PREFACE

Preface: statistical reliability modeling and optimization

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Growing international competition in the era of Internet of Everything (IoE) and Industry 4.0 has increased the need for all industries to not only produce products at their best in terms of reliability and the lowest cost, but also to align their products with customer needs by integrating all the necessary measurement tools and optimization aspects earlier in the design process. Articles concerning new theoretical research and methods in statistical reliability modeling and optimization with particular emphasis on the applications were solicited for consideration.

This volume on Statistical Reliability Modeling and Optimization consists of 26 outstanding papers that address various research challenges in statistics and reliability modeling related areas including network reliability, replacement policies, software reliability, cloud-based network, modeling simulation, software testing, fuzzy analysis, double jump diffusion processes, age maintenance models, multi-state network, statistical inference, failure mode and effects analysis, productivity and cost allocation, random field environments, time series analysis, multi-criteria decision making, imperfect maintenance, redundancy allocation, and reliability optimization.

Special thanks are due to Editor-in-Chief, Dr. Endre Boros, for his support and encouragement; to the reviewers for their valuable comments that help to further improve the quality of the papers; and to the authors of all submitted papers to this volume.

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