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Titolo	Seismic Design of RC Buildings [[electronic resource]] : Theory and Practice / / by Sharad Manohar, Suhasini Madhekar
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ISBN	81-322-2319-5
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XXIII, 450 p. 186 illus., 22 illus. in color.)
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Earthquakes -- Important Attributes for Seismic Design -- Vibration Concepts -- Response Evaluation -- Planning for Aseismic Buildings -- Frames and Diaphragms -- Shear Walls.– Sub-structure Design and Soil-structure Coupling -- Confined and Reinforced Masonry Buildings -- Base Isolation -- Performance Based Seismic Design.
Sommario/riassunto	This book is intended to serve as a textbook for engineering courses on earthquake resistant design. The book covers important attributes for seismic design such as material properties, damping, ductility, stiffness and strength. The subject coverage commences with simple concepts and proceeds right up to nonlinear analysis and push-over method for checking building adequacy. The book also provides an insight into the design of base isolators highlighting their merits and demerits. Apart from the theoretical approach to design of multi-storey

buildings, the book highlights the care required in practical design and construction of various building components. It covers modal analysis in depth including the important missing mass method of analysis and tension shift in shear walls and beams. These have important bearing on reinforcement detailing. Detailed design and construction features are covered for earthquake resistant design of reinforced concrete as well as confined and reinforced masonry structures. The book also provides the methodology for assessment of seismic forces on basement walls and pile foundations. It provides a practical approach to design and detailing of soft storeys, short columns, vulnerable staircases and many other components. The book bridges the gap between design and construction. Plenty of worked illustrative examples are provided to aid learning. This book will be of value to upper undergraduate and graduate students taking courses on seismic design of structures.