EDITORIAL

This special issue of JMM is dedicated to the best papers presented at the sixth edition the Next Generation Networks (NGN) and Services NGNs’16, that was held in Rabat (Morocco) in December 2016, comes to confirm the NGN and services importance in the scientific research field as well as in the industrial and economic eras. The migration towards Next Generation Networks has altered the network topology which potentially involves several structural has altered, such as a reorganisation of core network nodes and changes in the number of network hierarchy levels. It is obvious that NGNs will have a big impact on the future of computing and communications as networks become converged, faster and ubiquitous, thus, leading to the emergence of new services. After the success of previous editions (five editions organized in Morocco, Tunisia and Portugal), NGNs’16 has as objective to give report of the situation on the present state of research in the domains of next generation networks and services.

The call for papers of NGNs’2016 has attracted 67 papers on a wide spectrum of topics, including Mobile, Ubiquitous and Pervasive Computing and Communications, QoS and Performance Evaluations and Web Based Systems, Technologies and Social issues. 29 papers have been accepted for oral presentations in the conference after a strict review process conducted by at least two reviewers for each paper. Out of 22 full papers, we selected 7 papers to be invited for the special issue in the journal of mobile and multimedia (JMM).

The first paper Towards Enhanced QoS Management SDN-Based for NGN with QoE Evaluation: IMS Use Case by S. Khairi, B. Raouyane, and M. Bellfakih, and aims to to present a new architecture SDN-based for Next Generation Networks to enhance the QoS management. The Quality of Experience (QoE) is evaluated in terms of the Video Mean Opinion Score (VMOS).

The second paper A Novel Anomaly Intrusion Detection Based on SMO Optimized by PSO with pre-processing of Data Set by M. Moukhafi, K. El Yassini, and S. Bri proposes a novel method of intrusion detection based on pre-processing of training data and a combination PSO (Particle Swarm Optimization) -SMO (Sequential minimal optimization) to develop a model for intrusion detection system.

The third paper GENAUM: New Semantic Distributed Search Engine by I. Saif, A. Doukkali, A. Enaanai, and E. Benlahmar presents the overall architecture of GENAUM: the collaborative, semantic and distributed search engine, based on a network of agents, which is the core part of the system. The functionality of GENAUM is spread across multiple agents to fulfil user’s performance expectations.

The fourth paper Coupling and Annotated Corpus and a Lexicon for Amazigh POS Tagging by S. Amri, L. Zenkouar, and M. Outahajala investigates how to best couple hand-annotated data with information extracted from an external lexical resource to improve part-of-speech tagging performance. Focusing mostly on Amazigh tagging, the authors introduce a decision tree and a Markov
model using TreeTagger system. Their system gives better accuracy on the Amazigh corpus, and an error reduction over the same tagger without lexical information.

The fifth paper *Sentiment Classification of Arabic Tweets: A Supervised Approach* by N. Boudad, R. Faizi, R. O. Haj Thami, R. Chiheb investigates sentiment classification in Arabic tweets using machine learning. Three classifiers namely Naïve Bayes, Support Vector Machine and K-Nearest Neighbor were evaluated on an in-house developed dataset using different features.

The sixth paper *Teaching Power Electronics and Digital Electronics using Personal Learning Environments: From Traditional Learning to Remote Experiential Learning* by M. Gourmaj, A. Naddami, A. Fahl, and A. Berqia, proposes a solution based on student’s Personal Learning Environments ‘PLEs’ educational platforms that help learners take control and manage their own learning process, learning modules with remote experiments, for reaching a specific goal.

Finally, the seventh paper *A Map-Matching based Approach to Compute and Modelize NLOS and Multipath Errors for GNSS Positioning in Hard Areas* by B. Guermah, T. Sadiki, H. El Ghazi, S. Reboul, and E. Ahouzi proposes an approach to compute and adapt the multipath error model to the reception condition of each satellite signal. The authors show that a Gaussian, Rayleigh and uniform model were not be able to model effectively multipath errors and that a Gaussian mixture model can approximate the multipath errors and improved positioning accuracy in urban environment.

We hope readers will find the content of this special issue interesting and will inspire them to look further into the challenges that are still ahead before designing advanced data applications and complex systems.

Last but not the least, we would like to thank the authors for their valuable contributions and the general chairs, technical program committee chairs, publication chairs, local arrangement chairs, advisory and organizing committee, steering committee and the reviewers for their efforts and for the time, they spent on the review process of the papers.

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*Guest Editor*