Contents – Part VI

Workshop on Software Engineering Processes and Applications (SEPA 2017)

MC-DMN: Meeting MCDM with DMN Involving Multi-criteria Decision-Making in Business Process ................................................... 3
   Riadh Ghlala, Zahra Kodia Aouina, and Lamjed Ben Said

Context Sensitive Query Correction Method for Query-Based Text Summarization .......................................................... 17
   Nazreena Rahman and Bhogeswar Borah

Ontological Controlling the Lexical Items in Conceptual Solution of Project Tasks .......................................................... 31
   P. Sosnin and A. Pushkareva

IoT-Based Healthcare Applications: A Review ............................................. 47
   Itamir de Morais Barroca Filho and Gibeon Soares de Aquino Junior

Fast Semi-blind Color Image Watermarking Scheme Using DWT and Extreme Learning Machine ....................................................... 63
   Anurag Mishra, Ankit Rajpal, and Rajni Bala

Quality Enhancement of Location Based Services Through Real Time Context Aware Obfuscation Using Crowd Sourcing ............... 79
   Priti Jagwani and Saroj Kaushik

A Model-Based Testing Method for Dynamic Aspect-Oriented Software .... 95
   Maria Laura Pires Souza and Fábio Fagundes Silveira

   Quoc Trung Pham and Vi Khiet Huynh

An Experiment to Evaluate Software Development Teams by Using Object-Oriented Metrics ....................................................... 128
   Jamille S. Madureira, Anderson S. Barroso, Rogerio P.C. do Nascimento, and Michel S. Soares

An Event-Based Technique to Trace Requirements Modeled with SysML .... 145
   Telmo Oliveira de Jesus and Michel S. Soares
Test Case/Step Minimization for Visual Programming Language Models and Its Application to Space Systems ................................................................. 160
Paulo Nolberto dos Santos Alarcon and Valdivino Alexandre de Santiago Júnior

A System Based on Intelligent Documents: A Case Study ......................... 176
Jaroslav Král, Petr Novák, and Michal Žemlička

Proposing an IoT-Based Healthcare Platform to Integrate Patients, Physicians and Ambulance Services ................................................................. 188
Itamir de Morais Barroca Filho and Gibeon Soares de Aquino Junior

A Systematic Literature Review on Microservices ................................. 203
Hulya Vural, Murat Koyuncu, and Sinem Guney

Separation Logic for States Dependencies in Life Cycles of Android Activities and Fragments ................................................................. 218
Mohamed A. El-Zawawy

Posting Graphs for Finding Non-Terminating Executions in Asynchronous Programs ................................................................. 233
Mohamed A. El-Zawawy

Software Analytics for Web Usability: A Systematic Mapping .................... 246
Lucas Henrique Pellizon, Joelma Choma, Tiago Silva da Silva, Eduardo Guerra, and Luciana Zaina

Representing Contextual Relations with Sanskrit Word Embeddings ............. 262
Ishank Sharma, Shrey Anand, Rinkaj Goyal, and Sanjay Misra

A Mobile-Sensor Fire Prevention System Based on the Internet of Things ... 274
Julio César Rosas, José Alfonso Aguilar, Carolina Tripp-Barba, Roberto Espinosa, and Pedro Aguilar

Geographical Information System for Patients, Neoplasms and Associated Environmental Contamination ........................................................ 284
Jesús Leonardo Soto-Sumuano, Francisco Javier Olivera-Guerrero, José Alberto Tlacuilo-Parra, Roberto Garibaldi Covarrubias, Hugo Romo-Rubio, and Emmanuel Abundis-Gutierrez

Implementation and Performance Comparison of a Four-Bit Ripple-Carry Adder Using Different MOS Current Mode Logic Topologies ................ 299
Naman Saxena, Shruti Dutta, Neeta Pandey, and Kirti Gupta

Evaluation of Facial Expressions for Automatic Interpretation and Classification of Motivation by Means of Computer Techniques .............. 314
Catalina Alejandra Vázquez Rodríguez and Raúl Pinto Elías
Nearness and Influence Based Link Prediction (NILP) in Distributed Platform ................................................................. 325
  Ranjan Kumar Behera, Lov Kumar, Monalisa Jena, Sambit Mahapatra, Abhishek Sai Shukla, and Santanu Kumar Rath

Requirements Engineering for Cloud Systems: A Mapping Study Design .......... 335
  Fernando Wanderley, Eric Souza, Miguel Goulão, Joao Araujo, Gilberto Cysneiros, and Ananya Misra

Improved Energy-Efficient Target Coverage in Wireless Sensor Networks .... 350
  Bhawani S. Panda, Bijaya K. Bhatta, and Sambit Kumar Mishra

Standard Propagation Model Tuning for Path Loss Predictions in Built-Up Environments .................................................. 363
  Segun I. Popoola, Aderemi A. Atayero, Nasir Faruk, Carlos T. Calafate, Lukman A. Olawoyin, and Victor O. Matthews

Workshop on Sustainability Performance Assessment: Models, Approaches and Applications Toward Interdisciplinary and Integrated Solutions (SPA 2017)

Ecosystem Services and the Natura 2000 Network: A Study Concerning a Green Infrastructure Based on Ecological Corridors in the Metropolitan City of Cagliari ................................................................. 379
  Ignazio Cannas and Corrado Zoppi

Planning with Ecosystem Services in the Natura 2000 Network of the Metropolitan City of Cagliari ........................................... 401
  Maddalena Floris and Daniela Ruggeri

Citizen Engagement for Sustainable Development of Port Cities: The Public Debate About Development Projects of Livorno Port ................................................................. 416
  Claudia Casini

Market Prices and Institutional Values: Comparison for Tax Purposes Through GIS Instrument ................................................................. 430
  Gianluigi De Mare, Antonio Nesticò, Maria Macchiarioli, and Luigi Dolores

Daily Temperature and Precipitation Prediction Using Neuro-Fuzzy Networks and Weather Generators ......................................... 441
  Vito Telesca, Donatella Caniani, Stefania Calace, Lucia Marotta, and Ignazio M. Mancini

Bridging Biodiversity Conservation Objectives with Landscape Planning Through Green Infrastructures: A Case Study from Sardinia, Italy ................. 456
  Sabrina Lai and Federica Leone
Assessing the Investments Sustainability After the New Code on Public Contracts .................................................. 473
   Manuela Rebaudengo and Francesco Prizzon

Quality of Life and Social Inclusion of Inland Areas: A Multidimensional Approach to Performance Policies and Planning Assessment ............... 485
   Carmelina Prete, Mario Cozzi, Mauro Viccaro, and Severino Romano

   Francesco Scorza and Beatrice Giuzio

A Renewed Rational Approach from Liquid Society Towards Anti-fragile Planning ................................................................. 517
   Giuseppe Las Casas and Francesco Scorza

Conflicts Between Environmental Protection and Energy Regeneration of the Historic Heritage in the Case of the City of Matera: Tools for Assessing and Dimensioning of Sustainable Energy Action Plans (SEAP) . . . 527
   Francesco Scorza, Luigi Santopietro, Beatrice Giuzio, Federico Amato, Beniamino Murgante, and Giuseppe Las Casas

Measuring Territorial Specialization in Tourism Sector: The Basilicata Region Case Study ............................................................... 540
   Francesco Scorza, Ylenia Fortino, Beatrice Giuzio, Beniamino Murgante, and Giuseppe Las Casas

Four Perspectives of Applied Sustainability: Research Implications and Possible Integrations ................................................................. 554
   Jolanta Dvarioniene, Valentin Grecu, Sabrina Lai, and Francesco Scorza

Making Urban Regeneration Feasible: Tools and Procedures to Integrate Urban Agenda and UE Cohesion Regional Programs ........................ 564
   Piergiuseppe Pontrandolfi and Francesco Scorza

Engaged Communities for Low Carbon Development Process ...................... 573
   Alessandro Attolico, Ian Bloomfield, Jolanta Dvarioniene, Inga Gurauskiene, Daina Kliaugaite, Balazs Mezosi, and Francesco Scorza

A Quantitative Measure of Habitat Quality to Support the Implementation of Sustainable Urban Planning Measures ............................ 585
   Rosa Epifani, Federico Amato, Beniamino Murgante, and Gabriele Nolé

Incentives for Social Sustainability of the Third Sector in Lithuania ........... 601
   Dziugas Dvarionas
Conversion of Dual Fuel Opportunities in Indonesia Waterways

Rizqi Fitra, Fredhi Agung Prasetyo, Rudiyanto Rudiyanto, and Tutut Herawan

Workshop on Advances in Spatio-Temporal Analytics (ST-Analytics 2017)

Classification Method by Information Loss Minimization for Visualizing Spatial Data

Toshihiro Osaragi

Online Reverse Subpattern Matching for Reproducing Trajectories from Sub-paths

Marie Kiermeier

An Algorithm to Discover Partners in Trajectories

Diego Vilela Monteiro, Karine Reis Ferreira, and Rafael Santos

Clustering Methods to Asses Land Cover Samples of MODIS Vegetation Indexes Time Series

Lorena A. Santos, Rolf E.O. Simoes, Karine R. Ferreira, Gilberto R. de Queiroz, Gilberto Camara, and Rafael D.C. Santos

Gisplay- Extensible Web API for Thematic Maps with WebGL

Diogo Cardoso, Rui Alves, João Moura Pires, Fernando Birra, and Ricardo Silva

Short Papers

Theoretical Model of the Total Mass of Ejecta from Unmelted Metals

Anmin He, Jun Liu, JianLi Shao, and Pei Wang

Influence of Void Coalescence by Direct Impingement on Spall Response of Polycrystalline Metal

Feng-guo Zhang, Jian-li Shao, Pei Wang, and Qi-jing Feng

Sentiment Analysis Applied to Hotels Evaluation

Gustavo Soares Martins, Alcione de Paiva Oliveira, and Alexandra Moreira

Analyzing and Inferring Distance Metrics on the Particle Competition and Cooperation Algorithm

Lucas Guerreiro and Fabricio Breve

The D’Alembert Type Solution of the Cauchy Problem for the Homogeneous with Respect to Fourth Order Derivatives for Hyperbolic Equation

Mahir Rasulov, Zafer Aslan, Bahaddin Sinsoysal, and Hakan Bal
A Nonlinear Finite Element Formulation Based on Multiscale Approach to Solve Compressible Euler Equations .......................................................... 735
   Sérgio Souza Bento, Paulo Wander Barbosa, Isaac P. Santos, Leonardo Muniz de Lima, and Lucia Catabriga

Pump Efficiency Analysis of Waste Water Treatment Plants: A Data Mining Approach Using Signal Decomposition for Decision Making. ............. 744
   Dario Torregrossa, Joachim Hansen, Francesc Hernández-Sancho, Alex Cornelissen, Georges Schutz, and Ulrich Leopold

“It Sounds Wrong…” Does Music Affect Moral Judgement? ..................... 753
   Alessandro Ansani, Francesca D’Errico, and Isabella Poggi

Using Accelerometers to Improve Real Time Railway Monitoring Systems Based on WSN ............................................................... 761
   Suzane G. dos Santos, Iury R.S. de Araújo, Eudisley G. Anjos, Romulo C.C. Araújo, and Franciscos A. Belo

Comparative Analysis of Two Variants of the Knox Test: Inferences from Space-Time Crime Pattern Analysis ...................................................... 770
   Monsuru Adepeju and Andy Evans

Testing the Adequacy of a Single-Value Monte Carlo Simulation for Space-Time Interaction Analysis of Crime .............................................. 779
   Monsuru Adepeju

Transport Properties of Liquid Aluminum at High Pressure from Quantum Molecular Dynamics Simulations ......................................................... 787
   Shuaichuang Wang and Haifeng Liu

Author Index ................................................................. 797
Computational Science and Its Applications – ICCSA 2017
17th International Conference, Trieste, Italy, July 3-6, 2017, Proceedings, Part VI
Gervasi, O.; Murgante, B.; Misra, S.; Borraso, G.; Torre, C.M.; Rocha, A.M.A.C.; Taniar, D.; Apduhan, B.O.; Stankova, E.; Cuzzocrea, A. (Eds.)
2017, XXXVI, 799 p. 315 illus., Softcover
ISBN: 978-3-319-62406-8