Editorial

The fourth issue of *CIT. Journal of Computing and Information Technology* consists of five papers from its regular section and one originating from the *16th International Conference on Human-Computer Interaction – HCI International 2014*. The papers describe R&D efforts performed in the areas of computer networks, Semantic Web, optimization algorithms, project management as well as HCI for the Age of Learning.

The first paper by Qilin Wu, Xianzhong Zhou and Shiyi Wang discusses cooperating relay for improving the performance of cooperative communication systems. In their paper *Relay Selection Considering Successive Packets Transmission in Cooperative Communication Networks* they propose a relay selection scheme for maximizing the number of successive transmissions in order to reduce the relay selection frequency. Through numerical results they show that the proposed relay selection scheme can effectively support the operation of successive packets transmission.

The main challenging trait of MANETs is the mobility of hosts, which consequently creates instability in the links and leads to frequent route failures during communication. Sivakumar Menaka and M. K. Jayanthi propose both a new routing technique to identify stable routes and an effective route maintenance scheme to handle the varying speed of nodes mobility such that communication is not disrupted during link failures. The main contribution of their paper *Adaptive and Self Healing Routing for Mobile Ad Hoc Networks Using Cross Layer Design* lies in the proposal of an effective scheme to maintain the continuity of communication by recognizing the danger of route failure due to either node mobility or node battery draining.

In the third paper, titled *Construction of RDF(S) from UML Class Diagrams*, Qiang Tong, Fu Zhang and Jingwei Cheng propose an approach to and implementation of a prototype tool for constructing RDF(S) from UML. After providing the formal definitions for UML and RDF(S), they offer detailed construction rules for this approach and corroborate it with a working example used to analyze and discuss it. The paper describes the implementation of the prototype construction tool in order to show the feasibility of both the approach and the tool itself. The described research could in this respect act as a gap-bridge between existing UML applications and the Semantic Web.

The fourth paper of this issue, titled *A Parallel Hyper-heuristic Approach for the Two-dimensional Rectangular Strip-packing Problem*, is authored by Istvan Borgulya. The paper considers the particular problem of cutting and packing optimization known as the two-dimensional rectangular strip-packing problem (2DSP), for which the author contributes a new parallel hyper-heuristic (HH) algorithm. This is an island model, where HH uses memory-based mutations and local search both to control the application of the heuristics and to select other heuristics.

The paper *An Empirical Study of Offshore Software Development: the Case of a Ticketing Application* by Carlo Consoli, Paolo Rocchi and Paolo Spagnoletti delves into the area of project management. The paper reports on the development of a large software project targeting ticketing application for a railway based goods and passenger transport company, which was meant to redefine and expand the entire ticket trading system of the client. Particular issues that caused the project failure are analyzed, which mainly originated from cultural differences between the local (onshore) and the offshore development teams. After identifying the main work organization deficiencies which prevented knowledge delivery and knowledge acquisition between the teams, a successful remodeling of the project organization is described.

And finally, in the last paper of the issue, Francesca Maria Dagnino, Leontios J. Hadjileontiadis, Michela Ott and Francesca Pozzi describe the requirements elicitation and evaluation criteria definition for the design and implementation of an ICT based system supporting learning and transmission of Intangible Cultural Heritage (ICH). The strong links between the two aspects of system design and implementation are highlighted with a view on the very peculiar constraints which ensue from the specific area of ICH. The paper, titled *An Integrated Platform Supporting Intangible Cultural Heritage Learning and Transmission: Definition of Requirements and Evaluation Criteria*, is an extended and consistently modified version of the presentation given within the Parallel Session *HCI in Support of the Age of Learning* at the *16th International Conference on Human-Computer Interaction – HCI International 2014*, and is published in agreement with the Conference organizers.

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