About the Contributors

**Lau Bee Theng** completed her PhD in 2006. Presently, she is a senior lecturer and ICT program coordinator at Faculty of Engineering, Computing, and Science, Swinburne University of Technology, Sarawak Campus. Her research interest is mainly on assistive technologies utilizing ICT for the special people. She has published more than 60 articles in peer-reviewed journals, book chapters, and conference papers. She has successfully supervised postgraduate students to completion and coordinated a few research projects on assistive technologies for special children, injury recognition, and activity monitoring using multi-depth sensors, wireless and Bluetooth devices, brain interfaced human computer interaction.

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**Anna Abelló Pla**, Physical Therapist, Professor at Escoles Universitaries Gimbernat (UAB), and owner of RSP and co-owner NuboCare, Master’s Degree in Translational Research in Physical Therapy, has more than 25 years of experience in Pelvic Floor Rehabilitation. She has participated in different studies about Pelvic Floor issues and has won two prizes in different congresses. She has attended several congresses, both national and international, and has presented the findings of her research. She is part of the Pelvic Floor Department in Catalonia’s Physical Therapy Professional Association. In 2012, she founded NuboCare, an online Physical Therapy practice that uses ICTs to provide patients all over the country with quality treatments and care.

**Afzal Ahmed** received his Bachelor of Computer Science (Hons) in Mobile Computing from the Limkokwing University of Creative Technology in December 2012. Currently, he is pursuing his MSc in Computer Science at Sunway University, under the supervision of Dr.-Ing. Sian Lun Lau. He was introduced to the Brain Computer Interface (BCI) technology during his bachelor’s degree, and this has become his research interests. His research focus includes unobtrusive applications using BCI, algorithms for gesture recognition, and mobile applications combining BCI and other technology. In his research at Sunway University, he investigates algorithms suitable for gesture and gaze detection in providing assistive technology for disabled patients.

**Anna Andreu Povar**, Physical Therapist, Masters’ degrees in Translational Research in Physical Therapy and Chest Physical Therapy, and co-owner of NuboCare, has participated in different studies about Pelvic Floor issues and has won two prizes in different congresses. She has attended several congresses, both national and international, and has presented the findings of her research. In 2012, she founded NuboCare, an online Physical Therapy practice that uses ICTs to provide patients all over the country with quality treatments and care.
About the Contributors

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**Richard Anthony** received his DPhil from the University of York, UK in 2000. He joined the University of Greenwich as a Senior Lecturer in 2002. He has published over 90 papers in the areas of autonomic systems and distributed systems and is currently a Reader in self-managing computer systems. He founded the Autonomics Research Group in 2004. He was PI in the EU FP7 DySCAS project 2006-2009, developing a smart self-configuring middleware for automotive systems. He was a visiting researcher at Imperial College, London, on a six-month funded sabbatical, during 2007. Richard Anthony’s research interests cover all aspects of dynamic adaptation and control of computer systems. The broad field of work is best described as autonomic and self-managing systems and includes environment-sensitive and context-aware behaviour.

**Muhammad Awais Azam** received his BSc in Computer Engineering (won Gold Medal) from the University of Engineering & Technology (UET) Taxila, Pakistan, in 2006; his MSc in Wireless Networks (with Distinction) from Queen Mary University of London in 2008; and his PhD in Pervasive and Ubiquitous Computing from Middlesex University in 2012. He won fully funded scholarship for MSc and PhD degrees. Between 2006 and 2007, he was a Lecturer at UET. From May 2012 to July 2013, he worked as Head of Academics in Cromwell College of IT & Management, London, UK. From August 2013, he has been an Assistant Professor at the Department of Computer Engineering, UET Taxila, Pakistan. He leads a research team of MS and PhD students in the area of pervasive and ubiquitous computing. His research interest includes network architecture, communication protocols, network security, embedded systems, ambient intelligence, wireless communications, opportunistic networks, and recommender systems.

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**Jonathan Bishop** is an information technology executive, researcher, and writer. He has invented a number of systems to help people with autism and other social orientation impairments, including PARLE, PAIGE, PAIX, MEDIAT, and VOIS. Jonathan has over 60 research publications, including a number of papers on autism, as well as emerging conditions like empathy and demotism, which he
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has devised. He has four degrees, including a Masters, of which the MSc in E-Learning allowed him to research autism technology interventions. Jonathan is also the Chief Executive Officer of Crocel, an international group of companies exploiting IT intellectual property to encourage fraternity between nations and encourage peace congresses, of which his work on helping people with social orientation impairments forms an important part.

Enea Cippitelli was born in 1988 in Macerata. He obtained the High School diploma in Electronics and Telecommunication from I.T.I.S. “E. Divini” in San Severino Marche (MC), in 2007. He received the Bachelor’s Degree in 2010 and Master’s Degree (with honors) in 2012, in Electronics Engineering, both from Università Politecnica delle Marche. From March 2013 to October 2013, he has been a Research Assistant at Department of Information Engineering, Università Politecnica delle Marche. Since November 2013, he is a PhD student in Telecommunications. His research interests are focused on signal processing and computer vision techniques for Ambient Assisted Living applications.

Alberto L. Delis received the BSc degree in Computer Machine Engineering in Havana, Cuba, in 1992 from Pedagogical Superior Institute José Antonio Hecheverría, MSc degree in Automatic Control from University of Oriente in Cuba in 2004, and PhD degree in Electrical Engineering from the University of Brasilia (UNB), Brasilia, Brazil, in 2010. He is currently a Research Engineer associated with the Biophysics Medical Center, and is an Auxiliary Professor in the Electrical Department in the University of Oriente. His current research interests include biological signal processing, pattern recognition-based control for myoelectric prostheses and exoskeleton, functional electrical stimulation, and biomedical instrumentation.

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Markus Funk received his Diploma in Computer Science in 2012 and is currently a PhD-student at the University of Stuttgart. He took part in several international collaborations including an internship at Yahoo! Labs in Sunnyvale, CA. His research interests encompass interactive projected displays, assistive systems for the manual assembly workplace, and human-computer interaction.

Ennio Gambi was born in Loreto (Ancona) in 1961; he received from the University of Ancona, in 1986, the Degree in Electronic Engineering, in the field of Telecommunications, and in 1990, the Specialization Degree in Microwave Engineering. He is currently Associate Professor in the scientific field “Telecommunications,” and is affiliated since 15/6/1992 to the Polytechnic University of Marche, Italy. He was a founding member (in December 2004) of the University spin-off ArieLAB Ltd, a company engaged to the development of solutions for integrated domotic systems and for ambient assisted living. At present, the scientific interest of Prof. Ennio Gambi is framed into two main areas, the former devoted to the study of spread spectrum systems and the latter devoted to the study of ambient assisted living applications.
Samuele Gasparrini was born in Loreto on December 1987; he received his BS Degree in Telecommunication Engineering at the University of Ancona in 2009, and his MS Degree in Telecommunication Engineering at the University of Ancona in 2012, with 110/110 summa cum laude. In November 2012, he started his PhD course on Electronics, Electrotechnic, and Telecommunication Engineering at the Università Politecnica delle Marche. His current research includes low-power wireless transmissions, video and motion analysis processing, with special focus in depth stream information, applied to Ambient Assisted Living solutions.

Javier Gomez received the MSc degree in Computer Engineering and 2011. He is currently pursuing his PhD at the Department of Computer Engineering, Universidad Autónoma de Madrid, where he works as an assistant teacher. His research focuses on new and mobile technologies as assistive devices for people with cognitive disabilities in their daily lives. Due to the multidisciplinary nature of his research, he works in narrow collaboration with therapists, educators, job coaches and clinical staff, from different public and private centres and associations. His young career includes several journal and conference contributions and participation in public and private funded projects.

Ong Puay Hoon is the Associate Professor/Senior Lecturer of Faculty of Medicine and Health Science, Universiti Malaysia Sarawak, since Feb 2003. Her research interests are mainly on Disability Studies, especially in areas related to learning disabilities, Adolescent Health, Health Education and Promotion, Teaching-Learning and Assessment Practices, and Early Childhood Education.

Patrick Then Hang Hui is an active researcher with strong collaboration with industries. He has been actively publishing papers for journal, conference proceedings and book chapters. In parallel with his research, he is also investing efforts into supervision of Masters and PhD students. He has been entrepreneurial by conducting research using fund that he won from government and industry sponsors. Besides his active role in research, he is also contributing high level of innovation in his teaching by mentoring and exposing his students to the real world IT industry. Besides both research and teaching, Patrick has never ignored his administrative and leadership role as Associate Dean (Computing) of his Faculty.

Hudyjaya Siswoyo Jo obtained both his BEng (Hons) and PhD degree in Robotics and Mechatronics from Swinburne University of Technology in 2008 and 2013, respectively. Currently, he is a faculty member with the Faculty of Engineering, Computing and Science, Swinburne University of Technology Sarawak Campus, Malaysia. His research interests include modeling and control of mechatronics system, autonomous system, mobile robotics, smart vehicle, and also human machine interface. He is also actively involved in the development of mechanization and automation system for agriculture and plantation. Hudyjaya also has won several awards on his research and innovative works involving the development of mechatronics and automation system.

Oliver Korn is a computer scientist and CEO of the software company Korion. He is an expert on assistive systems and gamification. He received his PhD in Computer Science at the SimTech Cluster at the Institute for Visualization and Interactive Systems (VIS), University of Stuttgart. His work on assistive systems was prized with the Gips-Schule research award. Since 2001, he works on projects focusing human computer interaction, especially assistive systems and gaming. In this capacity, he worked at
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Sitwat Langrial is a PhD from the Department of Information Processing Science, University of Oulu, Finland. Prior to his doctorate, he completed MSc in Computing from the University of Aberdeen, UK. He is a recipient of various prestigious awards and scholarships from the UK and Australia. For the past four years, he has been working as a project researcher in a Finnish nationwide consortium with a specific focus on eHealth and general well being. He has developed new concepts, technologies, and IT artifacts with a specific focus on Human-Computer Interaction. Currently, he is working as a Post Doctoral Research Fellow at the Department of Information Processing Science, University of Oulu, Finland. His research interests include eHealth, mHealth, Information Systems for mental disorders, and Assistive Technologies.

Sian Lun Lau received his Dr.-Ing. in Computer Science (Informatik) and MSc in Electrical Communication Engineering from the University of Kassel, Germany. He also holds a BEng (Hons) in Electronics and Telecommunication from Universiti Malaysia Sarawak (UNIMAS). During his nine years (2004 – 2013) as a researcher at the Chair for Communication Technology at the University of Kassel, he has worked and managed various German National and EU-funded research projects. Among them are IST-MobiLife, ITEA S4ALL, BMBF MATRIX, and EU-SEAM4US. He joined the Department of Computer Science and Networked Systems at Sunway University in February 2013, and is currently an Associate Professor and the Head of Department. His research interests include context-awareness, future mobile applications, applied data mining, and mobile learning.

Emilio Luque is a full professor at the Computer Architecture and Operating System Department at the University Autonoma of Barcelona (UAB), Spain, where he is leading the HPC4EAS research group. Visiting professor in different universities in USA, Asia, Europe, and South America, keynote speaker in Computer Science Conferences, leader in several research projects founded by the European Union (EU), the Spanish government, and different companies, and member of the Editorial Board of various Technical Journals. External Researcher at the Computer Science Lab “LIDI” and member of the Board of the PhD program in “Computer Science,” both at the University of La Plata, Argentina. His major research areas are advanced simulation, smarter health services, performance prediction, efficient applications and fault tolerance in parallel computers. He has supervised 21 PhD theses and co-authored more than 230 full reviewed technical papers in journals and conference proceedings.

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David Preston is Head of Computer Science and Informatics at the University of East London. He was awarded a BSc in Pure Mathematics in 1977 from RHC (Lon), an MSc in Control Systems (Distinction) from Loughborough in 1978, and PhD from Sheffield in 1999. Following a career spanning over 20 years of industrial experience, mainly in the oil industry he moved into academia holding posts including City College of New York (CUNY) and in London. His interests have always been broadly concerned with finding efficaciously social impact business solutions; formerly making oil production development acceptable to the people affected by it and later by constructing computer structures that have social utility and community respect. Since 1978, he has published over 100 refereed papers ranging from highly specific Software Engineering solutions to generalised Technological Ethics.

Fernando Anddie Putra is currently an undergraduate student in the Faculty of Engineering, Computing, and Science, Swinburne University of Technology, Malaysia. He is now completing his Bachelor Degree in Information and Communication Technology. Prior to his course completion, Fernando had joined the Assistive Technology Research Group as Research Assistant.

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Zhunussuv Ruslan received his Bachelor of Science (Hons) in E-Commerce Technology from the Asia Pacific University College of Technology and Innovation (UCTI), Malaysia, in year 2011. He has then worked in his home country, Republic of Kazakhstan, from 2011 to 2013 as an IT administrator. He has begun his MSc in Information Systems study at Sunway University in 2013, with the research focus in emotion detection using Brain Computer Interface (BCI). His research interests include detection of human emotion using technology, brain signal pattern recognition, and human intention recognition.

Albrecht Schmidt is a professor for Human Computer Interaction at the University of Stuttgart. Previously, he was a Professor at University of Duisburg-Essen, had a joined position between the University of Bonn and the Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS). He studied computer science in Ulm and Manchester and received in 2003 a PhD from the Lancaster University in the UK. His research interest is in human computer interaction beyond the desktop, including user interfaces for mobile devices and cars. Schmidt published well over 150 refereed archival publications and his work is widely cited. He is co-founder of the ACM conference on Tangible and Embedded Interaction (TEI) and initiated the conference on Automotive User Interfaces (auto-ui.org). He is an area editor of the IEEE Pervasive Computing Magazine and edits a column on invisible computing in the *IEEE Computer Magazine*.

Henry Lee Seldon currently teaches near the Straits of Malacca in West Malaysia. Before that, he worked in Sarawak on the northwest edge of Borneo. Before that, he was a Senior Lecturer (for Health Informatics) at Monash University’s Frankston campus in Australia. Before that, he worked as a teledermicine consultant for a company in Melbourne. Before that, he was a Senior Research Fellow associated with the Australian Bionic Ear Institute. Before that, he was an ENT resident at University Hospital in Cologne, Germany. Before that, he was a student of medicine, or a postgrad student of biology, or an undergraduate student of physics in, respectively, Cologne, West Berlin, or Cambridge Massachusetts.

Susanna Spinsante was born in Osimo (Italy) in 1976. She received her PhD in Electronic Engineering and Telecommunications in 2005, from the Polytechnic University of Marche (Italy), and her Laurea (Graduate Diploma) Degree in Electronic Engineering (with honors) in 2002, from the same university. Since December 2005, she has been a PostDoc in Telecommunications at the same university, where now she is Assistant Professor in Telecommunications. During her PhD course, she spent a semester at the Department of Informatics of the University of Bergen (Norway), with a Marie Curie fellowship for a research activity on iterative coding issues for asymmetric channels. Since 2007, she has been adjunct professor at the Engineering Faculty of the Polytechnic University of Marche. In 2004, she was among the co-founders of the academic spinoff ArieLAB Ltd, active in the field of assistive home automation. Her current research interests are in the field of spread spectrum communications and technological frameworks for ambient assisted living.

Abdel-Rahman H. Tawil received his BSc in Computer Science from the University of Jordan in 1989, has an MPhil in Distributed Information Systems, and a PhD on Semantic Interoperability in a Heterogeneous Multi-information Servers Environment, 2003, from the University of Wales Cardiff in the UK. From 2001 to 2006, he worked as a lecturer at the School of Computing Science and Mathematics, Aston University in Birmingham, and is currently working as a senior lecturer at the University of East London. He is a member of the Distributed Software Engineering Research Group and has extensive
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**Mark Tee Kit Tsun,** currently a research assistant and PhD candidate at Swinburne University of
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