1. Record Nr. UNINA9910637795203321

Autore	Toledo Miguel A
Titolo	Dam Safety. Overtopping and Geostructural Risks
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022
ISBN	3-0365-5656-7
Descrizione fisica	1 electronic resource (270 p.)
Soggetti	Technology: general issues History of engineering & technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	This reprintshows recent advances in dam safety related to overtopping and the prevention, detection, and risk assessment of geostructural risks. Related to overtopping, the issues treated are: the throughflow and failure process of rockfill dams; the protection of embankment dams against overtopping by means of a rockfill toe or wedge-shaped blocks; and the protection of concrete dams with highly convergent chutes. In the area of geostructural threats, the detection of anomalies in dam behavior from monitoring data using a combination of machine learning techniques, the numerical modeling of seismic behavior of concrete dams, and the determination of the impact area downstream of ski-jump spillways are also studied and discussed. In relation to risk assessment, three chapters deal with the development of fragility curves for dikes and dams in relation to various failure mechanisms.