

## Geotechnical engineering research at Aalto University

**11<sup>th</sup> of June 2026, Civil Engineering Department, Rakentajanaukio 4, R3 (2<sup>nd</sup> floor)**

Join us on Wednesday, the 11<sup>th</sup> of June 2026 at 9.45 am, the Civil Engineering Building, Rakentajanaukio 4, room R3, Espoo, and meet the Aalto community of students and researchers. If you plan to attend the seminar at Aalto, please register at <https://link.webropol-surveys.com/S/7D2DC8DF58552A1F> so we can order the right amount of coffee and lunch (please do not register if you plan to attend online). Please contact [wojciech.solowski@aalto.fi](mailto:wojciech.solowski@aalto.fi) in case you need more information about the event.

### Seminar programme

#### **Session 1: DeMiCo project**

**Chair: Leena Korkiala-Tanttu**

- 9.45 Welcome and introduction to DeMiCo project (Leena Korkiala-Tanttu)
- 9.50 DeMiCo Biochar amended cementitious composites (Mohamad Hanafi)
- 10.30 DeMiCo Leaching assessment for low-carbon stabilized binders (Ville Rinta-Hiiro)
- 10.45 DeMiCo Work Package 2 “Dynamic Replacement” results (Naum Shpata)
- 11.15-11.30 Discussion

#### **11.30 – 12.30 Lunch**

#### **Session 2 Experimental and field scale testing at NTNU and Aalto**

**Chair: Sanandam Bordoloi**

**12.30 Keynote lecture - “Geothermal Energy Pile: Renewable Heating/Cooling solution” - Rao Martand Singh ,**

Followed by

13.20 Microcrystalline cellulose usage in cementitious composites- Anoosheh Iravanian

13.40 Field study of frost heave and penetration in clay soil- Yunlong Zhu

**14.00 – 14.15 Coffee break**

**Session 3: Numerical research at Aalto**

**Chair: Wojtek Sołowski**

14.15 Granular Material Point Method (Hakimeh Koochi)

14.25 Numerical simulations of soil mixing (Ying Ma)

14.35 Numerical simulations of dynamic replacement (Naum Shpata)

14.45 Numerical simulations of soil freezing (Chenjie Ruan)

**Session 4: Industry and stakeholders outreach**

**Chair: Sanandam Bordoloi**

**15. 00 Discussion about future research directions, questions and answers with industry and academic partners**

~15.20 Closure

We encourage you to follow the event at Aalto, but online participation is possible:

<https://teams.microsoft.com/meet/357152490508729?p=vrn8qzAddYUzZRBQw6>

Meeting ID: 357 152 490 508 729

Passcode: 2GH3AJ9r