## **Table of Contents**

Survey on Trends in Big Data: Data Management, Integration and Cloud Computing Environment Washington Almeida, Luciano Monteiro, Anderson Lima, Raphael Hazin, and Fernando Escobar	1
Microservices: A Review of the Costs and the Benefits Ahmed Elfatatry	8
Microservice Development Based on Tool-Supported Domain Modeling Michael Schneider, Benjamin Hippchen, Pascal Giessler, Chris Irrgang, and Sebastian Abeck	11
Towards a Modelling Language for Managing the Requirements of ISO/IEC 27001 Standard Daniel Ganji, Haralambos Mouratidis, and Saeed Malekshahi Gheytassi	17
Improving Software Quality and Reliability Through Analysing Sets of System Test Defects <i>Vincent Sinclair</i>	24
An Approach to Testing Software on Networked Transport Robots Ichiro Satoh	27
Challenges of Cost Estimation for Software Testing Bernard Stepien and Liam Peyton	33
What T-shirt Are You Wearing? Towards the Collective Team Grokking of Product Requirements <i>Robert Fuller</i>	37
User Characteristics Validation for User Scenario Based on Use-Case Models in Requirements Analysis Saeko Matsuura	41
Analysis of Requirements and Technologies to Migrate Software Development to the PaaS Model <i>Fabiano Rosa and Vitor Santos</i>	47
Methodology for Splitting Business Capabilities into a Microservice Architecture: Design and Maintenance Using a Domain-Driven Approach Benjamin Hippchen, Michael Schneider, Iris Landerer, Pascal Giessler, and Sebastian Abeck	53
Improving Code Smell Predictions in Continuous Integration by Differentiating Organic from Cumulative Measures Md Abdullah Al Mamun, Miroslaw Staron, Christian Berger, Regina Hebig, and Jorgen Hansson	62
Using SPICE Models for Flexible and Scalable Assessments	72

Tomas Schweigert and Gizem Kemaneci