

Kandidatarbete
Examenskod ACEX10



Settlement prediction based on field monitoring data

Predicting the time-dependent settlements and the final settlements of road and railway embankment on soft soils is not trivial.

Data from test embankments will be used to test and compare various methods proposed in literature for determination of the final settlement and the settlement rate.

Predictions for well-instrumented embankments (different groups can look at different embankments) or alternatively synthetic data created by advanced finite element analyses with creep are compared with field monitoring/advanced prediction data. The main sources of errors are identified by utilizing techniques, such as the internationally known Asaoka's method, that is supposed to enable estimating settlements from the field monitoring results. The project can be done either in English or Swedish.

Literature recommendation: BOM370 course materials, plus relevant papers and book chapters.

Target group of students
Civil Engineering

Group size
3-6

Special requirements
BOM355

Suggestion from
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Can the project be duplicated?

Yes

If any of the following aspects to be integrated

- Digitalization
- Sustainability
- Climate change
- Gender equality, equal treatment and diversity
- Other