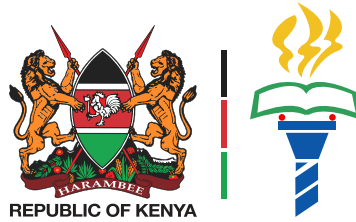


PROGRAMME



COMMISSION FOR UNIVERSITY EDUCATION

4TH Biennial Conference on Universities Research and Innovation

THEME:

**CATALYZING SYSTEMIC SOCIAL
TRANSFORMATION THROUGH RESEARCH
AND INNOVATION**



Kenyatta International Convention Centre (KICC), Nairobi

12th -
14th June
2024



Opening Ceremony Venue: Amphitheatre

Time	Activity	Session	Facilitators
8:00 -8:30 A.M.	Arrival of Guests, Registration	Guests register and collect conference materials	Conference Secretariat
8:30 – 8:35 A.M.	National Anthem/EAC Anthem	Dr. David Muthaka,	<i>Rapporteurs: Dr. Monica Gachunga and Claris Adoyo</i>
8:35-8:40 AM	Opening Prayers	Deputy Commission Secretary, Planning Research, and Innovation	
8:40-8:50 AM	Entertainment	Commission for University Education (CUE)	
8:50-9:00 AM	Opening Remarks and Introductions		
9:00-9-10 AM	Welcome Remarks	Prof. Mike Kuria, Commission Secretary/ CEO Commission for University Education (CUE)	Chair: Dr. David Muthaka
9:10-10:10 AM	Brief Remarks	Prof. Daniel Mugendi – <i>Vice Chancellor, University of Embu; Chairperson Vice Chancellors of Public Universities Kenya.</i>	
		Very Rev. Prof. Fr. Stephen Mbugua, <i>Rector and Vice Chancellor of The Catholic University of Eastern Africa (CUEA); Chairperson: Vice Chancellors of Private Universities Kenya.</i>	
		Prof. Gaspard Banyankimbona, <i>Executive Secretary, Inter University Council for East Africa (IUCEA)</i>	
		Monica Blagescu <i>Head of Education Kenya, British Council</i>	
10:00 –10:10 AM	CUE Chairman's Address	Prof. Chacha Nyaigotti – Chacha <i>Chairperson, Commission for University Education Board</i>	
10:10 - 10:20 A.M.	Principal Secretary's Address	Dr. Beatrice Muganda Inyangala <i>Principal Secretary, the State Department for Higher Education and Research, Ministry of Education Kenya</i>	
10:20 AM	Official Opening Photo Opportunity Exhibition Tour	Chief Guest: Hon Ezekiel Machogu, EGH <i>Cabinet Secretary, Ministry of Education</i>	
11:30-12:00 PM	Tea Break and Networking		

12:00PM-12:20PM	Konza Technopolis: A Catalyst for Kenya's Silicon Savannah and Societal Transformation Prof. Raphael Munavu , Chairperson, Konza Technopolis Board of Directors	Chair: Dr. Roselida Owuor <i>Director of Research Development, Ministry of Education, Kenya</i> <i>Rapporteurs: Elizabeth Onyango, Erastus Musa</i>	
12:20PM-12:40PM	Strategies to Promote Sustainable Research Funding Prof. Andala Dickson , CEO, National Research Fund		
12:40PM- 1:00 PM	Plenary Session: Moderator Dr. Roselida Owuor – Director of Research Development, Ministry of Education, Kenya		
1.00P.M – 2.00 P.M	Health Break/Lunch		
Venue	AMPHITHEATRE	IMPALA ROOM	TURKANA ROOM
	<i>Preparing Graduates for the Workforce of Tomorrow</i> Chair: Prof. Erastus Njoka <i>Rapporteurs: Dr .Benson Murgor; Hudson Nandokha, Evelyne Okewo</i>	<i>Digital Superhighway and Creative Economy</i> Chair: Prof. James Tuitoek <i>Rapporteurs : Dr. Dorcas Omukhulu ; Michael Tanui; Claris Adoyo</i>	<i>Catalyzing the Research Ecosystem</i> Chair: Prof. Mucai Muchiri <i>Rapporteurs: Dr. Monica Gachunga,, Pius Walela,; Caroline Mbaabu</i>
2:00P.M. -2:30 P.M.	Leveraging AI, Human Expertise, and the Digital Superhighway for Africa's Thriving Creative Economy Speaker: Dr. Lawrence Nderu <i>Jomo Kenyatta University of Agriculture and Technology</i>	Building Strong University-Industry Partnerships for Effective Skill Development Speaker: Dr. Fred Mugambi Mwirigi <i>Commissioner, Kenya School of Revenue Administration.</i>	Building Capacity and Quality: Challenges and Opportunities in African University Research Speaker: Dr. Dorothy Weyler <i>Director DAAD Office Africa</i>
2:30PM -3:00 PM	Leveraging Artificial Intelligence (AI) in Content Delivery Speaker: Dr. Joseph Orero <i>Senior Lecturer, Strathmore University</i>	The Role of Leadership in Cultivating Innovation Ecosystems Speaker: Prof. Eng. P. N. Kioni <i>Dedan Kimathi University of Technology (DeKUT)</i>	Catalyzing African Research: Strategies for excellence, outputs, and visibility Speaker: Dr. Julius K. Sindi <i>African Population and Health Research Center (APHRC)</i>
3:00 P.M-3:30P.M	Leveraging on Artificial Intelligence (AI) in Assessment of/as/for Learning Speaker: Dr. Christopher Odindo <i>De Montfort University, Leicester</i>	Beyond Access: Unlocking the Potential of the Creative Economy in Africa through Strategic Development of Digital Skills Speaker: Dr. Winston Ojenge <i>African Centre for Technology Studies (ACTS)</i>	Strategies for linking Universities with Research Institutions in Kenya Speaker: Prof. Elijah Songok, <i>Ag. CEO/DG, KEMRI (Kenya Medical Research Institute)</i>
3:30P.M- 4:30PM	Plenary	Plenary	Plenary

END OF DAY ONE



8.00 A.M - 8.30 A.M.	Arrival of Guests, Registration Entertainment	Conference Secretariat	
8.30 A.M- 9.30 A.M	Future-Proofing Universities: Perspectives of the Regulator Thematic Speaker 1: Prof. Mike Kuria , CEO, CUE (Commission for University Education)	Chair: Prof. Maurice Okoth <i>Rapporteurs: Sarah Ooro /Pius Walela</i>	
	Building Thriving Research and Innovation Ecosystems: Africa's Role in Shaping the Future of Research & Innovation with diverse perspectives Thematic Speaker2: Prof. Jamil Salmi; The World Bank (Virtual Presentation)		
	Fostering International Research Collaboration Through University Networks: The UNA Europa Model Thematic Speaker 3: Prof. Dolores Oriordan , Vice President for Global Engagement, University College Dublin. / Chair UNA Europa - (Virtual Presentation)		
9.30 A.M- 10.00 A.M	Plenary		
10.00 – 10.30 A.M.	Health Break		
Break Away Sessions on Conference Tracks			
Venue	AMPHITHEATRE	IMPALA ROOM	TURKANA ROOM
	Preparing Graduates for the Workforce of Tomorrow Chair: Prof. Robert Gateru, VC Riara University Rapporteur : Elizabeth Onyango	Digital Superhighway and Creative Economy Chair: Rev. Canon Prof. James Kombo, Vice Chancellor St. Paul's University Rapporteur: Benson Gatubu	Catalyzing the Research Ecosystem Chair: Prof. Waceke Wanjohi, Ag. Vice Chancellor, Kenyatta University <i>Rapporteur: Dr. Dorcas Omukhulu</i>
10.30AM – 11.15 A.M	Redesigning Curriculum Delivery for Effective Skills Development in a Digital Age Speaker: Dr. Teresa Oluoch <i>Masinde Muliro University of Science and Technology</i>	Championing Sustainable and Ethical Research Speaker: Prof Walter Oyawa <i>CEO, National Commission for Science, Technology, and Innovation (NACOSTI)</i>	Leveraging Science, Technology, and Innovation for Systemic Social Transformation in Africa Speaker: JPR Ochieng'-Odero <i>Adjunct Senior Research Fellow, Strathmore University</i>
11.15 - 11.30 A.M	Plenary	Plenary	Plenary

11.30 A.M -12:45 P.M

TRACK 1: PAPER PRESENTATIONS

T1.1: Bridging the gap: Aligning CUE guidelines with competency-based education in postgraduate curricula development.

Dr. Samson Ikinya, Kenyatta University; Dr. Hellen Kiende, Kenyatta University

T1.2: Integration of Lifelong Learning for Teacher Employability

Ochieng, Pamela, Mount Kenya University

T1.3: Analyzing the Effect of Technological Innovation on Employment Pattern in Kenya

Faith Wanja Kilaku¹ Dr. J. Nthiiri² Masinde Muliro University of Science & Technology

T1.4: Mental Health Conversations with Students: The Place Of 21st Century Skills Among University Students Today

By Margaret Njeri Ngugi¹ and Jasper Edward Nyaura²

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T1.5: The Role of Universities in Preparing Graduates for the World of Work: The case of a private university in Kenya.

Dr, Joab Namai, Daystar University

TRACK2: PAPER PRESENTATIONS

T2.1: Transforming University Research Knowledge to Business Startups in Kenya.

Dr. Shadrack Mule, University of Kabianga

T2.2: Mapping Longitudinal Mental Health Datasets to OMOP Common Data Model Using OHDSI: A PHQ-9, GAD-7, and PSQ Approach from INSPIRE Network Datahub

*By Byliah Mugotitsa^{1,2}, * Tathagata Bhattacharjee⁴, Michael Ochola¹, David Amadi⁴, Dora Mailosi⁵, Pauline Andeso¹, Joseph Kuria¹, Evans Omondi^{1,6}, Jim Todd⁴, Jay Greenfield⁵, Agnes Kiragga¹,*

¹African Population and Health Research Center (APHRC), Nairobi, Kenya.

²Strathmore University Business School, Strathmore University, Nairobi, Kenya.

³Infectious Diseases Institute, College of Health Sciences, Makerere University, Kampala, Uganda.

⁴Department of Population Studies, London School of Hygiene and Tropical Medicine, London, United Kingdom.

⁵AI and ML, CODATA-Committee on Data of the International Science Council, Paris, France.

⁶Institute of Mathematical Sciences, Strathmore University, Nairobi, Kenya.

T2.3: Bio-Alkanol Gel Fuel as Renewable Energy
By Jireri Bonface, Kaimosi Friends University

T2.4: Seeded Container-Based Sanitation as a Potential Faecal Sludge Management Option for Peri-Urban Settlements: Case Study-Nchiru, Meru, Kenya

TRACK3: PAPER PRESENTATIONS

T3.1: Catalyzing the Kenyan Research Ecosystem,

Ochieng,' J. Kennedy

T3.2: Promoting Sustainable and Ethical Research Practices in Higher Education, Kenya By

Dr. Loice Korir (Umma University)

T3.3: Enhancing Completion rates for sustainable PhD training in Kenya: The influence of supervisor and peers on PhD students' sense of belonging and their success at Kenyan universities

Hyrine Matheka (Commission for University Education)

T3.4: Opportunities for Research and Knowledge Dissemination: Leveraging UNESCO Resources

James Njogu, Joel Ongoto, Mary Kang'ethe, George Eshiamwata, Julius Mwahunga, Angela Muchai, Kenya National Commission for UNESCO

T3.5: Faculty Shortages in Kenya's Expanding Higher Education System: A call to action

Daniel Omanyoo, Pauline Essah, Lucy Heady, Salome Guchu. IUCEA

		<p><i>By Mumali A.1, Riungu J.N.1, Kithinji D.K.1, Karanja S.1, Oyoo V.1</i></p> <p><i>¹Sanitation Research Institute (SRI), Meru University of Science and Technology</i></p> <p>T2.5: Exclusion and Discrimination in Water Sanitation and Hygiene (WASH) Service Delivery: A case of Mukuru kwa Reuben</p> <p>By Riungu J.N. (Meru University of Science and Technology and Karani C. K Chumo African Population and Health Research Centre</p>	
12:45-1:00P.M	Plenary		Plenary
100 – 2.00 P.M	Lunch Break		
	<p><i>Preparing Graduates for the Workforce of Tomorrow</i></p> <p>Chair: Prof Urbanus Mutwiwa</p> <p>Rapporteurs: Hudson Nandokha; Valeria Onsando</p>	<p><i>Digital Superhighway and Creative Economy</i></p> <p>Chair: Dr. Eunice Marete</p> <p>Rapporteur: Dr. Benson Murgor; William Mwangi</p>	<p><i>Catalyzing the Research Ecosystem</i></p> <p>Chair: Victor Ogunyo</p> <p>Rapporteur: Angela Nyangera ; Evelyne Okewo</p>
2.00 P.M – 2. 40P.M	<p>Enhancing Postgraduate Training and Supervision for a Thriving Research Ecosystem</p> <p>Speaker: Prof. John K. Chang'ach</p> <p><i>Deputy Vice Chancellor (ARSA) Alupe University</i></p>	<p>Building the Digital Superhighway for Africa's Creative Workforce:</p> <p>Speaker: Mr. Nuno Fernandes (Virtual Presentation)</p> <p><i>President, American Public University System -</i></p>	<p>Unleashing the Power of Diversity: A Research Agenda for a Secure and Sustainable Energy Future</p> <p>Speaker: Prof. Izael Da Silva</p> <p><i>Research and Innovation, Strathmore University</i></p>
2. 40 P.M- 3. 00P.M	Plenary	Plenary	Plenary
3. 00P.M- 3:45 P.M	TRACK 1: PAPER PRESENTATIONS	TRACK 2: PAPER PRESENTATIONS	TRACK 3: PAPER PRESENTATIONS
	<p>T1.6: The Open State Grants for Skills Development in Higher Education: Towards Quality Research and Innovation for</p>	<p>T2.6: Effect of Gum Arabic on Wheat Flour Dough Rheology by</p> <p><i>Roseline Mwihaki Kiama¹, Mary Omwamba¹, George Wafula Wanjala² and Symon Maina Mahungu¹ ¹ Egerton University</i></p>	<p>T3.6: Protecting the Ecosystem Through Environmental Audit Emerging Issues and Challenges in Environmental Auditing:</p> <p><i>Antony Wafula Wanyonyi, School of</i></p>

	<p>Community Outreach in Kenya: Lessons Learnt from Developed Nations <i>Jacob Lolelea Natae Dr. Stella Kabesa, University of Eldoret</i></p> <p>T1.7 Charting the course: navigating governance and quality assurance in private and public universities in Kenya. <i>Prof. Maurice Oduor Okoth, University of Eldoret</i></p>	<p>T2.7: Adsorption of Lead from Water using Agricultural Wastes, Carbon Nanotubes and Cobalt Ferrite Nanocomposite by Fidelis Ngugi, Tharaka University</p> <p>T2.8: Microcredits as Enabler for Small Enterprise's Foster Achievement of Kenyan Vision 2030 by <i>Prof. Peter Paul Kithae, Management University of Africa</i></p> <p>T2.9: Risk Factors Associated with Non-Communicable Diseases Burden in Kenya- A Systematic Analysis of Burden of Disease Study For 369 Diseases and Injuries (1990-2019). <i>Josephine Wanjiku Ngunjiri (University of Embu) and Peter Keiyoro (University of Nairobi)</i></p>	<p><i>International Exchange, Nanjing Audit University, China.</i></p> <p>T3.7: Towards Open Innovation Ecosystems: Leveraging Open Science for Social Transformation <i>Kamuri Mary Wanjiku (Technical University of Kenya)</i></p>
3:45PM-4:00PM		Plenary	Plenary
4.00P.M – 5.00 P.M	Health Break		
5.00 P.M	Entertainment		
	Gala Dinner	Master of Ceremony: Prof. Mike Kuria <i>Commision Secretary /CEO Commision for University Education</i>	



8.00 A.M - 8.30 A.M.	Arrival of Guests, Registration	Entertainment	Conference Secretariat
8.30 A.M- 8.55 A.M	Bridging the Skills Gap: Global Trends and Strategies for Aligning Higher Education with Workforce Needs Speaker: Pedro Cerdan-Infantes. The World Bank		Chair: Prof Urbanus Mutwiwa, DCS ACC. Rapporteurs: Claris Adoyo/Pius Walela
8.55 - 9.20 A.M	Building Future-Proof Engineering Graduates: Leveraging Research and Industry Collaboration Speaker: Prof. Washington Yotto Ochieng, FREng FIC Dean Engineering, Imperial College of London - (Virtual Presentation)		
9.20 – 10.00 A.M	Plenary		
	AMPHITHEATRE	IMPALA ROOM	TURKANA ROOM
	Preparing Graduates for the Workforce of Tomorrow Chair: Prof. Kamau Ngamau, Vice Chancellor of The Co-operative University of Kenya Rapporteurs: Dr. Monica Gachunga	Digital Superhighway and Creative Economy Chair: Dr. Darius Mogaka Ogutu, Ministry of Education Rapporteur: Angela Nyang'era	Catalyzing the Research Ecosystem Chair: Prof. Justus Mile, Vice Chancellor Kiriri Women's University of Science and Technology <i>Rapporteur: William Mwangi</i>
10.00 A.M- 10:30M	Future Proofing Universities: Preparing Graduates for the Workforce of Tomorrow Speaker: Dr. Elizabeth Johnson Provost, American Public University System	From Research Labs to Real-World Impact: Bridging the Gap Between University Research and Commercialization Speaker: Prof. Margaret Hutchinson DVC, Research Innovation and Enterprise, University of Nairobi	Building a Thriving Research Ecosystem in Universities: CUE's Role in Balancing Regulation, Quality Assurance, and Innovation Speakers: Prof Urbanus Mutwiwa and Dr. Eunice Marete
10:30-10:45AM	Plenary	Plenary	Plenary

10:45 -11.15A.M.	Health Break		
11.15A.M.- 11.45 P.M	Plenary Session: Monetizing and Commercializing Innovations: Strategies for Startups and Scale-Ups. Speaker: Philipp Assmus - CEO & Founder of The Factor-Y and CBaaS Speaker: Andre Varma - Partner/Business Development Director	Chair: Dr. James K. Ngugi (CUE) <i>Rapporteurs: Valeria Onsando and Naftali Okodo</i>	
11:45AM -12:00 PM	Plenary		
12.00P.M.- 01:00 P.M.	Research & Innovation Awards	Selected Sponsors	
Closing Ceremony Venue: Main Auditorium			
01:00 P.M-2.00PM	Entertainment Signing of Conference Communiqué	Vice Chancelors Representatives (Public/ Private) /Ministry of Education/Commision for University Education/Sponsors	Chair: Prof. Jackson Too (CUE) <i>Rapporteurs: Claris Adoyo /Angela Nyang'era</i>
12.30 P.M-2.00PM	Vote of Thanks	Mr. Joseph Musyoki	Chair: Prof. Jackson Too Rapporteurs: Claris Adoyo /Angela Nyang'era
	Official Closing	CEO Prof. Mike Kuria Chair CUE Board Prof. Chacha Nyaigotti – Chacha, Principal Secretary Dr. Beatrice Inyangala	
	Closing Prayers		
2.00P.M	Lunch/Departure		



CONFERENCE OBJECTIVES

1

To **exhibit impactful research** across diverse disciplines, highlighting Kenyan universities' contributions to addressing critical societal challenges;

2

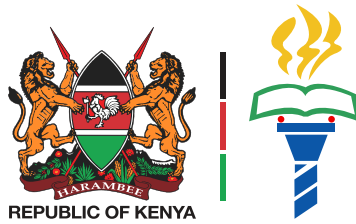
To **facilitate dialogue and knowledge exchange** between universities, industry, and government stakeholders to drive collaborative research and innovation;

3

To **benchmark Kenyan universities against international best practices** to identify areas for improvement and inform future-oriented education reforms; and

4

To **promote the dissemination and accessibility of research findings**, inspiring the next generation of researchers and innovators.



COMMISSION FOR UNIVERSITY EDUCATION