1. Record Nr. UNINA9910299409503321

Autore	Pavel Florin
Titolo	Impact of Long-Period Ground Motions on Structural Design: A Case Study for Bucharest, Romania / / by Florin Pavel, Viorel Popa, Radu Vacareanu
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-73402-4
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (IX, 87 p. 75 illus., 31 illus. in color.)
Collana	SpringerBriefs in Geotechnical and Earthquake Engineering, , 2522-8781
Disciplina	550
Soggetti	Environmental sciences Engineering geology Engineering—Geology Foundations Hydraulics Natural disasters Physical geography Buildings—Design and construction Building Construction Engineering, Architectural Environmental Science and Engineering Geoengineering, Foundations, Hydraulics Natural Hazards Earth System Sciences Building Construction and Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1. Introduction -- 2. Seismic Hazard Assessment for Bucharest -- 3. Evaluation of Soil Conditions in Bucharest -- 4. Characteristics of Ground Motions Recorded in Bucharest Area -- 5. Structural Design for Large Displacement Demands -- 6. Case Studies -- 7. Conclusions.

Sommario/riassunto

This book discusses the impact of long-period ground motions on structural design using the situation in Bucharest, the capital city of Romania, as a case study. The first part explores the seismic hazard situation in Bucharest, and the causes of long-period ground motions related to both the source and the site. Subsequently, it examines the current seismic design, detailing building practices in Bucharest, and discusses the impact of long-period ground motions on seismic design. Lastly, several case study buildings in Bucharest are presented and the major difficulties encountered in their design are considered. The book also includes various numerical examples that help readers understand the impact of long-period ground motions on various structural systems, that are currently used in Bucharest. This book is intended for researchers in the field of seismic hazard and risk assessment and designers of multi-story buildings in seismic areas.