Record Nr. UNINA9910299379503321 Autore Sitharam T. G **Titolo** Comprehensive Seismic Zonation Schemes for Regions at Different Scales / / by T. G. Sitharam, Naveen James, Sreevalsa Kolathayar Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-89659-8 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (202 pages) Disciplina 624.176 Soggetti Geotechnical engineering Natural disasters Environmental geology Geophysics Geology Geotechnical Engineering & Applied Earth Sciences **Natural Hazards** Geoecology/Natural Processes Geophysics and Environmental Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1 Introduction and overview -- Chapter 2 Earthquake and Nota di contenuto seismicity -- Chapter 3 Seismic hazard analysis -- Chapter 4 Seismic site characterization -- Chapter 5 Local site effects for seismic zonation -- Chapter 6 Liquefaction -- Chapter 7 Principles and practices of seismic zonation. Sommario/riassunto This book reviews and assesses various methodologies for site characterization and site effects estimation to carry out seismic zonation at micro and macro levels. Readers will learn about the suitability of these methodologies for different levels of zoning in order to optimize the resources for carrying out seismic zonation. The Indian sub-continent is highly vulnerable to earthquake hazards, and past studies have focused primarily on the Himalayan region (inter-plate zone) and the northeast region (subduction zone). This book improves

understanding of the seismicity in Peninsular India, which also has

witnessed earthquakes of sizeable magnitude. Particular attention is given to the various methodologies for assessing seismic hazards, the scales at which site characterizations are carried out, and optimal methods for zonation practices using site data and hazard indexes. This book will be of use to post-graduates and doctoral students researching seismic zonation, hazard assessment and mitigation, and spatial data in earth sciences.