



Sinoma 中材建设有限公司
CBMI Construction Co., Ltd.

Sustainable Construction in Africa (SCA25) Conference | Nairobi, Kenya | 20-22 May 2025



| Time | May 19, 2025, Monday: Pre conference course | May 20, 2025, Tuesday: Conference day 1 | |
|-----------------|--|--|---|
| 08:00 - 08:30 | <i>Pre-conference course registration and Coffee</i> | <i>Registration and Coffee</i> | |
| 08:30 - 09:00 | Sustainable cement and new binders: Karen Scrivener | Opening & Plenary session | Meru University, vice chancellor - Prof. Romanus Odhiambo ; Kenya Government official - Eng. Kennedy Matheka ; Swiss Embassy in Kenya - Ms Magdaline Morijoi ; UN-Habitat - Eng. Eric Muchunku ; UNIDO Country Representative - Ms Tally Einav |
| 09:00 - 09:30 | | Moderator: Joseph Mwiti | |
| 09:30 - 10:00 | Admixtures: Wolfram Schmidt | Keynote: Preventing the Failure of Concrete Structures in Africa: Education and Training are Essential by Charles Nmai | |
| 10:00 - 10:30 | | Keynote: Reimagining construction from within: towards an alternative future for the African Continent by Aziza Chaouni | |
| 10:30 - 11:00 | <i>Coffee break</i> | <i>Coffee break</i> | |
| 11:00 - 11:30 | Concrete performance: Shashank Bishnoi | SESSION I (A): Sustainable building materials - SCM, admixture, and recycled materials | SESSION I (B): Sustainable building materials - earth and bio-based materials, bricks and blocks |
| 11:30 - 12:00 | | | |
| 12:00 - 12:30 | Rilem membership introduction: Olonade Kolawole | Moderator: Mehnaz Dhar | Moderator: Olonade Kolawole |
| 12:30 - 13:00 | <i>Lunch</i> | <i>Lunch</i> | |
| 13:00 - 13:30 | | | |
| 13:30 - 14:00 | Durability of concrete: Shashank Bishnoi | SESSION II (A): Sustainable building materials - SCM, admixture, and recycled materials | Session II (B): Sustainable building materials - structural and durability performance |
| 14:00 - 14:30 | | | |
| 14:30 - 15:00 | Precast concrete fabrication: Stef Maas | Moderator: Shashank Bishnoi | Moderator: Hisham Hafez |
| 15:00 - 15:30 | | | |
| 15:30 - 16:00 | <i>Coffee break</i> | <i>Coffee break</i> | |
| 16:00 - 16:30 | Life cycle assessment: Hisham Hafez | SESSION III: Sustainable construction from the industry: insight, services and products | |
| 16:30 - 17:00 | | | |
| 17:00 - 17:30 | <i>Conference registration</i> | Moderator: Ruvimbo Eustina Munemo | |
| 17:30 - 18:00 | | <i>Gala Dinner, social tour</i> | |
| 18:00 - Onwards | | | |



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| Time | May 21, 2025, Wednesday: Conference day 2 | | May 22, 2025, Thursday: Conference day 3 | |
|-----------------|--|--|--|--|
| 08:00 - 08:30 | Coffee | | Coffee | |
| 08:30 - 09:00 | Keynote: Reshaping informal settlements in Africa's emerging Megacities with affordable low-carbon housing solutions by Daniel Wyss | | Keynote: Driving Sustainable Construction through Standards, Codes, and Policy by Joseph Mwiti | |
| 09:00 - 09:30 | SESSION IV (A): Case studies and urban concepts for sustainable construction | SESSION IV (B): Challenges and best practices for sustainable construction solutions | SESSION VII: Construction industry decarbonization | |
| 09:30 - 10:00 | | | | |
| 10:00 - 10:30 | Moderator: Simone Stürwald | Moderator: Ruvimbo Eustina Munemo | Moderator: Hisham Hafez | |
| 10:30 - 11:00 | Coffee break | | Coffee break | |
| 11:00 - 11:30 | Panel 1: Towards Sustainable Urban Development: Affordable Housing and Green Construction in Africa | Daniel Wyse, Ruvimbo Munemo, Eric Muchunku, Simone Stuerwald, and Hans Beushausen | Panel 2: Advancing Sustainable Construction in Africa: Establishing Effective Standards, Policies, and Regulations | Mark Bediako, Charles Nmai, Karen Scrivener, Bature Mohammed, and Maurice Akech |
| 11:30 - 12:00 | | Moderator: Wolfram Schmidt | | Moderator: Olonade Kolawole |
| 12:00 - 12:30 | | | | |
| 12:30 - 13:00 | Lunch | | Conclusion | |
| 13:00 - 13:30 | | | Lunch | |
| 13:30 - 14:00 | | | | |
| 14:00 - 14:30 | Session V (A): Sustainable building materials - structural and durability performance | SESSION V (B): Sustainable building materials - SCM, admixture, and recycled materials | Site Visit (09:00 - 15:00 on the 23rd May 2024 at Konza City) | |
| 14:30 - 15:00 | | | | |
| 15:00 - 15:30 | Moderator: Mehnaz Dhar | Moderator: Shashank Bishnoi | | |
| 15:30 - 16:00 | Coffee break | | | |
| 16:00 - 16:30 | SESSION VI: Sustainable construction: capacity building | | | |
| 16:30 - 17:00 | | | | |
| 17:00 - 17:30 | | | | |
| 17:30 - 18:00 | Free time | | Free time | |
| 18:00 - Onwards | | | | |



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| 20.05.2025 (Day 1): hh:mm | SESSION I (A): Sustainable building materials - SCM, admixture, and recycled materials | Moderator: Mehnaz Dhar |
| 11:00 - 11:15 | Effect of Binary Blend of Sorghum Husk Ash and Glass Powder as Partial Replacement of Cement in Pervious Concrete Production | Murtadha Tijani Kayode Opadotun Waliu Raifu Wasiu Ajagbe |
| 11:15 - 11:30 | Linking calcination and reactivity in Kenyan Rice Husk Ashes as supplementary cementitious materials | Barrack Okoya Omondi Meshack Wafula Ikhab Nicole Amondi Obonyo Sylvester Ochieng Abuodha Siphila Wanjiku Mumenya |
| 11:30 - 11:45 | Durability of Rice Husk Ash Concrete - An Investigative Report | Wafula Meshack Ikhab Jean-Baptiste D'espinoze De Lacaille Barrack Okoya Omondi |
| 11:45 - 12:00 | Influence of Sugarcane Bagasse Fibers on the Mechanical Strength and Porosity of Concrete and modelling with design expert software Made with Forspak 42.5 N Cement in the Republic of Congo | Christ Ariel Malanda Ceti Abel Dominique Eboungabeka Timothée Nsongo Hilaire Elenga |
| 12:00 - 12:15 | Use of the volcanic ash cement replacement – impact on a mortar at its fresh and hardened state | Ines Ngassam-Oum Robson Sessingong |
| 12:15 - 12:30 | Investigating the Viability of Gold Tailings as a Partial Cement Replacement in Concrete | Phiwayinkosi Bright Nkambule Janina Kanjee |
| 20.05.2025 (Day 1): hh:mm | SESSION I (B): Sustainable building materials - earth and bio -based materials, bricks and blocks | Moderator: Olonade Kolawole |
| 11:00 - 11:15 | Simultaneous incorporation of agricultural by-products to enhance unfired earth bricks for sustainable housing in Malawi | Webster Sambo Amr Meawad Takafumi Noguchi |
| 11:15 - 11:30 | Promising performance of straw block as climate resilient construction material | Manette Njike Walter O. Oyawa Silvester O. Abuodha |
| 11:30 - 11:45 | Investigating the Compressive Strength of Sisal- Reinforced High-Compressed Earth Blocks | Konstantin Nille-Hauf Elosy Kathambi Eric Wente Birol Fitik Jörg Schänzlin |
| 11:45 - 12:00 | Effect of wetting-drying cycles on the Alfa fibers stabilized compressed earth blocks | ines Bouteldja khaled Grine Said Kenai |
| 12:00 - 12:15 | Lime-Calcined Clay (LC2) cement stabilized compressed earth blocks for sustainable construction in the Soudano-Sahelian zone of Cameroon | Ndigu Billong Moussa Charlot Ibrahim Djagra |
| 12:15 - 12:30 | Durability of concrete with agro-based ashes | |
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| 20.05.2025 (Day 1): hh:mm | SESSION II (A): Sustainable building materials - SCM, admixture, and recycled materials | Moderator: Shashank Bishnoi |
| 13:30 - 13:45 | Decarbonising Construction: Timber in East Africa Housing | Caroline Ray Geoffrey Mwangi Arup |
| 13:45 - 14:00 | Experimental evaluation of LC3 using limestone, calcined laterite, kaolin, sand and rice husk ash (RHA) | Nkansah Nana Kwame Ashley |
| 14:00 - 14:15 | Calcined clays as the most appropriate Supplementary Cementitious Material (SCM) for pozzolanic Portland cement in Africa: A comparative study with volcanic pozzolans | Ndigu Billong |
| 14:15 - 14:30 | Valorizing a coal combustion byproduct with high carbon content and coarse particle sizes. | Kidist Dereje Bedada Esayas G/youhannes |
| 14:30 - 14:45 | Rapid and economic method for testing of clays for cement industry | Mehnaz Dhar Shashank Bishnoi |
| 14:45 - 15:00 | Polysaccharide-Based Admixtures for Rheology Control in Low Carbon Concrete | Kabibi Kamashanju Bright Asante Wolfram Schmidt |
| 15:00 - 15:15 | Utilising locally sourced indurated laterite and low-grade clay from Cameroon as supplementary cementitious material: Case of Limestone Calcined Clay Cement (LC3). | Christelle Nobouassia Bewa Ronald Tafadzwa Muzenda Fabien Georget Thomas Matschei |
| 15:15 - 15:30 | Effects of polysaccharide-based rheology modifying admixtures on early hydration of Portland cement and LC3 | Renata Lorenzoni Bright Sabine Wolfram |
| 20.05.2025 (Day 1): hh:mm | Session II (B): Sustainable building materials - structural and durability performance | Moderator: Hisham Hafez |

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| 13:30 - 13:45 | Development of a Life Cycle Inventory Database for Environmental Impact Assessment of Construction Materials in Burkina Faso | Ilassou Nouhoun Nshimiyimana, P Hema, C Messan, A. |
| 13:45 - 14:00 | Recycling LC3 and other blended cement based concrete at end-of-life | Theodore Hanein |
| 14:00 - 14:15 | Carbonation of concrete cured under different conditions | Nafisat Akinniyi Kolawole Olonade |
| 14:15 - 14:30 | Influence of climate-controlled and elevated temperature curing on the strength and macropore of metakaolin-slag-based geopolymer mortar | Mustapha Bamidele Jaji Babatunde Luke Ajayi Adewumi John Babafemi Oluwaseyi A. Soyibo |
| 14:30 - 14:45 | Towards a performance-based approach in Kenya for the design of durable concrete mixes for steel reinforced concrete (RC) structures | Gladwell Wanjiku Nganga Siphila Mumenya Silvester Abuodha Thomas Mbuya |
| 14:45 - 15:00 | Plastic shrinkage cracking of LC3 concrete | Idris Mayowa Abdrafu Adewumi John Babafemi Riaan Combrinck |
| 15:00 - 15:15 | Investigating the impact of pre-treatment on recycled concrete aggregates for Pervious concrete applications | John Igeimokhia Braimah Wasiu Olabamiji Ajagbe Najeeb Tijani Adekilekun Murtadha Tijani |
| 15:15 - 15:30 | | |
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| 20.05.2025 (Day 1): hh:mm | SESSION III: Sustainable construction from the industry: insight, services and products | Moderator: Ruvimbo Eustina Munemo |
| 16:00- 16:15 | CBMI | |
| 16:15 - 16:30 | Africa bambo | |
| 16:30 - 16:45 | Calmetrix | |
| 16:45 - 17:00 | SIKA | |
| 17:00 - 17:15 | Kaolin group | |
| 17:15 - 17:30 | GCCA (Recorded) | |
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| 21.05.2025 (Day 2): hh:mm | SESSION IV (A): Case studies and urban concepts for sustainable construction | Moderator: Simone Stürwald |
| 09:00 - 09:15 | Innovating Across Continents Through Sustainable Design: How Studio OMT's Projects Bridge Cultural Heritage and Innovation | Leander Moons Wekesa George |
| 09:15 - 09:30 | The Liget Budapest Project - best practices of sustainable urban concepts | Attila Saghi Stefania Fuzes |
| 09:30 - 09:45 | Moving Concrete Innovation to Implementation: Lab2Slab2StandardPractice | John T Harvey Somayeh Nassiri Sabbie Miller |
| 09:45 - 10:00 | Advancing Sustainable Waste Management through the Application of BIM-aided System in Construction Projects | Ademilade Olubambi Clinton Aigbavboa Bolanle Ikotun |
| 10:00 - 10:15 | Comparative case study analysis for sustainable urbanization of Sub-Saharan African Cities | Fatma Mohamed Mareike Thiedeitz Nathalie Jean-Baptiste |
| 10:15 - 10:30 | Modern Earth Based Construction Approaches for Sustainable Construction | Simone Stürwal Fiona Langlotz, |
| 21.05.2025 (Day 2): hh:mm | SESSION IV (B): Challenges and best practices for sustainable construction solutions | Moderator: Ruvimbo Eustina Munemo |
| 09:00 - 09:15 | Addressing urban sustainability challenges through nature-based solutions: a case of Mzuzu City in Malawi | Loudon Luka |
| 09:15 - 09:30 | The Study The Best Practices Of Sustainable Urban Concepts For Infrastructure And Buildings: A Case Study Of Tanzania. | Kelvin C.Luoga Yazid Mwishwa Japhary Shengeza |

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| 09:30 - 09:45 | Potentials for the African informal sector to become a driving force in sustainable construction | Ada Farai Shaba Wolfram Schmidt Kolawole A. Olonad |
| 09:45 - 10:00 | Policy and regulatory framework for sustainable construction in Malawi - challenges for implementation | Effiness C Mpakati Gama Peter Schramm Nema Kadaluka Grace Zimba Phiri Wiseman Chibwezo |
| 10:00 - 10:15 | Mitigating Wildfire Risk and Reducing Carbon Emissions: Utilizing Biomass Waste as Biochar in Sustainable Construction Practices | Souvik Roy John Harvey Somayeh Nassiri |
| 10:15 - 10:30 | A Review on Barriers and Opportunities for Implementing Sustainable Building Practices in Sub-Saharan African Urban Areas: Future frameworks for sustainable Urban development | B.A. Demiss A. C. Mwende W.A. Elsaigh |
| | | |
| 21.05.2025 (Day 2): hh:mm | Session V (A): Sustainable building materials - structural and durability performance | Moderator: Mehnaz Dhar |
| 14:00 - 14:15 | Activation Energies of Alkali-Silica Reactive: A Review | Khanyisa Majeke Pilate Moyo Mark Alexander |
| 14:15 - 14:30 | The impact of Bacillus cereus on mechanical properties of cement mortars in sulphate rich environment | Oketoobo, Akinola Oluwatimilehin Akindahunsi, Akindehinde Ayotunde Adeyemo, Stella M. Oyeboade, Adekunle Yakub |
| 14:30 - 14:45 | Compressive Strength and Non-Destructive Evaluation of PLC Concrete with High-Volume Clay Pozzolana | Mark Bediako Timothy Kofi Ametefe Nelson Asante Solomon Adumatta |
| 14:45 - 15:00 | Chemical Characterization of Pumice Material Sourced from Mbeya, Tanzania | Patrice Nyangi Yazid Mwishwa Kizito Mwilongo Hokin Moshi Hezekia Nanyaro Shija P. Ng'wandu |
| 15:00 - 15:15 | Mechano-chemical activation of smectites to improve early strength of smectite-based LC3-50 | Muzenda, Tafadzwa Ronald Fabien Georget Thomas Matschei |
| 15:15 - 15:30 | Flexural Behaviour of UHPC Beams with Externally prestressed FRP Bars | Akpabot Ifiok Akpabot Xue Weichen Abimbola Sangodoyin Anthony Ede |
| 21.05.2025 (Day 2): hh:mm | SESSION V (B): Sustainable building materials - SCM, admixture, and recycled materials | Moderator: Shashank Bishnoi |
| 14:00 - 14:15 | Potential implications of lateritic clays from the upper geomorphological domain of Mbé (Adamawa-Cameroon) for a sustainable building construction | Japhet Taypondou Darman Jules Hermann Keyangue Tchouata Abdou Nasser Njoya Mfokou Yannick Tchedeke Langollo Albertine Alarba Sam-Tunsa Gilbert François Ngón Ngón |
| 14:15 - 14:30 | Effects of pyro-processing on hydration reactivity of a locally sourced clay for potential use as a supplementary cementitious material in concrete | Nerissa Chinsamy Janina P Kanjee Yunus Ballim |
| 14:30 - 14:45 | Physico-mechanical properties of cement containing calcined clay and slag from the recycling of metal scraps: feasibility towards low carbon cement in Burkina Faso | Philbert Nshimiyimana Daniel Y Adufu Kassoum Kanazoe Moumini Kindo Adamah Messan |
| 14:45 - 15:00 | Enhancing Early-Age Compressive Strength of High Volume Calcined Clay Oil-Well Cement with Rice Husk Additives for Improved Performance and Sustainability | Solomon Adumatta Mark Bediako Patrick Boakye Adams Yen Sokama-Nueyam Godfred Ohemeng-Boahen Stephen Adjei |
| 15:00 - 15:15 | Strength properties of recycled aggregate limestone calcined clay cement concrete | Tafadzwa Mhene Adewumi John Babafemi |
| 15:15 - 15:30 | Influence of Polokwane platinum slag aggregate on the strength properties of Portland cement-based concrete | Babatunde L. Ajayi Mustapha B. Jaji Adewumi J. Babafemi |
| | | |
| 21.05.2025 (Day 2): hh:mm | SESSION VI: Sustainable construction: capacity building | Moderator: Joseph Mwiti |
| 16:00 - 16:20 | RILEM | Olonade Kolawole |
| 16:20 - 16:40 | Academic and industry collaboration | Hans Beushausen |
| 16:40 - 17:00 | LC3-TRC AFRICA | Jamil Mahdy Famau |
| 17:00 - 17:20 | CWSC Capacity building | Karen Scrivener |
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| 22.05.2025 (Day 3): hh:mm | SESSION VII: Construction industry decarbonization | Moderator: Hisham Hafez |

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| 09:00 - 09:15 | Coordinated laboratory infrastructure that fosters international collaboration in alternative raw material research and optimises future lab layouts for efficient knowledge and resource sharing. | CBMI (TBC) |
| 09:15 - 09:30 | Advancing Carbon Emission Mitigation in Modern Methods of Construction: A Framework for Sustainable Innovation | Lerato Kumalo Jeffrey Mahachi Ntebo Ngcobo |
| 09:30 - 09:45 | Embodied efficiency: Enabling low-carbon concrete housing in Nairobi, Kenya | Mohamed Ismail Emily Baker Benjamin Hoyle |
| 09:45 - 10:00 | Quantifying the Current and Future Greenhouse Gas Emissions from Road Infrastructure in Africa | Iyanuoluwa Filani Tanoogna Mallarapu Ali Azhar Butt John Harvey |
| 10:00 - 10:15 | The Role of Green Public Procurement in Driving Demand and Standardization of Low-Carbon Construction Materials | Soledad Reeve Adriana Fernandez Villalobos Tomasz Pawelec |
| 10:15 - 10:30 | Decarbonization Roadmap for Buildings and Construction - Kenya | Mumbua Musyimi Global Building Performance Network |

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