1. Record Nr.	UNINA9910726273603321
Autore	Pande Chaitanya B
Titolo	Surface and Groundwater Resources Development and Management in Semi-arid Region : Strategies and Solutions for Sustainable Water Management / / edited by Chaitanya B. Pande, Manish Kumar, N. L. Kushwaha
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	9783031293948 9783031293931
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (426 pages)
Collana	Springer Hydrogeology, , 2364-6462
Altri autori (Persone)	Manish Kumar KushwahaN. L
Disciplina	551.48 333.91
Soggetti	Water Hydrology Geology Geotechnical engineering Sustainability Geotechnical Engineering and Applied Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Evapotranspiration importance in water resources management through cutting-edge approaches of Remote sensing and machine learning algorithms (Ali Raza) -- Chapter 2. Application of Remote Sensing and GIS for Morphometric Analysis: A Case Study of Burhanpur Watershed (Abhishek Patel) -- Chapter 3. A GIS-based DRASTIC approach for Aquifer vulnerability assessment: Study conducted in the Municipal Corporation region of Ranchi, Jharkhand (Shivam Saw) -- Chapter 4. Evaluation of Infiltration Models in an Agricultural Catchment Using Guelph Permeameter in Mysuru District (Harshith Y) -- Chapter 5. Investigation of trends and variability associated with the SPI and SPEI as a drought prediction tools in Gujarat regions, India (Paras Hirapara) -- Chapter 6. Fluoride mobilization and

provenance identification in semi-arid conditions: A Hydrochemical and Isotopic approach (Abhinav Patel) -- Chapter 7. A comparative study of different inverse groundwater models for aquifer parameter estimation (Sharad Patel) -- Chapter 8. Water resources and irrigation management using GIS and Remote Sensing techniques: Case of Multan district (Pakistan) (Ali Raza).

Sommario/riassunto	This book explains the challenges for efficient sustainable surface and groundwater development and management with the focus on India and other countries, providing a stable output presentation by using machine learning data mining methods, and modeling. It is a combination of machine learning, modeling, google earth engine, climate data modeling, remote sensing and GIS techniques, surface water modeling, AHP modeling, groundwater quality analysis, aquifer mapping, land use and land cover analysis, forecasting of water and rainfall and so on, its use to sustainable development, planning, and management of groundwater purposes in India and other countries. The main purpose of this book will develop better outlines for the development of surface and groundwater and management in the semi-arid region climate, which supports the Sustainable Development Goals (SDGs) in India, especially on sustainable surface water and groundwater resources management. This book provides a multidisciplinary overview for the faculty members, administrators scientists, policymakers, social science, and professionals involved in the various aspects of sustainable groundwater development, planning, and management.