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Nota di contenuto	Front Cover; Table of Contents; Preface; Organisation; Keynote Lectures; What should geotechnical professionals be able to do?; Engineering education: A tale of two paradigms; Quandary in geomaterial characterization: New versus the old; Using questioning to enhance student engagement; Equilibrium, strength, strain, dilation and superposition; What topics should be taught in geo-engineering courses?; Key skill sets for use in geotechnics - a contractor's view; Will this be on the final exam? Learning objectives for an introductory geotechnical engineering course Geotechnical-structural integration in US foundation engineering curriculaGeotechnical engineering education - removing the barriers; Geo-engineering: A co-production of applied earth sciences and civil engineering - 2nd phase; Rethinking aspects of theory and tradition in soil mechanics teaching; The use of case histories in geo-engineering education; The use of case histories to encourage reflection by civil engineering design students; Teaching the importance of engineering geology using case histories; Use of case studies in geotechnical courses: Learning outcomes and suitable cases Laboratory work in geo-engineeringThe use of online resources to

support laboratory classes in soil mechanics; Soil mechanics laboratory classes as an integral part of the learning process; Interactive learning modules in geotechnical engineering; Reinventing geotechnical engineering laboratory classes; Activities to enhance students' understanding of pore water pressure, seepage and total head; Fieldwork work in geo-engineering; The BMG ignimbrite quarry: Case study of an undergraduate field exercise in engineering geology; The use of field visits in graduate geotechnical teaching
TU Delft Spain fieldwork and other outdoor activitiesComputing and technology in geo-engineering; Dunmore Bridge case study: An introduction to geotechnical engineering via finite element analysis; Integrating a major Excel exercise in an introductory soil mechanics course; The use of electronic voting systems to enhance deep learning; Implementation of the use of computing and software in undergraduate Soil Mechanics courses; Learning issues related to basic concepts in geotechnics: A teacher's perspective; Geo-engineering research and teaching experiences
The LARAM School: teaching, "LAndslide Risk Assessment and Mitigation" to PhD studentsChallenges in teaching engineering to the next generation: Some data from a geo-engineering perspective; Lecturers' perceptions of students' learning needs in geo-engineering in Spain; A tour through education sites for an engineering instructor: Major stops and impressions; Intellectual synergy in the education of geo-engineering; Student-centred learning in geo-engineering; Teaching geotechnical engineering with theory-practice integration: Group project approach
Use of project based learning to teach geotechnical design skills to civil engineering students

Sommario/riassunto

This book comprises the proceedings of the international conference Shaking the Foundations of Geo-engineering Education (NUI Galway, Ireland, 4-6 July 2012), a major initiative of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) Technical Committee (TC306) on Geo-engineering Education. SFGE 2012 has been carefully crafted to showcase a diversity of effective and engaging approaches to geo-engineering education while raising awareness of how crucial this effort is to the future development of the engineering profession. The five keynote papers were ch