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Nota di contenuto	Concept on Landslides and Landslide Susceptibility -- Geomorphic, Geo-tectonic and Hydrologic Attributes and Landslide Probability -- Frequency Ratio Model (FRM) and Information Value Model (IVM) in landslide susceptibility Assessment and Prediction -- Logistic Regression Model (LRM) and Landslide Susceptibility: A RS & GIS based approach -- Artificial Neural Network (ANN) Model and Landslide Susceptibility -- Weighted Index Overlay Model (WIOM), Certainty factor approach (CFA) and Analytical Hierarchy Process (AHP) in Landslide Susceptibility Studies -- Knowledge driven Statistical Approach for Landslide Susceptibility Assessment using GIS and Fuzzy Logic -- Comparison between Statistical Models: A Review and Evaluation -- Index.

This book focuses on the spatial distribution of landslide hazards of the Darjeeling Himalayas. Knowledge driven methods and statistical techniques such as frequency ratio model (FRM), information value model (IVM), logistic regression model (LRM), index overlay model (IOM), certainty factor model (CFM), analytical hierarchy process (AHP), artificial neural network model (ANN), and fuzzy logic have been adopted to identify landslide susceptibility. In addition, a comparison between various statistical models were made using success rate curve (SRC) and it was found that artificial neural network model (ANN), certainty factor model (CFM) and frequency ratio based fuzzy logic approach are the most reliable statistical techniques in the assessment and prediction of landslide susceptibility in the Darjeeling Himalayas. The study identified very high, high, moderate, low and very low landslide susceptibility locations to take site-specific management options as well as to ensure developmental activities in the Darjeeling Himalayas. Particular attention is given to the assessment of various geomorphic, geotectonic and geohydrologic attributes that help to understand the role of different factors and corresponding classes in landslides, to apply different models, and to monitor and predict landslides. The use of various statistical and physical models to estimate landslide susceptibility is also discussed. The causes, mechanisms and types of landslides and their destructive character are elaborated in the book. Researchers interested in applying statistical tools for hazard zonation purposes will find the book appealing.

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