



Online Workshop

Modelling shallow bedrock energy utilisation

23 -25 March 2021

Program of the workshop*

Timing: Central European Time (CET)

Tuesday, March 23, 2021

Session 1: Shallow geothermal energy; theory and principles.

Person responsible: Lasse Ahonen

09:00 – 09:45 Welcome and introduction

09:45 – 10:00 Break

10:00 – 10:45 Geothermal processes in different geo-environments

Break

10:45 – 11:00 Discussion

11:00 – 12:00 LUNCH

12:00 – 12:45 Phenomena, conceptualizations and models

12:45 – 13:00 Discussion

13:00 – 13:15 Break

13:15 – 14:00 Heat transfer: Methods and techniques

14:00 – 14:30 Discussion and wrap up

Session 1

Wednesday, March 24, 2021

Session 2: Field measurements.

Person responsible: Annu Martinkauppi

09:00 – 09:45 General overview of test site

09:45 – 10:00 Break

10:00 – 10:45 Temperature measurement(s)

10:45 – 11:00 Discussion

11:00 – 12:00 LUNCH

12:00 – 12:45 Thermal Response Test (TRT)

12:45 – 13:00 Discussion

13:00 – 13:15 Break

13:15 – 14:00 Distributed Temperature Sensing (DTS) and it's applications

14:00 – 14:30 Discussion and wrap up

Session 2





Thursday, March 25, 2021

Session 3: Planning and optimisation of shallow geothermal system.

Person responsible: Nina Leppäharju

Session 3

- 09:00 – 09:45 Designing shallow geothermal systems: principles and considerations
- 09:45 – 10:00 Break
- 10:00 – 10:45 Designing tools and software: Earth Energy Designer (EED) as an example
- 10:45 – 11:00 Discussion
- 11:00 – 12:00 LUNCH
- 12:00 – 12:45 Designing borehole heat exchanger for a single-family house
- 12:45 – 13:00 Discussion
- 13:00 – 13:15 Break
- 13:15 – 14:00 Optimisation of borehole heat exchanger field
- 14:00 – 14:30 Discussion and wrap up

**We reserve the right to make minor changes in the program.*

