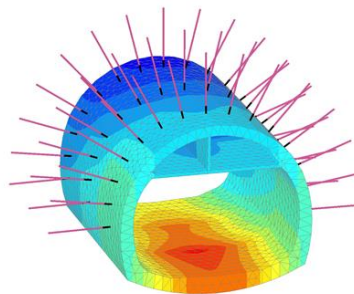

GRADUATION PROJECT 2018

Modelling damage in tunnel linings using Finite-Elements and assessing impact on longitudinal strains for damage detection



GOAL:

Tunnels are an important part of infrastructure networks and their failure can pose serious consequences for networks and the movement of people and goods. The goal of this project is to assess the sensitivity of local damage in a tunnel wall to the strains measured along the tunnel lining, with a view to assessing the sensitivity of the strain measurements to the damage level. This project will involve Finite-Element modelling of a tunnel and implementing damage in the tunnel wall as a local reduction in elastic modulus. Strain measurements under a range of loading will be extracted and the sensitivity of these strains to the wall damage will be assessed. A range of constitutive models for the soil /rock will be implemented and a variety of damage levels and locations will be studied. This project will be undertaken as part of the EU H2020 funded project SAFE-10-T.

EXPECTED DIFFICULTY: Medium

INTERESTED?

If you are interested in this Graduation Project, please email:

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