Foreword and Editorial

International Journal of Wireless and Mobile Communication for Industrial Systems

We are very happy to publish this issue of an International Journal of Wireless and Mobile Communication for Industrial Systems 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 “A Survey on Energy Efficient Hierarchical Based Routing Protocols in Wireless Sensor Networks” explored that Wireless sensor networks (WSNs) are combination of distributed independent devices, which uses sensors to cooperatively monitor environmental or physical circumstance like pressure, temperature, voice, vibration, motions at different locations. The sensor nodes send the data to base station which is gathered from the field in multi hop process, where nodes are connected and performing the task. This paper presents an overview of the hierarchical based routing protocols in wireless sensor networks. The broadly used routing protocols are clustering based routing protocol because the data is transferred from one node to another or also from one node to BS using single or multi hopping. Cluster network has been used for measuring soil parameters such as moisture, temperature, humidity etc. Researchers have realized that wireless sensor networks are most advance technology for the progress of agricultural yield and the monitoring of the health. This paper particularly presents the survey on energy efficiency routing protocols in the field of agriculture using wireless sensor networks.

The main purpose of the paper “A Study on the Success Cases about AI RPA (Robotic Process Automation) in Manufacturing Industry” is to study success cases about AI RPA (Robotic Process Automation) focus on manufacturing industry. By implementing robotic process automation (RPA), an artificial intelligence solution at the manufacturing site, differentiation strategies such as maintenance of manufacturing systems, process innovation and efficiency, quality improvement, global collaboration system, and simulation of manufacturing business can be realized. Recently, the introduction of artificial intelligence technology that can reduce the manufacturing cost by building BPA around advanced manufacturing companies has been increasing the success of winter innovation. BPA technology is making use of PLM (Product Lifecycle Management) data at manufacturing sites. Data of PLM System, a framework of manufacturing sites, has integrated data that manages all phases of a product's entire life cycle, from development ideas to disposal, so that the product's lifecycle is based on three dimensions. In addition, the design is digitally processed, the prototypes are digitally verified, the production processes and production methods are digitally verified, and monitoring and simulation are supported. We will study how to differentiate the competitiveness of manufacturers through the case of building BPA, an artificial intelligence technology, in the manufacturing field.

In the paper “A Detailed Review on Cyber Security and Its Challenges”, the utilization of various electronic gadgets with data usage had increased a lot in recent days. The mostly used

devices are like the mobile phones, laptops and other network based working devices. As these devices are being used, the internet connectivity for these devices are mandatory and the utilization of internet connectivity to all the applications in those devices is becoming a serious problem. As these applications are connected with internet facility always and the data stored in such devices can be accessed easily by using various secret applications or any other patch files. The breaching of data in those devices or applications in those devices had become more easy and can be tapped the data without the knowledge of the users of such devices. These applications and things are providing serious challenges to the users for keeping their devices safe and use those devices safe and secure. In the current article, an attempt had been made to provide the various cyber security challenges being faced by users and the latest trends and challenges being generated and faced by the users are given in detail.

In the research paper “Polyhouse Model for Promoting Agriculture and Its Related Applications”, the polyhouse cultivation method provides high growth and improved productivity. To achieve proper crop management it is necessary to collect the correct information to make decisions. In the current work we considered and proposed a framework which could able to collect the information related to polyhouse atmosphere and harvest status and manage the polyhouse. The polyhouse information is collected from different resources by using sampling method. Sampling method contains different strategies that are Simple random, stratified random, Stratified-systematic, Judgmental. Each method identifies the data in different location and collects the data. The collected data to be stored in the mongo database. The data base utilize data cleansing, data scarping, data integration and data wrangling process to arrange the data for relevant user. It helps to fix the data in specific manner in the database. Finally the user can retrieve the data using the Latent Indexing Algorithm to retrieve the data in specific manner. It helps the system to forecast and take steps on situations intended for completely guarded climatic circumstances. So that farmers can access the relevant information using IoT. After the cultivation process the farmers can also marketing their product directly through IoT.

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