Civil 7
we feel the mission

Internship or Master's Thesis
Automating tunnel design

Civil 7 is a young and growing engineering consultancy with an international focus in underground construction. We are offering a Masters thesis for a structural engineer to further develop a system parametric tunnel design tool. As presented at the World Tunneling Congres 2023 in Athens this is the first tool to paramerically design not just a small part, but the complete tunnel, with outputs generated in Revit, Plaxis and SCIA for the full range of design – not just one discipline.
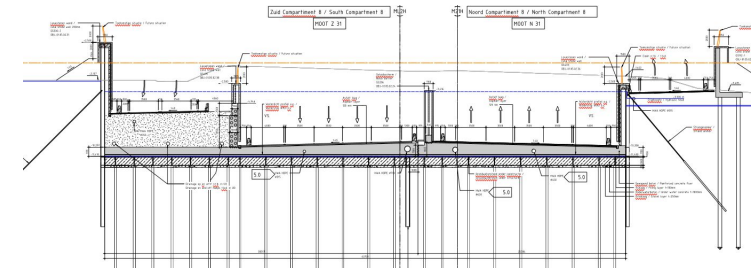
Real world tunnel design

Civil 7 offers students…
- **intensive daily guidance** by dedicated experienced seniors;
- **responsibility and ownership** of your project;
- **empowerment** within a **young engineering start-up;**
- focus on **international** construction projects;

Forget python. Automating tunnel design is not about little bits of design covered by cluttered scripts. It is about combining the whole design chain including geotechnics, structures, drainage, tunnel technical installations and construction sequence. You will further develop tools and concepts along the principles of object-oriented programming from he software indusry. Where traditional companies spend about 9000 manhours per tunnel kilometre, we believe this can be cut to 24 hours with our team of five.
The work consists of 50% structural design, 25 % software architecture and 25 % conceptual thinking.

Skills candidates must possess:
- great at structural analysis and design
- friendly, open and precise in communication
- work approach in balance: both in-depth problem-solving and practical 'getting-it-done'
- profile: MSc. candidate in structural engineering. Previous knowledge of object-oriented programming is an advantage. Questions on the vacancy and/or an application may be sent with your c.v. and grade list to: vacancies@civil7.nl