

UNDERGROUND LUNCH & LEARN

Tunnelling technology in Norway, with particular emphasis on deep subsea tunnels

Tunnelling activity in Norway has remained at a high level for a long period, with an average of about 5 mill. M³ excavated annually. The activity of a wide range of different projects will be discussed.

Tunnels under sea represents a challenge due to the difficult ground conditions encountered. More than 50 such tunnels in Norway are for road purposes. Characteristics of subsea tunnels will be discussed. A case history of remedial measures required after instability/cave-in 250 m below the ocean, and aspects of a 27 km, twin-tube tunnel project at a depth of more than 350 m will be presented.

A description of HydroCE, will be given. Hydropower tunnelling is very important for the development of Norwegian tunnelling technology, and there is an increased interest in hydropower development. Flexible operation and balancing power are a focus that cause increased demand for R&D.

JANUARY 30, 12-1 P.M.
BERTHOUD HALL 241



Bjørn Nilsen, Professor of Geological Engineering at the Norwegian University of Science and Technology (NTNU). Master and PhD-degrees from the Norwegian Institute of

Technology (NTH). Experience on various aspects of rock engineering, including site investigation, planning and design, stability analyses and construction control. Advisor of several projects in Norway and abroad. Current projects on subsea tunnelling, engineering geological aspects of mechanical excavation, hydropower tunnelling and rock slope stability.

Henki Ødegaard, Ph.D. candidate at the Norwegian University of Science and Technology (NTNU). Received his Master degree in Engineering Geology from the Department of Norwegian University of Science and Technology. Experience as consultant within rock engineering in Multiconsult and experience from design and implementation of surface and underground projects.



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