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Titolo	Enhanced Bayesian Network Models for Spatial Time Series Prediction : Recent Research Trend in Data-Driven Predictive Analytics / / by Monidipa Das, Soumya K. Ghosh
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Collana	Studies in Computational Intelligence, , 1860-949X ; ; 858
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Soggetti	Computational intelligence Engineering—Data processing Computational complexity Engineering mathematics Computational Intelligence Data Engineering Complexity Engineering Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Introduction -- Standard Bayesian Network Models for Spatial Time Series Prediction -- Bayesian Network with added Residual Correction Mechanism -- Spatial Bayesian Network -- Semantic Bayesian Network -- Advanced Bayesian Network Models with Fuzzy Extension -- Comparative Study of Parameter Learning Complexity -- Spatial Time Series Prediction using Advanced BN Models— An Application Perspective -- Summary and Future Research.
Sommario/riassunto	This research monograph is highly contextual in the present era of spatial/spatio-temporal data explosion. The overall text contains many interesting results that are worth applying in practice, while it is also a source of intriguing and motivating questions for advanced research on spatial data science. The monograph is primarily prepared for graduate students of Computer Science, who wish to employ probabilistic

graphical models, especially Bayesian networks (BNs), for applied research on spatial/spatio-temporal data. Students of any other discipline of engineering, science, and technology, will also find this monograph useful. Research students looking for a suitable problem for their MS or PhD thesis will also find this monograph beneficial. The open research problems as discussed with sufficient references in Chapter-8 and Chapter-9 can immensely help graduate researchers to identify topics of their own choice. The various illustrations and proofs presented throughout the monograph may help them to better understand the working principles of the models. The present monograph, containing sufficient description of the parameter learning and inference generation process for each enhanced BN model, can also serve as an algorithmic cookbook for the relevant system developers.

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