# Table of Contents

Preface .................................................................................................................................................. xv

## Section 1

### Chapter 1
Message-Based Routing in Mobile Networks ................................................................. 1  
*Stefan Stieglitz, University of Potsdam, Germany
Christoph Fuchß, Virtimo Webbased Applications, Germany*

### Chapter 2
Viticulture Zoning by an Experimental WSN................................................................. 13  
*P. Mariño, University of Vigo, Spain
F. P. Fontán, University of Vigo, Spain
M. A. Domínguez, University of Vigo, Spain
S. Otero, University of Vigo, Spain*

### Chapter 3
A Linked Neighboring Leaves N-Tree to Support Distance Range Search...................... 27  
*Faïza Najjar, National School of Comp. Science, Tunisia
Hassenet Slimani, Faculty of Sciences, Tunisia*

### Chapter 4
Location-Aware Access Control for Mobile Workflow Systems .................................... 44  
*Michael Decker, University of Karlsruhe, Germany*

### Chapter 5
Context-Aware Recommender Systems in Vehicular Networks and Other Mobile Domains........ 63  
*Wolfgang Woerndl, Technische Universitaet Muenchen, Germany
Michele Brocco, Technische Universitaet Muenchen, Germany
Robert Eigner, Technische Universitaet Muenchen, Germany*
Chapter 6
Fault-Tolerant Text Data Compression Algorithms .................................................. 81
L. Robert, Government Arts College, India
R. Nadarajan, PSG College of Technology, India

Chapter 7
Adaptability and Adaptivity in the Generation of Web Applications ...................... 100
Raoudha Ben Djemaa, MIRACL, Tunisie
Ikram Amous, MIRACL, Tunisie
Abdelmajid Ben Hamadou, MIRACL, Tunisie

Chapter 8
Automating the Generation of Joins in Large Databases and Web Services ............. 124
Sikha Bagui, The University of West Florida, USA
Adam Loggins, Zilliant Inc., USA

Chapter 9
Multi-Agent Based Dynamic E-Learning Environment ........................................ 142
Saleh Al-Zahrani, De Montfort University, UK
Aladdin Ayesh, De Montfort University, UK
Hussein Zedan, De Montfort University, UK

Chapter 10
Analysis of Quality of Service Routing Algorithms .............................................. 159
E. George Dharma Prakash Raj, Bharathidasan University, India
Sinthu Janita Prakash, Cauvery College for Women, India
S. V. Kasmir Raja, SRM University, India

Chapter 11
SWAMI: A Multiagent, Active Representation of a User’s Browsing Interests ........... 171
Mark Kilfoil, University of New Brunswick, Canada
Ali Ghorbani, University of New Brunswick, Canada

Chapter 12
Analyzing the Traffic Characteristics for Evaluating the Performance of Web Caching ........ 196
G. P. Sajeev, Government Engineering College, India
M. P. Sebastian, National Institute of Technology, India
Chapter 13
Increased Popularity through Compliance with Usability Guidelines in E-Learning Web Sites ...... 211
Greg Scowen, ETH Zurich, Switzerland
Holger Regenbrecht, University of Otago, New Zealand

Chapter 14
Discovery and Mediation Approaches for Management of Net-Centric Web Services............... 233
Frederick Petry, Stennis Space Center, USA
Roy Ladner, Stennis Space Center, USA
Kalyan Gupta, Knexus Research, USA
Philip Moore, Knexus Research, USA
David Aha, Naval Research Laboratory, USA
Bruce Lin, Stennis Space Center, USA
Richard Sween, Stennis Space Center, USA

Section 4

Chapter 15
Measuring the Unmeasurable? Eliciting Hard to Measure Information about the User Experience .......... 256
Andrew Saxon, Birmingham City University, UK
Shane Walker, Birmingham City University, UK
David Prytherch, Birmingham City University, UK

Chapter 16
A Conceptual Tool for Usability Problem Identification in Website Development...................... 278
Mikael B. Skov, Aalborg University, Denmark
Jan Stage, Aalborg University, Denmark

Chapter 17
A Framework for Early Usability Integration in Web Applications Development Process............ 292
Daniela M. Andrei, Babes-Bolyai University, Romania
Adriana M. Guran, Babes-Bolyai University, Romania

Chapter 18
Integrating Accessibility Evaluation into Web Engineering Processes........................................ 315
Christopher Power, University of York, UK
André Pimenta Freire, University of York, UK
Helen Petrie, University of York, UK