Special issue with selected papers from 2016 Brazilian Symposium on Computer Engineering (SBESC 2016)

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In 2016, the Embedded Systems track of the Brazilian Symposium on Computing Systems Engineering (SBESC) received many high quality submissions. According to the ranking produced by the Program Committee, authors of six top submissions have been invited to submit revised and extended versions of their papers for consideration by this journal. After a strict review process we selected two articles for inclusion in this special issue

The first paper is entitled “LVWNet: An Hybrid Simulation Architecture for Wireless Sensor Networks” by Gilles Silvano, Ivanovich Silva, Leonardo Oliveira, Marcos Pinheiro and Bruno Ferreira. The authors proposes a hybrid simulation environment for wireless networks, providing flexibility by the virtualization of the wireless nodes and the topology of the network, which creates a hybrid scenario that can be used to achieve a better analysis and validation of IoT (Internet of Things) applications.

The second paper is “Analysis of Design Strategies for Unmanned Aerial Vehicles Using Co-simulation” by José de Sousa Barros, Thyago Oliveira Freitas, Vivek Nigam, Alisson V Brito. In this paper the authors present a framework constructed using High-level Architecture (HLA) to integrate Ptolemy and SITL/Ardupilot for evaluating flight strategies of UAVs. It allows to evaluate flight strategies under the presence of uncertainty, such as winds, with 95% of confidence by constructing a sufficiently large number of simulations. For each scenario, statistical data is measured providing quantitative information about the quality of the tested flight strategy, such as distance traveled, and number of visited points.

We would like express our gratitude to the Program Committee of SBESC for their hard work on reviewing the papers for the conference, the additional reviewers who helped us with the review process for this special issue, as well as the authors themselves for their excellent contributions.

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