

IJMLNCE - Editorial Preface

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It gives me pleasure to present the editorial preface of the International Journal of Machine Learning and Networked Collaborative Engineering (IJMLNCE) Volume 04 No 01 (2020). This issue comprises five manuscripts contributed by authors.

The first paper contributed by Ramachandran A et al. titles, "*Efficient Distributed Web Crawler Using Hefty and Enhanced Bandwidth Algorithms for Drug Website Search*," In this paper, a novel Hefty Algorithm and enhanced bandwidth algorithm are combined for a better-distributed crawling system. The hefty algorithm was implemented to provide efficient and robust surfing results while applying on the drug web search. Refabricate a proficient search structure is very important due to the current scale of the web. Search engines mine information from the web, and a web crawler program that surfs the web in an efficient manner. A distributed crawler belongs to a variant of a web crawler, uses a dispersed computation method. In this paper, we design and implement the concept of Efficient Distributed Web Crawler using enhanced bandwidth and hefty algorithms. Mostly Web Crawler does not have any distributed cluster performance system and any implemented algorithm. We also implemented an Enhanced Bandwidth algorithm to improve the efficiency of the proposed crawler.

The second paper, titled "Revealing Brain Tumor Using Cross-Validated NGBoost Classifier," is authored by Shawni Dutta and Samir Bandyopadhyay. In this article, the author writes that the brain is the most complicated and delicate anatomical human body structure. Statistics prove that, among various brain ailments, brain tumors are most fatal, and in many cases, they become carcinogenic. Brain tumors are characterized by abnormal and uncontrolled growth of brain cells. It takes up space within the cranial cavity and varies in shape, size, position, and characteristics viz. It can be benign or malignant, which makes the detection of brain tumors very critical and challenging. A neurologist or neurosurgeons vital information needs to have is the precise size and location of cancer in the brain and whether it is causing any swelling or compression of the brain that may need urgent attention. This paper exploits ensemble strategy-based Machine Learning (ML) algorithms for revealing brain tumors. NGBoost algorithm and 5-fold stratified cross-validation scheme are proposed as classifier models that automatically detect patients with brain tumors. The proposed method is implemented with necessary fine-tuning parameters compared against ensemble-based baseline classifiers such as AdaBoost, Gradient Boost, Random Forest, and Extra

Trees Classifier. An experimental study implies that the proposed method outperforms baseline models with significantly improved efficiency. The interfering features that impact brain tumor classification are ranked, and this ranking is retrieved from the best classifier model.

Abdulmohsen Alotaibi contributed the third article for this issue titled "Transfer Learning for Detecting Covid-19 Cases Using Chest X-Ray Images". In this interesting work, he is discussing the COVID-19 pandemic, which is a global health crisis that has already infected more than 3.5 million people and caused more than 250 thousand deaths around the globe. He focused on developing a more efficient way to detect and treat this illness. This paper utilizes transfer learning techniques to detect normal, COVID-19, and viral pneumonia cases from Chest X-Ray images. Four pre-trained models on ImageNet were chosen as the base model, which are ResNet50, VGG19, DenseNet121, and InceptionV3. The performance metrics of each fine-tuned model are overall similar. With an average recall, precision, f1-score, and accuracy of 97.42%, 97.42%, 97.23%, 98.3% respectively.

The Fourth article, title " The Economic Impact of Social Media Fraud and it's Remedies ," was contributed by shakik mahmud et al. This paper presents the economic impact of social media fraud in Bangladesh and its IT-based prevention model. Online privacy and security problems become a big concern online day by day—many types of issues growing up here, for example, phishing, hacking, sabotage, etc. Social media is a popular and powerful tool to express personal life and also business purposes in Bangladesh. Social communicating websites such as Facebook, Twitter, WhatsApp, and LinkedIn are popular social sites. Facebook is the most popular one. Through these media, people communicate with their friends and family and share thoughts, photos, videos, and lots of data. Many types of business and commerce have developed on social media. Presently, people depend on it, so it's marketing value increases day by day well. Some Tech fraud groups have been formed and wake up to hack money in some tricky way in this big virtual society. At present, social media is one of the critical areas for fraudsters. This paper will show based on our study how much money is being spent through it and others by the IT-based prevention model of this problem.

The fifth article of this issue, titled " The Performance Enhancement Systems of Human Iris Pattern and Recognition Method through Digital Authentication Application," is contributed by Krishnaveni N et al. Authors discusses that human iris and recognition patterns have been recognized as the best biometric marking ever found. The iris and the textured iris patterns' uniqueness tend to remain natural, unchangeable, and recognizable through existence. Mathematical analyses of the unique stable patterns formed within the iris include Iris detection methods, and a comparative analysis is carried out utilizing an established database. In this document, a clean electoral system is created to build a fraud-free ID list of electors. To find the Iris and Eyes, the algorithm

of canny edge detection is used, Dougman's normalization procedure is used, object filters are added, and the corresponding process is finally conducted for the Euclidian set. Biometric authentication confirms our identification by being a simple and increasingly secure method. They implemented a weighted, majority voting process for all biometric authentication systems utilizing a bitwise contrast between inscription and biometric models to resolve this problem and enable Iris identification in less than ideal images. We also observed that the approach outdoes the current majority and efficient bit sorting strategies through a set of tests with the database CASIA iris. Our process is an easy and efficient way to boost the accuracy of established iris detection systems.

I am sure that these five papers included in the International Journal of Machine Learning and Networked Collaborative Engineering (IJMLNCE) Volume 04 No 01 (2020) will be useful to the readers and researchers. At this end, I am thankful to the Editorial board member for their timely support in the review. I am looking forward to receiving your unpublished research work for Volume 04 No 04 (2020).

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