Judith Symonds is a Senior Lecturer at AUT University, Auckland, New Zealand. Judith holds a PhD in Rural Systems Management from the University of Queensland (2005, Australia). Judith has published in international refereed journals, book chapters and conferences, including the Australian Journal of Information Systems and the Journal of Cases on Information Technology. She currently serves on editorial boards for the Journal of Electronic Commerce in Organisations and the International Journal of E-Business Research. Her current research interests include data management in pervasive and ubiquitous computing environments.

***

José M. Reyes Álamo was born in San Juan, Puerto Rico. He received his B.S. degree in computer science from the University of Puerto at Bayamón in 2003 and his Ph.D. degree in computer science from Iowa State University in 2010. His research interests include smart homes, service-oriented computing, software engineering and formal methods. He is a member of IEEE and ACM.

Magnus Andersson has a PhD in Informatics from University of Gothenburg, Sweden. He currently holds a position at the Viktoria Institute where he is involved with IT-research projects. His main focus is studies of IT-based innovation in organizations through use of mobile, embedded and stationary information technology. Magnus work has been published in journals and proceedings such as Information Systems Journal, Journal of Strategic Information Systems, European Conference on Information Systems, and IFIP 8.2.

Abdullahi Arabo graduated from University of Wales Swansea in 2007, where he obtained his MEng Computing qualification. He is current working as a Researcher in Network Security for the School of Computing and Mathematical Sciences in Liverpool John Moores University UK. He is also a PhD student under the supervision of Prof Qi Shi and Prof Madjid Merabti within the filed of Ubiquitous computing and MANets. Mr Arabo is currently a member of the British Computer Society (MBCS). He is presently working on a project funded by EPSRC looking at the security implications of interactions between devices in real world scenarios, in collaboration with Thales Research and Technology UK. In which the project will form part of his PhD studies. He has been involved in various conference committees TPC (i.e. CCNC Short Papers, 2009, 2010), paper reviewing of many other conferences and journals (i.e. IMIS 2009, SecTech 2008, IJNS). His research interest includes: Ubiquitous Computing Security, Context-aware and User-centred applications, Identity Management, Mobile ad hoc Networks,
Sensor Networks, Network Security and Secure Systems of Systems Component Composition. He is involved in various projects within these areas.

John Ayoade obtained his Ph.D. degree in Information Systems under Japanese Government Scholarship from the Graduate School of Information Systems in the University of Electro-Communications, Tokyo, Japan. He has research and teaching experience from research institutes and universities around the globe. His research work focuses on IT emerging technologies (pervasive computing, RFID, computer network security and mobile communications). He has presented and published papers in many international conferences and journals in the USA, Japan, Canada, U.K, Australia, New Zealand and South Korea. He is presently an Assistant Professor in the School of Information Technology and Communications, American University of Nigeria.

Ryan M. Babbitt, is a doctoral candidate in the Department of Computer Science of the Iowa State University. His research area is model-based security engineering, and his interests include applying formal methods for the modeling, specification, and verification of security and privacy properties in distributed and pervasive systems. Ryan also received his Masters in Computer Science from Iowa State University in 2006. During his graduate studies he has received awards for excellence in teaching and research from the Iowa State Graduate College.

Nebil Buyurgan is an assistant professor of Industrial Engineering and the director of the AT&T Manufacturing Automation Laboratory at the University of Arkansas. He received his Ph.D. in Engineering Management (Engineering Management and Systems Engineering) from the University of Missouri-Rolla (Missouri University of Science and Technology). After receiving his Ph.D. degree in 2004, he joined the Industrial Engineering department at the University of Arkansas. As the author or coauthor of over 40 technical publications, his research and teaching interests include Auto-ID technologies, RFID system optimization and data quality assessment, supply chain digitalization in healthcare, asset visibility and in-transit visibility in supply chain, inventory control and management, and auctioning methods.

Carl K. Chang, received the PhD degree in computer science from Northwestern University in 1982. He is currently a professor and chair of the Department of Computer Science at Iowa State University. He worked for GTE Automatic Electric and Bell Laboratories before joining the University of Illinois at Chicago in 1984. He joined Iowa State University in 2002. His research interests include requirements engineering, software architecture, net-centric computing, and services computing. He was the president of the IEEE Computer Society in 2004. Previously, he served as the editor-in-chief of IEEE Software from 1991 to 1994. He received the IEEE Computer Society’s Meritorious Service Award, Outstanding Contribution Award, the Golden Core recognition, and the IEEE Third Millennium Medal. In 2006, he received the prestigious Marin Drinov Medal from the Bulgarian Academy of Sciences and was recognized by IBM with the IBM Faculty Award in 2006, 2007, and 2009. In January 2007, he became the editor-in-chief of IEEE Computer, the flagship publication of the IEEE Computer Society. He is a fellow of the IEEE and the AAAS.

Eric Cheek is an Assistant Vice Chancellor for Academic Affairs at North Carolina A&T State University where he also teaches Circuits in the Electrical and Computer Engineering Department. He received
his BS degrees in Electrical Engineering and Applied Mathematics from Carnegie Mellon University and MS and Ph.D. degrees in Electrical Engineering form Howard University. He is the North Carolina Affiliate Partner for the FIRST (For Inspiration and Recognition of Science and Technology) Tech Challenge; where high school students build robots to compete in regional and national competitions. He consults with Hewlett Packard Calculator division and integrates technology into most of his teaching.

Filippo Gandino obtained his M.S. in 2005 and Ph.D. degree in Computer Engineering in 2010, from the Politecnico di Torino. He is currently a research fellow with the Dipartimento di Automatica e Informatica, Politecnico di Torino. His research interests include ubiquitous computing, radio-frequency identification, wireless sensor networks, security and privacy, and digital arithmetic.

John Garofalakis (http://athos.cti.gr/garofalakis/) is Associate Professor at the Department of Computer Engineering and Informatics, University of Patras, Greece, and Director of the applied research department “Telematics Center” of the Research Academic Computer Technology Institute (RACTI). He is responsible and scientific coordinator of several European and national IT and Telematics Projects (ICT, INTERREG, etc.). His publications include more than 100 articles in refereed International Journals and Conferences. His research interests include Web and Mobile Technologies, Performance Analysis of Computer Systems, Computer Networks and Telematics, Distributed Computer Systems, Queuing Theory.

Corey A. Graves received his PhD in computer engineering from North Carolina State University in 1999. His early work involved developing architectures for multimedia source coding in the areas of vector quantization and wavelets. He is now an associate professor in the electrical and computer engineering department at North Carolina A&T State University where he is the head of the Pervasive Systems for Education Enhancement (PSEE) research group. His research involves the development of pervasive computing and information systems that enhance education and training processes across all disciplines. Particularly, he is interested in taking advantage the high pervasiveness of cellular phone (smart phone and feature phone) usage among youth in such a way that enhances their mental and physical well-beings.

Chris Greenhalgh is a Professor of Computer Science at the University of Nottingham, and a principle investigator in the Mixed Reality Laboratory. His interests centre on distributed system support for multi-user interactive applications. He has been the primary architect of the EQUATOR Integrated Platform (EQUIP), an adaptive software architecture for ubiquitous computing and mobile applications, the Digital Replay System (DRS), a desktop e-social science tool for analysing video, transcripts and system log files, and three generations of the MASSIVE Collaborative Virtual Environment system. Together these have underpinned numerous public performances, experiences and trials across many research projects.

Adam Grzywaczewski is a PhD student of Coventry University and a Software Developer working for Trinity Expert Systems Limited. Owing to his passion for information retrieval and information behaviour, in-depth knowledge of the modern software development technology and understanding of the requirements of the modern business he is now a part of an EPSRC founded project aiming to deliver personalised search solution expanding the capabilities of out of the box SharePoint Server Search...
Services. His research interests lie on the edge of information science, psychology and usability. His ambition is to better understand how people interact with the modern information retrieval systems and how this knowledge can be used in practical settings not only to improve their search experience but also search efficiency bringing profit to the organisations they work for. In his current research he focuses on investigating the mechanisms of user habit development during the interaction with modern information retrieval systems. He believes that by understanding this aspect of information behaviour / decision making process, he will be able to change the way personalised information retrieval systems are designed and implemented. Currently he focuses on the work related information retrieval activities of software developers and work related habit development.

John Halloran is a Senior Lecturer in the Department of Creative Computing at Coventry University, and a member of the Cogent Computing Applied Research Centre, a new applied research centre for pervasive computing where I specialise in pervasive usability. His research interests lie in human-computer interaction, interaction design, and computer-supported collaborative work (‘work’ understood in its broadest sense). His research is about understanding and designing for technology-mediated social interaction across a diversity of contexts, and is based in the view that technology is about augmenting, enhancing and reconfiguring the ways we interact so that we can be and do new things. This involves working with a wide range of technologies from desktop-based applications to devices and arrangements that move ‘beyond the desktop’ into pervasive, ubiquitous, and ambient computing. His main current interest is pervasive usability, i.e. the usability of pervasive computing systems. Pervasive usability generates a variety of challenges to traditional usability (see below) and addressing these challenges is at the core of his current research. He also has a strong interest in theory for HCI and his work is informed by activity theory and external cognition in particular. He has also been influenced by the Scandinavian participatory design approach and its emphasis on ‘tradition and transcendence’. Therefore his work characteristically (but not always) starts with observation and analysis of an existing activity followed by design and in-context evaluation of prototype new technologies. He has been involved in a range of projects, most recently the Chawton House Project (part of the Equator IRC), where a key driver is pervasive usability. Prior to this, his interest in understanding and supporting users in a variety of social-interactional contexts was represented across a range of projects, including the use of Lotus Notes to support collaboration in student group-work (The Activity Space, my DPhil work); design of visual systems for use in face-to-face sales transactions (the eSPACE project); and evaluation of how Voice over IP, an Internet audio conferencing technology, supports interaction in online multiplayer games (the InTouch project).

Bill Hardgrave holds the Edwin & Karlee Bradberry Chair in Information Systems at the Sam M. Walton College of Business, University of Arkansas. He is founder and Executive Director of the Information Technology Research Institute and Director of the RFID Research Center. Dr. Hardgrave’s research, primarily in the areas of RFID and systems development, has been published in a variety of leading journals, such as MIS Quarterly, Journal of Management Information Systems, and Production and Operations Management. Dr. Hardgrave also serves as editor-in-chief of the International Journal of RF Technologies: Research and Applications.
About the Contributors

**Rahat Iqbal** is a Senior Lecturer in the Distributed Systems and Modelling Applied Research Group at Coventry University. His main duties include teaching and tutorial guidance, research and other forms of scholarly activity, examining, curriculum development, coordinating and supervising postgraduate project students and monitoring the progress of research students within the Department. His research interests lie in requirements engineering, in particular with regard to user-centred design and evaluation in order to balance technological factors with human aspects to explore implications for better design. A particular focus of his interest is how user needs could be incorporated into the enhanced design of ubiquitous computing systems, such as smart homes, assistive technologies, and collaborative systems. He is using Artificial Intelligent Agents to develop such supportive systems. He has published more than 50 papers in peer reviewed journals and reputable conferences and workshops.

**Anne James** is Professor of Data Systems Architecture in the Distributed Systems and Modelling Applied Research Group at Coventry University. Her main duties involve leading research, supervising research students and teaching at undergraduate and postgraduate levels. Her teaching interests are enterprise systems development, distributed applications development and legal aspects of computing. The research interests of Professor James are in the general area of creating systems to meet new and unusual data and information challenges. Examples of current projects are the development of Quality of Service guarantees in Grid Computing and the development of special techniques to accommodate appropriate handling of web transactions. Professor James has supervised around 20 research degree programmes and has published more than 100 papers in peer reviewed journals or conferences. She is currently also involved in an EU FP7 funded programme to reduce energy consumption in homes, through appropriate data collection and presentation.

**Po-Chien, Jeffery, Chang** commenced his PhD study at the RMIT University in 2005. Before he started his PhD, he was an administrative staff and a part-time lecturer in Taiwan for three years. In his PhD thesis, he attempts to evaluate the impact of technology convergence from multiple use of mobile phone. His research interests include technology adoption and diffusion, mobile commerce, and technology convergence. He has published two conference papers in Australasian conference on information system (ACIS) in 2007 and upcoming 2008. Now he is a PhD student in the school of business information technology (BIT).

**Rui José** is an Assistant Professor at University of Minho in Portugal, where he has been active in Ubiquitous Computing research. He is the coordinator of the Research Program on Situated Displays for Smart Places, a multi-disciplinary long-term initiative centred on the concept of situated displays as shared, networked, pro-active artefacts that become an integral part of their environment. He holds a PhD in Computer Science from Lancaster University.

**Brandon Judd** obtained a Bachelor of Science degree in Electrical Engineering from North Carolina Agricultural and Technical State University in 2007. Throughout his course work he held a particular interest in micro processing applications, embedded system design, IEEE robotics competitions, and the seamless integration of computers in everyday life. During his undergraduate career he also became a member of many notable organizations including: The National Society of Black Engineers, IEEE, Eta Kappa Nu Honors Society, and Alpha Lambda Delta Honors Society. After graduating he worked
in the defense industry for two years, where he realized that his true passion wasn’t writing technical documents but rather practical applications of Pervasive Computing. After which he abruptly decided to come back to school for a Masters of Science in Electrical Engineering, where he studies under Dr. Corey A. Graves as a thesis candidate.

**Neeraj Kumar** received Ph.D. (Computer Science and Engineering) from SMVD University, Katra (J&K), India. He is working as Assistant Professor (School of Computer Science and Engineering), Shri Mata Vaishno Devi University, Katra (India) since 2007. Prior to joining SMVDU, Katra he has worked with HEC Jagadhri and MMEC Mullana, Ambala, Haryana, India as Lecturer. He has published 20 research papers in international journals and conferences of IEEE and Springer. His research is focused on use of agents, mobile computing, parallel/distributed computing, adhoc, sensor and wireless mesh networks, multi-channel scheduling, resource allocation, multiagent system and fault tolerance. He is a senior member of ACEEE, member of Indian academy of mathematics.

**Agus Kwee** is a research engineer staff in School of Electrical & Electronic Engineering, Nanyang Technological University, Singapore. He received his bachelor’s degree in computing science from Simon Fraser University, Canada, in 2005. His current research interests include software engineering, mobile application, and text mining.

**Rikard Lindgren** is a Professor of Informatics at the University of Gothenburg, Sweden. He is also managing the Transport research group at the Viktoria Institute. His research has been published in European Journal of Information Systems, Information and Organization, Information Systems Journal, Journal of Strategic Information Systems, MIS Quarterly, and other journals in the Information Systems discipline. Currently, Professor Lindgren serves on the editorial boards of Journal of Information & Knowledge Management and Scandinavian Journal of Information Systems. Starting from January 2009, he will serve as an associate editor at Information Systems Research.

**Janice Lo** is currently a doctoral student in information systems at Baylor University. Her research interests include online trust, social stigmas, symbolic interaction in technology mediated communications, organizational socialization, and many other topics.

**Lena Mamykina** is a PhD candidate in Human-Centered Computing at the Georgia Institute of Technology. She investigates computing systems that help individuals with chronic diseases maintain their health and quality of life. She holds an MS degree in Human-Computer Interaction from Georgia Tech and BS in Computer Science and Shipbuilding Engineering from the Ukrainian State Maritime Technical University.

**Fernando Martínez Reyes** is a Senior Lecturer in the Pervasive and Mobile Computing Research Group at the Autonomous University of Chihuahua. He holds a PhD in Computer Science from the University of Nottingham, and an MS in Electronic Engineering from the Chihuahua Institute of Technology. His dissertation focused on user-centred designs and user acceptance of ubiquitous and mobile computing technology for domestic settings. His research interests include pervasive computing technologies, location-based services, computer-mediated communication, and context-aware systems. A particular
focus of his interest is the design of ubiquitous systems and tools where there is a compromise between societal and technological factors.

Madjid Merabti is a graduate from Lancaster University where he gained a PhD in Computing. He is now Professor of Networked Systems. His current research interests include architectures, services and protocols for distributed multimedia systems, including multimedia content and extraction, mobile networks, security, and ecommerce technology support. He is involved in a number of projects in these areas where he leads the Distributed Multimedia Systems Group.

Christos Mettouris is a graduate of the Computer Engineering & Informatics Department in the University of Patras. He holds a Masters degree of the same department. He is a member of the e-Learning sector of the Research Academic Computer Technology Institute (RACTI). He has published his diploma thesis work in the 1st Hellenic Scientific Student Computing Conference, obtaining an award for presenting one the 3 top papers. His research interests include Wireless technologies and Mobile Networks.

Bartolomeo Montrucchio received the M.S. degree in electronic engineering and the Ph.D. Degree in computer engineering from the Politecnico di Torino, Torino, Italy, in 1998 and 2002, respectively. He is currently an Assistant Professor of computer engineering with the Dipartimento di Automatica e Informatica, Politecnico di Torino. His current research interests include image analysis and synthesis techniques, scientific visualization, sensor networks, and radio-frequency identification.

Sam Muldrew was born and raised in Atlanta, G.A. and attended Benjamin E. Mays high school in Fulton County. After graduating high school, Sam moved to North Carolina to start college. He obtained his B.S. in computer engineering and M.S. in electrical engineering from North Carolina Agricultural and Technical State University. While enrolled in the graduate program, Sam conducted research in the area of pervasive computing for health and fitness within the Pervasive Systems for Education Enhancement (PSEE) research group. He is currently an engineer working for the Naval Sea Systems Command (NAVSEA) at the Naval Undersea Warfare Center (NUWC).

Elizabeth Mynatt, an associate professor in the College of Computing and director of the GVU Center, received a Ph.D. degree in Computer Science from the Georgia Institute of Technology in 1995, where she was also a research scientist in the GVU Center. Her research centers around human computer interaction, ubiquitous computing, augmented reality, auditory interfaces, assistive technology and everyday computing.

Julian Newman is Professor of Computing at Glasgow Caledonian University. He has worked in the Computer industry, as a Technical Writer, as a Training Officer, and as an Academic. His current research interests include Semantic Web applications and Computer Support for Virtual Organisations and Virtual Research Communities.

Nuno Otero is a Research Fellow at the University of Minho. His research interests include interaction design and human-robot interaction. The general goal of his investigation is the understanding
of how everyday human activities are affected and can be enhanced through the design of interactive
technologies. He holds a PhD in Computer Science from the University of Sussex.

**R. B. Patel** received Ph.D. from IIT Roorkee in Computer Science & Engineering, PDF from High-
est Institute of Education, Science & Technology (HIEST), Athens, Greece, MS (Software Systems)
from BITS Pilani and B. E. in Computer Engineering from M. M. M. Engineering College, Gorakhpur, 
UP. Dr. Patel is in teaching and Research & Development since 1991. He has published about 50 re-
search papers in International/National Journals and Refereed International Conferences. He has been 
awarded for Best Research paper by Technology Transfer, Colorado, Springs, USA, for his security 
concept provided for mobile agents on open network in 2003. He has written 5 books for engineering 
courses. He is member of various International Technical Societies such as IEEE-USA, Elsevier-USA, 
Technology, Knowledge & Society-Australia, WSEAS, Athens, etc for reviewing the research paper. 
His current research interests are in Mobile & Distributed Computing, Mobile Agent Security and Fault 
Tolerance, development infrastructure for mobile & peer-to-peer computing, Device and Computation 
Management, Cluster Computing, etc. fruitful

**Maurizio Rebaudengo** received the M.S. degree in electronics and the Ph.D. degree in computer 
engineering from the Politecnico di Torino, Torino, Italy, in 1991 and 1995, respectively. He is currently 
an Associate Professor with the Dipartimento di Automatica e Informatica, Politecnico di Torino. His 
research interests include testing and dependability analysis of computer-based systems. In the field of 
radio-frequency (RF) identification, his activity is mainly focused on the analysis of traceability systems 
based on RF devices.

**Jerono P. Rotich** is an assistant professor at the Department of Human Performance and Leisure 
Studies, School of Education at North Carolina Agricultural & Technical State University in Greensboro, 
North Carolina. She received her Ph.D in exercise and Sports Science from the University of North 
Carolina at Greensboro. Her research focuses on public health and cultural competency issues related 
to obesity and behavior modification, Immigrant and refugee acculturation, responsibility and character 
developed based youth physical activity programs. She is particularly interested in examining lifestyle 
determinants as well as the implementation and impacts of innovative motivational strategies such as 
mentoring and use of persuasive and pervasive technology as interventions to increase participation in 
physical activity and reduce sedentary lifestyle risk-factors.

**Erwing R. Sanchez** received the M.S. degree in electronic engineering and the Ph.D degree in 
computer engineering from the Politecnico di Torino, Torino, Italy, in 2005 and 2010, respectively. He 
is currently a research fellow with the Dipartimento di Automatica e Informatica, Politecnico di Torino. 
His research interests include ubiquitous technologies, radio-frequency identification security and low-
power wireless networks protocols.

**Tanmoy Sarkar**, is a doctoral candidate at the Department of Computer Science, Iowa State Univer-
sity. He was born in Kolkata, India and received his B.E. degree in Computer Science and Engineering 
from Jadavpur University, India. Before started pursuing his Phd., Tanmoy was employed by IBM India
About the Contributors

Pvt. Limited. His current research interests include intrusion detection and response, formal methods and model checking.

**Eusebio Scornavacca** is Senior Lecturer of Electronic Commerce at SIM. Before moving to Wellington, he spent two years as a researcher at Yokohama National University, Japan. Eusebio has published and presented more than seventy papers in conferences and academic journals. His research interests include mobile business, electronic business, e-surveys, and IS teaching methods. In 2005, he was awarded at the MacDiarmid Young Scientists of the Year awards, and in 2006 he received a VUW Research Excellence Award as well as the Victoria’s Award for the best postgraduate supervisor from the PGSA. In 2007, Eusebio received a Teaching Excellence Award from Victoria University of Wellington.

**Qi Shi** received his PhD in Computing from the Dalian University of Technology, P.R. China. He worked as a research associate for the Department of Computer Science at the University of York in the UK. Prof Shi then joined the School of Computing & Mathematical Sciences at Liverpool John Moores University in the UK, and he is currently a Prof in Computer and Network Security. His research interests include network security, security protocol design, formal security models, intrusion detection, ubiquitous computing security and computer forensics. He is supervising a number of research projects in these research areas.

**Flora Tsai** is currently with the School of Electrical & Electronic Engineering, Nanyang Technological University, Singapore. She is a graduate of MIT and Columbia University with degrees in Electrical Engineering and Computer Science. Her research interests include data and text mining, information retrieval, software engineering, and mobile application development.

**Dennis Viehland** is Associate Professor of Information Systems at Massey University’s Auckland campus in New Zealand. His principal research area is mobile business, with secondary research interests in ubiquitous computing, electronic commerce strategy, and innovative use of ICT to manage Information Age organizations. Dr. Viehland is a co-author of Electronic Commerce 2008: A Managerial Perspective, he has many publications in international journals and conferences, and his research has received awards at international conferences. He can be contacted at d.viehland@massey.ac.nz.

**Ronald Walker** is a consultant for Resource Optimization and Innovation (ROi), the supply chain division for Sisters of Mercy Health System. He received his Masters of Science in Industrial Engineering from the University of Arkansas in 2008. He has conducted research for the Center for Engineering Logistics and Distribution (CELDi), and the Center for Innovation in Healthcare Logistics (CIHL). His interests include modeling and analysis of inventory management systems, transportation and logistics, AutoID technologies, and healthcare engineering.

**Tiara Williams** is a recent graduate of North Carolina A&T State University. After achieving her Bachelor’s in Electrical Engineer, she immediately joined the work force. A Master’s degree is still on her list of goals. At the moment, she has devoted herself to obtain her FE certification.
**Johnny Wong**, is a Professor & Associate Chair of the Computer Science Department at Iowa State University. His research interests include Software Systems & Networking, Security & Multimedia Systems. Most of his research projects are funded by government agencies and industries. He is the President/CEO of a startup company EndoMetric, with products for Medical Informatics. He has served as a member of program committee of various international conferences on intelligent systems and computer networking. He was the program co-Chair of the COMPSAC 2006 and is currently General co-Chair of the COMPSAC 2008 conference. He has published over 100 papers in peer reviewed journals and conferences. He is a member of IEEE Computer Society and ACM.

**Hen-I Yang**, is a post-doc research scientist in the Department of Computer Science of the Iowa State University. His research area is in pervasive computing, with focus on intelligent environments such as smart homes. Current research interests include system safety and reliability, programming models, system and middleware support for intelligent environments, and utilization of smart home facilities for computer science education purposes. Yang received his PhD in computer engineering from the University of Florida.