Editorial

The Second Issue of the International Journal of Technology Engineering Arts Mathematics Science.

In the second issue of the International Journal of Technology Engineering Arts Mathematics Science, five full-length manuscripts have been published. This issue contains interesting papers on topics of socket programming and cryptography, voice-based answer detection, handwritten character recognition, energy meter tamper, and client-server communication for smart grid. These articles are written on the latest technology and are useful for addressing the needs of the industry as well as daily life, so this issue is useful for researchers.

Manual answer assessment requires more manpower and time. Reducing labor and time is a big challenge. Mansi Kuwadia has proposed a technique for automatic evaluation of answers based on the keywords given to the application in the form of input by the moderator. Problems with voice-based answer assessment systems are solved using Natural Language Processing and Machine Learning. This will ensure that points are distributed evenly and save time and manpower. Python Speech Identifier is implemented for speech to text and text to speech conversion. Natural language processing has been used in combination with classification algorithms to find keywords and answer specific questions. As a result of the robust evaluation system, satisfactory results have been obtained by adopting the machine learning method.

Nowadays, wildlife monitoring has become a challenging work and that too without help of technology. To remedy this, Aniket Gat, et. Al. came with the solution of animal classifier camera that will detect the animals in the forests and keep the record of the animals. The system is also useful in zoological parks to maintain the wildlife. The system is also capable of identifying the new species. If any new species is detected it will store its data in a separate database to study further. It is also possible to control the system remotely if an internet is available in the respective area.

The Electricity theft is a major concern for the distribution system today. Maharashtra State Electricity Distribution Company's AT&T loss for the year 2020-21 is 20.72%. The main reason for such huge losses is power theft. Various wireless communication systems are available to detect power theft, but utilities do not have the infrastructure to operate them. Yash Amol Rathod developed a novice profitable system for monitoring the electricity used by loads and detecting power theft. The network includes connected devices such as sensors that can exchange information in real-time via the Internet. Node-MCU is used which send alerts to authorized persons. The main advantage of the proposed system is savings in power consumption.

Handwriting is difficult to recognize because each person's writing style is different. Handwriting character recognition is used to analyze the character picture and to identify the characters present. The ability to detect, discriminate, and recognize characters in an image is known as Handwriting character recognition. Automated handwriting character recognition is a difficult subject that requires a careful mixing of several advanced pattern recognition techniques, such as image processing, neural network methods, and language modelling. The proposed method focuses on recognizing handwritten characters and using Convolutional Neural Networks to convert handwritten pages into editable documents. Ajinkya Wani has mentioned five modules in his manuscript.

Around 10 thousand fire mishaps are recorded each year, with the number of deaths being quite significant. Fire extinguishing becomes a major concern as the involvement of humans to extinguish fires may lead to further casualties. It is also important that we make sure that small fires are extinguished before they lead to larger accidents. The Rageeni Dalawe, et. al. describes the design and development of a fire-extinguishing robot using the Internet of Things.

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