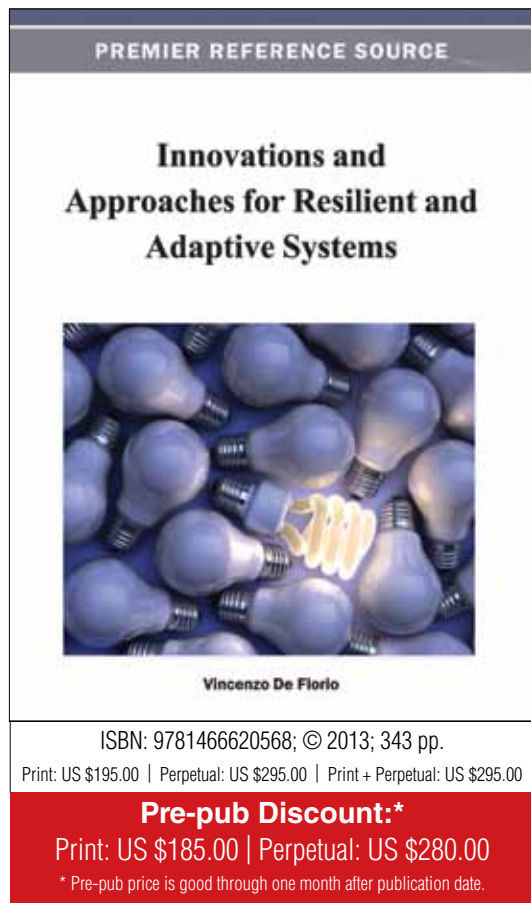


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Innovations and Approaches for Resilient and Adaptive Systems



Vincenzo De Florio (University of Antwerp and IBBT, Belgium)

Our society continues to depend upon systems that are built in a way that they end up being inflexible and intolerant to change. Therefore there is an urgent need to investigate innovations and approaches to the management of adaptive and dependable systems. These studies are usually implemented through design, development, and the evaluation of techniques and models to structure computer systems as adaptive systems.

Innovations and Approaches for Resilient and Adaptive Systems is a comprehensive collection of knowledge on increasing the notions and models in adaptive and dependable systems. This book aims to enhance the awareness of the role of adaptability and resilience in system environments for researchers, practitioners, educators, and professionals alike.

Topics Covered:

- Adaptive and Context-Aware Multimedia
- Adaptive Fault Models
- Adaptive Fault-Masking
- Methods Focusing on Optimizing Quality of Experience
- Methods, Models, and Architectures to Manage and Express Strategies and Provisions for Cross-Layer Adaptation
- Personalization
- Recovery-Oriented Computing
- Resilience Engineering

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Vincenzo De Florio received his "Laurea in Scienze dell'Informazione" (MSc, computer science) from the University of Bari (Italy, 1987) and his PhD in engineering from the University of Leuven (Belgium, 2000). He was a researcher for six years in Tecnopolis, formerly an Italian research consortium where he was responsible for the design, testing, and verification of parallel computing techniques for robotic vision and advanced image processing. Within Tecnopolis, Vincenzo was also part of SASIAM, the School for Advanced Studies in Industrial and Applied Mathematics, where he served as a researcher, lecturer, and tutor. He took part in several projects on parallel computing and computer vision funded by the Italian National Research Council. Vincenzo was then researcher for eight years with the Catholic University of Leuven (Belgium) in their ACCA division where he participated in several international projects on dependable computing (EFTOS, TIRAN, and DePauDE). He is currently a researcher with the Performance Analysis of Telecommunication Systems (PATS) research group at the University of Antwerp, where he is responsible for PATS' branch on adaptive and dependable systems under the guidance of Professor Chris Blondia. He is also a researcher with IBBT, the Flemish Interdisciplinary Institute for Broad-Band Technology. Vincenzo De Florio published about seventy reviewed research papers, fourteen which were for international research journals. He is member of various conference program committees. He is a local team leader for IST-NMP Project ARFLEX (Adaptive Robots for Flexible Manufacturing Systems). He is an editorial reviewer for several international conferences and journals. He also served as expert reviewer for the Austrian FFF. In the last few years, he has been teaching courses on computer architectures, advanced C language programming, and a course of seminars in computer science. He is co-chair of workshop ADAMUS (the Second IEEE WoWMoM Workshop on Adaptive and Dependable Mission- and bUsiness-critical mobile Systems, <http://www.adamus.ua.ac.be>). Vincenzo's interests include resilient computing, dependability, adaptive systems, embedded systems, distributed and parallel computing, linguistic support to non-functional services, complex dynamic systems modelling and simulation, autonomic computing, and more recently service orientation.

Section 1: Approaches for Resilient and Adaptive Systems

Chapter 1

Systematic Design Principles for Cost-Effective Hard Constraint Management in Dynamic Nonlinear Systems
Munaga Satyakiran (IMEC and K. U. Leuven/ESAT, Belgium)
Cattoor Francky (IMEC and K. U. Leuven/ESAT, Belgium)

Chapter 2

A Recovery-Oriented Approach for Software Fault Diagnosis in Complex Critical Systems
Carrozza Gabriella (SESM s.c.a.r.l. - a Finmeccanica Company, Italy)
Natella Roberto (Università degli Studi di Napoli Federico II, Italy)

Chapter 3

Abstract Fault Tolerance:
Marcus Leo (The Aerospace Corporation, USA)

Chapter 4

IoT-IMS Communication Platform for Future Internet
Chen Chi-Yuan (National Dong Hwa University, Taiwan)
Chao Han-Chieh (National Dong Hwa University and National I-Lan University, Taiwan)
Wu Tin-Yu (Tamkang University, Taiwan)
Fan Chun-I (National Sun Yat-sen University, Taiwan)
Chen Jiann-Liang (National Taiwan University of Science and Technology, Taiwan)
Chen Yuh-Shyan (National Taipei University, Taiwan)
Hsu Jenq-Muh (National Chiayi University, Taiwan)

Section 2: Autonomic Behaviors and Self-Properties

Chapter 5

A Resource-Aware Dynamic Load-Balancing Parallelization Algorithm in a Farmer-Worker Environment
Leeman M. (Cisco, Belgium)

Chapter 6

Non-Intrusive Autonomic Approach with Self-Management Policies Applied to Legacy Infrastructures for Performance Improvements
Sharrock Rémi (LAAS-CNRS - University of Toulouse; UPS, INSA, INP, ISAE, France)
Monteil Thierry (LAAS-CNRS - University of Toulouse; UPS, INSA, INP, ISAE, France)
Stolf Patricia (IRIT and Université de Toulouse, France)
Hagimont Daniel (IRIT and Université de Toulouse, France)
Broto Laurent (IRIT and Université de Toulouse, France)

Chapter 7

Agents Network for Automatic Safety Check in Constructing Sites
Aversa Rocco (Second University of Naples, Italy)
Di Martino Beniamino (Second University of Naples, Italy)
Di Natale Michele (Second University of Naples, Italy)
Venticinque Salvatore (Second University of Naples, Italy)

Chapter 8

Run-Time Compositional Software Platform for Autonomous NXT Robots
Gui Ning (University of Antwerp, Belgium)
De Florio Vincenzo (University of Antwerp, Belgium)
Blondia Chris (University of Antwerp, Belgium)

Chapter 9

Self-Adaptable Discovery and Composition of Services Based on the Semantic CompAA Approach
Lacouture J. (Université de Toulouse, France)
Aniorté P. (Université de Pau et des Pays de l'Adour, France)

Section 3: Middleware and Framework Support for Resilient and Adaptive Systems

Chapter 10

Timely Autonomic Adaptation of Publish/Subscribe Middleware in Dynamic Environments
Hoffert Joe (Vanderbilt University, USA)
Gokhale Anirudha (Vanderbilt University, USA)
Schmidt Douglas C. (Vanderbilt University, USA)

Chapter 11

A Generic Adaptation Framework for Mobile Communication
Sun Hong (University of Antwerp and IBBT, Belgium)
Gui Ning (University of Antwerp and IBBT, Belgium & Central South University, China)
Blondia Chris (University of Antwerp and IBBT, Belgium)

Chapter 12

Various Extensions for the Ambient OSGi Framework
Frénét Stéphane (University of Lyon, INRIA INSA-Lyon, F-69621, France)
Le Mouél Frédéric (University of Lyon, INRIA INSA-Lyon, F-69621, France)
Ponge Julien (University of Lyon, INRIA INSA-Lyon, F-69621, France)
Salagnac Guillaume (University of Lyon, INRIA INSA-Lyon, F-69621, France)

Chapter 13

A Distributed Monitoring Framework for Opportunistic Communication Systems:
Carreras Iacopo (CREATE-NET, Italy)
Zanardi Andrea (CREATE-NET, Italy)
Salvadori Elio (CREATE-NET, Italy)
Miorandi Daniele (CREATE-NET, Italy)

Section 4: Algorithms and Protocols for Resilient and Adaptive Systems

Chapter 14

COADA:
Vu Long (University of Illinois, USA)
Nahrstedt Klara (University of Illinois, USA)
Malik Rahul (University of Illinois, USA)
Wang Qiyang (University of Illinois, USA)

Chapter 15

ROCRST++:
Fratini Flavio (Institute of High Performance Computing and Networking, Italy)
Esposito Christian (Università di Napoli Federico II, Italy)
Russo Stefano (Università di Napoli Federico II, Italy)

Chapter 16

Load-Balanced Multiple Gateway Enabled Wireless Mesh Network for Applications in Emergency and Disaster Recovery
Iqbal Muddesar (University of Gujrat, Pakistan)
Wang Xinheng (Swansea University, UK)
Zhang Hui (Swansea University, UK)

Chapter 17

An OMA DM Based Framework for Updating Modulation Module for Mobile Devices
Zhang Hui (Swansea University, UK)
Wang Xinheng (Swansea University, UK)
Iqbal Muddesar (University of Gujrat, Pakistan)

Chapter 18

Duty Cycle Measurement Techniques for Adaptive and Resilient Autonomic Systems
Taddia Chiara (University of Ferrara, Italy)
Mazzini Gianluca (University of Ferrara, Italy)
Rovatti Riccardo (University of Bologna, Italy)