Special Session

on

"Recent Advancements in Machine Learning Paradigms and Intelligent System Applications"

Theme of Session:

In the era of intelligent System Application, the enormous high-quality data supports the development of various emerging areas. The artificial intelligence significantly enhances the ability of big data management and the utilization level of data mining. In recent years, the domain of Big Data for healthcare has emerged as the most sought-after field for research, encompassing various interdisciplinary technologies such as mathematical and statistical assessment of domain and business knowledge via algorithms such as evolutionary algorithms, Differential Algorithms, Genetic Algorithms, Swarm Intelligence, Optimization algorithms, and nature-inspired algorithms. Big Data is connected with data mining, which is used to make future forecasts and risk assessments using structured and unstructured data collected from diverse sources of information.

Conventional data management technologies are incapable of handling such massive amounts of data. In this case, combining several algorithms with soft computing approaches and optimization algorithms might provide successful results. All of these hybrid methodologies may be used in a variety of industries, including health care monitoring, market forecasting, e-commerce, consumer behaviour research, agriculture sector business analysis, and the industrial sector. Big Data encompasses a number of stages in the process of contextual and predictive analysis, such as data discovery, data preparation, data analysis, feature engineering, communication, and report generation, all of which are enabled by the hybridization of Meta-Heuristic approaches with soft computing approaches and real-time processing algorithms.

With the rapid development and prevalence of the latest emerging technologies such as advanced sensing, mobile computing, the Internet of Things, pervasive computing, data mining and deep leaning, a new wave of user-centred applications, such as personalized care and medicine, just-in-time independent living, self-care and self-management, early risk detection and intervention, have attracted increasing attention. Such applications include built upon the conception of smart homes, smart cities, smart healthcare, intelligent transport, service robots, and thus having the huge potential of impacting the society and economy. User-centred applications and systems place special emphases on data intelligence, including computational intelligence, interactive intelligence and cognitive intelligence, and co-design, co-development, user experience, accessibility particularly in the envisioned future smart world environments.

This special session offers an excellent international forum for sharing information, results in theory, approach and emerging predictive models for diverse applications. Machine Learning especially deep learning is efficient for handing complex prediction models due to their outstanding performance in handling large scale data sets with uniform characteristics. The objective of this session is to bring together researchers, practitioners, academicians, and

industrialists from different disciplines related to machine learning to share ideas, algorithms on current as well as future use of machine learning, image processing and computer vision algorithms in real-life. The main idea of the special session is what more can be achieved with the help of current technology. Here, all the participants will get a chance to interact and establish professional relations for future collaboration.

Topics of Interest:

We invite original (un-published) research contributions based on the above-mentioned theme including following topics but not limited to:

1. Machine Learning-based techniques and applications
2. Applications of Fuzzy systems and Neural networks, Convolutional neural networks
3. Optimization algorithms and its applications
4. Machine learning methods for security and privacy-preservation
5. Deep learning and statistical methods for data mining and its application
6. Decision support, recommendation techniques
7. Computational intelligence, interactive intelligence and cognitive intelligence
8. Internet of Things (IoT) in healthcare, Wireless Sensor Network
9. Disease Prediction Algorithms
10. Big data in computer vision and image analysis
11. Deep learning, transfer learning for smart healthcare
12. Computational intelligence in smart healthcare

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