

Taita Taveta University welcomes all registered physical and virtual participants to the  
**3<sup>rd</sup> Biennial International CEMEREM Conference**

on

**Sustainable Mining and Natural Resource Management in Africa: Implications for post-COVID-19 Renaissance**

Taita Taveta, KENYA, September 16 – 17, 2021

**The 3rd Biennial International CEMEREM Conference**



**Theme**

**Sustainable Mining and Natural Resource Management in Africa: Implications for post-COVID-19 Renaissance**

**16 - 17 September 2021, Taita Hills Safari Resort & Spa, Tsavo Ecoregion, KENYA**  
A hybrid conference hosted by **Taita Taveta University - Home of Ideas**



#CEMEREM2021 @Taitatavetauniv @DAAD\_Germany



TaitaTavetaUniversity-Voi

“The control and management of mineral wealth has been a key influencer in geopolitics and geoeconomics. Along Africa’s extractive sector value chain, limited capital, skills shortage, and poor governance have been working against the desired levels of homegrown competence, transparency, and social accountability.”

“From the abundance of cobalt and columbite-tantalite (coltan) in Congo, copper in Zambia, to uranium in Niger, Namibia and South Africa, Africa is rich in the critical resources driving clean and climate-smart energy megatrends such as the production of electric vehicles.”



Facts on mining in Africa. Source: <https://www.miningafrica.net/>

### Why this International Conference?

COVID-19 has not spared the mining sector, a strategic sector for Kenya under the Economic Pillar of Vision 2030. The ensuing disruptive implications are setting fresh agenda for reimagining mining and natural resource management education, research, policy development and industrial revolution in a new era. Debates arise on a diversity of issues, ranging from the state of mining and natural resource management, green and circular economy, to jobs and automation. These are important topics under the Sustainable Development Goals (SDGs). The upcoming international conference presents a new opportunity for academics, researchers, university students, policymakers, the private sector, civil society, and local communities to present and discuss findings that should inform Africa’s preparedness for radical shifts in policy and technology agenda for sustainable natural resource management in a post-pandemic world.

### CEMEREM: International Co-operation in Mining Education and Research

Entering the growing network of Centres of African Excellence, supported by the German Academic Exchange Service (DAAD), the **Kenyan-German Centre of Excellence for Mining, Environmental Engineering and Resource Management (CEMEREM)** was launched in 2016 as the eighth such centre in Africa, the first one to be engineering-oriented. CEMEREM is hosted at Taita Taveta University (TTU), within a mineral-rich county.

TTU received a grant from the German Academic Exchange Service (DAAD) to set up CEMEREM at the main campus in Voi. CEMEREM partners are Taita Taveta University, The University of Applied Sciences at Dresden (HTW-Dresden), and Freiberg Technical University of Mining and Technology (TU Bergakademie Freiberg, Germany). The partnership supports postgraduate training, curriculum development, staff and student exchange, infrastructure development, and research. Responding to the global trends shaping modern education and research, CEMEREM has made internationalisation and digitalisation key focal points of its evolving programmes. As such, CEMEREM commands a vantage position of influence in training and technology development for sustainable mining and natural resource management in Eastern Africa.

The main goal of CEMEREM is to enhance the advanced training and supply of practice-oriented resources engineers and managers for the greater Eastern Africa, a region endowed with rich natural resources and huge unexploited potential in the mineral, oil and gas sector. Postgraduate training and research together with industry and international exposure has been a key feature of CEMEREM, a means to the desired end goals.

### About the CEMEREM Conference Series

A series of biennial CEMEREM conferences organised by CEMEREM partners has since 2017 been shaping the training, research and policy dialogue essential to transforming outcomes for Africa's mining sector. The conferences deliver on the broad objectives of CEMEREM. The inaugural conference took place in Nairobi in September 2017. The second conference was held in Voi, Kenya, in September 2019.

This year, 2021, we are once more excited to invite researchers, academia, policymakers, and postgraduate students to the **3<sup>rd</sup> Biennial CEMEREM Conference on Sustainable Mining and Natural Resource Management in Africa: Implications for post-COVID-19 Renaissance**. The conference will take place in a **hybrid mode** over the period 16 – 17 September 2021 at **Taita Hills Safari Resort & Spa**. The hybrid mode will accommodate both face-to-face and virtual participants.

Participants will discuss sustainable mining and natural resource management in Africa with a focus on COVID-19 implications. About fifty speakers drawn from across Africa and Europe will present their well-researched and evidence-based

keynotes, papers, posters, and other innovative projects and initiatives informing policy, planning and practice in mining and natural resource management. The presentations will cut across the following sub-themes.

## Conference Sub-Themes

1. State of mining and natural resource management in Africa: Past, present and future
2. Perspectives on natural capital and resource economics for sustainable development in Africa
3. Policy and technology implications for mining and natural resource management in the post-COVID-19 Africa
4. Revitalising agriculture for enhanced urban and rural livelihoods in the post-COVID-19 Africa
5. Decision support systems for sustainable mining and agricultural communities in the post-COVID-19 Africa
6. Education 4.0 and Mining 4.0: Post-pandemic frontiers for sustainable mining and natural resource management

## The 3<sup>rd</sup> Biennial International CEMEREM Conference

### Project Partners and Conference Organisers

#### Taita Taveta University, Voi, Kenya

A young and progressive university of resources located in Voi, Kenya, and sitting on the Tsavo's scenic landscape in the vicinity of Kenya's strategic and transnational transportation routes, Taita Taveta University (TTU) is a chartered public university whose research and academic niche has been in mining and natural resource management. It is among the pioneer Universities offering mining engineering courses in East Africa. TTU occupies a region rich in rare gemstones, such as Tsavorites, and key industrial minerals including wollastonite. TTU offers quality education and society-facing research in science, resource-based engineering, business, and

environmental and agricultural disciplines. The teaching and research areas cover both undergraduate and postgraduate levels and include mining engineering, mineral processing engineering, geoinformatics, petroleum engineering, environmental sciences and engineering, agricultural and earth sciences, physical and mathematical sciences, materials science, business and economics, and computer studies. The four Schools already established are the: School of Mines & Engineering, School of Business, Economics & Social Sciences, School of Agriculture, Earth & Environmental Sciences, and the School of Science and Informatics. TTU has about 4,000 students and 300 staff.

The University has an impressive record of organic commitment to development and capacity-building projects in Taita Taveta County and Kenya at large. The relative youth of TTU accompanies a disproportionate advantage in her extensive international presence, earning it a place of equivalent impact with old and legendary universities. Propelled to be a high achiever by encouraging the democracy of progressive ideas, TTU has lived up to her peerless motto: *Home of Ideas*. Germany, the *Land of Ideas*, is Kenya's bilateral partner in the Kenyan-German (KENGER) Centre of Excellence for Mining, Environmental Engineering and Resource Management (CEMEREM).

For more details about the University, visit our website [www.ttu.ac.ke](http://www.ttu.ac.ke).

## HTW-Dresden

Hochschule für Technik und Wirtschaft-Dresden (HTWD) was founded in 1992 and is the successor of the former University for Transport and Communications "Friedrich List" which was founded in 1966. Today, it has 180 professors and over 5,000 students, making it the second-largest university of the regional capital of The Free State of Saxony, Dresden. It has 8 faculties covering fields in science, engineering, and economics. The HTWD has partnerships with more than 100 universities worldwide. Since 2014, the HTWD has been offering an international study programme, "MSc Environmental Engineering", which has been domesticated for TTU under the CEMEREM project partnership. More details about HTW-Dresden can be found at <https://www.htw-dresden.de/en/home.html>.

## TU Bergakademie Freiberg

The Technische Universität Bergakademie Freiberg (TU Bergakademie Freiberg) is the oldest currently operating university for mining engineering and all accompanying fields of research and education along the value chain (geological discovery, exploration, mining engineering, processing, mine closure and rehabilitation, recovery and recycling) and in all scientific disciplines (mathematics, chemistry and physics, geophysics and geochemistry, geoinformatics, geology, mineralogy, petrology, palaeontology, hydrology, ecosystems, mining engineering and geotechnics, petroleum engineering, mine surveying, gas technology, metallurgy, civil engineering, materials sciences, recycling technologies, business and economics, natural resources management). Given its long history, the subsequent generations of professors and researchers have strived for excellence and a continuous expansion of the scientific knowledge base and technological experience. Teaching and research take place with a vision of “*theoria cum praxi*” as acquired knowledge needs to be validated through experiences from practical applications. More details about TU Bergakademie Freiberg can be found at <https://tu-freiberg.de/en>.

## Conference Venue

The scenic venue, **Taita Hills Safari Resort & Spa**, is located at the main entrance to the Taita Hills Sanctuary. It is about 45 km from Voi town. Voi is located about 330 km from Nairobi and 160 km from Mombasa. Preferably, conference participants can access Voi from Nairobi or Mombasa via the **Standard Gauge Railway (Madaraka Express)** booked from <https://metickets.krc.co.ke/>; take the **Inter-County** train and alight at **Voi station**). Voi town is about 4 km from the Voi Railway station. Consider the timings of both public buses and the train.

The Tsavo Ecoregion area is home to the largest National Park and the world’s largest elephant population. Taita Taveta has a World War I history, with a war cemetery located in Voi town and others not far away towards Taveta. The Tsavo ecosystem covers the entire county with beautiful scenic views around the towns in the county. The parks (Tsavo East and West parks) form the largest protected area in Kenya and is home to most of the larger mammals, vast herds of dust-red elephants, rhino, buffalo, lion, leopard, pods of hippo, crocodile, waterbucks, lesser kudu, gerenuk, and the prolific bird life which features 500 recorded species.



## Accommodation

There is plenty of accommodation available in Voi town. Some of the hotels for accommodation in Voi include [Impala Safari Lodge](#), [Afrika Lodges](#), [Vacani Resort \(Home - Vacani Resort\)](#), [Tsavo Lodge Voi](#), [Lion Hill Safari Lodge](#), [Voi Wildlife Lodge](#), [Manyatta Camp](#), [Two Oceans Hotel - voi | Facebook](#), [Tsavo Lodge Voi](#), [Adonai Resort](#), [Silent Guest Resort](#), [The Joy Hotel](#) and many others.

## Visa

Entry visa to Kenya can be obtained from Kenyan Embassies/Missions in the participants' countries prior to travel. Entry, Exit and Visa Requirements include a passport with at least two blank pages and six months' validity. A visa may be required to enter Kenya. Nationals of the countries listed in the e-citizen portal (<https://immigration.ecitizen.go.ke/index.php?id=6>) may be issued with an eVisas upon application on [www.ecitizen.go.ke](http://www.ecitizen.go.ke).

## Health Requirements

Yellow fever certificates are required for visitors coming from countries prone to yellow fever. Those without are subject to quarantine.

The following are also recommended:

- ✓ COVID-19 vaccination and/or negative COVID-19 test certificates
- ✓ Vaccination against typhoid
- ✓ Malaria prophylaxis

## Currency

The currency used in Kenya is the Kenyan shilling (KES). The conversion rate on September 10, 2021, was about 1 US Dollar to 110 KES and 1 Euro to KES 130 KES. Most banks in Voi town have Bureau de Change services. Banking hours are from 9:00 a.m. to 4:00 p.m. The following are some of the common modes of payment used in Kenya: cash (KES), major debit & credit cards (Visa, Mastercard, among others) and mobile money platforms (M-PESA, PayPal).

## Climate Statistics for Voi, Kenya

The following is a summary of the usual weather conditions in Voi in **September**. Note that the weather conditions at the venue, Taita Hills Safari Resort & Spa, can be slightly different from Voi on the lower side.

| Element           | Order of Magnitude   |
|-------------------|--|
| Temperature       | Mean maximum temperature: 29°C<br>Mean minimum temperature: 19°C |
| Precipitation     | Mean precipitation in the month: 75 mm                           |
| Relative Humidity | Average relative humidity: 64%                                   |
| Water temperature | Mean: 25°C   |
| Wind speed        | Mean: 6 m/s  |

**Please check the applicable power ratings and adapter settings below.**

## Power



The voltage applicable in Kenya is 220-240 volts, 50 Hz AC accessible via 13A, three round pins arranged and two round pins. If your appliances don't accept 220-240 volts at 50 Hz or appliances plug has a different shape, you may need a plug converter/adaptor.

**For more information, contact the 3<sup>rd</sup> Biennial International CEMEREM Conference Committee**

**Chair of the CEMEREM Conference Committee**

[ogadajuma@ttu.ac.ke](mailto:ogadajuma@ttu.ac.ke)

**Lead of the Secretariat in charge of technical presentations and online transmission**

[nashon.adero@ttu.ac.ke](mailto:nashon.adero@ttu.ac.ke)

**Publicity Officer**

[gkasamani@ttu.ac.ke](mailto:gkasamani@ttu.ac.ke)