and Discussions**

2. 16:10- **Elkana Owino:** Towards optimization of stream data processing algorithms  
16:25 through distributed intelligence in edge computing.
3. 16:25 - **Kevin O. Omolo:** Simulating the effects of DOS attacks and their impact on  
16:40 wireless medical sensor network
4. 16:40 - **Jean Claude Udahemuka, Gabriel Aboge, George Obiero and Phiyani  
16:55 Lebea:** Molecular surveillance for foot-and-mouth disease in African buffaloes  
(Syncerus Caffer) of the Akagera National Park in Eastern Rwanda.
5. 16:55 - **Cynthia Ikamari:** A particle filtering approach to volatility estimation in an  
17:10 information-based model

**17:10 - 17:30 Session Q and A and Discussions**

17:30 End of day's session

**Friday 16th October, 2020**

**Session 6: Promoting Collaborative Scientific Research, Technology and Innovation for Sustainable Utilization of Natural Products (Chair: Prof David K. Kariuki)**

1. 9:00 - **Keynote 4: Jacob O. Midiwo, Aggrey Akimanya, Kerubo Omosa, Beth  
9:30 Ndunda, Muhammad Ilias, and Larry Walk:** The Kenyan higher plant  
diversity- a potential source of anti-parasitic compounds for neglected  
tropical diseases.

**9:30- 9:40 Session Q and A and Discussions**

2. 9:40 - **Solomon Derese:** Research4life and OA: Impact on access to e-resources in  
9:55 Africa
3. 9:55 - **Christine A. Omuombo:** Gradual and muted geolimnological responses of  
10:10 Lake Nkunga, Mt. Kenya to environmental changes during the past millennium
4. 10:10 - **Zelipha N. Kabubii:** Acute and sub-acute toxicity studies of aqueous extract  
10:25 of Rosmarinus officinalis in Wistar rats
5. 10:25 - **Magrate M. Kaigongi, Catherine Lukhoba, Abiy Yenesew and Nokwanda  
10:40 P. Makunga:** The chemosystematics of the genus *Zanthoxylum* L. (Rutaceae)  
in Kenya