

CAS-ANSO Conference on

Smart Solution of a Green Future: AI in Ecosystem and Climate Action

The international conference “*Smart Solutions for a Green Future: AI in Ecosystem and Climate Action*” brings together leading scientists, technologists, and policymakers to explore how cutting-edge artificial intelligence can drive sustainable environmental solutions. Organized by the Pakistan Academy of Sciences and the Chinese Academy of Sciences, in collaboration with FUUAST, the University of Karachi, ICCBS, and the China-Pakistan Joint Research Centre on Earth Sciences, the event aims to advance AI-enabled climate resilience, biodiversity protection, and ecosystem restoration. With a strong focus on transdisciplinary collaboration and regional scientific cooperation—particularly within the Belt and Road Initiative—the conference also seeks to empower young researchers from developing countries to contribute to global dialogues on smart, sustainable innovation.



Important Dates

Call for Proposal: **15th December 2025**
Abstract Submission Deadline: **15th January 2026**
Notification of Acceptance: **01st February 2026**
Paper Submission Deadline: **01st March 2026**

Submission Guidelines:!

We invite contributors to submit original, unpublished work that integrates Artificial Intelligence, Big Data, and Earth Science to address regional climate and ecosystem challenges, especially within the Belt and Road regions. Submissions may include research papers, technical studies, policy analyses, or cutting-edge case studies demonstrating the use of AI in climate modeling, smart agriculture, biodiversity monitoring, or early warning systems for natural disasters. All manuscripts should clearly outline the research problem, methods, and key findings, and must follow standard academic formatting with an accompanying abstract. Selected submissions will be considered for oral or poster presentations, and at least one author must register and attend the conference to present their work.

Submissions are welcome on (but not limited to) the following themes:

- Promoting AI-enabled innovations for climate resilience, biodiversity conservation, and ecosystem restoration.
- Supporting sustainable and high-quality development across Belt and Road regions and the Global South.
- Advancing research in AI-based climate modeling, early warning systems, and environmental forecasting.
- Enhancing smart agriculture and precision ecosystem management through digital and data-driven tools.
- Leveraging big-data analytics for biodiversity monitoring and ecological decision-making.
- Strengthening ethical and responsible AI governance for environmental applications.
- Fostering international scientific collaboration among China, Pakistan, and broader BRI partners.
- Empowering young scientists and early-career researchers to contribute to global sustainability dialogues.

An individual paper proposal should include a title, an abstract (up to 250 words), and a short biographical note (up to 150 words).

For further conference information and submission instructions, please email to cas_ansoconference@fuuast.edu.pk or visit <https://fuuast.edu.pk/oric/>





Proposed Agenda Topics

The focus will be on the application of smart technologies to environmental challenges:

- AI-based climate modelling and early warning systems.
- Smart agriculture and precision ecosystem management.
- Big data applications in biodiversity monitoring.
- AI governance for environmental ethics.

Potential Speakers

Prof. Zabta K. Shinwari (Pakistan Academy of Sciences/VC Federal Urdu University)

Prof. Peng Cui (China-Pakistan Joint Research Center on Earth Sciences)

Prof. Muhammad Raza Shah (Director International Center for Chemical and Biological Sciences)

Prof. Kausar A. Malik (President Pakistan Academy of Sciences)

Prof. Qasim Jan (Former President Pakistan Academy of Sciences)

Arrangements and Design of the CAS-ANSO Conference

The conference, "Smart Solutions for a Green Future: AI in Ecosystem and Climate Action," is designed to be a high-impact international meeting hosted in Pakistan, involving key institutions from China and Pakistan.

The conference theme, "Smart Solutions for a Green Future: AI in Ecosystem and Climate Action," is perfectly aligned with the strategic priorities of the ANSO alliance, which aims to promote sustainable development in Belt and Road regions. The event is designed to be a catalyst for new, collaborative projects among ANSO members in critical emerging fields:

- AI for Climate Action and Disaster Risk Reduction: The alliance, which already features the ANSO International Network for Disaster Risk Reduction (ANSO-DRR), can launch joint projects to develop AI-based climate modeling and early warning systems for shared challenges like extreme weather events and glacial lake outburst floods.

- Sustainable Ecosystem Management: New collaborations are envisioned for applying AI and Big Data to global challenges, including smart agriculture and precision ecosystem management for food security, as well as joint research on biodiversity monitoring and resource management across member states.
- AI Governance and Ethics: The conference will leverage upon the newly launched ANSO International Research Network on AI Development and Governance. This will facilitate multilateral discussions and cooperation on establishing ethical frameworks and policy guidelines for the responsible and equitable deployment of AI technologies in sustainable development initiatives across member countries.



Place of event

International Center of Chemical and Biological Sciences, University of Karachi, University Road, KARACHI, Pakistan

