
Editorial

Florin Popențiu-Vlădicescu

Academy of Romanian Scientists,
UNESCO Chair Department,
University of Oradea,
1, University Street,
City – Oradea, 410087, Romania
E-mail: popentiu@imm.dtu.dk

Biographical notes: Florin Popențiu-Vlădicescu graduated in Electronics and Telecommunications from University POLITEHNICA of Bucharest in 1974 and holds a PhD in Reliability in 1981. He has worked for many years on problems associated with UNESCO and has been the Co-Director of two NATO Research Projects. He has published over 100 papers in international journals and conference proceedings and is co-author of four books. He is on the advisory board of several international journals, including ‘*Reliability and Risk Analysis: Theory and Applications*’ and is a reviewer to ‘*ACM Computing Reviews*’. Also, he is currently the Associated Editor of the *International Journal of Information and Communication Technology*.

Nowadays, both complex business development and complex software integration benefit from recent methodologies and principles of service orientation.

This issue is dedicated to cloud computing systems as service-oriented architecture-based, and covers recent developments in reliable and secure cloud storage service modelling, the implementation of performance analysis and evaluation frameworks for cloud systems, multi-input-multi-output (MIMO) estimation by fuzzy multi layer perceptron (FMLP) architectures, and active replication mechanisms for increasing the file availability in distributed computing environments.

The authors Manu Vardhan and Dharmender Singh Kushwaha, in their paper, introduce a file replication server and a threshold-based file replication (TBFR) mechanism, and demonstrate performance improvements when compares against other protocols. The stability analysis of the TBFR method is proved in a process algebraic framework.

The FMLP inference engine designed for a fuzzy-neural estimator of stochastic MIMO wireless channels uses multiple membership and inference rule generation norms as the authors Kandarpa Kumar Sarma and Abhijit Mitra demonstrate in the second paper.

A configurable toolkit to evaluate cloud system runtime performance or to compare various policies and algorithms, by managers and researchers is proposed, in the third paper, by Peng Xiao and Dongbo Liu.

The design and implementation of a scalable, robust and fault tolerance news retrieval system is described by Arockia Anand Raj and T. Mala, as Cloudpress 2.0 project.

B.R. Purushothama, B. Shrinath and B.B. Amberker describe the proposal and implementation of a secure storage service providing a cryptographic guarantee for the security to store, access and share the user data by limited proxy re-encryption scheme.

In the following paper, Pradeep Kumar and Yogesh Singh present the results of an investigation on current soft computing techniques used in predicting software reliability with specific focus on methods, metrics and datasets.

Finally, the agent-oriented paradigm is considered by Srimathi Chandrasekaran and Veeranjaneyulu Gangineni to support service replication and reactivation in order to manage fault tolerant distributed systems. Experimental results are reported for the WADE platform.

The great interest in cloud computing systems from both business and research points of view will produce new scientific results to be considered for publication in regular or special issues of the *International Journal of Information and Communication Technology*.