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Nota di contenuto	Chapter 1: Field and laboratory testing of soils for the estimation of dynamic soil properties -- Chapter 2. Latest findings on liquefaction of soils -- Chapter 3. Seismic slope stability and landslides -- Chapter 4. Seismic design of retaining walls, marine structures, and dams -- Chapter 5. Seismic design of shallow and deep foundations -- Chapter 6. Soil-structure interaction under dynamic loading -- Chapter 7. Engineering seismology, strong ground motions -- Chapter 8. Ground response analyses and local site effects -- Chapter 9. Seismic hazard analyses: zonation, microzonation, risk assessment -- Chapter 10. Ground improvement techniques for reduction of seismic hazard -- Chapter 11. Role of building codes in reduction of seismic risk -- Chapter 12. Wave propagation, engineering vibrations -- Chapter 13. Vibration problems of high-speed railways -- Chapter 14. Vibration absorption/isolation applications -- Chapter 15. Performance of constructed facilities in extreme events/case histories of geotechnical

earthquake engineering -- Chapter 16. Reconnaissance reports of recent damaging earthquakes -- Chapter 17. GIS and remote sensing, AI/ ML applications for geo- hazards -- Chapter 18. Sensors and satellite technology for disaster management. Chapter 19. Seismic risk management and economics -- Chapter 20. Community preparedness and pre-earthquake disaster management -- Chapter 21. Innovative geotechnical applications in earthquake disaster management -- Chapter 22. Earthquake engineering education -- Chapter 23. Review of seismic design codes.

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Sommario/riassunto

This book will present the select proceedings of the 8th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (8ICRAGEE) held at the Indian Institute of Technology (IIT), Guwahati between December 11 and 14, 2024. It contains the latest research papers covering the contributions and accomplishments in geotechnical earthquake engineering and soil dynamics in the last four years. The five volumes of the book cover a wide range of topics, including but not limited to seismic hazard analysis, wave propagation and site characterization, dynamic properties and liquefaction of soils, pile foundations, offshore foundations, seismic design of retaining structures and dams, seismic slope stability and landslides, dynamic soil-structure interaction, seismic design of structures. Further, recent developments on these topics are covered in different chapters. This book will be valuable not only for researchers and professionals but also for drawing an agenda for future courses of action from the perspective of geotechnical earthquake engineering, keeping the national need at the forefront.

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