Contents

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

RESTful Business Process Management in the Cloud
Alessio Gambi and Cesare Pautasso — University of Lugano, Switzerland; TU Vienna, Austria .......... 1

Towards QoS Prediction Based on Composition Structure Analysis and Probabilistic Environment Models
Dragan Ivanović, Peerachai Kaowichakorn, and Manuel Carro — UPM, Spain; IMDEA Software Institute, Spain . .... 11

Building Reliable Dynamic Applications for Ubiquitous Computing
Jacky Estublier and German Vega — LIG, France; Grenoble University, France ............................ 21

Dynamic Program Code Distribution in Infrastructure-as-a-Service Clouds
Rostyslav Zabolotnyi, Philipp Leitner, and Schahram Dustdar — TU Vienna, Austria .............................. 29

Storm Prediction in a Cloud
Ian Davis, Hadi Hemmati, Richard C. Holt, Michael W. Godfrey, Douglas Neuse, and Serge Mankovskii — University of Waterloo, Canada; CA Technologies, USA ........................................ 37

Framework for Evaluating Reusability of Component-as-a-Service (CaaS)
Hyun Jung La, Jin Sun Her, and Soo Dong Kim — Soongsil University, South Korea ......................... 41

The Dark Side of SOA Testing: Towards Testing Contemporary SOAs Based on Criticality Metrics
Philipp Leitner, Stefan Schulte, Schahram Dustdar, Ingo Pill, Marco Schulz, and Franz Wotawa — TU Vienna, Austria; TU Graz, Austria ................................................................. 45