Net-Zero Future 2025 Conference

2nd International Conference on Net-Zero Built Environment: Innovations in Materials, Structures, and Management Practices

























FIRST ANNOUNCEMENT AND CALL FOR ABSTRACTS



EVENT DETAILS

The Net-Zero Future project is an international alliance between Norway, Germany, India, South Africa, and the USA dedicated to advancing research and promoting net-zero materials and construction technology. This initiative supports global sustainable development goals such as quality education, innovation, sustainable cities, climate action, and partnerships.

By bringing together academia and industry, the project encourages knowledge-sharing and collaboration to drive progress in net-zero construction, benefiting civil infrastructure and societal ecosystems worldwide.

A key part of this project is the Net-Zero Future Conference series. The first conference was held in 2024 in Oslo, starting a tradition of collaboration and knowledge exchange. The 2025 conference in Cape Town will continue this work, uniting experts and visionaries to advance sustainable construction innovations.

VENUE

Cape Town is a stunning travel destination, offering breathtaking landscapes like Table Mountain and pristine beaches along the Atlantic coast. Its vibrant cultural scene, world-class cuisine, and diverse attractions make it a must-visit for any traveler.

The conference will be held at the University of Cape Town's Graduate School of Business campus in the V&A Waterfront, Africa's most visited tourist attraction. Originally built as a prison in the 1800s, this landmark now features a state-of-the-art conference and exhibition center in the heart of the city.

The V&A Waterfront boasts numerous indoor and outdoor shopping and entertainment venues in a cosmopolitan setting, along with many of Cape Town's top restaurants and museums. The area around the GSB campus is surrounded by hotels, providing pleasant and safe opportunities to experience African cultures in a beautiful environment.









CONFERENCE TOPICS

ZERO/NEGATIVE CARBON FOOTPRINT PREPARATION

- · Low-carbon and carbon-neutral materials
- · Sustainable alternatives to traditional cement
- · Eco-friendly material production techniques
- · Use of renewable and recycled materials
- Application of innovative materials in projects

ROBOTIC CONSTRUCTION TECHNOLOGIES

- · Robotics and automation for efficient construction.
- Robotic fabrication for sustainability and resource efficiency.
- · Digital design integration for efficient workflows
- · Robotics to cut waste and enhance safety
- Low-emission construction with electrified machinery

ADVANCED HEALTH MONITORING AND SERVICE LIFE EXTENSION

- Advanced sensing for structural health
- · Predictive maintenance with real-time data
- · Al and machine learning in condition assessment
- · Proactive measures for service life extension

OPTIMAL STRUCTURAL DESIGN

- · Lightweight, high-strength structural systems
- Enhanced load capacity and energy-efficient designs
- Advanced modeling and simulation for performance
- Innovative methods to reduce material use and and waste

LIFE-CYCLE ANALYSIS AND POLICY

- · Collaborative design and construction
- · Life-cycle assessment and economic feasibility
- Circular economy models for construction
- Flexible design strategies for net-zero standards and new technologies

KEY DATES

Call for Abstract Submissions Opens	20 November 2024
Deadline for Special Session Proposals	15 December 2024
Abstract Submission Deadline	15 January 2025
Notification of Abstract Acceptance	1 February 2025
Full Paper Submission Deadline	15 April 2025
Net-Zero Future 2025 Conference Dates	05-07 November 2025

CALL FOR ABSTRACTS

Prospective Authors are invited to submit abstracts to the conference. Authors of accepted abstracts will have the opportunity to prepare an optional full paper. Accepted papers will be included in the open access Conference Proceedings published by Springer. All full paper submissions will undergo a double-blind peer review by experts with substantial experience in the related field

Further details on submission guidelines, dates, and more on our website: https://netzfuture.com/ or email us at netzfuture@uct.ac.za

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