

Contents

Cloud and Mobile Computing

| | |
|---|----|
| Migrating SOA Applications to Cloud: A Systematic Mapping Study | 3 |
| <i>Miguel Botto-Tobar, Richard Ramirez-Anormaliza, Lorenzo J. Cevallos-Torres, and Edwin Cevallos-Ayon</i> | |
| Analysis of Mobile Applications for Self-healthcare of Panamanian Patients with Hepatitis | 17 |
| <i>Denis Cedeño-Moreno, Miguel Vargas-Lombardo, María Pilar Salas-Zárate, Mario Andrés Paredes-Valverde, and Rafael Valencia-García</i> | |
| Intelligent Agents and Semantic Web Services: Friends or Foes? | 29 |
| <i>Francisco García-Sánchez and Héctor Hiram Guedea-Noriega</i> | |

Knowledge Based and Expert Systems

| | |
|---|----|
| An Ontology-Based Decision Support System for the Management of Home Gardens | 47 |
| <i>Vanessa Vergara-Lozano, José Medina-Moreira, Christian Rochina, Mayra Garzón-Goya, Andrea Sinche-Guzmán, and Martha Bucaram-Leverone</i> | |
| A Collaborative Filtering Based Recommender System for Disease Self-management. | 60 |
| <i>José Medina-Moreira, Oscar Apolinario, Harry Luna-Aveiga, Katty Lagos-Ortiz, Mario Andrés Paredes-Valverde, and Rafael Valencia-García</i> | |
| Analysis of a Network Fault Detection System to Support Decision Making. | 72 |
| <i>Mitchell Vásquez-Bermúdez, Jorge Hidalgo, María del Pilar Avilés-Vera, José Sánchez-Cercado, and Christian Roberto Antón-Cedeño</i> | |
| Knowledge-Based Expert System for Control of Corn Crops | 84 |
| <i>Karen Mite-Baidal, Carlota Delgado-Vera, Evelyn Solís-Avilés, Manuel Jiménez-Icaza, Wilmer Baque, and Mónica Patricia Santos-Chico</i> | |

| | |
|--|-----|
| Applying a Software Estimation Method to the Human Resources Management Based on PMBOK | 96 |
| <i>Nemury Silega, Gilberto Fernando Castro, Danaysa Macías, Mitchell Vasquez-Bermúdez, Walter Eduardo Paredes, Néstor Vera-Lucio, and Jessenia Chalén</i> | |
| Evaluation of Vulnerability and Seismic Risk Parameters Through a Fuzzy Logic Approach. | 113 |
| <i>Lorenzo J. Cevallos-Torres, Alfonso Guijarro-Rodríguez, Nelly Valencia-Martínez, Jorge Tapia-Celi, and Wilmer Naranjo-Rosales</i> | |
| Applications in Healthcare and Wellness | |
| An IoT-Based Architecture to Develop a Healthcare Smart Platform | 133 |
| <i>Isaac Machorro-Cano, Uriel Ramos-Deonati, Giner Alor-Hernández, José Luis Sánchez-Cervantes, Cuauhtémoc Sánchez-Ramírez, Lisbeth Rodríguez-Mazahua, and Mónica Guadalupe Segura-Ozuna</i> | |
| A Development Model of an Embedded System for Improving the Mobility of People with Physical Disabilities. | 146 |
| <i>Maritza Aguirre-Munizaga, Vanessa Vergara-Lozano, Carlota Delgado-Vera, Jorge Hidalgo, and Rosa González-Villalta</i> | |
| A Decision Support Visualization Tool for Infection Management Based on BPMN and DMN | 158 |
| <i>Bernardo Cánovas-Segura, Francesca Zerbato, Barbara Oliboni, Carlo Combi, Manuel Campos, Antonio Morales, Jose M. Juarez, Francisco Palacios, and Roque Marín</i> | |
| Automatic Recording and Analysis of Somniloquy Through the Use of Mobile Devices to Support the Diagnosis of Psychological Pathologies . . . | 169 |
| <i>Virginia Aparicio-Paniagua, Jorge Pérez-Muñoz, Alejandro Rodríguez-González, Ángel García-Pedrero, Juan Miguel Gomez-Berbis, Consuelo Gonzalo-Martín, Ernestina Menasalvas-Ruiz, and Giner Alor-Hernández</i> | |
| Clinical Assessment Using an Algorithm Based on Fuzzy C-Means Clustering. | 181 |
| <i>Alfonso A. Guijarro-Rodríguez, Lorenzo J. Cevallos-Torres, Miguel Botto-Tobar, Maikel Leyva-Vazquez, and Jessica Yopez Holguin</i> | |
| Kushkalla: A Web-Based Platform to Improve Functional Movement Rehabilitation | 194 |
| <i>Fabián Narváez, Fernando Arbito, Carlos Luna, Christian Merchán, María C. Cuenca, and Gloria M. Díaz</i> | |

E-learning

| | |
|--|-----|
| Competences as Services in the Autonomic Cycles of Learning Analytic Tasks for a Smart Classroom | 211 |
| <i>Alexandra González-Eras, Omar Buendia, Jose Aguilar, Jorge Cordero, and Tania Rodríguez</i> | |
| A Cloud-Based Architecture for Robotics Virtual Laboratories | 227 |
| <i>Raquel Gómez-Chabla, Karina Real-Avilés, and Jorge Hidalgo</i> | |
| A Reference Framework for Empowering the Creation of Projects with Arduino in the Ecuadorian Universities. | 239 |
| <i>Raquel Gómez-Chabla, Maritza Aguirre-Munizaga, Teresa Samaniego-Cobo, Jhonny Choez, and Néstor Vera-Lucio</i> | |
| Ontology Model for the Knowledge Management in the Agricultural Teaching at the UAE. | 252 |
| <i>Ana Muñoz-García, Javier Del Cioppo, and Martha Bucaram-Leverone</i> | |

ICT in Agronomy

| | |
|--|-----|
| The Current State and Effects of Agromatic: A Systematic Literature Review | 269 |
| <i>William Bazán-Vera, Oscar Bermeo-Almeida, Teresa Samaniego-Cobo, Abel Alarcon-Salvatierra, Ana Rodríguez-Méndez, and Valeria Bazán-Vera</i> | |
| A Photogrammetry Software as a Tool for Precision Agriculture: A Case Study | 282 |
| <i>Carlota Delgado-Vera, Maritza Aguirre-Munizaga, Manuel Jiménez-Icaza, Nadia Manobanda-Herrera, and Ana Rodríguez-Méndez</i> | |
| Search for Optimum Color Space for the Recognition of Oranges in Agricultural Fields. | 296 |
| <i>José Luis Hernández-Hernández, Mario Hernández-Hernández, Severino Feliciano-Morales, Valentín Álvarez-Hilario, and Israel Herrera-Miranda</i> | |
| Predictive Models for the Detection of Diseases in Crops Through Supervised Learning | 308 |
| <i>Cristina Páez Quinde, Margarita Narváez Ríos, Segundo Curay Quispe, Marco Pérez Salinas, Francisco Torres Oñate, Daniel Sánchez Guerrero, Javier Sánchez Guerrero, and Carlos A. Morales F.</i> | |

Selection of Agricultural Technology: A Multi-attribute Approach. 319
 Jorge L. García-Alcaraz, Valeria Martínez-Loya,
 Aide Maldonado-Macias, and Liliana Avelar-Sosa

Author Index 333

Technologies and Innovation

Third International Conference, CITI 2017, Guayaquil,

Ecuador, October 24-27, 2017, Proceedings

Valencia-García, R.; Lagos-Ortiz, K.; Alcaraz-Marmol, G.;

Cioppo-Morstadt, J.D.; Vera-Lucio, N.;

Bucaram-Leverone, M. (Eds.)

2017, XIV, 334 p. 93 illus., Softcover

ISBN: 978-3-319-67282-3