Guest Editorial Preface

Special Issue on Innovations in Computing: System Design and Methodologies

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Computing is the process of using computer technology to complete a given goal-oriented task. It may encompass the design and development of software and hardware systems for a broad range of purposes - often structuring, processing and managing any kind of information - to aid in the pursuit of scientific studies, making intelligent systems, and creating and using different media for entertainment and communication. Computing has also been defined as a branch of engineering science that deals with the systematic study of algorithmic processes, which are used to describe and transform information.

The diversity of software has increased considerably over the last decade. The journal seeks for high quality papers to address the challenges of developing analytical and simulation models for various software systems & services. It is of paramount importance for researchers in both academia and industry to step-up and provide reproducible strategies based on analytical and simulation models to shed some light on suitable ways to deploy such highly complex system architectures. Considering the importance of research in this domain, this special issue aims to invite researchers to submit unpublished original works / reviews / case-studies addressing system design, simulation and modelling.

This Special Issue covers five papers related to the theme of the issue.

The paper "Towards Risk Based Effort Estimation: A Framework to Identify, Analyze, and Classify Risk for Early Identification at Requirement Engineering Phase" by Priyanka Chandani and Chetna Gupta extends the scope by integrating both threats and opportunities and their further classification based on extensive requirement analysis. The validation of the proposed approach was conducted on successfully delivered real project data. A survey is also conducted as a part of qualitative analysis for analyzing the applicability of the proposed approach. The results of the proposed method are promising and strongly supports findings of literature stating that the effort needed to fix issues at a later stage in project lifecycle are costly as compared to early stages.

The paper "A Method Based on WordNet and Monge-Elkan Distance for Business Process Model Matching" by Mostefai Abdelkader conducted an empirical study on three well known datasets to evaluate the proposed method. The results of the experiment showed that the proposed method has the potential to match business process models in an effective manner when step two of the method is based on synonyms and hypernyms.

The paper "Power Transmission Analysis in Wireless Sensor Networks Using Data Aggregation Techniques" by Hradesh Kumar and Pradeep Kumar Singh presents different data aggregation techniques and their impact on the power transmission in WSNs. Three different scenarios have been used during simulation of network in Matlab. After that authors find that the proposed approach has

outperformed in the first two scenarios. However in the third scenario results are partially better as compared to the existing approaches (Tree-Based,Cluster-Based,Chain Based and Grid-Based).The proposed Approach PLBDA is 10.30%, 18.55%, 37.11% and 55.67% better for transmission power save in comparison to Tree Based, Cluster-Based, Grid-Based and Chain Based approaches respectively.

The paper "An Analysis in Tissue Classification for Colorectal Cancer Histology Using Convolution Neural Network and Colour Models" by Shamik Tiwari proposed a method for the classification of histological images of human colorectal cancer containing seven different types of tissue using Convolutional Neural Network (CNN) is proposed in this paper. The method is evaluated using four different colour models in absence and presence of Gaussian noise. The highest classification accuracies are achieved with HVI colour model, which is 95.8% in nonexistence and 78.5% in existence of noise respectively.

The paper "Donation Model Development Based on the Methodologies of Blockchain**"** by Meng-Hsuan Fu stated that in order to solve the problems occurring in the current donation systems, the methodologies of blockchain include decentralized data storage, transaction hash, digital signature, blocks connection within the chain are adopted to the donation model, called Blockchain Donation Model (BDM). In BDM, all donation transactions are recorded in detail and stored permanently, they are not allowed to change, modify or delete. Besides, donors could indicate the specific groups for donating directly because of the peer to peer transmission method.

In conclusion, the papers presented in this Special Issue demonstrate the fruitful research in the field of System Design & Methodologies. We wish to thank both the authors and the reviewers for their hard work in helping us assemble this Special Issue, and also would also like to express our sincere gratitude to the Editor-in-Chief, Prof._Remigijus Gustas, for providing this opportunity and lots of guidance throughout the process.

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