

# Contents

**Acknowledgment — V**

**Preface — VII**

**Editor's biography — IX**

Hongyan Dui, Xiaoqian Zheng, Han Wang, Liwei Chen

- 1 Residual resilience assessment in infrastructure networks: a case to IEEE14 bus test system — 1**

Jian Zhou, David W. Coit

- 2 Modeling of mixed cascading failures and resilience-based restoration selection — 21**

Jezdimir Knezevic

- 3 MIRCE Science: a mathematical scheme for predicting impacts of reliability engineering on the time evolution of physical systems — 47**

Ioannis S. Triantafyllou, Mangey Ram

- 4 On the reliability structures with two common failure criteria and a single change point — 65**

Qisi Liu, Liudong Xing, Guilin Zhao

- 5 Invulnerability and survivability modeling and analysis of cloud storage systems — 85**

Yuanying Chi, Guoqing Bai, Kaiye Gao, Rui Peng

- 6 Reliability evaluation of multistate systems with common bus performance sharing considering performance excess — 105**

Jacek Malinowski

- 7 A fast universal algorithm for finding minimal cut-sets in networks with arbitrary structure — 119**

Ali Muhammad Rushdi, Fares Ahmad Ghaleb

- 8 Switching-algebraic symbolic analysis of the reliability of non-repairable coherent multistate systems — 131**

Ying Chen

- 9 Complex system modeling method considering failure mechanism dependency — 153**

Emmanuel A. Appiah, G. S. Ladde, Jay G. Ladde

- 10 Innovative interconnected nonlinear hybrid dynamic modeling for time-to-event processes — 175**

Tao Yuan, Manish Kothawade, Yuan Chen

- 11 A Bayesian design of zero-failure reliability demonstration tests for multicomponent systems — 237**

**Index — 257**