# Contents

Foreword .................................................................................................................. iii

Investigating Technical Debt Folklore: Shedding Some Light on Technical Debt Opinion
  Rodrigo O. Spinola, Nico Zazworka, Antonio Vetrò, Carolyn Seaman, and Forrest Shull — Universidade Salvador, Brazil; Elsevier Information Systems, Germany; Politecnico di Torino, Italy; University of Maryland in Baltimore County, USA; Fraunhofer CESE, USA ................................................................. 1

Managing Technical Debt: An Industrial Case Study
  Zadia Codabux and Byron Williams — Mississippi State University, USA ................................. 8

Practical Considerations, Challenges, and Requirements of Tool-Support for Managing Technical Debt
  Davide Falesi, Michele A. Shaw, Forrest Shull, Kathleen Mullen, and Mark Stein — Fraunhofer CESE, USA; Keymind, USA ................................................................. 16

DebtFlag: Technical Debt Management with a Development Environment Integrated Tool
  Johannes Holvitie and Ville Leppänen — Turku Centre for Computer Science, Finland; University of Turku, Finland ............................... 20

Understanding the Impact of Technical Debt on the Capacity and Velocity of Teams and Organizations: Viewing Team and Organization Capacity as a Portfolio of Real Options
  Ken Power — Cisco Systems, Ireland ............................................................................... 28

Exploring Software Supply Chains From a Technical Debt Perspective
  J. Yates Monteith and John D. McGregor — Clemson University, USA ................................. 32

Mapping Architectural Decay Instances to Dependency Models
  Ran Mo, Joshua Garcia, Yuanfang Cai, and Nenad Medvidovic — Drexel University, USA; University of Southern California, USA ............................ 39

Generating Precise Dependencies for Large Software
  Pei Wang, Jinqiu Yang, Lin Tan, Robert Kroeger, and J. David Morgenthaler — University of Waterloo, Canada; Google, Canada; Google, USA ........................................................................... 47

Towards a Model for Optimizing Technical Debt in Software Products
  Narayan Ramasubbu and Chris F. Kemerer — University of Pittsburgh, USA ............................ 51

CloudMTD: Using Real Options to Manage Technical Debt in Cloud-Based Service Selection
  Esra Alzaghoul and Rami Bahsoon — University of Birmingham, UK ................................. 55

On the Limits of the Technical Debt Metaphor: Some Guidance on Going Beyond
  Klaus Schmid — University of Hildesheim, Germany ......................................................... 63