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Disciplina	006.3
Soggetti	Computational intelligence Security systems Electric power production Computer simulation Computational Intelligence Security Science and Technology Electrical Power Engineering Computer Modelling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Bayesian networks for reliability -- Using Bayesian networks in reliability evaluation for subsea blowout preventer control system -- Risk analysis of subsea blowout preventer by mapping GO models into Bayesian networks -- Reliability evaluation of auxiliary feedwater system by mapping GO-FLOW models into Bayesian networks -- Dynamic Bayesian networks based performance evaluation of subsea blowout preventers in presence of imperfect repair -- Performance evaluation of subsea BOP control systems using dynamic Bayesian networks with imperfect repair and preventive maintenance -- Dynamic Bayesian network modelling of reliability of subsea blowout preventer stack in presence of common cause failures -- A framework for the reliability evaluation of grid-connected photovoltaic systems in the presence of intermittent faults -- Real-time reliability evaluation methodology based on dynamic Bayesian networks -- Reliability evaluation methodology of complex systems based on dynamic object-oriented Bayesian networks -- Bayesian network-based risk analysis

methodology, a case of atmospheric and vacuum distillation unit -- A multiphase dynamic Bayesian networks methodology for the determination of safety integrity levels -- Availability-based engineering resilience metric and its corresponding evaluation methodology.

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#### Sommario/riassunto

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This book presents a bibliographical review of the use of Bayesian networks in reliability over the last decade. Bayesian network (BN) is considered to be one of the most powerful models in probabilistic knowledge representation and inference, and it is increasingly used in the field of reliability. After focusing on the engineering systems, the book subsequently discusses twelve important issues in the BN-based reliability methodologies, such as BN structure modeling, BN parameter modeling, BN inference, validation, and verification. As such, it is a valuable resource for researchers and practitioners in the field of reliability engineering.

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