

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 13, Issue 2 (ISSN: 1646-3692) combines eight selected original papers that bring together researchers covering the wide spectrum of the area of Computer Science and Information Systems in different contexts, such as, Theory and Practice in Modern Computing, WWW/Internet and Applied Computing. 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 John L. Gibbs entitled "VIDEO COLOR GRADING VIA DEEP NEURAL NETWORKS" focuses on complex task of color correction for film and video. The author, in order to define whether deep neural networks are capable of learning this task, compares two network frameworks—a classification network, and a conditional generative adversarial network, or cGAN—examining the quality and consistency of their output as possible automated solutions to color correction. As a result, both network frameworks produce very high quality results.

The second contribution by Toshihiko Kato, Masahito Moriyama, Ryo Yamamoto, and Satoshi Ohzahata named "PERFORMANCE EVALUATION OF TCP SPURIOUS TIMEOUT DETECTION METHODS UNDER DELAY SPIKE AND PACKET LOSS EMULATING LTE HANDOVER" describes "the performance evaluation of the well-known spurious timeout detection methods implemented within TCP, Eifel, DSACK, and F-RTO, through experiments with the network emulator emulating handovers over LTE (Long Term Evolution) networks". The authors present the results of performance evaluation for TCP spurious timeout detection methods supposing LTE handovers.

The third paper, by Felix Sanchez-Puchol, Joan A. Pastor-Collado, and Baptista Borrell with the title "FIRST IN-DEPTH ANALYSIS OF ENTERPRISE ARCHITECTURES AND MODELS FOR HIGHER EDUCATION INSTITUTIONS", reports on the fact that Enterprise Reference Architectures (ERAs) and Reference Models (RMs) have emerged over the last years as significant instruments for improving the quality and effectiveness of enterprise architecture (EA) practice. The authors critically review, evaluate, compare and classify existing ERAs and RMs for Higher Education Institutions.

The fourth paper by Georg Zitzlsberger, Branislav Jansík, and Jan Martinovič entitled “FEASIBILITY ANALYSIS OF USING THE MAUI SCHEDULER FOR JOB SIMULATION OF LARGE-SCALE PBS BASED CLUSTERS” propose and discuss how to run job simulations for large-scale PBS (Portable Batch System) based clusters with the Maui Scheduler (MS). The authors to show the “viability of MS for larger systems we describe the configuration and changes to approximate the behavior of the PBS job scheduler for a non-trivial 2 PetaFLOP/s system”.

The fifth paper, by André Langer, Christoph Göpfert and Martin Gaedke, titled “URI-AWARE USER INPUT INTERFACES FOR THE UNOBTRUSIVE REFERENCE TO LINKED DATA” focuses on “the design of form elements that unobtrusively allow input data both for human and machine interaction from a semantic point of view”. The authors present URI-aware user input interfaces, that allow the management of data labels together with corresponding Linked Data entity URIs (Uniform Resource Identifier) as persistent identifiers in the frontend of semantic-aware web applications in a transparent and inconspicuous way.

The sixth work with the title “AUTOMATIC GENERATION OF ONTOLOGIES: A HIERARCHICAL WORD CLUSTERING APPROACH” authored by Smail Sellah and Vincent Hilaire, taking in consideration that traditional methods of information retrieval do not take semantics into account, proposes a hierarchical word clusters as an alternative to flat word clusters. The authors believe that a hierarchical representation of word clusters will support to detect more clusters and semantic relationships between clusters, thus improving knowledge management.

The seventh contribution entitled “EVALUATING USER VULNERABILITIES VS PHISHER SKILLS IN SPEAR PHISHING” written by Mathew Nicho, Hussein Fakhry and Uche Egbue reports on some factors that have a greater influence on an unsuspecting user’s propensity to fall victim to a phishing or spear phishing attack. Accordingly, to the authors spear phishing emails pose great threat to employees of organizations due to the intrinsic weakness of the employees in identifying the threat from spear phishing signals, as well as the spear phisher’s skill in crafting contextually convincing emails.

The last paper, by Miho Imazaki, Norio Shimozono, and Norihisa Komoda, named “EFFICIENT SNAPSHOT METHOD FOR ALL-FLASH ARRAY” focuses on the need for a high-performance storage system in the enterprise IT infrastructures context. Therefore, the authors propose an efficient snapshot method named MSiF (Mapping Switching in Flash Translation Layer) which is appropriate for AFA (all-flash array) with the purpose to reduce data copy, based on CoW (Copy on Write) which can backup large capacity data.

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

Pedro Isaías
The University of Queensland, Australia

Marcin Paprzycki
SWPS, Poland