# Contents

**ASDENCA/BUMDISE 2016 – Capability-Based Development Methods**

Selection and Evolutionary Development of Software-Service Bundles:  
A Capability Based Method .................................................. 3  
*Jānis Grabis and Kurt Sandkuhl*

LightCDD: A Lightweight Capability-Driven Development Method for Start-Ups ...................................................... 15  
*Hasan Koç, Marcela Ruiz, and Sergio España*

**ASDENCA/BUMDISE 2016 – Integration of Capability with Goals and Context**

Comparison of Tool Support for Goal Modelling in Capability Management . . . 29  
*Claas Fastnacht, Hasan Koç, Dimitrijs Nesterenko, and Kurt Sandkuhl*

Extending Capabilities with Context Awareness ................................. 40  
*Martin Henkel, Christina Stratigaki, Janis Stirna, Pericles Loucopoulos, Yannis Zorgios, and Antonis Migiakis*

Design of Capability Delivery Adjustments ..................................... 52  
*Jānis Grabis and Jānis Kampars*

**ASDENCA/BUMDISE 2016 – Business Modeling**

The Fast Fashion Business Model ............................................. 65  
*Gianni Lorenzoni*

Cycles of Organizational Renewal: The Interplay of Strategy and Innovation at Bang & Olufsen ........................................... 72  
*Giacomo Cattaneo and Fredrik Hacklin*

Information Systems for Innovation: A Comparative Analysis of Maturity Models’ Characteristics ................................................ 78  
*Abdelkader Achi, Camille Salinesi, and Gianluigi Viscusi*

**COGNISE 2016**

Learning from Errors as a Pedagogic Approach for Reaching a Higher Conceptual Level in Database Modeling ................................ 93  
*Adi Katz and Ronit Shmallo*
‘Mathematical’ Does Not Mean ‘Boring’: Integrating Software Assignments to Enhance Learning of Logico-Mathematical Concepts. Anna Zamansky and Yoni Zohar

User Involvement in Applications of the PoN. Dirk van der Linden and Irit Hadar

A Visual Logical Language for System Modelling in Combinatorial Test Design. Maria Spichkova, Anna Zamansky, and Eitan Farchi

Peel the Onion: Use of Collaborative and Gamified Tools to Enhance Software Engineering Education. Naomi Unkelos-Shpigel

Energy Enhancement of Multi-application Monitoring Systems for Smart Buildings. Ozgun Pinarer, Yann Gripay, Sylvie Servigne, and Atay Ozgovde

Micro-accounting for Optimizing and Saving Energy in Smart Buildings. Daniele Sora, Massimo Mecella, Francesco Leotta, Leonardo Querzoni, Roberto Baldoni, Giuseppe Bracone, Daniele Buonanno, Mario Caruso, Adriano Cerocchi, and Mariano Leva

Modeling CO₂ Emissions to Reduce the Environmental Impact of Cloud Applications. Cinzia Cappiello, Paco Melià, and Pierluigi Plebani

Modeling and Enacting Enterprise Decisions. Laurent Janssens, Johannes De Smedt, and Jan Vanthienen

A Modelling Environment for Business Process as a Service. Knut Hinkelmann, Kyriakos Kritikos, Sabrina Kurjakovic, Benjamin Lammel, and Robert Woitsch

Understanding Production Chain Business Process Using Process Mining: A Case Study in the Manufacturing Scenario. Alessandro Bettacchi, Alberto Polzonetti, and Barbara Re

APPARATUS: Reasoning About Security Requirements in the Internet of Things ................................................ 219

Orestis Mavropoulos, Haralambos Mouratidis, Andrew Fish, Emmanouil Panaousis, and Christos Kalloniatis

Associating the Severity of Vulnerabilities with their Description ............... 231

Dimitrios Toloudis, Georgios Spanos, and Lefteris Angelis

Discovering Potential Interaction Violations among Requirements ............ 243

Curtis Busby-Earle and Robert B. France

Extending HARM to make Test Cases for Penetration Testing ................. 254

Aparna Vegendla, Thea Marie Søgaard, and Guttorm Sindre

File Type Identification for Digital Forensics ........................................ 266

Konstantinos Karampidis and Giorgos Papadourakis

Erratum to: File Type Identification for Digital Forensics ..................... E1

Konstantinos Karampidis and Giorgos Papadourakis

Author Index  ............................................ 275