Tárgytematika / Course Description
Geotechnics in Practice

EKNB_SETA042

Tárgyfelelős neve / Teacher's name: Koch Edina
Félév / Semester: 2023/24/1
Beszámolási forma / Assesment: Folyamatos számonkérés
Tárgy heti óraszáma / Teaching hours(week): 2/1/0
Tárgy féléves óraszáma / Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The aim of the course is to illustry the knowledge and the tools learned in early geotechnical subjects trough cse studies. The case studies to be presented encompass the civil engineering areas and their geotechnical concerns and show special geotechnical tasks and technologies and analyze mistakes and damages where soil conditions and geotechnical activities play definite role. Home and classroom tasks to be solved and their presentation serve the achievement of requirements according to the education level.

TANTÁRGY TARTALMA / DESCRIPTION

The case studies will be focused on the followings.

Embankment foundation;
Retaining structures;
Foundations of roadway and railway bridges, underpasses, excavation pits;
Importance of geotechnical investigations in the preparation phase;;
Optimal foundation solution, geotechnical structures and technologies;
Monitoring for risk managemen;
Typical design errors and construction mistakes and their effect on the maintenance of the structure.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

Homework assignements
HF1 Evaluation of english technical paper, presentation
HF2 Design problem, presentation
HF3 Construction problem, presentation

Course Grade Evaluation
HF1 – 15 points, HF2 – 30 points, HF3 – 30 points, class activity - 25 points

Grades

0 - 49 points	1	(fail)
50 - 61 points	2	(sufficient)
62 - 73 points	3	(satisfactory)
74 - 85 points	4	(good)
86 - 100 points	5	(excellent)

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Mecsi J.: Geotechnical Collapses: Understanding the Problems and Finding the Solution, Hungarian Geotechnical Society, Budapest, 2012.

Szepesházi R.: Synergies in Geotechnics: Interpretations, Precedents and Perspectives, ÖIAV, Vienna, Austria, 2014.

Adeyeri Joseph: Technology and Practice in Geotechnical Engineering, Idea Group.U.S., 2015.

Buddhima Indraratna , Ana Heitor , Jayan S. Vinod: Geotechnical Problems and Solutions : A Practical Perspective, Taylor & Francis Ltd, 2020.

Selected papers

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL