Foreword and Editorial

International Journal of Software Engineering and Its Applications

We are very happy to publish this issue of an International Journal of Software Engineering and Its Applications 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.

In the research "A Study on Analysis of Risk Groups for Post-Traumatic Stress Disorder Based on NEMA Research Data", a typical mental problem that develops over a long period of time after experiencing a physically and mentally shocking event is known as post-traumatic stress disorder. Post-traumatic stress disorder is a complex psychological trauma that can lead to self-harm and self-harm and suicidal thoughts at risk, even in serious cases to suicide. The root cause of this phenomenon can be found in many places, but repeated trauma exposure and inadequate medical support in regard to the occupational specificity of fire fighters can be cited as the main cause. As such, the psychological post-traumatic stress disorder needs to be dealt with as a mental health problem in the public domain, beyond the mental health level of the individual. Even for stability, research on advancement of analysis tools for high-risk groups and preemptive prediction methods should be carried out along with the shift of awareness of the actual risk factors in modern society to encompass social problems in a broad sense. The purpose of this study is to analyze the risk group of post-traumatic stress disorders exposed to various types of trauma such as accidents, damages and disasters based on NEMA (National Emergency Management Association) data.

The paper "Chatbot Analytics Based on Question Answering System and Deep Learning: Case Study for Movie Smart Automatic Answering" explored that Question Answer (QA) systems are established to retrieves accurate and concise answers to human queries posted in natural language. The primary focus of the QA system is to achieve efficient and natural interaction between machines and humans. To achieve the above several researchers are directed towards Natural Language Processing (NLP) based deep learning. With the rise of a variety of deep NLP models, it is now possible to obtain a vector form of words and sentences that stores the meaning of the context. NLP considerably aids deep learning-based mathematical models in understanding the semantic and syntax of natural human language. The Cornell Movie-Dialogs Corpus created at Cornell University, and Movie Dialog Dataset created at Facebook are preprocessed and used to train the chatbot. Deep learning model has been built to answer questions about movies from Moview reviews. The encoder and decoder of the Seq2Seq model comprise of LSTM cells and are defined using Bidirectional Dynamic RNN and Dynamic Decoder RNN package of the tensor flow library. Additionally, to ensure the chatbot performs well on long sentences attention mechanism from the tensor flow library is applied to the decoder. In this paper, research is conducted on build a smart chatbots based QA system that employs a deep learning model. The deep learning model employs a sequence-to-sequence (Seq2Seq) word embedding that was proposed by Ilya Sutskever in 2014, which had laid the foundation for building chatbot model build in this paper.

Fires often occur, and the damage caused by them is often irreversible. Fire-prone environments can be identified through historical data, and predictive models are recommended to prevent fires in advance. The paper "Machine Learning Techniques in Structural Fire Risk Prediction" uses a variety of machine learning techniques to build fire prediction models and perform a comparative analysis to predict fires. They use data from local fire departments in South Korea to build fire prediction models using decision trees, random forest, XGBoost, extra tree classification, artificial neural networks, and more. Before creating the fire prediction models, they analyze and significant predictive features of a structural fire. They compared the fire prediction models and showed accuracy, F1-score, precision, and recall. The prediction model built with the random forest is the most accurate, but there is a little difference in the accuracy of each model trained with the extra tree classifier, XGBoost, and neural network. For the F1 Score, the model with a neural network shows the best value.

In the paper "Cloud Platform based Software Marketing Strategy Using SWOT and Case Analysis", Cloud technology has changed the distribution method to software development and distribution, and not only its own cloud services and solutions provided by cloud service providers, but also the services registered by the developers through the marketplace for each service provider can do. Based on the convenient advantages of the cloud marketplace, many cloud-based software vendors are expected to grow their domestic and international markets. Many Cloud Service Providers (CSPs) have the convenience of registering and deploying their software to the marketplace, billing and technical support to attract customers for their services and continually improve their stable sales. I'm making a lot of effort to this study analyzes the optimal cloud platform based on software marketing strategy for domestic and foreign cloud market changes.

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Editor-in-chief of the June Issue on
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