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Software engineering has advanced rapidly in recent years in parallel with the complexity and scale of software systems. New requirements in software systems yield innovative approaches that are developed either through introducing new paradigms or extending the capabilities of well-established approaches.

Modern Software Engineering Concepts and Practices: Advanced Approaches provides emerging theoretical approaches and their practices. This book includes case studies and real-world practices and presents a range of advanced approaches to reflect various perspectives in the discipline.

Topics Covered:
- Architecture-centered compositional verification
- Architecture-driven modernization
- Business-value-based management of agile software-development and processes
- Cognitive complexity measures
- Implementing a process-oriented migration strategy
- Missing data in software cost estimation
- Model-driven development of multi-core embedded software
- Model-driven techniques in developing domain specific design tools
- Reliability-aware software architecture design and experience
- Software development paradigms

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Section 1: Introduction

Chapter 1
A Comparative Analysis of Software Engineering with Mature Engineering Disciplines using a Problem-Solving Perspective
Tekinerdogan Bedir (Bilkent University, Turkey)
Akisit Mehmet (University of Twente, The Netherlands)

Chapter 2
Is Lean Agile and Agile Lean?
Petersen Kai (Blekinge Institute of Technology, Sweden & Ericsson AB, Sweden)

Section 2: Software Architecture

Chapter 3
OntoArch Reliability-Aware Software Architecture Design and Experience
Zhou Jiexian (University of Oulu, Finland)
Ovaska Eila (VTT Technical Research Centre of Finland, Oulu, Finland)
Evasti Amits (VTT Technical Research Centre of Finland, Oulu, Finland)
Immonen Anne (VTT Technical Research Centre of Finland, Oulu, Finland)

Chapter 4
Architecture-Driven Modernation
Pérez-Castillo Ricardo (University of Castilla-La Mancha, Spain)
Rodríguez de Guzmán Ignacio García (University of Castilla-La Mancha, Spain)
Piattini Mario (University of Castilla-La Mancha, Spain)

Chapter 5
Architecture-Centered Integrated Verification
Fu Yujian (Alabama A & M University, USA)
Dong Zhijiang (Middle Tennessee State University, USA)
He Xiaodong (Florida International University, USA)

Section 3: Software Services

Chapter 6
Modeling Services Using ISF Framework:
Bujo Veli (FZI Forschungszentrum Informatik, Germany)
Borgert Stephan (TU Darmstadt, Germany)
Wöhrle Matthias (SAP Research CEC, Germany)
Schenhauer Gregor (OPTITZ Consulting München GmbH, Germany)
Voigt Konrad (SAP Research CEC, Germany)
Cardoso Jorge (University of Coimbra, Portugal)
Aitensbichler Erwin (TU Darmstadt, Germany)

Chapter 7
Visual Semantic Analysis to Support Semi-Automated Modeling of Semantic Service Descriptions
Bhatti Nadeem (Fraunhofer IGD, Germany)
Fellner Dieter W. (TU Darmstadt, Grafisch-Interaktive Systeme & Fraunhofer IGD, Germany)

Chapter 8
Description, Classification and Discovery Approaches for Software Components:
Khemakhem Sofien (CNRS; LAAS, France & Université de Toulouse, France & University of Sfax, Tunisia)
Drira Khalil (CNRS; LAAS, France & Université de Toulouse, France)
Jmaiel Mohamed (University of Sfax, Tunisia)

Section 4: Software Estimation and Metrics

Chapter 9
Methods for Statistical and Visual Comparison of Imputation Methods for Missing Data in Software Cost Estimation
Angoës Lefsaris (Aristotle University of Thessaloniki, Greece)
Sentas Panagiotis (Aristotle University of Thessaloniki, Greece)
Mitras Nikolaos (Aristotle University of Thessaloniki, Greece)
Chatziropoulos Patagiotis (Aristotle University of Thessaloniki, Greece)

Chapter 10
Formalization Studies in Functional Size Measurement
Ozkan Barış (Middle East Technical University, Turkey)
Demirörs Onur (Middle East Technical University, Turkey)

Section 5: Software Process Improvement and Design Tools

Chapter 11
Cognitive Complexity Measures:
Mitra Sanjay (Federal University of Technology, Nigeria)

Chapter 12
Introducing Agility into Plan-Based Assessments
Pikkarainen Minna (University of Limerick, Ireland & VTT Technical Research Centre of Finland, Finland)
McCaflery Fergal (Dundalk Institute of Technology, Ireland)

Chapter 13
Software Development Governance:
Er Nagehan Pala (ASELSAN Microelectronics, Guidance and Electro-Optics Division, Turkey)
Erbaş Cengiz (ASELSAN Microelectronics, Guidance and Electro-Optics Division, Turkey)
Erbaş Bahar Celikkol (TOBB University of Economics and Technology, Turkey)

Chapter 14
A Software Cost Model to Assess Productivity Impact of a Model-Driven Technique in Developing Domain-Specific Design Tools
Achilleos Achilleas (University of Cyprus, Cyprus)
Georgalas Nektarios (British Telecom (BT) Innovate, UK)
Yang Kun (University of Essex, UK)
Papadopoulos George A. (University of Cyprus, Cyprus)

Section 6: Parallel Applications and Multicore Software Engineering

Chapter 15
Model-Driven Development of Multi-Core Embedded Software
Lin Shang-Wei (National Chung Cheng University, Taiwan)
Lin Chao-Sheng (National Chung Cheng University, Taiwan)
Lu Chao-Hsien (National Chung Cheng University, Taiwan)
Chen Yen-Ru (National Taiwan University, Taiwan)
Hsiung Pao-Ann (National Chung Cheng University, Taiwan)

Chapter 16
Analyzing Concurrent Programs Title for Potential Programming Errors
Chen Qichang (University of Wyoming, USA)
Wang Liangang (University of Wyoming, USA)
Guo Ping (University of Wyoming, USA)
Huang He (University of Wyoming, USA)