

Master Thesis

Object-oriented implementation and validation of creep in a finite element software

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Background: In order to study and reproduce the behavior of different materials under a load acting over a certain time span, a creep model is indispensable to capture such behavior. Against this background, the implementation and validation of a creep model for concrete and other materials has to be performed.

Tasks:

- Understanding the phenomenon of creep, with particular reference to concrete.
- Implementation of a creep model for concrete and other materials in a finite element software (Kratos Multiphysics) and validation of the model.
- Application of the model for concrete structure examples.

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