TRANSFORMING CONSTRUCTION
WITH OFF-SITE METHODS AND TECHNOLOGIES

18 – 20 August 2026 | Northumbria University, UK

Organised by Northumbria University in collaboration with the University of New Brunswick

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📍 Northumbria University

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Northumbria University NEWCASTLE

Call for Papers

Scope and Topics

Track 1:
Advanced Technologies & Data
- ❑ BIM for offsite construction.
- ❑ Digital fabrication in offsite production.
- ❑ Reality capture technologies in construction management.
- ❑ Extended-reality applications in offsite construction.
- ❑ IoT and sensor technologies in offsite construction.
- ❑ Digital twins in offsite construction.
- ❑ Applications of AI in offsite construction (including LLMs, computer vision and VLMs).
- ❑ Data analytics, simulation, and optimisation of offsite construction.

Track 2:
OSC Processes and Systems
- ❑ Modularisation and industrialisation of construction processes.
- ❑ Design for offsite manufacturing and assembly.
- ❑ QA/QC in offsite manufacturing.
- ❑ Automated / robotic processes in offsite construction.
- ❑ Facility layout design and optimisation.
- ❑ Lean construction practices in offsite construction.
- ❑ Sustainable offsite processes.
- ❑ Advanced materials for offsite construction.

Track 3:
People and Management for OSC
- ❑ Leadership and cultural transformation
- ❑ Teamwork, and knowledge sharing
- ❑ Organisational learning, innovation and capability maturity
- ❑ Business strategy, value creation and new business models
- ❑ Skills, competence and workforce digital literacy
- ❑ Equality, diversity and inclusion (EDI) in the construction workforce
- ❑ Health, safety and human–machine wellbeing
- ❑ Ethics, accountability and social value

About

Transforming Construction with Off-Site Methods and Technologies (TCOT 2026) is an international conference that invites researchers, practitioners, and policymakers to Newcastle upon Tyne, UK, to shape the future of building through industrialised, digitalised, and sustainable approaches to the built environment.

Bringing together Northumbria University's School of Architecture and Built Environment, the University of New Brunswick's Off-site Construction Research Centre, and CIB, the event explores how modern methods of construction, such as off-site and modular systems, can be integrated with advanced technologies including AI, robotics, AR/VR, 3D printing, and reality capture to tackle the construction sector's productivity and resilience challenges.

Delegates will join a global construction ecosystem to share peer-reviewed research, leading case studies, and socio-technical perspectives on transforming construction practice, policy, and education for the next generation of sustainable infrastructure.

Important Dates

- ❑ Abstract submission: 30 January 2026
- ■ Papers' submission: 27 March 2026
- ❑ Industry presentation-only abstract submission: 24 April 2026
- ■ Camera-ready submissions: 15 May 2026
- ❑ Early bird registration: 1 April – 7 June 2026
- ■ Author/presenter registration deadline: 19 June 2026
- ❑ Regular registration deadline: 4 August 2026

Conference Committee

- Dr Ala Suliman, Northumbria University (Conference Co-Chair)
- Prof Richard Laing, Northumbria University (Conference Co-Chair)
- Dr Volkan Ezcan, Liverpool John Moors University (Technical Chair)
- Prof Jeff Rankin, University of New Brunswick
- Prof Mohamad Kassem, Newcastle University
- Brandon Searle, University of New Brunswick

Conference Partners

Constructing Excellence North East

CIB — International Council for Research and Innovation in Building and Construction

CSCE / CGC — Canadian Society for Civil Engineering

UNB Off-site Construction Research Centre | IC3 International Centre for Connected Construction | Northumbria University NEWCASTLE