

Aspects of Design and Construction of Tunnels and other Subsurface Infrastructure in Practice

Aspects of Design and Construction of Tunnels and other Subsurface Infrastructure in Practice

Module number	Credits	Workload	Semester[s]	Duration	Group size
SE-O-2	2 CP	60 h	3. Sem.	1 Semester[s]	20
Courses a) Aspects of Design and Construction of Tunnels and other Subsurface Infrastructure in Practice			Contact hours a) 2 WLH (30 h)	Self-study a) 30 h	Frequency a) each winter
Module coordinator and lecturer(s) Prof. Dr.-Ing. Markus Thewes a) Prof. Dr.-Ing. Markus Thewes					
Admission requirements					
Learning outcome, core skills In this module, practical knowledge about planning, construction and management of current projects in tunneling and subsurface construction practice is offered through selected lectures of guest experts of by participation in on the worldwide largest conferences for tunneling, the STUVA conference. This module is offered every two years (in the uneven years) in cooperation with STUVA e.V.					
Contents a) The module deals with the extended practical knowledge of tunnel design, construction, operation and safety. Typical topics include: <ul style="list-style-type: none"> • Tunnel construction and tunnel operation • International projects • BIM, monitoring, digitalization • Technical alteration to national and international standards • Combined construction techniques • Mechanized tunneling • Developments in segmental lining (tubbing) • Artificial freezing of ground • Tunneling in swelling soil • Safety in road tunnels • Tunnel planning, tunnel refurbishment • Start of operation and energy saving • Traffic tunnel and geothermic applications in tunneling 					
Educational form / Language a) Internship / English					
Examination methods • Internship 'Aspects of Design and Construction of Tunnels and other Subsurface Infrastructure in Practice' (60 h., ungraded, Full time participation)					
Requirements for the award of credit points					

• Full time participation	
Module applicability <ul style="list-style-type: none">• M.Sc. Subsurface Engineering• M.Sc. Civil Engineering	
Weight of the mark for the final score Percentage of total grade [%] = 0, ungraded	
Further Information	