NORSK GEOTEKNISK FORENING
NORWEGIAN GEOTECHNICAL SOCIETY
Affiliated to the International Society for Soil Mechanics and Geotechnical Engineering

Til medlemmene

Oslo, 13. september 2011

MEDLEMSBREV NR. 5, 2011

1. Medlemsmøte 20. september 2011

Se vedlagt invitasjon.

2. Eurokode 7 Del I Sjekklister / Høringsutgave for "Veiledning for grunnforsterkning med kalksementpeler

- Sjekklistene er lagt ut på NGFs websider.
- Høringsutgave for "Veiledning for grunnforsterkning med kalksementpeler" med høringsfrist 5. oktober 2011, ligger under 'Aktuelt' på forsiden.

3. Møter i de nordiske foreninger

Sjekk følgende internettsider:

www.sgf.net
www.danskgeotekniskforening.dk
www.sgy.fi
www.ngf.no

4. Kurs og konferanser

Informasjon om kurs/konferanser finnes på NGFs websider under kalender!

Med vennlig hilsen
for NORSK GEOTEKNISK FORENING
Geraldine Sørum

Geraldine Sørum
Sekretær

Vedlegg: Invitasjon til møte 20. september 2011

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NGF-møte
Tirsdag 20. september 2011, kl 15.00 hos
NGI, Sognsveien 72
0855 OSLO

Program:

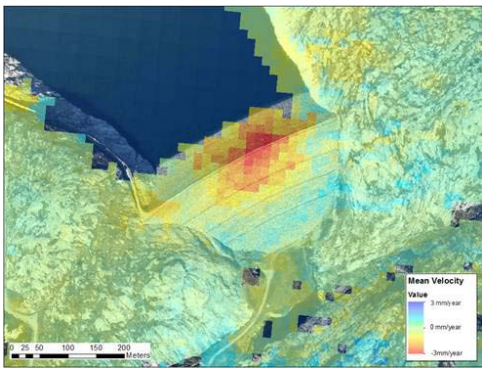
15.00:
Enkel servering

15.30: **Measuring settlement with new technologies:**
InSAR and LiDAR
Dr. Malte Vöge & Dr. Matthew Lato

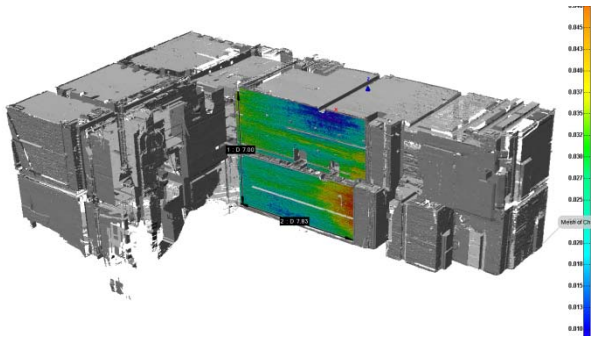
Synthetic Aperture Radar Interferometry – InSAR – is a remote sensing technology that enables the development of highly accurate topographic images from spaceborne platforms. InSAR can provide highly sensitive displacement measurements for very large areas with a resolution of 30 m x 30 m and higher. Therefore, displacements related to single building/construction site can be obtained. Once a reliable displacement map has been generated, this map will be of high value to many future projects (especially in the Oslo area and other major cities), where ground stability at certain sites is of interest and importance. The image below illustrates the rate of displacement, in millimeters per year, calculated at the Svartevann Dam in Western Norway.

Light Detection And Ranging – LiDAR – is a remote sensing technology that enables the rapid and accurate development of true three-dimensional images. The technology is based on calculating the duration between an emitted laser signal and the reflected returned signal. The rapid and accurate creation of 3D imagery enables mapping of millimeter scale deformation. Such deformations are critical to track during construction projects, and are traditionally only observed after physical signs of distress, such as cracking or buckling. The image below illustrates the deformation calculated in a support wall of a building in downtown Oslo which is currently undergoing a large renovation that unknowingly exposed black shale. Significant remediation efforts have been put in place to prevent further deformations.

The presentation will discuss the technologies used, both InSAR and LiDAR, in practical terms, with a focus on how the data is collected and how it can be used, as well as future research initiatives at NGI in the development and the implementation of these advanced remote monitoring techniques.



Modeling the deformation of a dam using InSAR imaging technologies



Modeling the deformation of a building wall during destructive renovations using lidar imaging technologies