1.

Record Nr.	UNINA9911006513003321
Autore	Tsudik Edward <1933->
Titolo	Analysis of structures on elastic foundations / / Edward Tsudik
Pubbl/distr/stampa	Plantation, FL : , : J. Ross Publishing, , [2013] ©2013
ISBN	1-68015-169-X 1-60427-730-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (599 p.)
Disciplina	624.1/5
Soggetti	Soil-structure interaction Foundations Elastic analysis (Engineering)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (pages 578-579) and index.
Nota di contenuto	""Content""; ""Preface""; ""About the Author""; ""1 Soils and Soil Models""; ""2 Analytical Methods of Analysis of Finite Beams on Winkler Foundation""; ""3 Simplified Analysis of Beams and Frames on Winkler Foundation""; ""4 Analysis of Beams on Elastic Half-Space""; ""5 Analysis of Beams on Elastic Half- Space, Plane Strain Analysis""; ""6 Numerical Analysis of Beams Supported on Elastic Half-Space and Elastic Layer""; ""7 Simplified Analysis of Mat Foundations""; ""8 Numerical Analysis of Mat Foundations""; ""9 Analysis of Circular Plates on Elastic Foundation"" ""10 Special Structures on Elastic Foundation""""Index""
Sommario/riassunto	Analysis of Structures on Elastic Foundations is a practical guide for structural and geotechnical engineers as well as graduate students working in foundation engineering. Included are detailed descriptions of practical methods of analysis of various foundations including simple beams on elastic foundations as well as very complex foundations such as mat foundations supported on piles. Methods for fast and easy hand analysis in addition to methods for exact computer analysis are presented. Most of the methods are developed for three soil models: Winkler foundation, elastic half-spaces, and elastic layers. Numerous numerical examples illustrate the applications of these

methods. Key Features Offers simple formulae and tables for analysis of beams free-supported on Winkler foundation and elastic half-spaces as well as applications to the analysis of complex beams and many types of continuous beams Describes in detail the little known Method of Initial Parameters that allows analyzing various statically indeterminate systems with elements supported on Winkler foundation Covers a new and very simple method of combined analysis of 2D and 3D frames with individual foundations by modeling the system soil foundation with equivalent line elements and without requiring special software Introduces a series of new methods/algorithms such as analysis of composite beams and plates on elastic foundations, combined analysis of walls with continuous foundations, and combined analysis of walls supported on frames with continuous and individual foundations WAVTM features editor's notes and corrections - available from the Web Added Value(TM) Download Resource Center at www.jrosspub.com