MINISTRY OF EDUCATION
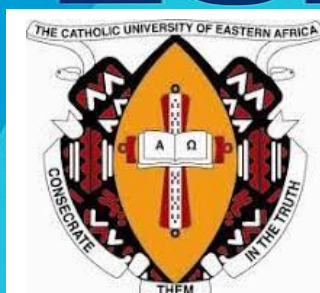REPUBLIC OF KENYA

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# PROGRAMME
# AI CONFERENCE 2025

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National Commission

From 28th & 29th April 2025

Theme:
"Harnessing AI for Innovation in Education"

**PROGRAMME**
**THEME: Harnessing AI for Innovation in Education**
**DATE: 28TH & 29TH APRIL, 2025**
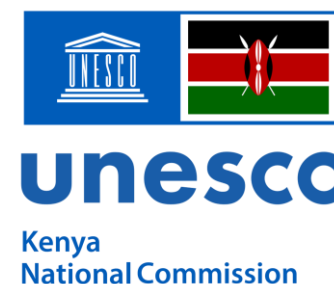**VENUE:  CATHOLIC UNIVERSITY OF EASTERN AFRICA (LRC)**

**DAY ONE: 28th April 2025**                    **Programme Coordinator: Dr. Simon Omondi PhD**

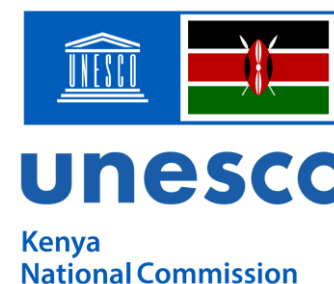| TIME | ACTIVITY | FACILITATOR | SESSION MODERATOR |
|---|---|---|---|
| 8:00 am - 8:30 am | Registration | Dr. Simon Omondi Ph.D, Dr.Gitonga Muriithi/ Kevin Kore/ Dennis Kimutai | |
| 8.30 am | Opening Prayer | University Chaplain | |
| 8:30 am -9:00 am | **Welcome Remarks** Prof. Peter Koros (Dean, Education & Conference Chair)  Prof. Justus Munyoki (DVC Academic & Student Affairs) | Prof. Samuel Nyanchoga (CUEA) | |
| 9:00 am – 10.00 am | **OPENING SESSION** **Welcome Remarks:**  Rev. Prof. Stephen Mbugua (Vice Chancellor CUEA) **Remarks by** the Secretary General & Chief Executive Officer KNATCOM **Dr. James G. Njogu, HSC, PhD, MPhil, BSc** **Opening Remarks**: Cabinet Secretary, Ministry of Education; **Hon. Julius Migos Ogamba, EBS** **Session Chair:** Dr. Patrick Kasyula (KNATCOM) **Rapporteur:** Ms.  Charity Zawadi **Opening Speech:** *"The Future of AI in Higher Education in Kenya".* Principal Secretary State Department for Higher Education and Research; **Dr. Beatrice Muganda Inyangala** **Session Chair:** Dr. Patrick Kasyula (KNATCOM) | | |

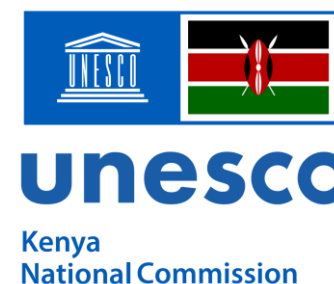| | |
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| | Rapporteur: Mr. Seth Pturgo |
| 10.00 am -10:30 am | HEALTH BREAK,  GROUP PHOTO, & NETWORKING BREAK |
| 10.30am -11.00 am | **Keynote Speech:** "The Role of Tech Communities in Advancing the AI Ecosystem in Africa"<br>Dr. Alfred Ongere  CEO AI Kenya<br><br>Session Chair: Prof. Peter Koros<br><br>Rapporteur: Mr. Jojol Yahya |
| 11: 00 am – 12.00 am | **Transforming Education Systems through AI Driven Innovations, Assessments and Infrastructure**<br>A Review of AI-Enabled Teaching (2021–2025): Progress, Impact, and Future Directions<br>**Dr. Pauldy Oterman (Netherlands) & Dr. Dev Aditya (India) & Dr. Krizia (Italy) from Otermans Institute (UK)**<br><br>Session Chair: Prof.Peter Koros<br><br>Rapporteur: Ms. Charity Zawadi |
| 12.00 pm - 12:30 pm | **PLENARY SESSION (AUDITORIUM)**<br>1. Reimagining Assessment in Higher Education through Artificial Intelligence: Innovations, Challenges, and Ethical Imperatives. *Prof. Susan Chepkonga, Prof. Mercy Mugambi, Prof. Phylisters Matula*<br>2. Integrating AI for Real-Time Classroom Insights, Smart School Management, And Resource Optimization. *Dr. Hillary Shikokoti, Dr. Petronilla Kingi, Prof. Ursulla Achieng Okoth*<br>3. Optimizing Human Resource Management for Recruitment and Selection through Artificial Intelligence in Secondary Schools in Kenya. *Desire Patience Iraguha, Petronilla M. Kingi, Mbithi Kennedy Mulwa, Prof Rosemary Imonje.*<br>4. The Role of AI in Decision Making in the Education Sector in Public Secondary Schools in Kamukunji Sub County, Nairobi County, Kenya.  *Mbithi Kennedy, Desire Patience, Anthony Mendy, Dr. Kingi Petronila, Prof. Dorothy N. Kyalo.*<br><br>Session Chair: Prof. Peter Koros<br><br>Rapporteur: Ms. Charity Zawadi |

| 12.30pm to 1.00pm | **INDUSTRY PLAYERS ICEBREAKER: Margaret Munga; Nikabed Gathaba, Sam** (Etica Capital Money Market Fund) & Mr. Kevin Odero |
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| | **Session Chair:** Dr. Simon Omondi & Dr. Gitonga Muriithi; **Rapporteur**: Brian Manyasi |
| 1.00pm - 2.00pm | **HEALTH BREAK** |
| 2.00pm -2.30pm | PRESENTATION & PANEL On AI Youth Driven Solutions<br>Opening Remarks : **Ms. Charlene Ruto** (10 Minutes)<br>IBM East Africa, Ltd.<br>**John Baptist Matogo**<br>Leveraging on Generative AI to Scale Item Generation Amid Rising Assessment Demands in Education<br>**Dr. Jonah Kenei;** Kenya National Examinations Council<br>                                        **Session Chair**: Sr. Dr. Bibiana Ngundo<br>                                        **Rapporteur:** Mr. Seth Pturgo |

| 2.30pm-3.30 pm | **BREAK OUT SESSION 1 (ROOM 6)** | **BREAK OUT SESSION 2 (ROOM 7)** | **BREAK OUT SESSION 3(ROOM 8)** |
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| | **Session Chair**: Prof.  Joel Baraza<br>**Rapporteur:** Mr. Brian Manyasi<br>1.        Towards Safer Digital Learning: AI-Powered Cyber Security Strategies in Kenya's Educational Institutions. ***Dr. Stanely Chege, Isaac Kiprotich Tonui***<br>2.        Pre-Primary School Teachers' Preparedness to Use Gamification to Support Learning in Kenya. ***Prof. Peter*** | **Session Chair**: Dr.Orpha Nyakundi<br>**Rapporteur:** Mr. Seth Pturgo<br>1.   Digital Collaborative Learning on Academic Performance of Learners in Public Universities in Nairobi County. Kenya. ***Grace Mumo, Anne Iswan, Prof. Joel Barasa, Grace Nyambati***<br>2.  Influence of Artificial Intelligence on Actualization of Inclusive Education in Integrated Public Primary Schools in | **Session Chair**: Dr.Isaac Tonui<br>**Rapporteur:** Ms. Jojol Yahya<br>**Workshop & AI Project Demo 1: AI in Practical Learning and Skill Matching**<br> AI-Driven Tools for Skill Development, Robotics, And Real-World Workforce Alignment. (*Project on AI role in helping Career Skill Match for grandaunts and during course application*) |

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| | *Koros, Dr. Millicent Wandia, Ms. Margaret Richu*<br>3. AI-Driven Optimization in Educational Management for Administrative Effectiveness in Secondary Schools in Nairobi County, Kenya. *Dr. Petronilla M. Kingi, Prof. Dorothy Ndunge Kyalo, Antony, Desire, Mbithi*<br>4. Study on the Shift to AI and Digital Tools in Teaching Science Subjects in Kenyan High Schools: A Case Study of Lenana School, Nairobi. *Mr. Isaac Kiprotich Tonui*<br>5. Strengthening School Leadership Practices through Responsible Use of Artificial Intelligence in Kenya. *Kingsley, Dr. Petronilla M. Kingi, Prof. Angeline Mulwa*<br>6. A Qualitative Survey of the Views of Chemistry Teachers and Students about Artificial Intelligence (AI) in Chemistry Education in the | Thika. *Prof. Peter Koros, Dr. Millicent Wandia, Margaret Richu*<br>3. Using AI to Enhance Access To Educational Resources For Marginalized Communities. *Hildah Harusi Mwanyalo*<br>4. AI for Enhanced Knowledge Sharing, Mentorship and Inclusivity in Higher Education. *Dr. Petronilla Kingi, Dorothy Ndunge Kyalo, Angeline Mulwa*<br>5. Artificial Intelligence and Design Learning for Low Resourced Areas in Kenya. *Prof. Kellen Kiambati, Mr. Pius Muchai*<br>6. Ethical AI in Art Education: Revolutionizing Learning Methodologies and Environments. *Mercy Nyambura Mburu*<br>7. AI-Driven Mentorship and Digital Upscaling for Educators or Students in Kibra Sub County, Kenya. *Muinde J. M, Kingi M. Petronilla, Prof. Angeline Mulwa* | 1. AI-powered Assistive Learning System for Students with Visual and Hearing Impairment. *Nzioki Kisilu, Aabayo Jesse, Maslawayne, Gilbert Oguta, Wangeci Njiru, Nkaai Maximillan*<br>2. Exploring the Role of AI Learning Tools in Enhancing Environmental Literacy Among Learners in Kenya's Arid and Semi-Arid Lands (ASAL) Regions. *Amran Abdi*<br>3. Exploring AI for Personalized Teacher Training and Capacity Building in Underserved Communities. *Julius Muriithi, Ng'ang'a Kibandi*<br>4. Artificial Intelligence and Science Technology Innovation Mainstreaming in Kenyan Public Research Institutions *Dr. Kenneth Goga Riany* |

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| | Ibadan Metropolis, Nigeria. **Dr. Idika, Mabel Ihuoma, Abdulazeez, Kabirat Abisola** | | |
| 2.30pm to 4.00 pm | **PLENARY SESSION 4 (AUDITORIUM)** | | **Session Chair**: Prof. Samuel Nyanchoga/ Prof. Peter Koros<br>**Rapporteur:** Ms. Charity Zawadi |
| | **Revolutionizing Teacher Training, Professional & Curricula Development, and Capacity Building with AI. (Sub Theme 3)** | | |
| | 1. The Role of AI in Dynamic Curriculum Design of University Students in Kenya. **Anne Iswan, Joseph Ndururi, Lawrence Odollo**<br>2. AI-Driven Administrative Monitoring Strategies for Enhancing Teacher Performance in Catholic Private Universities in Nairobi County. **Prof. Joel Barasa, Sr Inviolata MMbaya, Sr. Dr. Petronila Kingi, Grace Mumo**<br>3. Generative Artificial Intelligence (Chatgpt, Gemini): Integration of AI Systems into Education Sector to Transform Administrative Processes in Kenyan TVET Institutions. **Abdullahi Omar** | 8. Data-Driven Professional Development: Using AI to Personalize Teacher Training and Improve Learning Outcomes in Kenyan Classrooms. **Cynthia Munyiva Mumo**<br>9. Optimizing Pre-Service Teacher Efficacy: An Investigation into AI-Enhanced Evaluation and Skill-Building Programmes in Primary Teacher Training Colleges in Kenya. **Peter Nyaga Muchanje, Anthony Muriithi Ireri**<br>10. Artificial Intelligence Tools (AI) for 21$^{st}$ Century School Administration. **Juma Mzungu, Sr. Dr. Petronilla Kingi, Prof. Angeline Mulwa** | |

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| | 4. AI For Enhanced Knowledge Sharing, Mentorship and Inclusivity in Higher Education. *Prof. Angeline Mulwa, Prof. Dorothy Kyalo, Dr. Petronilla Kingi*<br>5. Enhancing Academic Integrity in Postgraduate Supervision through Digital Leadership by Faculty and Students in Kenya. *Petronilla M. Kingi, Dorothy Ndunge Kyalo, Angeline Mulwa*<br>6. The Influence of Supervision Digital Leadership on Students' Output in Academic Writing: A Case of the University of Nairobi. *Petronilla M. Kingi, Dorothy Ndunge Kyalo, Angeline Mulwa* | 11. Aligning Artificial Intelligence with Kenya's K-12 Curriculum: Opportunities, Challenges, and Implementation Strategies. *Hellen Wangui* | |
| 4.00pm -4.30pm | PLENARY SESSION- Report from Groups | | **Session Chair**: Dr.Simon Omondi<br>**Rapporteur:** Ms. Charity Zawadi/ |
| 4:30pm-5:00 pm | **HEALTH BREAK AND END OF DAY ONE<br>CLOSING PRAYER** | | Wendy Lingori / Nelias Wambui /Eto Binti Faizi/ Nelias Wambui |

| Day Two : 29th April 2025 | | |
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| 8:00 am – 8.30am | Arrival and Registration | Mwendwa,Vallary, Johnrich, Angelina Ikaal |
| 8.30am-8.40 am | OPENING PRAYER | **UNIVERSITY CHAPLAIN** |
| **8.40am – 9.00am** | **KEYNOTE ADDESS: Hon. William Kabogo Gitau**<br>Cabinet Secretary; Ministry of Information, Communications, and the Digital Economy<br>**Session Chair:** Dr.Patrick Kasyula<br>**Rapporteur**: Mr. Edwin Njoroge Mwangi | |
| 9.00am – 10.00am | **Advancing Research, Artistic Work, Social Science, Corruption and Policy Development through AI (AUDITORIUM)**<br>1. Ethical Implications of AI-Powered Assistive Technologies in Special Needs Education: A Case Study of Kenya. *Dr. Simon Omondi, Dr.Mary Mutisya, Prof. Peter Koros*<br>2. Artificial Intelligence and Science Technology Innovation Mainstreaming in Kenyan Public Research Institutions. *Dr. Kenneth Goga Riany*<br>3. Ethical Concerns on AI Chatbots Application in Higher Education:  A Systematic Review. *Proscoviour Vunyiwa, Dr. Samuel Oonge*<br>4. Humans Harnessing the Potential of Artificial Intelligence for an Ethical Innovative Education, Academic Research and Policies. *Dr. Solomon C. Kelwon*<br>5. Influence of CHATGPT on Students' Performance in Higher Education. A Case Study of Faculty of Education, University of Nairobi. *Dr. Hillary Shikokoti, Prof. Susan Chepkonga, Dr. Reuben Mutegi*<br>6.  Advancing Research, Ethics and Policy Development through Artificial Intelligence. **Dr. Omundi Esther Obutu**<br>7.  Role of Artificial Intelligence in Research: Mainstreaming Appropriate Ethics in the Use of AI in CUEA. *Rev. Dr. Jude Likori Omukaga*<br>    8. Harnessing Artificial Intelligence to Transform Teaching and Learning in Kenya's Competency-Based Curriculum- CBC *Prof. Peter Koros* | |

| 10:00am -  13.00 am | HEALTH BREAK |

| 10.30am –- 11.15am | BREAK OUT SESSION 3(ROOM 6) | BREAK OUT SESSION 3(ROOM 7) | BREAK OUT SESSION 3(ROOM 8) |
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| 11.15am – 12.15pm | **Sub-Theme 6: AI Driven Solutions for Technical Education, University Education, Lifelong Learning and Workforce Readiness**<br>**Session Chair:** Prof. Joel Baraza & Sr. Bibiana Ngundo<br>**Rapporteur** : Mr. Jojol Yahya<br>1. Transcription and AI: A Game Changer in Qualitative Inquiry. ***Prof. Anne Kanga***<br>2. The Impact of AI On Skill-Based Learning And Workforce Adaptability. ***Alouis Namachi Khisa***<br>3. AI On Performance and Outcomes of Students in Technical and Vocational Education and Training (TVET) Institutes in Nairobi County in Kenya. ***Anne Iswan, Joseph Ndururi, Lawrence Odollo***<br>4. Harnessing AI for Innovation in Education. ***Prof. Anne Kanga*** | **Sub Theme 5: AI for Social Justice, Laws, Religion, Ethics, Cultural Preservation, and Well-Being.**<br>**Session Chairs:** Dr. Isaac Tonui & Dr. Orpha Nyakundi<br>**Rapporteur** : Mr. Brian Manyasi<br>*1.* Bridging The Gap: Leveraging AI for Social Justice And Cultural Preservation In Education. ***Cynthia Mbesa Mutiso***<br>*2.* AI Tools for Enhancing Mental Health Among Students And Academic Staff In Higher Learning Institutions In Kenya. ***Prof. Joel Barasa Ijakaa, Dr. Petronilla Mutinda Kingi, Dr.Sr. Jackline Mayaka, Sr. Rose Makena, Grace Mumo Mutunga***<br>3. Artificial Intelligence in Digital Activism: Catalysing Kenya's Protest to the Finance Bill 2024. ***Tirus Muya Maina***<br>4. Leveraging AI to Combat Hate Speech In Kenya While Addressing Ethical, | **Sub Theme 7: AI for Socio-Economic Transformation and Sustainable Development in Support of Education by Industries and Corporates**<br>**Session Chairs :** Dr. Patrick Kasyula & Ms. Maureen Kerubo<br>**Rapporteur**: Ms. Cecilia Cherono<br>1. Leveraging AI for Sustainable Socio-Economic Transformation. ***Alouis Namachi Khisa***<br>2. AI Enhanced Nursing Skills Acquisition Among Nursing Students in Low Resource Settings. ***Jackline Mayaka, Prof. Joel Barasa Ijakaa, Mary Kungu, Rose Makena***<br>3. Integrating Artificial Intelligence In Local Early Warning System In Disseminating Seasonal Climate Forecast As A Function Of Devolution Among Farmers In Kenya. ***Balongo Caleb Vincent*** |

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| | 5. AI Driven Solutions for Technical Education, University Education, Lifelong Learning and Workforce Readiness. ***Prof. Ann Kanga***<br>6. AI and Higher Education: Understanding the Nexus in Lifelong Learning and Workforce Readiness in Low Income Countries. ***Prof. Anne Achieng Aseey, Dr. Joyce Otieno, Caroline Kirwa***<br>7. Cloud Infrastructure as a Catalyst for AI Integration in Kenya's Digital Ecosystem. ***Dr. Stanely Chege, Isaac Kiprotich Tonui***<br>8. Use of Information and Communication Technology in Enhancing the acquisition of Post-Harvest Skills among Junior Secondary School Agriculture Students in Kakamega County, Kenya. ***Robert Recha*** | Policy, and implementation challenges. ***Prof. Joel Barasa Ijakaa***<br>5. Artificial Intelligence Support in Ethical Research among FaithBased Organizations in Kenya. ***Anne Iswan, Joel Barasa***<br>6. Wellbeing, Vulnerabilities and Sustainability of Legal Education. ***Dr. Charles A. Khamala***<br>7. Artificial Intelligence and the Church's Social Teachings in Addressing Poverty and Promoting Justice in the Catholic Archdiocese of Nairobi, Kenya. ***Sr. Dr. Bibiana Ngundo***<br>8. Exploring The Impact of Artificial Intelligence On Academia in Higher Learning Institutions In Nairobi, Kenya. ***Dr. Simon Omondi, Dr. Mary Mutisya*** | **Sub-Theme 1: Transforming Education Systems through AI Driven Innovations, Assessments and Infrastructure**<br>1. Artificial Intelligence Tools on Student Performance in Public University Kenya. ***Anne Iswan, Joseph Ndururi, Lawrence Odollo***<br>2. Effective Monitoring Behavior Change in Students by Teachers and Parents through AI Surveillance in Murang'a County, Kenya. ***Alego Christine Mwange, Petronilla M. Kingi, Dorothy Kyalo***<br>3. Leveraging AI to Ensure Learning Continuity in Crises and Optimize Educational Infrastructure. ***Dr. James Sankale, John Kiama Ngari***<br>4. Digital Entrepreneurial Marketing Strategies on The Performance of Youth-Owned Enterprises in Busia County, Kenya. ***Anne*** |

| | | | Karani Iswan, *Joseph Ndururi, Grace Nyamati, Prof. Joel Barasa* <br> 5. Artificial Intelligence in the wake of Competency Based Curriculum in Kenya, *Sr. Madeleine Sophie Barat Achieng* <br> 6. The Role of Ai -Driven Lesson Materials Creation in Enhancing Educational Resource Development And Accessibility In Higher Education In Kenya. *Sr. Inviolata Mmbaya, Prof. Joel Barasa, Sr. Dr Petronila Kingi* |
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| 12:00pm-12.30pm | **Main auditorium** <br> Key Take Aways' & Conference Communique | | Prof. Peter Koros <br> Conference Chair |
| 12:30pm -1:00pm | **Closing Ceremony** <br> Vote of Thanks   (Prof. Peter Koros) <br> Director ,Higher Education; MoE <br> **Dr. Darius M. Ogutu** | | Vice Chancellor <br> CUEA |
| 1.00 pm -2.00pm | **CLOSING PRAYER,   HEALTH BREAK   AND    DEPARTURE : CHAPLAINCY** | | |

SPECIAL THANKS TO THE VICE CHANCELLOR, THE CATHOLIC UNIVERSITY OF EASTERN AFRICA, REV. PROF. STEPHEN MBUGUA FOR HIS UNWEAVERING SUPPORT; THE MINISTRY OF EDUCATION FRATERNITY ;THE SECRETARY GENERAL & CHIEF EXECUTIVE OFFICER OF THE KENYA NATIONAL COMMISSION FOR UNESCO, DR. JAMES NJOGU FOR HIS FINANCIAL SUPPORT AND TEAM OF DEDICATED PROFESSIONALS

REV. PROF. STEPHEN MBUGUA
VICE CHANCELLOR
THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

DR. JAMES NJOGU, EGH.
SG & CEO, KNATCOM, UNESCO

PROF. PETER KOROS
DEAN FACULTY OF EDUCATION
CONFERENCE CHAIR
CUEA

DR. SIMON OMONDI, Ph.D.
CONFERENCE COORDINATOR
& CO-CHAIR, CUEA

PROF. JOEL B. IJAKAA
AI TECHNICAL
COMMITTEE CHAIR, CUEA

DR.GITONGA
MURIITHI
CORP.MARKETING

DR.ORPHA NYAKUNDI
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