



CEMEREM CONFERENCE ANNOUNCEMENT

“CEMEREM AT 10”

THE 5th CEMEREM BIENNIAL INTERNATIONAL CONFERENCE 2025

Conference Dates:

September 21-23, 2025 Pre-Conference

September 22 – 23, 2025 Conference

Time Line:

01.11.2024 Publish the call for abstract

31.01.2025 Deadline of the submission of abstract

14.04.2025 Deadline of selection

30.04.2025 Inform participants

30.06.2025 Submission of Paper

Conference Venue: *Taita Hills Safari Resort & Spa, Kenya (inside the Tsavo West National Park)*

About CEMEREM

The Kenyan-German Centre of Excellence for Mining, Environmental Engineering and Resource Management (CEMEREM) was launched in 2016, becoming the eighth centre of its kind in Africa, being the first one with an engineering orientation. CEMEREM is part of the growing network of Centres of African Excellence supported by the German Academic Exchange Service (DAAD). Taita Taveta University (TTU), Kenya’s university of mining and natural resource management, is the local host institution for CEMEREM. TTU sits conspicuously between two National Parks (Tsavo East and Tsavo West National Parks) and ecoregion. TTU collaborates with two German universities on the CEMEREM project: the University of Applied Sciences at Dresden (HTW-Dresden) and the Technical University Bergakademie, Freiberg (TU-BAF). CEMEREM focuses on advancing training and providing practice-oriented resources for engineers and managers in Eastern Africa, a region rich in natural resources with significant untapped potential in the mineral, oil, and gas sectors. Postgraduate training, industry collaboration, and international exposure are key components of this initiative. Since 2018, DAAD/CEMEREM in-region scholarships have supported Master and Doctoral studies at Taita Taveta University for East African students.

Additionally, biennial international conferences, co-organized by CEMEREM and hosted by Taita Taveta University, have been instrumental in achieving the initiative goals. The conference, attracting around 300 participants, has been held at Panafric Hotel in Nairobi (2017), Voi Wildlife Safari Lodge in Taita Taveta (2019), Taita Hills Safari Resort & Spa in Taita Taveta (2021), and Sarova Whitesands Hotel in Mombasa (2023).

About the Taita Taveta University – Voi, Kenya

Taita Taveta University (TTU), known as the *"Home of Ideas,"* is ideally located just eight (8) kilometres from Voi town, off the Voi-Mwatate Road, providing a serene environment perfect for academic pursuits. The university is easily accessible via a well-maintained tarmac road leading directly to its main gate. Voi town, with its efficient multimodal transport system, connects TTU to major cities like Nairobi and Mombasa. The town's modern train station, just minutes from the centre, allows for a quick four (4)-hour journey from Nairobi and less than two (2) hours from Mombasa. Additionally, the Nairobi-Mombasa highway (A104) provides a convenient road connection, with the drive from Nairobi taking under six (6) hours. For those who prefer air travel, Voi Airstrip is only five (5) kilometres from the town centre. Situated in a mineral-rich county that borders Tanzania to the south, Voi is the most cosmopolitan, populous, and urbanized town in Taita Taveta County.

ABOUT THE CEMEREM BIENNIAL INTERNATIONAL CONFERENCE 2025: ENHANCED, EXPANDED

Taita Taveta University (TTU) is excited to host the **5th CEMEREM Biennial International Conference in 2025**, bringing together a diverse community of researchers, academia, policymakers, postgraduate students and industry representatives. The 2025 conference marks the end of the ten-years generous support of the CEMEREM project by DAAD. It, therefore, will offer an opportunity to highlight the challenges and achievements of this long-term initiative of co-operation in education, research, technology development and community engagement. Participants will have multiple opportunities to inform themselves about CEMEREM objectives, project tasks, study programmes, PhD and research activities and installed laboratories. Not in the least will they meet many of the people who made CEMEREM happen.

At the end of this CEMEREM sponsored stage, the conference will provide an outlook into the future and highlight the role of CEMEREM and TTU in shaping sustainable natural resources management in Africa.

Set against the breathtaking scenery of Tsavo West National Park at the Taita Hills Safari Resort & Spa, the event will take place from **September 30th to 1st October, 2025**, with pre-conference training scheduled for **September 28th to 29th September, 2025**. The pre-conference will offer training for a limited number of participants. The conference will feature keynotes, exhibitions from industry and academia, well-researched presentations, and interactive discussions through plenary sessions, break-out sessions, and panel discussions. In addition, a **Young Scientists**

Contest will spotlight innovative ideas for ground-breaking projects through three-minute Lightning Talks.

THE 2025 CEMEREM PRE-CONFERENCE

Short sessions (modules) not exceeding three hours will be dedicated to intensive training of participants on (i) energy modelling, (ii) environmental engineering and (iii) sustainability in mining. Depending on the interests of applicants, these subjects may be adapted and/or modified. Interested applicants should contact the Conference Secretariat via dicksonwachira@ttu.ac.ke with a copy to cemerem@ttu.ac.ke for further details:

THE CEMEREM BIENNIAL INTERNATIONAL CONFERENCE 2025

CALL FOR PAPERS FOR THE CEMEREM BIENNIAL INTERNATIONAL CONFERENCE 2025

Theme: ***“CEMEREM AT 10”
Natural Resource Management in Africa’s Primary Natural Resource Sector:
Technology and Innovations for a Sustainable Future***

In the evolving landscape of global resource management, Africa stands at a critical juncture. The continent is endowed with vast mineral resources, including critical minerals that are essential for the advancement of modern technologies and the Fourth Industrial Revolution (Industry 4.0). However, the challenge remains in harnessing these resources sustainably to foster economic growth, social equity, and environmental stewardship.

The 2025 conference theme, ***“Natural Resource Management in Africa’s Primary Sector: Technology and Innovations for a Sustainable Future,”*** aims to explore the pivotal role that cutting-edge technologies and innovative practices play in shaping the future of Africa’s natural resources management. The focus is on how technology and innovation can drive sustainable development, improve resource efficiency, and address the multifaceted challenges posed by climate change, population growth, and socio-economic disparities.

Key areas of discussion will include the integration of advanced technologies such as automation, artificial intelligence, and blockchain in mining operations; innovations in waste management and resource recovery; and the development of policies and strategies that promote the responsible use of natural resources. The conference will also highlight the importance of fostering diversity, equity, and inclusion within the sector to ensure that the benefits of natural resource management are shared equitably across all communities.

By bringing together industry leaders, policymakers, researchers, and stakeholders, this conference seeks to chart a path toward a future where Africa's rich natural resources are managed in a way that is not only economically viable but also environmentally and socially sustainable. Therefore, authors are requested to send abstracts by **January 31, 2025**, addressing the conference theme under any of the following **sub-themes**:

1. Advanced technologies in mineral exploration, extraction and processing; Sustainable mining techniques and automation in mineral processing
2. Sustainable water management and conservation in the primary natural resource sector: Innovations in water recycling and waste management in mining operations
3. Circular economy and resource recycling in the primary natural resource sector: Best practices in resource recovery and extending the life cycle of minerals
4. Digital transformation and smart mining in Africa: The role of IoT, Big data, and blockchain in enhancing transparency and efficiency in mining operations.
5. Renewable energy integration in the primary natural resource sector: Strategies for reducing carbon footprints and achieving net-zero emissions
6. Climate change adaptation and resilience in the mining and natural resource management sector: Strategies for building climate resilience in mining operations
7. Sustainable development of critical minerals for the fourth industrial revolution.
8. Sustainable management in the era of energy transition: Innovations in mining, circular economy, and climate adaptation.
9. Policy development for increasing the added value of the primary natural resource sector for economic growth and equity
10. Enhancement of diversity and inclusion in the primary natural resource sector.
11. Innovative Financing and Formalization Strategies for Artisanal and Small-Scale Mining (ASM)
12. Harnessing Biodiversity for Sustainable Development and Transformative Change

All abstracts should follow the guidelines attached. Submitted abstracts will be peer reviewed.

Applicants will be informed of the outcomes of the review process not later than **1 May 2025**.

Full Papers must be submitted by **1 July 2025**.

Authors will be given a chance to make either oral or poster presentations at the conference. All accepted submissions will be published in the Conference Book of Abstracts. After the conference, authors of promising presentations will be invited to submit full revised papers to be considered for publication in ***The African Journal of Mining, Entrepreneurship and Natural Resource Management (AJMENRM)***, a signature journal of CEMEREM.

Send abstracts to abstracts@ttu.ac.ke

THE CEMEREM 2025 YOUNG SCIENTISTS CONTEST

The Contest addresses young scientist and student researchers to develop innovative ideas for projects dealing with topics on the sustainable management of natural resources and be prepared to explain them in a three-minute presentation. A Contest Jury will award prizes for the best ideas from the viewpoint of originality, technical or practical feasibility and sustainability. Applicants are encouraged to contact the Conference Secretariat via dicksonwachira@ttu.ac.ke with a copy to cemerem@ttu.ac.ke for further details.

Abstract Guidelines with Examples

Adopt the following guidelines for the abstract.

Title of the article (Times New Roman, 14, Bold) - centred

Author(s) of the article (Times New Roman, 11, Normal) - centred

Address/affiliation of the author(s) (Times New Roman, 10, Italic) - centred

Mining 4.0: Post-Covid-19 Prospects

Xxx Yyy¹, Mmm Nnn², Jjj Aaa³

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Abstract (Times New Roman, 11, Bold) – Left-aligned

Body Text: MS Word, Times New Roman, Font 11, single spacing, **not more than 5 keywords** (don't repeat the keywords which are in the title already), 250 – 350 words. Written in English and it should not exceed 350 words. Note that the abstract is informative and should not be a substitute for the summary, conclusions, or results sections.

We recommend that you structure your abstract as follows:

- Paragraph 1: Why is this study or research important?
- Paragraph 2: What is novel in your approach; what was done?
- Paragraph 3: What were your main findings?
- Paragraph 4: What are the main applications and implications of your work?

Keywords: Covid-19, digital transformation, strategic minerals (Alphabetical, separated by commas, Font 10, Cambria)

Acknowledgement

We acknowledge the International Mine Water Association (IMWA) for the template that has guided the format for the abstract adopted above.