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Titolo	Hydrological Data Driven Modelling [[electronic resource]] : A Case Study Approach / / by Renji Remesan, Jimson Mathew
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Descrizione fisica	1 online resource (261 p.)
Collana	Earth Systems Data and Models, , 2364-5830 ; ; 1
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Soggetti	Hydrogeology Hydrology Engineering geology Engineering—Geology Foundations Hydraulics Hydrology/Water Resources Geoengineering, Foundations, Hydraulics
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Hydroinformatics and Data based Modelling Issues in Hydrology -- Hydroinformatics and Data based Modelling Issues in Hydrology -- Model Data Selection and Data Pre-processing Approaches -- Machine Learning and Artificial Intelligence Based Approaches -- Data based Solar Radiation Modelling -- Data based Rainfall-Runoff Modelling -- Data based Evapotranspiration Modelling -- Application of Statistical Blockade in Hydrology.
Sommario/riassunto	This book explores a new realm in data-based modeling with applications to hydrology. Pursuing a case study approach, it presents a rigorous evaluation of state-of-the-art input selection methods on the basis of detailed and comprehensive experimentation and comparative

studies that employ emerging hybrid techniques for modeling and analysis. Advanced computing offers a range of new options for hydrologic modeling with the help of mathematical and data-based approaches like wavelets, neural networks, fuzzy logic, and support vector machines. Recently machine learning/artificial intelligence techniques have come to be used for time series modeling. However, though initial studies have shown this approach to be effective, there are still concerns about their accuracy and ability to make predictions on a selected input space.
