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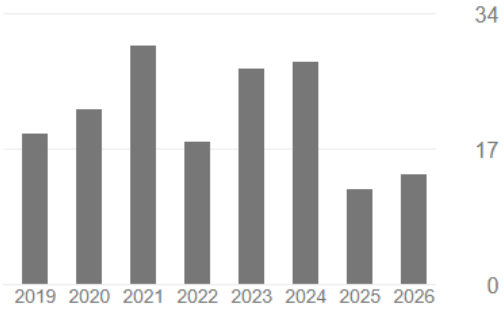

A Review Towards DDoS Prevention and Detection Methodology

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ABSTRACT

Denial of Service (DoS) or Distributed-Denial of Service (DDoS) is major threat to network security. Network is collection of nodes that interconnect with each other for exchange the Information. This information is required for that node is kept confidentially. Attacker in network computer captures this information that is confidential and misuse the network. Hence security is one of the major issues. There are one or many attacks in network. One of the major threats to internet service is DDoS (Distributed denial of services) attack. DDoS attack is a malicious attempt to suspending or interrupting services to target node. DDoS or DoS is an attempt to make network resource or the machine is unavailable to its intended user. Many ideas are developed for avoiding the DDoS or DoS. DDoS happen in two ways naturally or it may due to some botnets .Various schemes are developed defense against to this attack. Main idea of this paper is present basis of DDoS attack. DDoS attack types, DDoS attack components, survey on different mechanism to prevent DDoS.

KEYWORDS

DDoS, Security, botnets

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Mine Blood Donors Information Through Improved K-Means Clustering

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ABSTRACT

The number of accidents and health diseases which are increasing at an alarming rate are resulting in a huge increase in the demand for blood. There is a necessity for the organized analysis of the blood donor database or blood banks repositories. Clustering analysis is one of the data mining applications and K-means clustering algorithm is the fundamental algorithm for modern clustering techniques. K-means clustering algorithm is traditional approach and iterative algorithm. At every iteration, it attempts to find the distance from the centroid of each cluster to each and every data point. This paper gives the improvement to the original k-means algorithm by improving the initial centroids with distribution of data. Results and discussions show that improved K-means algorithm produces accurate clusters in less computation time to find the donors information.

KEYWORDS

Clustering, means, Euclidean distance, centroid, datasets

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An Energy Efficient Countermeasure Against Multiple Attacks Of The False Data Injection Attack And False Hello Flood Attack In The Sensor Networks

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ABSTRACT

Nodes are easily exposed from generated attacks on various layers because they compose simple functions in sensor networks. The false data injection attack drains finite energy resource in a compromised node, and the false HELLO flood attack threatens constructed routing paths in an adversary node. A localized encryption and authentication protocol (LEAP) was developed to prevent the aforementioned attacks through the use of four keys. However, when these attacks occur simultaneously, LEAP may not prevent damage from spreading rapidly throughout the network. In this paper, we propose a method that addresses these attacks through the use of four types of keys, including two new keys. We also improve energy consumption while maintaining a suitable security level. The effectiveness of the proposed method was evaluated relative to that of LEAP when multiple attacks occur. The experimental results reveal that the proposed method enhances energy saving by up to 12% while maintaining sufficient detection power.

KEYWORDS

wireless sensor networks, security attack detection, false data injection attacks, hello flood attacks.

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Analysis & Prediction of Sales Data in SAP-ERP System Using Clustering Algorithms

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ABSTRACT

Clustering is an important data mining technique where we will be interested in maximizing intracluster distance and also minimizing intercluster distance. We have utilized clustering techniques for detecting deviation in product sales and also to identify and compare sales over a particular period of time. Clustering is suited to group items that seem to fall naturally together, when there is no specified class for any new item. We have utilizedannual sales data of a steel major to analyze Sales Volume & Value with respect to dependent attributes like products, customers and quantities sold. The demand for steel products is cyclical and depends on many factors like customer profile, price,Discounts and tax issues. In this paper, we have analyzed sales data with clustering algorithms like K-Means&EMwhichrevealed many interesting patternsuseful for improving sales revenue and achieving higher sales volume. Our study confirms that partition methods like K-Means & EM algorithms are better suited to analyze our sales data in comparison to Density based methods like DBSCAN & OPTICS or Hierarchical methods like COBWEB.

KEYWORDS

ERP,Sale Order, EM,DBSCAN,K-Means, COBWEB, Hierarchical clustering, Optics

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Computer-Aided Detection system for Hemorrhage contained region

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ABSTRACT

This paper aims to introduce the automated method to detect and classify an abnormality (hemorrhage) of stroke in brain CT image. Initially, the image is pre-processed to remove film artifacts and skull region. Before the abnormality region is segmented, the image is pre-segmented. In this stage, the image is subdivided into four regions to find the region that has the possibility for inclusion of abnormal areas. Thus, the unnecessary regions are no need to search and segment. This paper proposes pre-segmentation steps for the detection of abnormal region in brain image. Then, abnormalities can be segmented by grouping homogeneous regions according to the predefined criteria. The accuracy of the segmentation results can be assessed by the specialist.

KEYWORDS

CT, Medical imaging, Hemorrhage, Infarct

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Knowledge-Based Fuzzy Inference System for Sepsis Diagnosis

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ABSTRACT

In this study, a Fuzzy Inference System is developed to create a knowledge-based for the diagnosis and detection of sepsis using Matlab's fuzzy logic toolbox. The FIS consists of expert-specified input membership functions, output membership function, and IF-THEN rules. To validate our system, we tested it with the domain (medical) expert knowledge by comparing its performance with at least 10 hypothetical scenarios. The KB-FIS gave good answers in 8/10 scenarios and generated rules for decision support. The answers are qualitatively correct but quantitatively small. The fuzzy inference system designed performs as well as the medical experts under controlled conditions. With the methodology used in this study, it is hoped that it can assist in enhancing the knowledge-base system for proper, effective and early diagnosis and detection of sepsis

KEYWORDS

Fuzzy Inference System, Fuzzy Set Theory, sepsis, Knowledge-Based System, Neonatal.

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