Contents

Collection of State Information in Live Digital Forensics 1
Fábio Freitas and António Pinto

Computer Vision Algorithms Fishing Vessel Monitoring—Identification of Vessel Plate Number 9
Joao C. Ferreira, Jorge Branquinho, Paulo Chaves Ferreira, and Fernando Piedade

Preliminary Development of a Walk-Helper Application Agent with an Assistant Personal Robot 18
David Martínez, Dani Martínez, Eduard Clotet, Javier Moreno, Marcel Tresanchez, and Jordi Palacín

Preliminary Application of an Assistant Personal Robot as an Ambient Monitoring Tool 25
Eduard Clotet, Dani Martínez, Javier Moreno, Marcel Tresanchez, and Jordi Palacín

MuSec: Sonification of Alarms Generated by a SIEM 32
Luís Sousa and António Pinto

Online Conversation Application with Confidentiality, Anonymity, and Identity Requirements 40
Pedro Fernandes, and António Pinto

Motion Detection in an Intelligent Textile Mattress Cover 47
Nelson Pimenta, Paulo Chaves, Luís Fernandes, and Diana Freitas

GoodsPooling: An Intelligent Approach for Urban Logistics 55
Joao C. Ferreira, Ana Lúcia Martins, and Rubén Pereira

Collision Detection System Using Mobile Devices and PANGEA 63
Alberto Moro, Fabio Andrés, Gabriel Villarrubia, Daniel Hernández, and Juan F. De Paz

Non-intrusive System for Monitoring the Risks of Sudden Infant Death Syndorme 70
Daniel Hernández, Gabriel Villarrubia, Alejandro M. Hernández, and Juan F. de Paz

We@Home: A Gamified Application for Collaboratively Managing a Smart Home 79
Danilo Caivano, Fabio Cassano, Daniela Fogli, Rosa Lanzilotti, and Antonio Piccinno

A Task Recommendation System for Children and Youth with Autism Spectrum Disorder 87
Margarida Costa, Angelo Costa, Vicente Julián, and Paulo Novais

Content-Based Image Retrieval in Augmented Reality 95
Leszek Kaliciak, Hans Myrhaug, and Ayse Goker

Envisaging the Internet of People an Approach to the Vulnerable Road Users Problem 114
Bruno Fernandes, José Neves, and Analide César

Intelligent Smartphone Audiometry 112
Alexander Kocian, Carmelo Ienco, Stefano Chessa, and Wilko Grolman

Smart Computer-Assisted Cognitive Rehabilitation for Visually Impaired People 121
Miguel Oliver, Mario García, José Pascual Molina, Jonatan Martínez, Antonio Fernández-Caballero, and Pascual González

Electric Vehicle Urban Exploration by Anti-pheromone Swarm Based Algorithms 131
Rubén Martín García, Francisco Prieto-Castrillo, Gabriel Villarrubia González, and Javier Bajo

A Pilot Study on Personalised Coaching to Increase Older Adults' Physical and Social Activities 140
Rebecka Janols, Esteban Guerrero, and Helena Lindgren

Environment Mapping with Mobile Robot Guided by a Markers Vision System 149
Juan Pablo Ángel-López, and Santiago Murillo-Rendón

Decision Support System for the Negotiation of Bilateral Contracts in Electricity Markets 159
Francisco Silva, Brígida Teixeira, Tiago Pinto, Isabel Praça, Goreti Marreiros, and Zita Vale

T2*—Personalized Trip Planner 167
Joao C. Ferreira, Ana Lucia Martins, Jorge Vieira da Silva, and João Almeida

Smart Management System for Electric Bicycles Loan 176
Jorge Revuelta Herrero, Juan Francisco de Paz Santana, Gabriel Villarrubia González, and Juan Manuel Corchado Rodríguez

Multi-agent System for the Control and Monitoring of Shared Bicycle Fleets 187
Luis Méndez, Daniel Hernández, Gabriel Villarrubia, and Juan F. de Paz

Adapting the User Path Through Trajectory Data Mining 195
João Ramos, Analide César, José Neves, and Paulo Novais

A Review of Multi-agent Based Energy Management Systems 203
Amin Shokri Gazafroudi, Juan F. De Paz, Francisco Prieto-Castrillo, Gabriel Villarrubia, Saber Talari, Miadreza Shafie-khah, and João P.S. Catalão

Modelling an Intelligent Interaction System for Increasing the Level of Attention 210
Dalila Durães, David Castro, Javier Bajo, and Paulo Novais

A Hospital Service Kiosk in the Patient's Pocket 218
Marta Serapicos, Hugo Peixoto, and Victor Alves

Development of a Hybrid Application for Psychotic Disorders Self-Management 229
Raquel Simões de Almeida, Constantino Martins, António Marques, Daniel Benevides, Alexandre Costa, Cristina Queirós, Tiago Sousa, Ana Almeida, Nuno Fonseca, and Luíz Faria

An Environment for Studying Visual Emotion Perception 238
Davide Carneiro, Hélder Rocha, and Paulo Novais

Defining an Architecture for a Ubiquitous Group Decision Support System 246
Diogo Martinho, João Carneiro, Goreti Marreiros, and Paulo Novais

An Architecture for Proactive Maintenance in the Machinery Industry 254
Alda Canito, Marta Fernandes, Luís Conceição, Isabel Praça, Magno Santos, Ricardo Rato, Gonçalo Cardeal, Francisco Leiras, and Goreti Marreiros

A Comparative Cost Study of Fault-Tolerant Techniques for Availability on the Cloud 263
Altino M. Sampaio and Jorge G. Barbosa

Information Security Maturity Level: A Fast Assessment Methodology 269
Sérgio Monteiro and João Paulo Magalhães

Author Index 278

http://www.springer.com/978-3-319-61117-4

Ambient Intelligence– Software and Applications – 8th International Symposium on Ambient Intelligence (ISAmI 2017)

De Paz, J.F.; Julián, V.; Villarrubia, G.; Marreiros, G.; Novais, P. (Eds.)

2017, XX, 279 p. 140 illus., 128 illus. in color., Softcover
ISBN: 978-3-319-61117-4