

EDITORIAL

The IADIS International Journal on Computer Science and Information Systems (IJCSIS) is a peer-reviewed scientific journal published exclusively in an electronic form. Its mission is to publish original contributions pertaining to the topics of Information Systems and their uses, to disseminate knowledge amongst its readers and to be a reference publication. The IADIS IJCSIS publishes original research papers and review papers, as well as auxiliary material such as short ongoing research papers, case studies, conference reports, management reports, book reviews and commentaries.

The Volume 15, Issue 2 (ISSN: 1646-3692) combines eleventh selected original papers that bring together researchers covering the wide spectrum of the area of Computer Science and Information Systems in different contexts. The authors' contributions embrace significant research topics and intend to provide a current depiction of the research in the field while opening way to future research.

The first paper in this issue by Hilde G. Corneliussen and Gilda Seddighi entitled "THE CHALLENGE OF IMPLEMENTING THE NATIONAL GENDER EQUALITY NORM IN IT ORGANIZATIONS" explores the gender equality norm in IT organizations in the Nordic context. The authors conclude that it is necessary more "knowledge about how employers and organizations hiring IT experts perceive and deal with gender equality in light of women's underrepresentation in fields of IT".

The second paper by Ángel Rubén Barberis and Lorena E. Del Moral Sachetti entitled "STATISTICAL METHOD TO EVALUATE CONVERGENCE OF NON-LINEAR OPTIMIZATION ALGORITHMS IN CALL CENTERS PROBLEMS" focuses on the optimization of Call Centers. This paper describes a strategy that uses stochastic simulation to examine the statistical convergence of integer nonlinear optimization algorithms in the study of Call Center challenges.

The third contribution by Hirofumi Nagano, Taku Shimosawa, Atsushi Shimamura and Norihisa Komoda named "RELIABLE ARCHITECTURE OF CROSS ORGANIZATIONAL WORKFLOW MANAGEMENT SYSTEM ON BLOCKCHAIN" proposes a system architecture for cross organizational workflow management utilizing blockchain technology. It is proposed a system which eliminates SPoT throughout the workflow lifecycle including defining, executing, and auditing process.

The fourth paper by Imen Ben Mansour, Ines Alaya and Moncef Tagina with the title "DESIGN OF COOPERATIVE OPENMP-BASED METAHEURISTIC APPROACH FOR MULTI-OBJECTIVE KNAPSACK PROBLEM", presents a parallel Multiobjective Ant Colony Optimization approach based on OpenMP to resolve the Multiobjective Knapsack Problem. The proposed approach combined a MultiObjective Ant Colony Optimization (MOACO) algorithm with Tchebycheff based Local Search (TLS) procedure.

The fifth paper by Anne Falkenberg and Benjamin Buchwitz entitled “PREDICTING CONSUMER GOODS PRICES – THE SHORT-, MEDIUM- AND LONG-TERM PERSPECTIVE” assessed “the forecasting performance of 16 methods for the usage of customer- and business partner-centric applications of price prediction services based on a large sample of product price time series from the German consumer electronic goods e-commerce market”.

The sixth paper entitled “ATLAS CHRONICLE: DEVELOPMENT AND VERIFICATION OF A SYSTEM FOR PROCEDURAL GENERATION OF STORY-DRIVEN GAMES” by Elizabeth A. Matthews and Juan E. Gilbert explores the concept of procedural content generation for Games. It is proposed a system, named Atlas Chronicle, for the generation of world maps for games that include story-driven locations. The system uses a mixture of story abstraction, graphs, physics simulation, Perlin noise, interpolation, and climate mapping to generate 2D tile-based maps given a basic story structure.

The seventh paper entitled “MODELLING SERIOUS GAMES FOR ENHANCING END USER CYBER SECURITY AWARENESS” authored by Mathew Nicho has the purpose to present a serious games model that assist organizations to substantially enhance computer user’s cyber security awareness. This study focuses on “strategically deploying serious games to educate, train and aware organizational users to detect, prevent, eliminate/mitigate and report instances of social engineering threats deployed by advanced persistent threat (APT) vectors, that predominantly target organisational user vulnerabilities”.

The eight paper, by Amela Karahasanović, Alma Leora Culén, Jan Håvard Skjetne and Geir Hasle, titled “KEY PERFORMANCE INDICATORS IN DESIGN FOR SUSTAINABLE RURAL TRANSPORT” addresses transport-related challenges in rural Norway. The purpose of this study is to identify a set of values for the design and mechanisms of transitioning towards more sustainable rural transport making a real-life difference for people living in rural areas.

The ninth paper, by Matteo Fanchin, Patrik Pluchino and Luciano Gamberini, titled “NOVEL MUSIC INTERACTIONS: THE SUBJECTIVE EXPERIENCE IN BEGINNER AND EXPERT MUSICIANS” aims to examine how the features of three different multi-effects pedalboards for guitar affected the subjective experience of musicians in terms of perceived usability, UX (user experience), and acceptance.

The tenth paper, by Maja Kocoń, named “HEAD MOVEMENTS IN THE IDLE LOOP ANIMATION” describes the synthesis of virtual human head movements while waiting for a response in human-machine interaction systems. The presented approach uses a three-dimensional human head model and kinematic chain of rigid elements. The authors propose a method to perform a motion sequence of a virtual head in the idle mode.

The eleventh paper, by Jean Samarone de Almeida Ferreira, Ana Paula Lüdtke Ferreira and Naylor Bastiani Perez, named “A HIDDEN MARKOV CHAIN APPROACH TO CROP YIELD FORECASTING” presents a hidden Markov model approach for forecasting weight production. According to the authors the model can deal with any culture or provided data. Results show that the model can capture both spatial and temporal harvest variability.

These papers illustrate the different facets of research done on different contexts of Computer Science and Information Systems. The review of the relevant literature contributes to the theoretical grounding of these areas and the innovative empirical research on different technologies creates opportunity for the development of innovative findings.

The Editors

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