

# Contents

## Part I Quality Management

<b>A Multicriteria Multistep Approach for Evaluating Supplier Quality in Large Data Sets</b> . . . . .	3
Aqeel Al Salem, Anjali Awasthi and Chun Wang	
<b>Risk-Adjusted Performance Monitoring in Healthcare Quality Control.</b> . . . .	27
Li Zeng	
<b>Univariate and Multivariate Process Capability Analysis for Different Types of Specification Limits</b> . . . . .	47
Ashis Kumar Chakraborty and Moutushi Chatterjee	

## Part II Reliability Management

<b>Modeling and Analyzing System Failure Behavior for Reliability Analysis Using Soft Computing-Based Techniques</b> . . . . .	85
Harish Garg	
<b>System Reliability Evaluation of a Multistate Manufacturing Network</b> . . . . .	117
Yi-Kuei Lin, Ping-Chen Chang and Cheng-Fu Huang	
<b>Systemability: A New Reliability Function for Different Environments</b> . . . . .	145
Alessandro Persona, Fabio Sgarbossa and Hoang Pham	

### **Part III Maintenance Management**

<b>Innovative Maintenance Management Methods in Oil Refineries . . . . .</b>	<b>197</b>
M. Bevilacqua, F.E. Ciarapica, G. Giacchetta, C. Paciarotti and B. Marchetti	

<b>Age Replacement Models with Random Works . . . . .</b>	<b>227</b>
Xufeng Zhao and Toshio Nakagawa	

<b>Availability of Systems with or Without Inspections . . . . .</b>	<b>249</b>
Kai Huang and Jie Mi	

<b>Reliability and Maintenance of the Surveillance Systems Considering Two Dependent Processes. . . . .</b>	<b>277</b>
Yao Zhang and Hoang Pham	

### **Part IV Design, Applications and Practices**

<b>Reliability Management. . . . .</b>	<b>309</b>
Fred Schenkelberg	

<b>Design for Reliability and Its Application in Automotive Industry. . . . .</b>	<b>353</b>
Guangbin Yang	

<b>Product Durability/Reliability Design and Validation Based on Test Data Analysis . . . . .</b>	<b>379</b>
Zhigang Wei, Limin Luo, Fulun Yang, Burt Lin and Dmitri Konson	

<b>Turbine Fatigue Reliability and Life Assessment Using Ultrasonic Inspection: Data Acquisition, Interpretation, and Probabilistic Modeling . . . . .</b>	<b>415</b>
Xuefei Guan, El Mahjoub Rasselkorde, Waheed A. Abbasi and S. Kevin Zhou	

<b>Fusing Wavelet Features for Ocean Turbine Fault Detection. . . . .</b>	<b>435</b>
Janell Duhaney, Taghi M. Khoshgoftaar and Randall Wald	

<b>Index . . . . .</b>	<b>449</b>
------------------------	------------

Quality and Reliability Management and Its Applications

Pham, H. (Ed.)

2016, XVII, 451 p., Hardcover

ISBN: 978-1-4471-6776-1