



Regional Symposium on trends and the future of research & innovation in Applied Sciences, Engineering and Technology in Sub Saharan Africa

16th-18th September 2025

Protea Hotel Kampala Skyz, 1 Water Lane Naguru
Kampala, Uganda

Introduction

Research and innovation are key drivers of sustainable economic growth, job creation, and poverty reduction. Aligning with the African Union's Second Ten-Year Implementation Plan (2024–2034), African governments are investing in the PASET Regional Scholarship and Innovation Fund (Rsif) to build research capacity and foster innovation-led growth. Rsif supports selected African universities to deliver high-quality PhD training, advance research excellence, and strengthen innovation ecosystems in applied sciences, engineering and technology (ASET). The current priority themes for PASET Rsif are Artificial Intelligence (AI), food security and agribusiness, minerals and materials engineering, renewable energy, and climate change. These priorities are aligned with the SDGs 2030, African Union Agenda 2063, and the African Union Science, Technology and Innovation Strategy for Africa (STISA) 2034. Over 302 PhD scholars have enrolled in Rsif supported PhD programmes since 2018. Additionally, Rsif currently supports 64 research and innovation projects in 29 African universities and research organisations. These projects are producing technological solutions for accelerating socio-economic transformation across Africa. They also generate the evidence to inform policy, scale impactful innovations, and position African universities as engines of inclusive and sustainable growth.

Purpose and objectives

This 3-day regional science symposium will bring together partners from academia, industry and policy to:

- Discuss trends in research and innovation in the fields of Artificial Intelligence, Food Security, Climate Change, Minerals, Mining and Material Engineering and renewable energy.
- Discuss the implications of these trends to future research priorities in the continent.
- Brainstorm on the contributions of these research and innovation outputs to socio-economic transformation in sub-Saharan Africa.

Expected outcomes

This 3-day symposium is expected to develop a synthesis of the contribution of PASET Rsif's investment in research and innovation to the socio-economic transformation in sub-Saharan Africa.

Tentative agenda

Day 1: Tuesday, 16 September 2025

Official Opening Ceremony

Moderator: Dr. Everlyn Nguku, Head of Capacity Building and Institutional Development, icipe

14:00hrs- Registration
14:30hrs

14:30hrs- Welcome Remarks by **Dr. Julius Ecuru**, Head of Policy & Enabling
14:45hrs: Environment, Rsif Regional Coordination Unit at *icipe*, Nairobi, Kenya.

14:45hrs- **Voices of Impact:**

- 15:15hrs:
- Dr. Barbara Asingwire, *Rsif alumna*, Busitema University, Uganda
 - Prof. Rwiza Mwemezi, Nelson Mandela Institution of Science and Technology (NM-AIST), Arusha, Tanzania
 - Dr. Eric Nizeyimana, Post Doctoral Scientist, University of Rwanda, Kigali, Rwanda
 - Prof. Irene Egyir, University of Ghana, Accra, Ghana

15:15hrs- Remarks by **Dr. Richard Edema**, Director, Makerere University
15:30hrs: Regional Centre for Crop Improvement (MaRCCI), Uganda.

15:30hrs- Remarks by **Dr. Moses Osiru**, Senior Education Specialist, World Bank
15:45hrs:

15:45hrs- Remarks by **Professor Barnabas Nawangwe**, Vice Chancellor,
16:00hrs: Makerere University, Kampala, Uganda

16:00hrs- Opening remarks by **Hon. Dr. John C. Muyingo**, State Minister for
16:30hrs: Higher Education, Ministry of Education and Sports, Uganda.
Represented by **Mr. Timothy Musoke Ssejjoba**, Acting Commissioner
for University Education and Training, Ministry of Education and
Sports, Uganda.

16:30hrs- Vote of Thanks: **Professor Cheikh BA**, Université Gaston Berger,
16:40hrs: Senegal.

16:40hrs Group Photo

17:00hrs- Networking Cocktail
19:00hrs

Day 2: Wednesday, 17 September 2025

Moderators: Ms. Cynthia Orang'o, Research & Innovation Grants Officer, icipe and Dr. Michael Kidoido, Monitoring & Evaluation Specialist, icipe

8:30hrs- Registration
9:00hrs

Trends and the future of research & innovation in applied sciences, engineering and technology

9:00hrs– 9:30hrs:	Leveraging ICT, Big Data, and AI to Drive Africa's Digital Transformation and Knowledge Economy by Dr. Theofrida Maginga, Sokoine University of Agriculture, Tanzania
9:30hrs– 10:00hrs:	Innovating for Food Security: Advancing Agribusiness Solutions for Sustainable and Inclusive Growth by Dr. Benjamin Musah Abu, University for Development Studies, Ghana
10:00hrs– 10:30hrs:	Unlocking Africa's Minerals and Materials Potential for Sustainable Development by Dr. David Afolayan, African University of Science and Technology, Nigeria
10:30hrs– 11:00hrs	Tea Break
11:00hrs– 11:30hrs:	Scaling Renewable Energy Innovations for Green and Inclusive Development by Dr. Fawziya Oyefunke Olarinoye, University of Energy and Natural Resources
11:30hrs– 12:00hrs:	Building Climate-Resilient Futures: Research and Innovation for Adaptation, Mitigation, and Sustainable Development by Dr. Haftu Abhra Mengesha, Mekelle University, Ethiopia
12:00hrs– 12:30hrs:	Plenary Discussions & Guidance for break out sessions
13:00hrs– 14:00hrs	Lunch
14:00hrs– 16:30hrs:	Breakouts sessions by thematic area <ul style="list-style-type: none"> • Group 1: ICT, Big Data & AI – Leveraging emerging technologies to drive innovation, skills development, and data-driven solutions. • Group 2: Food Security & Agribusiness – Advancing sustainable agriculture and agribusiness through research and innovation. • Group 3: Minerals, Mining & Materials – Promoting responsible resource use and value addition of Africa's minerals resources and materials engineering • Group 4: Renewable Energy – Scaling sustainable energy solutions through innovation, skills, and collaboration, what has been done, what more needs to be done? • Group 5: Climate Change & Resilience – Driving adaptation and mitigation through evidence and innovation
16:30hrs	Tea and end of Day 2

Day 3: Thursday, 18 September 2025

Moderators: Mr. Bonface Nyagah, Capacity Building Officer, *icipe* and Dr. Emmanuel Effah, University of Mines and Technology, Tarkwa, Ghana

Validating Insights and Shaping Policy Recommendations

08:30hrs– 09:00hrs	Arrival & registration
9:00hrs– 10:15hrs:	<p>Feedback from the breakout sessions & reflections from plenary</p> <ul style="list-style-type: none"> • Group 1: ICT, Big Data & AI • Group 2: Food Security & Agribusiness
10:15hrs– 10:30hrs	Tea Break
10:30hrs– 12:30hrs:	<p>Feedback from the breakout sessions & reflections from plenary</p> <ul style="list-style-type: none"> • Group 3: Minerals, Mining & Materials • Group 4: Renewable Energy • Group 5: Climate Change & Resilience
12:30hrs– 12:45hrs:	<p>Presentation of key recommendations & way forward</p> <p>Ms. Cynthia Orang'o – <i>Research & Innovation Grants Officer, icipe</i></p>
12:45hrs– 13:00hrs:	<p>Closing remarks</p> <ul style="list-style-type: none"> • Dr. Julius Ecuru, <i>Rsif RCU Manager</i> • Dr. Richard Edema, <i>Director MaRCCI, Makerere University</i>
13:00hrs– 14:00hrs	Lunch
14:00hrs– 17:00hrs:	<p>Field Visit to, Makerere University Regional Centre for Crop Improvement (MaRCCI), Uganda.</p> <p>Departure</p>

End of symposium