Editorial

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Biographical notes: Giovanni Morana is a researcher at the Engineering Faculty of the University of Catania (Department of Computer and Telecommunication Engineering), where he received his PhD in Computer Science and Telecommunication Engineering in 2009. His research activity is mainly focused in designing algorithms for optimising resources management in distributed environments, including cloud, grid and P2P systems. The results of his researches have been collected in more than 50 scientific papers, published in peer-reviewed international journals and conference proceedings.

Fatos Xhafa holds a PhD in Computer Science from the Technical University of Catalonia (UPC), Barcelona, Spain. He was a Visiting Professor at the University of London, UK (2009/2010) and a Research Associate at Drexel University, Philadelphia, USA (2004/2005). He has widely published in peer reviewed international journals, conferences/workshops, book chapters and edited books and proceedings in the field. He is Editor-in-Chief of the International Journal of Space-based and Situated Computing, and of International Journal of Grid and Utility Computing, Inderscience. He actively participates in the organisation of international conferences. His research interests include parallel and distributed algorithms, combinatorial optimisation, networking, cloud, grid and P2P computing.

Simulation and process modelling have been among most attractive research fields in the recent past. At present, owing to the fast development in internet technologies, simulation and process modelling are finding their application to a range of complex networking systems and distributed computing paradigms, including cloud computing, wireless sensor networks, delay-tolerant networks, etc. Indeed, advancement in these fields requires the modelling and evaluation of novel algorithms, architectures, implementations, processes, and security, and therefore modelling and simulation has become crucial.

This special issue on ‘Modelling and simulation in complex networking systems’ follows from papers presented at the 6th CISIS-2012/ICLS-2012 held in Palermo, Italy, from 4–6 July 2012. The six papers present research findings on a number of related topics of modelling and simulation, and propose novel solutions along with discussion on future trends in this field. The special issue also identifies challenges in the field of simulation and process modelling in an interdisciplinary research field of complex networking systems. We hope readers, researchers and practitioners will find the special issue useful for their activities in the research area of simulation and modelling of complex networking systems.

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