Foreword and Editorial

International Journal of Software Engineering for Smart Device (IJSESD)

We are very happy to publish this issue of an International Journal of Software Engineering for Smart Device by Global Vision Press.

This issue contains 4 articles. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

The paper entitled “Optimal Analysis of A Communication Network Model” tends to the original thought of using compound Poisson binomial process for creating and investigating a two hub couple communication coordinate with two phase landings and Dynamic Bandwidth Allocation (DBA).Here it is accepted that two hubs are associated pair and messages touch base to the first and second supports are associated with an irregular number of bundles and put away in cradles for forward transmission. Entries are portrayed by compound Poisson binomial procedures in the two cradles which coordinate close with the reasonable circumstance. The transmission forms in both the transmitters are expected to take after unique transfer speed allotment which is portrayed by stack reliant on time. Utilizing distinction differential conditions and joint likelihood producing capacity the transient conduct of the framework is examined. The execution of the system is assessed by determining unequivocal articulations for the execution measures, for example, mean substance of the cradles, mean postponements, throughput of the hubs and usage of transmitters. Numerical representations are displayed to examine the impact of changes in input parameters on framework execution measures. With reasonable cost contemplations, the ideal working strategies of the communication networks are determined and broke down. It is watched that the compound Poisson binomial mass landings dissemination parameters have noteworthy impact on framework execution measures. Dissecting the two phase coordinate landings enhance the system execution and diminish clog in cradles and mean postponements.

In the research paper “Farm Along Application for Agriculture-India”, Farm Along is designed for the development of primary sector to bring back the past glory of the farmers of our Country. Farmers are the demigods of our country who are the main reason for our healthy living conditions. To bridge the gap between primary sector and secondary sector by identifying the drawbacks in agriculture we have come up with this idea. We are also concentrating on the solutions to bring awareness and guidance to farmers on the profitable utilization of land by using the same land for silviculture, livestock, animal husbandry and vertical farming. For providing the best guidance we will provide with various mentors and guides to be available for their queries and to teach them how to use our services and App . We have also provided the alternatives at the time of low demand for products such as cold storages to be in reach of all the farmers. Farm Along app is a very good platform for farmers who are not aware of some techniques to produce a better crop which would help them for their better lives. This app is available in their regional languages also in order to reach out larger sections of farmers.

The paper entitled “WitMirror: A Voice Controlled IOT Mirror” explore that it is a self-evident fact that modern technology is transforming everything around us. With the advent of IoT era, this transformation is even more remarkable. From our phones to even our shoes, everything is becoming smarter. Even the most ubiquitous thing, like a mirror, is no exception. Through this paper we have explained how even a simple looking mirror can interact with us, providing us with much useful information and giving us the ease of controlling each and everything around us, just by using voice commands. This paper depicts the workflow and development of WitMirror. As the name suggests, this device has the ability to interact with the user through voice commands giving the output accordingly. It can display various useful information like current weather, date & time, news headlines, map of the desired location and all the upcoming events. For extracting these piece of information, the device will use various third-party APIs through the Internet. It is the next step in the field of home automation, where the mirror acts as a central hub, which can control all the home devices dwelling in the smart futuristic home. For parents, it also has a unique application where they can monitor the current location of their children through a simple android app installed on their phone. So in case of any miss happening, the parents will know the location of their children beforehand. User face will be detected using image processing. Raspberry Pi 3 will work as the brain of the device. It is also equipped with a microphone, camera speaker and a display for various input/output purpose. For controlling Home Appliances relay mechanism is used. With all these advanced features, the device will also act as the simple mirror for astounding experience to the user.

In the paper “Investigation of Queuing Model Based Cloud Computing Application’s Performance with Matlab Software”, cloud computing was the technology developed to store the data and support the users with the access to the data stored by charging a minimal amount for the storage of data and for providing necessary steps for storing the data and fro providing security to the data that was stored. The content stored in various servers at various locations based on the type and size of the content. The content can be accessed to the users with valid registrations and a set of security verifications entered by the customers. The problems at hand give rise to the task of evaluating the performance of data center with various queuing models to understand the distribution of the performance parameters with arrival and service rates, traffic intensity, number of servers and the associated probabilities. The major contribution in the current article is to provide a mathematical model with cloud based network. In order to analyze the performance of the currently considered, the steady state behaviour of the current model designed and developed by using the MATLAB® environment. The models considered for evaluation for single servers include M/M/c and M/M/1 under the flow of FIFO and FCFS. The results observed from the model are encouraging and the results are displayed in the results section.

December 2019

Editor of the December Issue on
International Journal of Software Engineering for Smart Device