

# Contents

## Part I Semantic Web Applications

- 1 im4Things: An Ontology-Based Natural Language Interface for Controlling Devices in the Internet of Things** ..... 3  
José Ángel Noguera-Arnaldos, Mario Andrés Paredes-Valverde, María Pilar Salas-Zárate, Miguel Ángel Rodríguez-García, Rafael Valencia-García and José Luis Ochoa
- 2 Knowledge-Based Leisure Time Recommendations in Social Networks** ..... 23  
Dionisis Margaris, Costas Vassilakis and Panagiotis Georgiadis
- 3 An Ontology Based System for Knowledge Profile Management** ..... 49  
Oscar M. Rodríguez-Elias, María de Jesús Velázquez-Mendoza and Cesar E. Rose-Gómez
- 4 Sentiment Analysis Based on Psychological and Linguistic Features for Spanish Language** ..... 73  
María Pilar Salas-Zárate, Mario Andrés Paredes-Valverde, Miguel Ángel Rodríguez-García, Rafael Valencia-García and Giner Alor-Hernández

## Part II Knowledge Acquisition and Representation

- 5 Knowledge-Based System in an Affective and Intelligent Tutoring System** ..... 95  
Ramón Zatarain Cabada, María Lucía Barrón Estrada and Yasmín Hernández Pérez
- 6 A Software Strategy for Knowledge Transfer in a Pharmaceutical Distribution Company** ..... 115  
Mario Barcelo-Valenzuela, Patricia Shihemy Carrillo-Villafañá, Alonso Perez-Soltero and Gerardo Sanchez-Schmitz



|  |   |            |
|--|---|------------|
| <b>7</b>   | <b>GEODIM: A Semantic Model-Based System for 3D Recognition of Industrial Scenes . . . . .</b>  | <b>137</b> |
|  | Yuliana Perez-Gallardo, Jose Luis López Cuadrado,<br>Ángel García Crespo and Cynthia García de Jesús  |            |
| <b>8</b>   | <b>Beyond Interoperability in the Systems . . . . .</b>   | <b>161</b> |
|  | Aleksander Lodwich and Jose María Alvarez-Rodríguez   |            |
| <br><b>Part III Knowledge-Based Decision Support Systems<br/>(Tools for Industrial Knowledge Management)</b> |   |            |
| <b>9</b>   | <b>Knowledge-Based Decision Support Systems for Personalized <i>u</i>-lifecare Big Data Services . . . . .</b>  | <b>187</b> |
|  | Muhammad Fahim and Thar Baker   |            |
| <b>10</b>  | <b>Decision Support System for Operational Risk Management in Supply Chain with 3PL Providers . . . . .</b>   | <b>205</b> |
|  | Juan Carlos Osorio Gómez, Diego Fernando Manotas Duque,<br>Leonardo Rivera and Jorge Luis García-Alcaraz  |            |
| <b>11</b>  | <b>Assessment of Ergonomic Compatibility on the Selection of Advanced Manufacturing Technology . . . . .</b>  | <b>223</b> |
|  | Aide Maldonado-Macías, Arturo Realyvásquez,<br>Jorge Luis García-Alcaraz, Giner Alor-Hernández,<br>Jorge Limón-Romero and Liliana Avelar-Sosa                           |            |
| <b>12</b>  | <b>Developing Geo-recommender Systems for Industry . . . . .</b>  | <b>241</b> |
|  | Edith Verdejo-Palacios, Giner Alor-Hernández,<br>Cuauhtémoc Sánchez-Ramírez, Lisbeth Rodríguez-Mazahua,<br>José Luis Sánchez-Cervantes and Susana Itzel Pérez-Rodríguez |            |
| <b>13</b>  | <b>Evaluation of Denoising Methods in the Spatial Domain for Medical Ultrasound Imaging Applications . . . . .</b>  | <b>263</b> |
|  | Humberto de Jesús Ochoa Domínguez and Vicente García Jiménez  |            |
| <b>Appendix A: Attributes for AMT Ergonomic Evaluation . . . . .</b>   |   | <b>283</b> |
| <b>Appendix B: Rates Given by Experts to Milling Machines Alternatives . . . . .</b>                         |   | <b>287</b> |



Current Trends on Knowledge-Based Systems

Alor-Hernández, G.; Valencia-García, R. (Eds.)

2017, XXIV, 290 p. 86 illus., 58 illus. in color., Hardcover

ISBN: 978-3-319-51904-3