Section 1. Fundamental Concepts and Theories

This section serves as a foundation for this exhaustive reference tool by addressing crucial theories essential to the understanding of Wireless Technologies. Chapters found within these pages provide an excellent framework in which to position wireless technologies within the field of information science and technology. Insight regarding the critical incorporation of global measures into wireless technologies is addressed, while crucial stumbling blocks of this field are explored. With over ten chapters comprising this foundational section, the reader can learn and chose from a compendium of expert research on the elemental theories underscoring the Wireless Technologies discipline.

Chapter 1.1. 4G Wireless Networks: Architectures, QoS Support and Dynamic Resource Management .................................................................................................................... 1
Dimitrios G. Stratogiannis, National Technical University of Athens, Greece
Georgios I. Tsiropoulos, National Technical University of Athens, Greece
John D. Kanellopoulos, National Technical University of Athens, Greece
Panayotis G. Cottis, National Technical University of Athens, Greece

Chapter 1.2. Wireless Sensor Networks and Systems ................................................................. 33
Jaime Lloret, Polytechnic University of Valencia, Spain
Miguel Garcia, Polytechnic University of Valencia, Spain
Hugo Coll, Polytechnic University of Valencia, Spain
Miguel Edo, Polytechnic University of Valencia, Spain
Chapter 1.3. A Survey on Localization in Wireless Sensor Networks
Ricardo Marcelín-Jiménez, UAM-Iztapalapa, Mexico
Miguel Ángel Ruiz-Sánchez, UAM-Iztapalapa, Mexico
Mauricio López-Villaseñor, UAM-Iztapalapa, Mexico
Víctor M. Ramos-Ramos, UAM-Iztapalapa, Mexico
Carlos E. Moreno-Escobar, UAM-Iztapalapa, Mexico
Manuel E. Ruiz-Sandoval, UAM-Azcapotzalco, Mexico

Chapter 1.4. Survey of Cross-Layer Optimization Techniques for Wireless Networks
Han-Chieh Chao, National Ilan University, Taiwan
Chi-Yuan Chang, National Dong Hwa University, Taiwan
Chi-Yuan Chen, National Dong Hwa University, Taiwan
Kai-Di Chang, National Dong Hwa University, Taiwan

Chapter 1.5. Video Delivery in Wireless Sensor Networks
S. Guo, Boston University, USA
T.D.C. Little, Boston University, USA

Chapter 1.6. QoS in Wireless Sensor Networks
Ghalib A. Shah, National University of Sciences and Technology (NUST), Pakistan
Shaleeza Sohail, National University of Sciences and Technology (NUST), Pakistan
Faisal B. Hussain, National University of Sciences and Technology (NUST), Pakistan

Chapter 1.7. Real-Time Communications in Wireless Sensor Networks
Isabelle Augé-Blum, Université de Lyon, France
Fei Yang, Université de Lyon, France
Thomas Watteyne, Université de Lyon, France

Chapter 1.8. Using Mobile Technologies as Research Tools: Pragmatics, Possibilities and Problems
Ria Hanewald, The University of Melbourne, Australia

Chapter 1.9. Network Mobility
Arijit Ukil, Tata Consultancy Services, India

Chapter 1.10. Reviewing Mobile Marketing Research to Date: Towards Ubiquitous Marketing
Dimitris Drossos, University of the Aegean, Greece & Athens University of Economics and Business, Greece
George M. Giaglis, University of the Aegean, Greece & Athens University of Economics and Business, Greece

Chapter 1.11. Security Assessment of Networks
Aftab Ahmad, Norfolk State University, USA
Section 2. Development and Design Methodologies

This section provides in-depth coverage of conceptual architecture frameworks to provide the reader with a comprehensive understanding of the emerging developments within the field of wireless technologies. Research fundamentals imperative to the understanding of developmental processes within organizational learning are offered. From broad examinations to specific discussions on methodology, the research found within this section spans the discipline while offering detailed, specific discussions. From basic designs to abstract development, these chapters serve to expand the reaches of development and design technologies within the wireless technologies community. This section includes 20 contributions from researchers throughout the world on the topic of wireless technologies.

Chapter 2.1. Event Detection in Wireless Sensor Networks ............................................................ 226
Sohail Anwar, Penn State University, USA
Chongming Zhang, Shanghai Normal University, China

Chapter 2.2. Privacy Preserving Data Gathering in Wireless Sensor Network .................................. 239
Md. Golam Kaosar, Victoria University, Australia
Xun Yi, Victoria University, Australia

Chapter 2.3. Optimizing Resource Consumption for Secure Messaging in Resource Constrained Networks ................................................................................................................ 254
P. P. Abdul Haleem, National Institute of Technology, India
M. P. Sebastian, Indian Institute of Management, India

Chapter 2.4. Perceptual Quality Assessment of Packet-Based Vocal Conversations over Wireless Networks: Methodologies and Applications .......................................................... 273
Sofiene Jelassi, University of Sousse, Tunisia & University of Pierre et Marie Curie, France
Habib Youssef, University of Sousse, Tunisia
Guy Pujolle, University of Pierre et Marie Curie, France

Chapter 2.5. Enhanced QoS through Cooperating Schemes in Next Generation Wireless Networks ........................................................................................................................ 311
Dimitris E. Charilas, National Technical University of Athens, Greece
Athanasios D. Panagopoulos, National Technical University of Athens, Greece
Philip Constantinou, National Technical University of Athens, Greece

Noria Foukia, University of Otago, New Zealand
Nathan Lewis, University of Otago, New Zealand

Chapter 2.7. A Platform for Pervasive Building Monitoring Services Using Wireless Sensor Networks ........................................................................................................................ 361
Abolghasem (Hamid) Asgari, Thales Research & Technology Ltd., UK
Chapter 2.8. Energy-Efficient Scalable Self-Organizing Routing for Wireless Mobile Networks
Melody Moh, San Jose State University, USA
Xuquan Lin, Echelon Corporation, USA
Subhankar Dhar, San Jose State University, USA

Hadi Alasti, University of North Carolina at Charlotte, USA

Chapter 2.10. Scalable Video Delivery over Wireless LANs
Maodong Li, Nanyang Technological University, Singapore
Seong-Ping Chuah, Nanyang Technological University, Singapore
Zhenzhong Chen, Nanyang Technological University, Singapore
Yap-Peng Tan, Nanyang Technological University, Singapore

Chapter 2.11. The Development of a Parallel Ray Launching Algorithm for Wireless Network Planning
Zhihua Lai, University of Bedfordshire, UK
Nik Bessis, University of Bedfordshire, UK
Guillaume De La Roche, University of Bedfordshire, UK
Pierre Kuonen, University of Applied Science of Western Switzerland, Switzerland
Jie Zhang, University of Bedfordshire, UK
Gordon J. Clapworthy, University of Bedfordshire, UK

Section 3. Tools and Technologies
This section presents extensive coverage of various tools and technologies available in the field of wireless technologies that practitioners and academicians alike can utilize to develop different techniques. These chapters enlighten readers about fundamental research on the many methods used to facilitate and enhance the integration of this worldwide phenomenon by exploring the usage of network security, multimedia streaming, and delay-based admission control, to name a few. It is through these rigorously researched chapters that the reader is provided with countless examples of the up-and-coming tools and technologies emerging from the field of wireless technologies. With 20 chapters, this section offers a broad treatment of some of the many tools and technologies within the wireless technology industry and community.

Chapter 3.1. A Technological Perspective of Mobile and Electronic Commerce Systems
Wen-Chen Hu, University of North Dakota, USA
Yanjun Zuo, University of North Dakota, USA
Naima Kaabouch, University of North Dakota, USA
Lei Chen, Sam Houston State University, USA
Chapter 3.2. Visualizations of Wireless Sensor Network Data
Brian J. d’Auriol, Kyung Hee University, Korea
Sungyoung Lee, Kyung Hee University, Korea
Young-Koo Lee, Kyung Hee University, Korea

Chapter 3.3. Network Security through Wireless Location Systems
André Peres, Federal Institute of Science and Technology – Rio Grande do Sul, IFRGS, Brazil
Raul Fernando Weber, Instituto de Informática, UFRGS, Brazil

Chapter 3.4. Mobile Multimedia Streaming Using Secure Multipath in Wireless Ad Hoc Networks
Lei Chen, Sam Houston State University, USA
Chung-wei Lee, University of Illinois at Springfield, USA

Chapter 3.5. Detecting Cheating Aggregators and Report Dropping Attacks in Wireless Sensor Networks
Mohit Virendra, State University of New York at Buffalo, USA
Qi Duan, State University of New York at Buffalo, USA
Shambhu Upadhyaya, State University of New York at Buffalo, USA

Chapter 3.6. Technical Evaluation of Wireless Communications in a Mobile Learning Architecture
Javier Carmona-Murillo, University of Extremadura, Spain
Jaime Galán-Jiménez, University of Extremadura, Spain
José-Luis González-Sánchez, University of Extremadura, Spain

Chapter 3.7. Cooperative Broadcast in Large-Scale Wireless Networks
Birsen Sirkeci-Mergen, San Jose State University, USA
Anna Scaglione, University of California at Davis, USA
Michael Gastpar, University of California at Berkeley, USA

Chapter 3.8. Increasing Spatial Awareness by Integrating Internet Geographic Information Services (GIServices) with Real Time Wireless Mobile GIS Applications
Ming-Hsiang Tsou, San Diego State University, USA
Ick Hoi Kim, San Diego State University, USA

Chapter 3.9. Delay-Based Admission Control to Sustain QoS in a Managed IEEE 802.11 Wireless LAN
A. Ksentini, University of Rennes 1, France
A. Nafaa, University College Dublin, Ireland

Chapter 3.10. A Novel Energy Saving Approach through Mobile Collaborative Computing Systems
Xiaoxin Wu, Intel, China
Huan Chen, Chinese Academy of Sciences, China
Yaoda Liu, Intel, China
Wenwu Zhu, Microsoft Research, China
Chapter 3.11. A Novel Application of Information Communication Technology to Assist Visually Impaired People .......................................................... 677
Tee Zhi Heng, The University of Nottingham Malaysia Campus, Malaysia
Ang Li Minn, The University of Nottingham Malaysia Campus, Malaysia
Seng Kah Phooi, The University of Nottingham Malaysia Campus, Malaysia

Petros Belsis, Technological Education Institute Athens, Greece
Christos Skoulas, Technological Education Institute Athens, Greece
Stefanos Gritzalis, University of the Aegean, Greece

Chia-Hui Wang, Ming Chuan University, Taiwan
Ray-I Chang, National Taiwan University, Taiwan
Jan-Ming Ho, Academia Sinica, Taiwan

Volume 2

Ning Yu, University of Central Florida, USA
Kien A. Hua, University of Central Florida, USA
Danzhou Liu, Symantec Corporation, USA

Chapter 3.15. Mobile Video Streaming Over Heterogeneous Networks ................................................................. 737
Ghaida A. Al-Suhail, University of Basra, Iraq
Martin Fleury, University of Essex, UK
Sales M. Saleh Al-Majeed, University of Essex, UK

Chapter 3.16. The TFRC Protocol and Its Usage for Wireless Video Transmission ............................. 764
Christos Bouras, Research Academic Computer Technology Institute, Greece & University of Patras, Greece
Vassilis Papapanagiotou, Research Academic Computer Technology Institute, Greece, & University of Patras, Greece
Kostas Stamos, Research Academic Computer Technology Institute, Greece & University of Patras, Greece & Technical Educational Institute of Patras, Greece
Giannis Zououdis, Research Academic Computer Technology Institute, Greece & University of Patras, Greece

Chapter 3.17. Time Synchronization in Wireless Sensor Networks .................................................. 782
Gyula Simon, University of Pannonia, Hungary
Gergely Vakulya, University of Pannonia, Hungary
Section 4. Utilization and Application

This section discusses a variety of applications and opportunities available that can be considered by practitioners in developing viable and effective wireless technologies programs and processes. This section includes over 20 chapters that review topics from case studies in Asia to best practices in Europe and ongoing research in the United States. Further chapters discuss wireless technologies in a variety of settings (government, R&D, higher education, healthcare, etc.). Contributions included in this section provide excellent coverage of today’s IT community and how research into wireless technologies impact the social fabric of our present-day global village.

Chapter 4.1. A Survey on Applied Cryptography in Secure Mobile Ad Hoc Networks and Wireless Sensor Networks .......................................................... 864
   Jianmin Chen, Florida Atlantic University, USA
   Jie Wu, Florida Atlantic University, USA

Chapter 4.2. Wireless Handheld Device and LAN Security Issues: A Case Study .................. 893
   Raj Gururajan, University of Southern Queensland, Australia
   Abdul Hafeez-Baig, University of Southern Queensland, Australia

Chapter 4.3. Anomaly Detection in Streaming Sensor Data .................................................. 910
   Alec Pawling, University of Notre Dame, USA
   Ping Yan, University of Notre Dame, USA
   Julián Candia, Northeastern University, USA
   Tim Schoenharl, University of Notre Dame, USA
   Greg Madey, University of Notre Dame, USA

Chapter 4.4. Data Broadcast Management in Wireless Communication:
   An Emerging Research Area ........................................................................... 929
   Seema Verma, Bansathali University, India
   Rakhee Kulshrestha, Birla Institute of Technology and Science, India
   Savita Kumari, University of Seventh April, Libya
Chapter 4.5. Data Gathering in Correlated Wireless Sensor Networks with Cooperative Transmission
Laxminarayana S. Pillutla, The University of British Columbia, Canada
Vikram Krishnamurthy, The University of British Columbia, Canada

Chapter 4.6. Sensor Networks Security for Pervasive Healthcare
Ioannis Krontiris, University of Mannheim, Germany

Chapter 4.7. Communication Issues in Pervasive Healthcare Systems and Applications
Demosthenes Vouyioukas, University of the Aegean, Greece
Ilias Maglogiannis, University of Central Greece, Greece

Chapter 4.8. Adoption of Wearable Systems in Modern Patient Telemonitoring Systems
Antoniadou Eleni, University of Central Greece, Greece
Ilias Maglogiannis, University of Central Greece, Greece

Chapter 4.9. Dynamic Business Processes and Virtual Communities in Wireless eHealth Environments
Dimosthenis Georgiadis, University of Cyprus, Cyprus
Panagiotis Germanakos, University of Nicosia, Cyprus
Constantinos Mourlas, National & Kapodistrian University of Athens, Greece
George Samaras, University of Cyprus, Cyprus
Eleni Christodoulou, University of Cyprus, Cyprus

Chapter 4.10. An Advanced and Secure Symbian-Based Mobile Approach for Body Sensor Networks Interaction
Orlando R. E. Pereira, University of Beira Interior, Covilhã, Portugal
João M. L. P. Caldeira, University of Beira Interior, Covilhã, Portugal, Instituto de Telecomunicações, Covilhã, Portugal, and Polytechnic Institute of Castelo Branco, Portugal
Joel J. P. C. Rodrigues, University of Beira Interior, Covilhã, Portugal and Instituto de Telecomunicações, Covilhã, Portugal

Chapter 4.11. Wireless Solutions for Elderly People Assistance
Alessia D’Andrea, IRPPS-CNR, Italy
Arianna D’Ulizia, IRPPS-CNR, Italy
Fernando Ferri, IRPPS-CNR, Italy
Patrizia Grifoni, IRPPS-CNR, Italy

Chapter 4.12. The Role of Wireless Technology in Addressing Sleeping Disorders in Aged Care
Clint Moloney, University of Southern Queensland, Australia
Section 5. Organizational and Social Implications

This section includes a wide range of research pertaining to the social and behavioral impact of wireless technologies around the world. Chapters introducing this section critically analyze and discuss trends in the urban communication infrastructure and educational technology in the medical industry. Additional chapters included in this section look at biomedical and hospital applications, as well as using wireless technologies for social and environmental change. Also investigating a concern within the field of wireless technologies is research which discusses student perceptions of how mobile and wireless technologies should be integrated into their curricula. With more than 20 chapters, the discussions presented in this section offer research into the integration of global wireless technologies, as well as implementation of ethical considerations for all organizations.

Chapter 5.1. A Practice Perspective on Transforming Mobile Work ................................................ 1104
Riikka Vuokko, Åbo Akademi University, Finland

Chapter 5.2. The Role of Information Communication Technologies Within the Field of Communication for Social Change ................................................................. 1117
Jan Servaes, University of Massachusetts, Amherst, USA.

Chapter 5.3. Urban Telecommunications Network: Technology Convergence and Urban Infrastructure ................................................................. 1136
Tan Yigitcanlar, Queensland University of Technology, Australia
Hoon Jung Han, Griffith University, Australia

Chapter 5.4. The Urban Communication Infrastructure: Global Connection and Local Detachment ......................................................................................... 1150
Susan Drucker, Hofstra University, USA
Gary Gumpert, Communication Landscapers, USA

Chapter 5.5. Evaluation of Arab Municipal Websites ........................................................................ 1170
Hana Abdullah Al-Nuaim, King Abdulaziz University, Saudi Arabia

Blessing Mukabeta Maumbe, West Virginia University, USA

Chapter 5.7. An Investigation Into the Use of Pervasive Wireless Technologies to Support Diabetes Self-Care ........................................................................ 1211
Nilmini Wickramasinghe, RMIT University, Australia
Indrit Troshani, University of Adelaide Business School, Australia
Steve Goldberg, INET International Inc., Canada
Chapter 5.8. Healthcare Oriented Smart House for Elderly and/or Disabled People: A Case Study
Nicholas S. Samaras, TEI of Larissa, Greece
Costas Chaikalis, TEI of Larissa, Greece
Giorgios Siafakas, TEI of Larissa, Greece

Chapter 5.9. Microsystems for Wireless Sensor Networks with Biomedical Applications
J. P. Carmo, University of Minho, Portugal
N. S. Dias, University of Minho, Portugal
J. H. Correia, University of Minho, Portugal

Chapter 5.10. The Outdoor Wireless Healthcare Monitoring System for Hospital Patients Based on ZigBee
Xiaoxin Xu, Zhejiang University, China
Mingguang Wu, Zhejiang University, China
Bin Sun, China JiLiang University, China
Jianwei Zhang, China JiLiang University, China
Cheng Ding, HangZhou Meacon Automatic Technology Co., Ltd, China

Chapter 5.11. Educational Technology in the Medical Industry
Keith B. Hopper, Southern Polytechnic State University, USA
Carol L. Johns, Upson Regional Medical Center, USA

Chapter 5.12. Student Perceptions and Uses of Wireless Handheld Devices: Implications for Implementing Blended and Mobile Learning in an Australian University
Raj Gururajan, University of Southern Queensland, Australia
Abdul Hafeez-Baig, University of Southern Queensland, Australia
P. A. Danaher, University of Southern Queensland, Australia
Linda De George-Walker, University of Southern Queensland, Australia

Chapter 5.13. Live Interactive Virtual Explorations via the High Performance Wireless Research and Education Network
Kimberly Mann Bruch, University of California at San Diego, USA
Hans-Werner Braun, University of California at San Diego, USA
Susan Teel, Southern California Research Learning Center, USA

Chapter 5.14. Mobile Interactive Learning in Large Classes: Towards an Integrated Instructor-Centric and Peer-to-Peer Approach
Kin-Choong Yow, Nanyang Technological University, Singapore
Boon-Chong Seet, Auckland University of Technology, New Zealand

Chapter 5.15. Use of Mobile Technology at Montclair State University
Patricia Kahn, Montclair State University, USA
Edward Chapel, Montclair State University, USA
Chapter 5.16. Contemporary Music Students and Mobile Technology ........................................ 1390
   Thomas Cochrane, Unitec, New Zealand

Chapter 5.17. “Stay Out of the Way! My Kid is Video Blogging Through a Phone!”
   A Lesson Learned from Math Tutoring Social Media for Children in Underserved Communities ................................................................. 1415
   Paul Kim, Stanford University, USA

   Rebecca Petley, LSN, UK
   Jill Attewell, LSN, UK
   Carol Savill-Smith, LSN, UK

Chapter 5.19. Insights from Experimental Research on Distributed Channel Assignment in Wireless Testbeds ................................................................. 1443
   Felix Juraschek, Freie Universität Berlin, Germany
   Mesut Günes, Freie Universität Berlin, Germany
   Matthias Philipp, Freie Universität Berlin, Germany
   Bastian Blywis, Freie Universität Berlin, Germany

Volume 3

Chapter 5.20. User Based Call Admission Control Algorithms for Cellular Mobile Systems ...... 1461
   Hamid Beigy, Sharif University of Technology, Iran
   M. R. Meybodi, Amirkabir University of Technology, Iran

Chapter 5.21. Security Across Disparate Management Domains in Coalition MANETs......... 1494
   Mudhakar Srivatsa, IBM T.J. Watson Research Center, USA
   Dakshi Agrawal, IBM T.J. Watson Research Center, USA
   Andrew D. McDonald, Roke Manor Research Ltd, UK

Section 6. Managerial Impact

This section presents contemporary coverage of the social implications of wireless technologies, more specifically related to the corporate and managerial utilization of information sharing technologies and applications, and how these technologies can be facilitated within organizations. Core ideas such as training and continuing education of human resources in modern organizations are discussed throughout these chapters. Issues, such as a supply chain management and forecasting that affect the intention to adopt technological innovations in wireless technologies are discussed. Equally as crucial, chapters within this section discuss how leaders can manage corporate responsibility within these new wireless technologies order to foster desired intangibles in their employees.
Chapter 6.1. Reality Mining, Location Based Services, and E-Business Opportunities:
The Case of City Analytics
José Antonio Ariza Montes, University of Córdoba, Spain
Alfonso Carlos Morales Gutiérrez, University of Córdoba, Spain
Emilio Morales Fernández, University of Córdoba, Spain
Alfredo Romeo, City 2020 Ltd., Spain

Chapter 6.2. Location-Aware Access Control for Mobile Workflow Systems
Michael Decker, University of Karlsruhe, Germany

Chapter 6.3. Mobile Technology Adoption in the Supply Chain
Bill Doolin, Auckland University of Technology, New Zealand
Eman Ibrahim Al Haj Ali, United Arab Emirates University, UAE

Chapter 6.4. Impact of Wireless Sensor Network Technology on Service Innovation in Supply Chain Management
Gong Li, North Dakota State University, USA
Jing Shi, North Dakota State University, USA

Chapter 6.5. Collaborative e-Learning and ICT Tools to Develop SME Managers: An Italian Case
Genoveffa (Jeni) Giambona, University of Reading, UK
David W. Birchall, University of Reading, UK

Chapter 6.6. Opportunistic Networks as an Enabling Technology for Mobile Word-of-Mouth Advertising
Andreas Heinemann, Competence Center for Applied Security Technology, Germany
Tobias Straub, Baden-Württemberg Cooperative State University, Germany

Chapter 6.7. An Exploratory Study to Understand the Drivers and Inhibitors for the Successful Adoption of Wireless Technology in Australian Healthcare Systems
Abdul Hafeez-Baig, University of Southern Queensland, Australia
Raj Gururajan, University of Southern Queensland, Australia

Chapter 6.8. Handover Analysis and Dynamic Mobility Management for Wireless Cellular Networks
Ramón M. Rodríguez-Dagnino, Tecnológico de Monterrey, México.
Hideaki Takagi, University of Tsukuba, Japan

Chapter 6.9. Performance Evaluation of a Three Node Client Relay System
Sergey Andreev, Tampere University of Technology, Finland
Olga Galinina, Tampere University of Technology, Finland
Alexey Vinel, Tampere University of Technology, Finland

Chapter 6.10. Case “Mobile-INTEGRAL”
L. F. Pau, Copenhagen Business School, Denmark & Rotterdam School of Management, The Netherlands
Section 7. Critical Issues

This section contains 15 chapters giving a wide variety of perspectives on wireless technology and its implications. Such perspectives include wireless communications’ critical mass, credibility, use intention, universality, and several more. The chapter also discusses new ethical considerations within wireless technologies. Within the chapters, the reader is presented with an in-depth analysis of the most current and relevant issues within this growing field of study. Crucial questions are addressed and alternatives offered, such as the role of ICTs for business enterprise mobility. Rounding out this section is a look at interoperability within AAL systems.

Chapter 7.1. The Critical Mass of Wireless Communications: Differences between Developing and Developed Economies

Kaisu Puumalainen, Lappeenranta University of Technology, Finland
Lauri Frank, University of Jyväskylä, Finland
Sanna Sundqvist, Lappeenranta University of Technology, Finland
Anni Tuppura, Lappeenranta University of Technology, Finland

Chapter 7.2. Wireless Networking Credibility, Device Interoperability & Other Important Issues to Take Into Consideration for the Deployment of a Homecare Service Provision Model

Konstantinos Perakis, National Technical University of Athens, Greece
Dimitris Koutsouris, National Technical University of Athens, Greece

Chapter 7.3. Factors Affecting WiFi Use Intention: The Context of Cyprus

Despo Ktoridou, University of Nicosia, Cyprus
Hans-Ruediger Kaufmann, University of Nicosia, Cyprus
Christos Liassides, Columbia Management, Cyprus

Chapter 7.4. Factors Influencing Satisfaction with Mobile Portals

Daisy Seng, Monash University, Australia
Carla Wilkin, Monash University, Australia
Ly-Fie Sugianto, Monash University, Australia

Chapter 7.5. Rethinking Realistic Wireless Network Mobility: Model and Trust

Lu Yan, University of Hertfordshire, UK


Murat Al, University of Arkansas at Little Rock, USA
Kenji Yoshigoe, University of Arkansas at Little Rock, USA
Chapter 7.7. Mobile Telephony as a Universal Service ................................................................. 1847
  Ofir Turel, California State University Fullerton, USA
  Alexander Serenko, Lakehead University, Canada

Chapter 7.8. Deployment and Success Factors for the Mobile Internet:
  A Case Study Approach .............................................................................................................. 1852
  Krassie Petrova, Auckland University of Technology, New Zealand
  Raymond Yiwen Huang, Auckland University of Technology, New Zealand

Chapter 7.9. Employment and Acceptance of Near Field Communication in Mobile Marketing.... 1868
  Klaus-Peter Wiedmann, Leibniz Universität Hannover, Germany
  Marc-Oliver Reeh, Leibniz Universität Hannover, Germany
  Henrik Schumacher, Leibniz Universität Hannover, Germany

Chapter 7.10. Environmental Challenges in Mobile Services .................................................. 1891
  Amit Lingarchani, University of Technology, Sydney, Australia

Chapter 7.11. Open Source for Mobile Devices and Mobile Learning ..................................... 1900
  Hal Steger, Funambol, USA

Chapter 7.12. ICTs for Business Enterprise Mobility: Mobile Communications,
  Mobility and the Creation of Sustainable Value ................................................................. 1909
  Per Andersson, Stockholm School of Economics, Sweden
  Susanne Sweet, Stockholm School of Economics, Sweden
  Christopher Rosenqvist, Stockholm School of Economics, Sweden

Section 8. Emerging Trends

This section highlights research potential within the field of wireless technologies, while exploring uncharted areas of study for the advancement of the discipline. Introducing this section are chapters that set the stage for future research directions and topical suggestions for continued debate, centering on the new venues and forums for discussion. Discussions assessing the potential of new technologies in mobile learning are presented. Another debate which currently finds itself at the forefront of research is the potential of using wireless technologies as both a desirable and undesirable process within your company. Found in these chapters, concluding this exhaustive multi-volume set are areas of emerging trends and suggestions for future research within this rapidly expanding discipline.

Chapter 8.1. Evolution in Broadband Technology and Future of Wireless Broadband ............ 1928
  Banani Nandi, AT&T Shannon Laboratories, USA
  Ganesh Subramaniam, AT&T Shannon Laboratories, USA

Chapter 8.2. Broadband Optical Access using Centralized Carrier Distribution .................... 1958
  Chi-Wai Chow, National Chiao Tung University, Taiwan