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**AN ENHANCEMENT OF EFFICIENT
CLUSTERING HIGH DIMENSIONAL
DATA ANALYSIS USING QDA – UFP
METHOD**

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Abstract –In the fast moving digitalized world, the high dimensional data clustering process is the most critical and challenging task. The clustering process helps to analyze different groups or clusters of similar data objects. These objects are denoted on the point of multidimensional space. The similar data objects are to be identified on the dataset with the help of the distance evaluation. In olden days, traditional clustering algorithms are performed which gives a result like the process of input dataset attempt is too long, slow and difficult for separation of the irrelevant dimensional data object. The research paper proposed a novel technique like enhancement of efficient clustering high dimensional data analysis using QDA – UFP (Quadratic Discriminant Analysis – Univariate Filtering Process) method. In this paper, the web log or malicious and such as eliminating irrelevant features and eliminating redundant features. Then the features are to be classified using Quadratic discriminant analysis (QDA). The QDA method is more flexible for the covariance matrix which tends to perfect fit to better dataset and also prior knowledge of an individual class. The classified data are processed to the feature selection process. This process is done by Univariate Filtering Process (UFP). This method helps to rank individual features based on specific or predicted criteria. The performance analysis gives high efficiency, effective extraction of features and reducing featured separation error.

INTELLIGENT AND EFFECTIVE CROP YIELD PREDICTION USING MACHINE LEARNING TECHNIQUES FOR CLOUD-BASED BIG DATA ANALYTICS

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ABSTRACT

Agriculture has been an obvious target for big data in environmental conditions, soil variability, input conditions, additives, and commodity prices make it ideal for farmers to use the information and assist in decision making. The reduction of the data is actually obtained using the analysis of the kernel principal component analysis (KPCA). In addition, reducing the graph involves two main procedures, such as Mapper and reducer. When the type of soil is determined on the side of the Mapper, the investigation process takes place on the side of the reducer. Necessary agricultural decisions soil type is classified using the Kernel Fuzzy C Means Clustering (KFCM) and it offers high accuracy gathering. In addition, the innovative technique takes into account the recommendations and a prediction of crop yields, improving the network of proposed Artificial Neural Network with Elephant Herding Optimization (EHO-ANN). In the study, analyzing large-scale crop, soil, and climate data and new non-experimental data will improve production and make agriculture more resistant to climate change.

Keywords: Artificial Neural Network, Kernel Principal Component Analysis, Elephant Herding Optimization, Crop Yield Prediction.

1. INTRODUCTION

Agricultural growers around the world emphasize the need for an exciting means of predicting and improving crop growth. The requirement for coordinated harvest control with a precise boat shaping technique is particularly felt in the provincial network [1]. Agricultural is one of the most important economic sectors in India. It does an essential job of improving the country and supporting it. The degree of agricultural activity can be reduced due to ingredients, for example, unusual rainfall, environmental changes, excessive use of pesticides, etc. [2]. Forecasting crop yields ahead of time can support livestock farmers and government agencies to store, work, help with less value, import/market, etc. [4]. The main objective of this research is to provide a philosophy for the cultivation of gardens that depend on the time atmosphere and the creation of information [2]. Determining yields is an essential agricultural matter. The most experienced breeders have used it to predict their presentation from past performance meetings. In this way, for such distributions of information in the definition of crops, there are various processes or calculations, and using these calculations, we can predict crop yields [3]. Farmers face the need to settle on extreme choices with the most appropriate method to stay profitable and rational with environmental change and the monetary burden of the market. Providing accurate and convenient data, for example, climate, soil, manure use, pesticide use can help breeders find the best choice for their yield. This will help them achieve higher harvest efficiency if conditions are optimal or help them with reduced misery due to competitive harvesting conditions [5].

EVOLUTIONARY OPPOSITIONAL MAYFLY OPTIMIZATION BASED TASK SCHEDULING ALGORITHM FOR CLOUD COMPUTING

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ABSTRACT

Cloud computing (CC) offers convenient and on-demand networking access for processing resources accessible over internet. Companies and organizations can access the software and hardware resources like processing, storage, server, and applications which are positioned in remote areas simply using the cloud servers. The tasks/jobs requested to the CC platform are required to be processed by the use of existing resources to accomplish effective resource usage, performance, and makespan that consequently necessities task scheduling algorithm technique. In this view, this paper presents a novel oppositional mayfly optimization based task scheduling technique (OMO-TST) for CC environment. The goal of the OMO-TST algorithm is to assign the tasks in CC in such a way that the resource usage gets optimized with minimal computation complexity. The OMO algorithm is derived by the integration of oppositional based learning (OBL) concept into the MO algorithm for improving its convergence rate. The OMO-TST algorithm uses a fitness function using multiple input parameters for optimal scheduling of tasks. The performance of the OMO-TST algorithm is inspected using the CloudSim simulation and the outcomes are investigated under different aspects. The obtained experimental results highlighted the enhanced performance of the OMO-TST algorithm over the existing techniques.

Keywords: Cloud Computing, Internet of things, Task scheduling, Makespan, Processing cost

1. INTRODUCTION

Cloud service is a service where the user can obtain by the network that features immediate scalability and response. At the present time, it consists of 3 services module for cloud computing (CC) [1-3]: PaaS, IaaS, and SaaS. Infrastructure as a Service (IaaS) enables customers to obtain service from upgraded and strong computer architecture by the internet. Software as a Service (SaaS) is a software mode given by the internet. Users could rent a web based application for meeting their business level needs with no permanent purchasing the entire software packages. Platform as a Service (PaaS) gives an environment that allows a customer to manage, develop, and run applications with no difficulty in maintaining and building the architectures usually related to develop and launch applications [4, 5]. Also to effectively finish different tasks presented by the client, a scheduling task technique is obviously required. Few tasks have been made in this area such as adaptive