

Theofanis Rentzelos

Geomechanical Engineer

Expertise

Rock mechanics, Numerical modeling

Education

M.Sc. Civil Engineering (Rock Mechanics and Geotechnical Engineering), 2019
Luleå University of Technology, Luleå Sweden

M.Sc. Mining Engineering, 2017
National Technical University of Athens, Athens, Greece

Honors

Academy of Athens Scholarship (2018)

Professional Experience

2021 – Present

Itasca Consultants AB, Luleå, Sweden
Geomechanical Engineer

2019 – 2021

WSP AB, Stockholm, Sweden
Rock Mechanics Engineer

2017

Hellas Gold S.A., Chalkidiki, Greece
Summer Internship, Mining Engineer

Project Experience

Infrastructure projects:

Design and documentation of rock reinforcement in various parts of the TUB-A (new metro in Stockholm) and Högdalens depå projects. The analyses were conducted with the use of both the Finite Element and the Limit Equilibrium Methods. The projects also required the development of detailed bill of quantities as well as regular coordination with the contractors and the different technical disciplines involved.

Design and documentation of rock support of a rock slope used as foundation for Essingebron (the Essinge bridge). The project also involved the inspection of the old rock support as well as geotechnical investigation of the slope.

Mining projects:

Three-dimensional continuum analysis (*FLAC3D*) of the interaction between the rock mass and the rock support in Garpenberg mine. The scope of the analysis was to investigate safer and more productive mining sequences.

Estimation of the ore reserves and the remaining life of mine in "Mavres Petres" underground mine in Greece. Part of the project was also the regular inspection of the tunnels and the production practices.