

COMMUNIQUE OF THE 5TH AFRICAN SYMPOSIUM ON BIG DATA, ANALYTICS AND MACHINE INTELLIGENCE (ASBAMI 2026)

Theme:

Data-Driven AI for Sustainable Impact: From Research to Real-World Solutions in the Global South

Preamble

The 5th African Symposium on Big Data, Analytics and Machine Intelligence (ASBAMI 2026) was held at the Federal University of Technology Akure (FUTA), Nigeria, bringing together researchers, academics, policymakers, industry leaders, development partners, innovators, and students from Africa and beyond to deliberate on the role of Artificial Intelligence (AI), Big Data, and Analytics in addressing societal challenges and advancing sustainable development in the Global South.

Participants engaged in keynote presentations, plenary sessions, invited talks, technical sessions, panel discussions, workshops, poster presentations, hackathons, and student-focused activities covering healthcare, agriculture, climate action, cybersecurity, governance, smart cities, education, digital inclusion, and responsible AI.

Observations

The Symposium observed that:

1. Artificial Intelligence has evolved from a largely predictive technology into increasingly adaptive, reasoning, and decision-support systems capable of addressing complex societal challenges.
2. Artificial Intelligence is increasingly benefiting from advances in generative intelligence, foundation models, and world-model architectures that enable context-aware reasoning, planning, and autonomous decision support.
3. Geospatial Artificial Intelligence (GeoAI) is emerging as a strategic tool for smart cities, disaster management, environmental monitoring, intelligent transportation, emergency response, and sustainable urban development.
4. Africa possesses significant opportunities to leverage AI for healthcare transformation through disease surveillance, precision medicine, intelligent diagnostics, bioinformatics, medical imaging, outbreak prediction, and public health decision support.
5. The continent's rich genomic diversity represents a major opportunity for advancing precision medicine and health innovation, provided investments are made in local infrastructure, data governance, and genomic sovereignty.
6. Data-driven AI solutions are increasingly demonstrating practical value in addressing environmental sustainability challenges including forest fire prediction, rainfall forecasting, climate adaptation, carbon monitoring, biodiversity conservation, and ecosystem management.
7. AI-enabled systems have considerable potential to improve food security and agricultural productivity through crop recommendation systems, environmental monitoring, and precision agriculture.
8. Cybersecurity, digital trust, financial inclusion, and secure digital ecosystems remain critical enablers for sustainable digital transformation across Africa.
9. Responsible AI deployment requires robust governance frameworks, ethical safeguards, transparency, explainability, inclusiveness, and accountability.

10. The growing adoption of AI in critical sectors such as healthcare, governance, and public services highlights the importance of explainability, transparency, and user trust in AI-enabled decision-making systems.
11. Research excellence alone is insufficient; deliberate pathways are required to translate research outputs into deployable solutions, policy interventions, products, services, and societal impact.
12. Significant challenges continue to hinder AI adoption in Africa, including inadequate funding, limited access to quality datasets, insufficient digital infrastructure, computing resource constraints, talent shortages, and inclusion gaps.
13. Strong collaboration among academia, industry, government, civil society, and international partners remains essential for building sustainable AI ecosystems.
14. Capacity building, AI literacy, and interdisciplinary training are critical for preparing the next generation of researchers, innovators, and policymakers.

Key Messages from the Symposium

The Symposium emphasized that:

- AI must be developed and deployed to solve real societal problems and improve quality of life.
- Sustainable AI solutions must be context-aware, locally relevant, affordable, trustworthy, and accessible.
- Research impact should be valued alongside scholarly publications.
- African nations must strengthen ownership of their data resources and research agendas.
- Responsible and inclusive AI is fundamental to achieving sustainable development goals.
- Investments in people, infrastructure, governance, and innovation ecosystems must occur simultaneously.
- Student innovation programmes, hackathons, and experiential learning platforms play a critical role in developing future AI talent and accelerating innovation.

Recommendations

The Symposium recommends that:

1. Governments should develop and implement comprehensive national AI strategies aligned with sustainable development priorities.
2. Universities and research institutions should establish AI innovation hubs, data repositories, and interdisciplinary research centres to support AI-driven research and innovation.
3. Policymakers should actively engage researchers in policy formulation, implementation, and evaluation processes.
4. Greater investments should be made in digital infrastructure, broadband connectivity, high-performance computing facilities, and data ecosystems.
5. Funding agencies should increase support for AI research, innovation commercialization, and technology transfer initiatives.

6. Institutions should develop and adopt responsible AI governance frameworks that promote ethics, transparency, explainability, privacy, and accountability.
7. AI education, digital literacy, and workforce development programmes should be strengthened across all educational levels.
8. Researchers should actively translate scientific findings into policy briefs, innovation outputs, and actionable recommendations for decision-makers.
9. Greater support should be provided for locally developed AI solutions addressing African challenges in healthcare, agriculture, climate action, governance, education, and economic development.
10. Partnerships among academia, government, industry, development partners, and local communities should be strengthened to accelerate innovation and deployment.
11. African institutions should promote open, FAIR (Findable, Accessible, Interoperable, and Reusable) data practices while safeguarding data sovereignty and privacy.
12. Success stories and societal impacts arising from AI research should be widely disseminated through media, policy platforms, and public engagement activities.
13. Universities, governments, and development partners should support hackathons, innovation challenges, student research competitions, entrepreneurship programmes, and innovation ecosystems that translate AI research into practical and scalable solutions.

Declaration

The participants of ASBAMI 2026 affirm that Artificial Intelligence, Big Data, and Analytics can serve as powerful catalysts for sustainable development in Africa and the Global South. However, realizing this potential requires responsible governance, strategic investment, strong institutions, local capacity development, and sustained collaboration among stakeholders.

The Symposium therefore calls on governments, universities, industry leaders, development partners, and the broader research community to work collectively towards transforming data-driven research into practical, scalable, and sustainable solutions that improve lives, strengthen institutions, protect the environment, and advance inclusive development.

Conclusion

ASBAMI 2026 concludes that the future of sustainable development in the Global South will depend not only on technological advancement but also on the ability to convert research into real-world impact. The Symposium reaffirmed the importance of responsible AI, evidence-based policymaking, interdisciplinary collaboration, and locally relevant innovation as foundations for a sustainable and prosperous future.

The Symposium further demonstrated the value of inclusive participation by engaging established researchers, early-career scientists, students, innovators, policymakers, and industry practitioners in collaborative knowledge exchange and solution-driven innovation.

The Symposium announced that the proposed dates for the 6th African Symposium on Big Data, Analytics and Machine Intelligence (ASBAMI 2027) are 14–20 June 2027, subject to confirmation by the Organising Committee.