# Particle Based Methods in Engineering

Project work

# Project Work

- Goal: deeper understanding of MPM/ DEM theory and numerical concepts

- Application of knowledge through extension of educational Python code

- Implementation of extensions/ new numerical features

- Verification and validation tests, convergence studies

- Collaborative work, reasonable task distribution allowed

# Delivery

- Complete implemented Python code including test cases

- Summary of the project work in a poster (template provided in the Moodle course)

  - Theoretical background of the developed topic

  - Conceptual overview of the implementation strategy within the Python framework

  - Clear and illustrative presentation of the validated simulation results

- Submission deadline for Python code and poster: <span style="color:red">**26.01.2026**</span>

- Poster presentation at end of course: **02.02.2026** starting from **3 p.m.**