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The Survey of Data Mining Applications and Feature Scope

Neelamadhab Padhy1 , Dr. Pragnyaban Mishra 2 , and Rasmita Panigrahi3

1 Asst. Professor, Gandhi Institute of Engineering and Technology, GIET, Gunupur Dept. of Computer Science, CMJ University, Meghalaya (Silong) a research Scholar
2 Associate Professor, Gandhi Institute of Engineering and Technology, GIET, Gunupur
3 Lecturer, Gandhi Institute of Engineering and Technology, GIET, Gunupur

ABSTRACT

In this paper we have focused a variety of techniques, approaches and different areas of the research which are helpful and marked as the important field of data mining Technologies. As we are aware that many MNC's and large organizations are operated in different places of the different countries. Each place of operation may generate large volumes of data. Corporate decision makers require access from all such sources and take strategic decisions .The data warehouse is used in the significant business value by improving the effectiveness of managerial decision-making. In an uncertain and highly competitive business environment, the value of strategic information systems such as these are easily recognized however in today's business environment, efficiency or speed is not the only key for competitiveness. This type of huge amount of data's are available in the form of tera- to peta-bytes which has drastically changed in the areas of science and engineering. To analyze, manage and make a decision of such type of huge amount of data we need techniques called the data mining which will transforming in many fields. This paper imparts more number of applications of the data mining and also o focuses scope of the data mining which will helpful in the further research.

KEYWORDS

Data mining task, Data mining life cycle , Visualization of the data mining model , Data mining Methods, Data mining applications.

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Grey Level Co-Occurrence Matrices: Generalisation and Some New Features

Bino Sebastian V1,A.Unnikrishnan2 and Kannan Balakrishnan1

1Cochin University of Science and Technology, India and
2Naval Physical and Oceanographic Laboratory, India.

ABSTRACT

Grey Level Co-occurrence Matrices (GLCM) are one of the earliest techniques used for image texture analysis. In this paper we defined a new feature called trace extracted from the GLCM and its implications in texture analysis are discussed in the context of Content Based Image Retrieval (CBIR). The theoretical extension of GLCM to n-dimensional gray scale images are also discussed. The results indicate that trace features outperform Haralick features when applied to CBIR.

KEYWORDS

Grey Level Co-occurrence Matrix, Texture Analysis, Haralick Features, N-Dimensional Co-occurrence Matrix, Trace, CBIR

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Using Data Mining Techniques for Diagnosis and Prognosis of Cancer Disease

Shweta Kharya

Sr.Assistant Professor, Bhilai Institute of Technology, Durg-491 001, Chhattisgarh, India

ABSTRACT

Breast cancer is one of the leading cancers for women in developed countries including India. It is the second most common cause of cancer death in women. The high incidence of breast cancer in women has increased significantly in the last years. In this paper we have discussed various data mining approaches that have been utilized for breast cancer diagnosis and prognosis. Breast Cancer Diagnosis is distinguishing of benign from malignant breast lumps and Breast Cancer Prognosis predicts when Breast Cancer is to recur in patients that have had their cancers excised. This study paper summarizes various review and technical articles on breast cancer diagnosis and prognosis also we focus on current research being carried out using the data mining techniques to enhance the breast cancer diagnosis and prognosis.

KEYWORDS

Breast cancer; Diagnosis; Prognosis; Data Mining; Classification, Neural Network, Association Rule Mining,, Naive.Bayes,C4.5 decision tree algorithm, Bayesian Networks.

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Generalized Neutrosophic Soft Set

Said Broumi

Faculty of Arts and Humanities, Hay El Baraka Ben M'sik Casablanca B.P. 7951, Hassan II Mohammedia-Casablanca University, Morocco

ABSTRACT

In this paper we present a new concept called “generalized neutrosophic soft set”. This concept incorporates the beneficial properties of both generalized neutrosophic set introduced by A.A.Salama [7] and soft set techniques proposed by Molodtsov [4]. We also study some properties of this concept. Some definitions and operations have been introduced on generalized neutrosophic soft set. Finally we present an application of generalized neuutrosophic soft set in decision making problem.

KEYWORDS

Soft Sets, Neutrosophic Set, Generalized Neutrosophic Set, Generalized Neutrosophic Soft Set.

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IMAGE RESTORATION BASED ON MORPHOLOGICAL OPERATIONS

A.M.Raid1 , W.M.Khedr2 , M.A.El-dosuky1 and Mona Aoud1

1 Mansoura University, Faculty of Computer Science and Information System 2 Zagazig University, Faculty of Science

ABSTRACT

Image processing including noise suppression, feature extraction, edge detection, image segmentation, shape recognition, texture analysis, image restoration and reconstruction, image compression etc uses mathematical morphology which is a method of nonlinear filters. It is modulated from traditional morphology to order morphology, soft mathematical morphology and fuzzy soft mathematical morphology. This paper is covers 6 morphological operations which are implemented in the matlab program, including erosion, dilation, opening, closing, boundary extraction and region filling.

KEYWORDS

Image Restoration, Structure Elements (SE), and Morphological operations.

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FACTORS AFFECTING ACCEPTANCE OF WEB-BASED TRAINING SYSTEM: USING EXTENDED UTAUT AND STRUCTURAL EQUATION MODELING

Thamer A. Alrawashdeh, Mohammad I. Muhairat and Sokyna M. Alqatawnah

Department of software Engineering, Alzaytoonah University of Jordan, Amman, Jordan

ABSTRACT

Advancement in information system leads organizations to apply e-learning system to train their employees in order to enhance its performance. In this respect, applying web based training will enable the organization to train their employees quickly, efficiently and effectively anywhere at any time. This research aims to extend Unified Theory of Acceptance and Use Technology (UTAUT) using some factors such flexibility of web based training system, system interactivity and system enjoyment, in order to explain the employees' intention to use web based training system. A total of 290 employees have participated in this study. The findings of the study revealed that performance expectancy, facilitating conditions, social influence and system flexibility have direct effect on the employees' intention to use web based training system, while effort expectancy, system enjoyment and system interactivity have indirect effect on employees' intention to use the system.

KEYWORDS

UTAUT, structural equation modeling, system enjoyment, system flexibility and system interactivity

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BACTERIA IDENTIFICATION FROM MICROSCOPIC MORPHOLOGY USING NAÏVE BAYES

Noor Amaleena Mohamad1 , Noorain Awang Jusoh1 , Zaw Zaw Htike1*and Shoon Lei Win2

1Department of Mechatronics Engineering, IIUM, Kuala Lumpur, Malaysia 2Department of Biotechnology Engineering, IIUM, Kuala Lumpur Malaysia

ABSTRACT

Great knowledge and experience on microbiology are required for accurate bacteria identification. Automation of bacteria identification is required because there might be a shortage of skilled microbiologists and clinicians at a time of great need. We propose an automatic bacteria identification framework that can classify three famous classes of bacteria namely Cocci, Bacilli and Vibrio from microscopic morphology using the Naïve Bayes classifier. The proposed bacteria identification framework comprises two steps. In the first step, the system is trained using a set of microscopic images containing Cocci, Bacilli, and Vibrio. The input images are normalized to emphasize the diameter and shape features. Edge-based descriptors are then extracted from the input images. In the second step, we use theNaïve Bayes classifier to performprobabilistic inference based on the input descriptors. 64 images for each class of bacteria were used as the training setand 222 images consisting of the three classes of bacteria and other random images such as humans and airplanes were used as the test set. There are no images overlapped between the training set and the test set. The system was found to be able to accurately discriminate the three classes of bacteria. Moreover, the system was also found to be able to reject images that did not belong to any of the three classes of bacteria. The preliminary results demonstrate how a simple machine learning classifier with a set of simple image-based features can result in high classification accuracy. The preliminary results also demonstrate the efficacy and efficiency of our two-step automatic bacteria identification approach and motivate us to extend this framework to identify a variety of other types of bacteria.

KEYWORDS

Bacteria Identification, Cocci,Bacilli, Vibrio, Naïve Bayes, Machine Learning

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SENTIMENT ANALYSIS BY USING FUZZY LOGIC

Md. Ansarul Haque1 , Tamjid Rahman 2

1Department of Computer Science and Engineering, Stamford University, Bangladesh 2Department of Computer Science and Engineering, Stamford University, Bangladesh

ABSTRACT

How could a product or service is reasonably evaluated by anyone in the shortest time? A million dollar question but it is having a simple answer: Sentiment analysis. Sentiment analysis is consumers review on products and services which helps both the producers and consumers (stakeholders) to take effective and efficient decision within a shortest period of time. Producers can have better knowledge of their products and services through the sentiment analysis (ex. positive and negative comments or consumers likes and dislikes) which will help them to know their products status (ex. product limitations or market status). Consumers can have better knowledge of their interested products and services through the sentiment analysis (ex. positive and negative comments or consumers likes and dislikes) which will help them to know their deserving products status (ex. product limitations or market status). For more specification of the sentiment values, fuzzy logic could be introduced. Therefore, sentiment analysis with the help of fuzzy logic (deals with reasoning and gives closer views to the exact sentiment values) will help the producers or consumers or any interested person for taking the effective decision according to their product or service interest.

KEYWORDS

Market status, Producer or consumer reviews, Sentiment analysis, Stakeholder.

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A SMART, LOCATION BASED TIME AND ATTENDANCE TRACKING SYSTEM USING ANDROID APPLICATION

Shermin Sultana1 , Asma Enayet1 and Ishrat Jahan Mouri1

1Department of Computer Science and Engineering, Stamford University Bangladesh, Dhaka, Bangladesh

ABSTRACT

Over the years the process of manual attendance has been carried out which is not only time consuming but also provides erroneous result. Automated time and attendance monitoring system provides many benefits to organizations. This reduces the need of pen and paper based manual attendance tracking system. Following this thought, we have proposed a smart location based time and attendance tracking system which is implemented on android mobile application on smartphone reducing the need of additional biometric scanner device. The location of an organization has a specific location, which can be determine by the GPS. Each employee's location can be determined by the GPS using smartphone. This location is defined as a key of time and attendance tracking in our paper.

KEYWORDS

Location-based service, GPS, time and attendance system, sending SMS, android applications.

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DETECTION OF CONCEALED WEAPONS IN X-RAY IMAGES USING FUZZY K-NN

Dr. Mohamed Mansoor Roomi #1 R.Rajashankari#2

Department of Electronics and Communication Engineering, Thiagarajar College of Engineering,Madurai

ABSTRACT

Scanning baggage by x-ray and analysing such images have become important technique for detecting illicit materials in the baggage at Airports. In order to provide adequate security, a reliable and fast screening technique is needed for baggage examination.This paper aims at providing an automatic method for detecting concealed weapons, typically a gun in the baggage by employing image segmentation method to extract the objects of interest from the image followed by applying feature extraction methods namely Shape context descriptor and Zernike moments. Finally the objects are classified using fuzzy KNN as illicit or non-illicit object.

KEYWORDS

Aviation security, Shape Context Descriptor, Zernike Moments, Nearest Neighbour Classifier

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