International Conference on Intelligent Computing and Communication Technologies

ICICCT 2019: **ICICCT 2019 – System Reliability, Quality Control, Safety, Maintenance and Management** pp 120–132

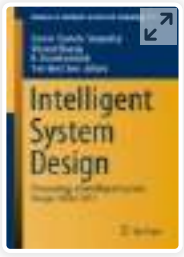
Music Mood Categorization: A Survey

Tula Vandana, Nara Kalyani & K. Santhi Sree

Conference paper | First Online: 28 June 2019

Abstract

Music is one among the many emotion rich resources because of which it is very much common for music listeners to maintain music libraries in terms of mood. The growing availability of online music data and their vast applications have resulted in steady increase of interest among music researchers to move towards automatic music mood classification. A substantial amount of work has been reported on this task for western languages compared to Indian languages. Standard linguistic resources like WordNet and dictionaries



Intelligent System Design pp 463–470

Prevention of DDoS Attacks and Detection on Cloud Environment—A Review and Survey

Sharath Kumar Allam & Gudapati Syam Prasad

Conference paper | First Online: 11 August 2020

Part of the Advances in Intelligent Systems and Computing book series (AISC,volume 1171)

Abstract

Cloud computing has raised a revolution in IT technology that offers accessible, virtualized on-demand resources to the clients with more flexibility, less need for maintenance, and decreased infrastructure expenses. These resources are administered by diverse management firms and delivered through the Internet using acknowledged networking practices, standards, and layouts. The fundamental technologies and legacy practices

Chapter

Word Embeddings - Skip Gram Model

January 2020
DOI:10.1007/978-981-13-8461-5_15
In book: ICICCT 2019 – System Reliability, Quality Control, Safety, Maintenance and Management (pp.133-139)

Authors:

P. Preethi Krishna

A. Sharada
G. Narayanamma Institute of Technology and Science

Abstract

Word embedding is of great importance for any NLP task. Word embeddings is used to map a word using a dictionary to a vector. Skip gram model is a type of model to learn word embeddings. This model will predict the surrounding words based on the given input words which are within the given distance. It aims to predict the context from the given word. Words occurring in similar contexts tend to have similar meaning. Therefore it can capture the semantic relationship between the words. This paper explains about the word embedding using skip gram model, its architecture and implementation.

Deep Graph Learning Based Approach for Identification of Text in Scene Video

Mortha Manasa Devi, Scholar/JNTUH
Dr.M.Seetha, Professor/GNITS
Dr.S.Viswanadharaju, Professor/JNTU-Jagtial

Abstract:--

Content based analysis, retrieval, searching of scene video has become a key area under computer vision. Apart from indexing and retrieval of videos, demands for video analysis to monitor illegal videos have revolutionized the text detection problem. Because of complex background, low contrast, illuminated, variable font sizes, traditional approach of video based Optical Character Recognition (OCR) system performs satisfactory to detect the text from video. Later, two state-of the-art methods like SIFT and MSER outperformed to detect the text in video but both of these methods fails to detect with complex background. The proposed architecture utilizes the deep graph learning model to detect and identify the scene text from video in two stages. First, regions of similar nature are extracted from the frames by applying undirected graphs. Second, the extracted regions are fed to the learning model to obtain the features which are convolved with internal layers to find the probability of existence of text by calculating the gradients and gray level contrast between text and background. Compared to the conventional detection methods like SIFT and MSER, the detection rate based on deep graph learning can reach 90%. Experimental results show that proposed method is effective compared to two state-of-the-art methods SIFT and MSER.

Keywords:

Deep Learning, Graphs, Video, Scene text, CNN, Feature maps.

Sentiment Analysis for Stress Detection using Machine Learning Algorithms

Dr. M. Seetha, Department of Computer Engineering G Narayanamma Institute of Technology & Science for Women (Autonomous) Affiliated to JNTUH

S.S.S.Lakshmi Devi, Department of Computer Engineering G Narayanamma Institute of Technology & Science for Women (Autonomous) Affiliated to JNTUH

Abstract:--

Stress has a serious effect on mental health and is often a precursor for many severe conditions. Although stress is a natural stimulant, persistent increased levels yield many health issues like anxiety, depression, hypertension, heart attacks etc. Its prevalence has been increasing rapidly since past decade. The cure of stress requires it to be detected and quantized into levels first. As many of the social interactions are done through exchange of textual information stress can be effectively detected using sentiment analysis.

In order to handle stress-related textual attributes from various aspects and to be context specific the proposed method build a dictionary of all stress related words to detect direct and indirect expression of stress in textual information. Stress can be detected easily depending on the context and presence of these stress related terms. Sentiment relating to stress is obtained by using supervised learning techniques like Naïve Bayes, Multinomial Naïve Bayes and SVM algorithms. These three algorithms are compared based on on accuracy. SVM algorithm and Multinomial-Naïve Bayes algorithms showed better performance than Naïve Bayes algorithm. Thus it can be ascertained that proposed system accurately detect the sentiment relating to stress.

Index Terms

Multinomial Naïve Bayes, Naïve Bayes, Stress detection, SVM (Support Vector machine)

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INTERNATIONAL CONFERENCE ON
COMPUTING COMMUNICATION AND ELECTRICAL TECHNOLOGIES (ICCCET-2019)

29th - 30th August 2019 | GNITS (Autonomous) - Hyderabad, Telangana

This is to certify that **Dr. M.Seetha** of G.Narayanamma Institute of Technology and Science for Women(Autonomous) presented his/her research paper titled *Multicast Routing Protocols in Mobile Ad Hoc Networks: Issues, Challenges and Applications* in the **"International Conference on Computing Communication and Electrical Technologies (ICCCET-2019)"** organized by G.Narayanamma Institute of Technology and Science (for women), Hyderabad, Telangana on 29th - 30th August 2019.

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Professor & HOD of ETE | GNITS
Convener | ICCCET-19

Mr. Rudra Bhanu Satpathy
Chief Executive Officer
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Adaptable E-Learning Tool to Support Kids with low IQ levels in Indian Languages

A. L. Kameswari Sriadibhatla, Department of CSE, G Narayanamma Institute Of Technology And Science[For Women]
Yerabati Srinidhi, Department of CSE, G Narayanamma Institute Of Technology And Science[For Women]
Gannarapu Aneela, Department of CSE, G Narayanamma Institute Of Technology And Science[For Women]
Nara Kalyani, Department of CSE, G Narayanamma Institute Of Technology And Science[For Women]

Abstract:--

Technology has boomed the field of education through different resources by aiding the students to learn on their own and helping the teachers as well. According to the Economic Times, Dec 23,2017 India has 20.42 lakh specially challenged children with low IQ levels aged between 0 and 6 years are identified. Around 71% of them - 14.52 lakh children - are in rural areas. In the south, Telugu twin states Andhra and Telangana has 1.27 lakh children, followed by Karnataka - 92,853 - Tamil Nadu - 62,538 - and Kerala - 26,242. Slow learners generally are the kids with low IQ levels (due to learning disabilities), should be equipped with different teaching methodologies to meet their needs. In the recent past, there are many research scholars working across the world to provide supporting aids which are personalized based on the assessment of the child. In this work specialized teaching method is adopted through an e- learning tool and a mobile application which aids in learning basics in Telugu. This E-learning tool helps primary kids with learning disability, to learn basics in their native language in interactive mode.

Index Terms

Intelligent Quotient (IQ), Assistive tool, Assessment, Training, Diagnosis

Aerial Surveillance and Monitoring Using Computer Vision

Dr.A.Sharada, G.Narayanamma Institute of Technology and Science, Hyderabad, Telangana
D.Vaishnavi, Professor, Dept. of Computer Science, PSG arts and Science College, Hyderabad, Telangana
M.Sreevidya, Professor, Dept. of Computer Science, PSG arts and Science College, Hyderabad, Telangana

Abstract:--

With the advent of new technologies there's a great threat to information and hence, security to a system plays a crucial role these days. Monitoring a large event, a protest, or even an individual, drones - unmanned aerial vehicles can provide the team with the overview they need to maintain control. UAV monitoring systems provide a number of benefits to users focused on public safety and civil security. This paper covers the capturing, detection and tracking the path of a drone and tracking by detection method used to track the multiple objects visual motion by detecting the objects in the frames and observing the track throughout the entire frame and with the help of deep learning(subset of machine learning) techniques. This method gives high efficient tracking and considers longer term connectivity between pairs of detections and models similarities as well as dissimilarities between the object's position, colour and visual motion. We present the Hungarian method which gives a better performance and solves the problem of occlusion occurred.

Keywords:

Hungarian Algorithm, Image processing, Kalman filters, unmanned aerial vehicle.

Verb Based Sentiment Analysis

Dr. A. Sharada, CSE Department, G. Narayanamma Institute of Technology & Science, Hyderabad, Telangana
P. Preethi Krishna, CSE Department, G. Narayanamma Institute of Technology & Science, Hyderabad, Telangana

Abstract:--

Sentiment Analysis is one of the leading research work. This paper proposes a model for the description of verbs that provide a structure for developing sentiment analysis. The verbs are very significant language elements and they receive the attention of linguistic researchers. The text is processed for parts-of-speech tagging (POS tagging). With the help of POS tagger, the verbs from each sentence are extracted to show the difference in sentiment analysis values. The work includes performing parts-of-speech tagging to obtain verb words and implement TextBlob and VADER to find the semantic orientation to mine the opinion from the movie review. We achieved interesting results, which were assessed effectively for accuracy by considering with and without verb form words. The findings show that concerning verb words accuracy increases along with emotion words. This introduces a new strategy to classify online reviews using components of algorithms for parts-of-speech.

Keywords:

Parts-of-speech (POS) Tagging, verb words, TextBlob and VADER

Stress Detection Based On Multimodal Data Using Machine Learning Techniques

Mrs.P.Sunitha Devi, Assistant Professor, G. Narayanamma Institute of Technology and Science (For Women), Shaikpet, Hyderabad
Ms.Pissay Yasaswani Bai, M.tech IInd year, G. Narayanamma Institute of Technology and Science (For Women), Shaikpet, Hyderabad
Dr.A.Sharada, Professor, G. Narayanamma Institute of Technology and Science (For Women), Shaikpet, Hyderabad
Dr.M.Seetha, Professor and Head, G. Narayanamma Institute of Technology and Science (For Women), Shaikpet, Hyderabad

Abstract:--

Stress affects everyone differently but it can lead to a variety of health issues. Early detection of stress can prevent many stress-related health problems. Physiological stress can be identified by basic parameters like heart rate, pulse rate, face recognition, respiratory signals, which provide detailed information about the person state of mind. These parameters vary from person to person on the basis of certain things such as their body condition, age, and gender.

Physiological sensor analytics is becoming an important tool to monitor health. Physiological multi-sensor studies have been conducted previously to detect stress. This paper focuses on features like respiration rate, pulse rate and facial expressions that can now be performed with Microsoft Kinect Xbox 360 sensor, Pulse sensor and Camera, to develop an efficient and robust mechanism for accurate stress identification. Using machine learning algorithms on the above features high accuracy in detecting the stress can be achieved.

Key Terms:

Physiological stress, Physiological multi-sensor, Microsoft Kinect Xbox 360 sensor, Pulse sensor

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Innovations in Computer Science and Engineering, pp 9–15

An Ensemble Classifier Characterized by Genetic Algorithm with Decision Tree for the Prophecy of Heart Disease

K. Chandra Shekar, Priti Chandra & K. Venugopala Rao

Conference paper | First Online: 19 June 2019

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 74)

Abstract

The prediction of heart disease is critically significant for diagnosis of diseases and treatment. The data mining techniques that can be applied in medicine, and in particular some machine learning techniques including the mechanisms that make them better suited for the analysis of medical databases. Extensive amounts of data gathered in medical databases require specialized tools for

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Music Mood Categorization: A Survey

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Music is one among the many emotion rich resources because of which it is very much common for music listeners to maintain music libraries in terms of mood. The growing availability of online music data and their vast applications have resulted in steady increase of interest among music researchers to move towards automatic music mood classification. A substantial amount of work has been reported on this task for western languages compared to Indian languages. Standard linguistic resources like WordNet and dictionaries

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A Study on Data Security and Query privacy in Cloud

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Conference: 2019 3rd International Conference on Trends in Electronics and Informatics (ICOEI)

Authors:

Nagababu Garigipati
G. Narayanamma Institute of Technology and Science

Vuyyuru Krishna Reddy
GITAM University

Chapter

Word Embeddings - Skip Gram Model

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International Conference on Intelligent Computing and Communication Technologies

ICICCT 2019: **ICICCT 2019 – System Reliability, Quality Control, Safety, Maintenance and Management** pp 352–360

Smart Garbage Collection Truck

Bhageshwari Ratkal & Y. Niharika

Conference paper | First Online: 28 June 2019

Abstract

A place will be attractive when its clean and tidy, but they end up in producing garbage say every party, function or event. However, garbage is produced but need to plan a better way to dispose it on time. In metropolitan cities garbage trucks are available to collect the solid waste twice a day. But the system is not properly designed. As the filled trash-can are lying for weeks in some areas. Smart garbage collection truck, which gives a real time indicator in the trash-can of the garbage. Garbage can be segregated as dry waste and wet waste. An

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STRESS DETECTION SYSTEM BASED ON MULTIMODAL DATA in the Second

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38

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RECENT CHALLENGES IN ENGINEERING AND TECHNOLOGY (ICRCET-18)

31st January & 01st February 2019 | AITS, Tirupati, Andhra Pradesh

This is to certify that **Dr. A. Sharada**

of G.Narayanamma Institute of Technology & Science presented his/her research paper titled *Study of Parameters that lead to Challenges in Sentiment Analysis*

during the "4th International Conference on Recent Challenges in Engineering and Technology (ICRCET-18)" held at Annamacharya Institute of Technology & Sciences, Tirupathi, Andhra Pradesh on 31st January & 01st February 2019.

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Principal
AITS, Tirupathi

Mr. Rudra Bhanu Satpathy
Director, IFERP

38.1

Speed-Breaker Early Warning System Using 77 GHz Long-Range Automotive Radar

Umarani Deevela, Swapna Raghunath and Srinivasa Rao Katuri

Contents

Abstract Road safety measures are one of the most important requirements of present times. An early warning system to avoid accidents due to speed-breakers has been proposed in this paper. The novelty of this method is detecting a speed-breaker and alerting the driver in advance. For this purpose, long-range automotive FMCW radar (LRR) with transmitting frequency of 77 GHz has been used. This paper mainly deals with detection of a speed-breaker using fast Fourier transform (FFT) as a pre-processing technique. The main steps involved in a speed-breaker detection are receiving backscattered signals from radar module, filtering the data, applying a pre-processing technique, and classifying the output of pre-processing using support vector machine (SVM) classifier and K-nearest neighbors (KNN).

Keywords Speed-breaker · Automotive radar · FFT · Classification Feature extraction · SVM · KNN

U. Deevela (✉) · S. Raghunath
G. Narayanamma Institute of Technology and Science, Shaikpet, Hyderabad, India
e-mail: deevelauma@gmail.com

S. Raghunath
e-mail: swapna.karnam1@gmail.com

S. R. Katuri
Ineda Systems Pvt. Ltd, Hyderabad, India
e-mail: srinivasarao.katuri@inedasystems.com

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7th International Conference on Innovations in Electronics & Communication Engineering (ICIECE-2018)

July 27th - 28th, 2018

CERTIFICATE OF PARTICIPATION

This is to certify that ~~Mr.~~ / Ms. Dr. K. Ragini has presented a paper titled Design of a Novel High speed and energy Efficient 32-bit Carry skip Adder in the track VLSI of the "7th International Conference on Innovations in Electronics and Communication Engineering (ICIECE-2018)", held during 27th - 28th July, 2018.

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Design of a Novel High Speed and Energy Efficient 32-Bit Carry Skip Adder

B.Sanjana1, Dr.K.Ragini2
Department of ECE, G. Narayanamma Institute of Technology and Science, Shaikpet, Hyderabad1,2
bolnisanjana@gmail.com1,ragini_kanchim1@yahoo.co.in

In this paper, different 32-bit carry skip adders i.e. Fixed Stage Size- Conventional carry skip adder(FSS-Conv CSKA), Variable Stage Size -Conventional carry skip adder(VSS-Conv CSKA), Fixed Stage Size-Concatenation and Incrementation carry skip adder(FSS-CI CSKA) and Variable Stage Size-Concatenation and Incrementation carry skip adder(VSS-CI CSKA) are designed and compared in terms of power, energy, critical path delay, power-delay product and energy-delay product using 45nm static CMOS technology for different range of supply voltages i.e. 0.7v, 0.9v, 1.1v. The results that are obtained using tanner EDA simulations reveal that the Concatenation and Incrementation carry skip adder with fixed and variable stage size has 51% and 49% improvement in the critical path delay and energy, compared with those of fixed stage size conventional carry skip adder and Variable Stage Size - Conventional carry skip adder.

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Image Encryption and Decryption using Chaotic Bit level Pixel Permutation

TejashwiniNeela, Department of ECE, GRIET, Hyderabad, Telangana, India.(E-mail: tejashwinineela@gmail.com)
Ch. UshaKumari, Department of ECE, GRIET, Hyderabad, Telangana, India. (E-mail: ushakumari.c@gmail.com)
SwapnaRaghunath, Department of ECE, GNITS, Hyderabad, Telangana, India.
AnkithaRathi, Department of ECE, GRIET, Hyderabad, Telangana, India.

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Abstract:
Present day communication is tending towards the digital technologies for a faster, better and enhanced way of data transfer. The digital data transfer is an efficient way to spread the information which saves the time for the information exchange. Most of the data is transferred over the internet in the pictorial form rather than theoretical form to reduce the transfer time. Images are the best available pictorial way of data interpretation. The data transmitted over the internet are prone to security issues caused by internet hackers. In order to save the data from being exposed to unauthorized users, it is advisable to transfer the data, different from its original form. The process of changing the data in one form to another with the same information is referred as encryption and retrieving the information from its encrypted form is referred as decryption. Encryption and decryption are image processing techniques that help in efficient and secured data transfer over the internet. The paper illustrates an efficient method of encrypting and decrypting images using bit-level pixel permutation and pixel correlation techniques.

Keywords:Bitwise XOR Operation, Data Security, Decryption, Encryption, Pixel Correlation, Pixel Permutation.

I. INTRODUCTION

In trending and advanced communication techniques, data safety and security has become the most important issue to be addressed. Moreover, the evolution in digital technology helps in speedy exchange of information between various fields, including space, defence, multimedia, machine learning, civilian and economic etc., In such cases, data security plays a major role, and this motivates researchers to take a deep view over keeping data security and transfer systems more safe and secure. Cryptography is a distribution of algorithms which helps in storing and securing the information from being forged. Its absolute purpose is to authenticate and integrate the data and maintain its confidentiality. "A Key" is a main concept of cryptography used in encrypting and decrypting data. Encryption is permuting original data to chipper data by using encryption algorithms. Decryption is to regain the encrypted data to its original form.

Image encryption and decryption techniques include extracting the pixels from an image and hiding them to secure the data shown by the image and to get back to its former state. These techniques are based on various algorithms and methods, proposed by literature. Algorithms such as Triple DES, Blowfish, which use Private Key bulk encryption. However, image encryption cannot be carried out by conventional cryptographic algorithms such as DES due to image intrinsic properties that incudes redundancy, data capacity and correlation among pixels. Some of the most commonly used algorithms include Advanced Encryption Standard (AES) algorithm, RSA algorithm, Block based transformation algorithm, Sandwich Phase Diffuser technique, KA image cryptography, random key generation using Genetic Algorithm (GA), etc., Among them, Chaotic cryptography play a vital role

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Lung Cancer Detection from Computed Topography Images using Marker controlled Watershed

Ankitha Rathi, Department of ECE, GRIET, Hyderabad, Telangana, India. (Email: ankitha16995@gmail.com)
Ch.Usha Kumari, Department of ECE, GRIET, Hyderabad, Telangana, India. (Email: ushakumari.c@gmail.com)
Swapna Raghunath, Department of ECE, GNITS, Hyderabad, Telangana, India.
Tejashwini Neela, Department of ECE, GRIET, Hyderabad, Telangana, India.

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Abstract:
The death count due to lung cancer is increasing day by day. According to the statistics calculated by world health organization (WHO), the estimated deaths are around 2,28,150 (116,440 in men and 111,710 in women). The statistics shows the lung cancer consists of about 14 percent among other cancers. It ranks second place in each woman and men. This research is carried out using lung cancer CT scan images as input data. In this research, the proposed methodology is implemented in three stages. In stage one, preprocessing is done using gaussian filter and Gabor filter. The image smoothing is accomplished with gaussian filter and image enhancement is carried out using Gabor filter. In stage two, image segmentation is done using marker-controlled watershed algorithm it segments the lung portion only. In stage three, binarization is used for detection and classification is carried out based on the black and white pixels. In the binarization method, if black pixel count is less than 17179, then lung cancer is detected. The adopted Navies Bayes classifier shows an accuracy of 94.6 percent. Gabor filter gives best in terms of texture analysis and intensity when compare with a gaussian filter. Gabor filter increases the contrast in nodule areas that are very helpful for cancer detection.

Keywords:Binarization, CT images, Gaussian Filter, Gabor Filter, Marker controlled watershed

I. INTRODUCTION

Lung cancer is caused mainly due to life style changes. Eating tobacco, smoking, exposure to tants, family history and so on. Malicious ca r cells grow in the body parts such as chest wall, diaphragm, bronchus. Lung cancer or primary ung cancer deals with the growth of cancer cells in ung parts itself while Secondary lung cancer deals vith spreading of cancer cells to lungs which are rown from other body part. Lung cancer can be ategorized into two major types, among which first Non-small lung cancer and the second is small cell ng cancer. The size of malicious cells starts owing rapidly and thereby increasing the cancer ages. NSCLC constitutes about 85 percent and the CLC constitutes the remaining 15 percent [1]. ore number of deaths happen due to lung mor/lung cancer according WHO. The survival rate can be increased by early detection of the lung tumor. Various computer aided detection systems are available. In this research cancer images are taken from computer topography (CT). CT images are having high resolution and more clarity when compared to X-ray images and provides more productive output for analysis [2]. The research is carried out in four stages. In stage one, acquiring of CT images from cancer data base is accomplished from http://www.cancerimagearchieve.net. In stage two, the noise is removed from the acquired images using gaussian and Gabor filter. In this stage image enhancement and smoothing is also done. In stage three, image segmentation is done using marker watershed and thresholding for analysis on selected lung portion [3]. In stage four, detection and classification is done using binarization and Navies Bayes classifier. In binarization process, the tot

A Multi-probabilistic Based PTS Technique to Reduce PAPR in an OFDM System

Shaik Shafiya(✉) and B. Venkateshulu

Department of ECE, G. Narayanamma Institute of Technology and Science, Shaikpet, Hyderabad, India
shafiyashaik93@gmail.com, ecehod@gnits.ac.in

Abstract. Orthogonal Frequency Division Multiplexing (OFDM) is a Multi-carrier Modulation technique which is used for high data rate transmission as it reduces the effect which occurs due to frequency- selective fading channels. Peak to Average Power Ratio (PAPR) is one of the major issue with OFDM. The approaches to obtain minimization of PAPR in an OFDM signals has brought much interest among the researches in recent days. OFDM has higher PAPR when compared to single carrier modulation techniques because OFDM signal is the combination of multiple narrow band signals which leads to higher PAPR and abnormally effects the complexity of power amplifiers. In this paper the simulations show that compared to traditional Selective Mapping (SLM) technique the Partial Transmit sequence (PTS) technique achieves much better minimization in PAPR. Complementary Cumulative Distributive Function (CCDF) is used as a metric to calculate PAPR.

AQ1

AQ2

Keywords: OFDM · SLM · PTS · Peak to Average Power Ratio · Complementary Cumulative Distributive Function

1 Introduction

The requirement for tremendous – quality communication services is growing expeditiously, it is a huge challenge for system designers to deal with techniques that improve the provided Quality of service and reduce the effect of delay [1]. In order to achieve these requirements Orthogonal Frequency Division Multiplexing (OFDM) is considered as a best technique as it has many advantageous features such as higher spectral efficiency, robust against Multi-path fading and implementation complexity is less [1, 2]. One critical issue with OFDM is its high Peak to Average Power Ratio (PAPR) [3, 4]. After observation it has been noticed that this peak power is much higher than the average power and hence it is necessary to minimize the ratio known as Peak to Average Power Ratio (PAPR). High PAPR results in various disadvantages such as complex design at transmitter [4]. The transmitter for the signal with higher PAPR requires high gain amplifier of amplification factor which will results in high power consumption and an inefficient system [4]. The standard value for PAPR is considered as 12 for the OFDM signal. In any condition if the value increases more than 12 there is a need to use high power amplifiers which will result in more power consumption [4]. Other disadvantages of the high PAPR is implementation for receiver

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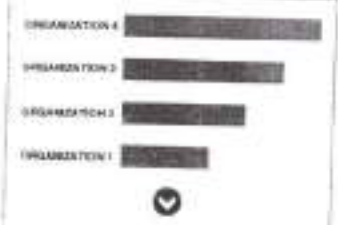
https://doi.org/10.1007/978-981-13-8461-5_9

Conferences > 2018 IEEE 13th International ...

Input Fusion of MFCC and SCMC Features for Acoustic Scene Classification using DNN

Publisher: IEEE

Chandrasekhar Paseddula ; Suryakanth V. Gangashetty View All Authors



Abstract: In this paper, we propose a feature set by concatenating Mel-Frequency Cepstral Coefficients (MFCC) and Spectral Centroid Magnitude Coefficients (SCMC) features for Acous... **View more**

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Abstract:
In this paper, we propose a feature set by concatenating Mel-Frequency Cepstral Coefficients (MFCC) and Spectral Centroid Magnitude Coefficients (SCMC) features for Acoustic Scene Classification (ASC) using Deep Neural Networks (DNN). MFCC features are used to hold the acoustic characteristics such as spectral envelope of an acoustic scene in each frame. It also carries the sub-band average energy as a single dimension. SCMC features are used to hold the distribution of energy in a sub-band effectively. A test is carried out on Tampere University of Technology (TUT) Acoustic Scenes 2017 Dataset. The DNN architecture for utterance level classification has been used. The proposed system's performance on a 4-fold cross-validation setup is 80.2% and it gives 5.4% relative improvement in performance when compared to the baseline system that uses log-Mel band energies with Multi-Layer Perceptron model.

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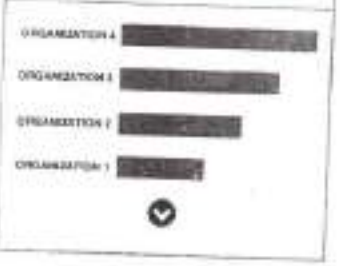
DNN based Acoustic Scene Classification using Score Fusion of MFCC and Inverse MFCC

Publisher: IEEE

Chandrasekhar Paseddula ; Suryakanth V. Gangashetty View All Authors



Abstract: Herein, we propose an Acoustic Scene Classification (ASC) based on Deep Neural Networks (DNN). The design of Mel-filer bank helps in capturing the acoustic scene characte... View more

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Abstract:
Herein, we propose an Acoustic Scene Classification (ASC) based on Deep Neural Networks (DNN). The design of Mel-filer bank helps in capturing the acoustic scene characteristics in the low-frequency regions during MFCC extraction. In this paper, inverse MFCC are used as interdependent to structure of Mel filter bank. We can effectively capture the acoustic information in the total audio frequency range using MFCC and IMFCC features. An experiment is carried on Tampere University of Technology (TUT) Acoustic Scenes 2017 Dataset. DNN architecture at utterance level classification with supervised learning is adopted. Scores from the DNN models corresponding to MFCC and IMFCC features are combined for testing the model. The relative improvement of 5.22% with respect to baseline system is achieved by the proposed system on setup of 4-fold cross-validation. We participated in the DCASE 2017 challenge for ASC task, also got 45.9% accuracy on given evaluation dataset. This approach got 76 [th] rank out of 97 submissions.

Published in: 2018 IEEE 13th International Conference on Industrial and Information Systems (ICIIS)

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Cepstrum-Based Road Surface Recognition Using Long-Range Automotive Radar

Sudeepini Darapu, S. M. Renuka Devi and Srinivasarao Katuri

Abstract During driving, a sudden change in the road surface results in imbalance of vehicle due to wheel slip which leads to accidents. Thus, a need arises for an automotive system to recognize the type of road surface ahead and alert the driver to accordingly change the speed of the vehicle. This paper proposes a technique for road surface recognition using 77 GHz frequency-modulating continuous wave (FMCW) long-range automotive radar. The cepstral coefficients calculated from the backscattered signal are analyzed, using classifiers like decision tree and SVM. This technique recognizes five different road surfaces, i.e., dry concrete, dry asphalt, slush, sand, and bushes. To validate the accuracy and classification rate, field testing is conducted at Kondapur (Telangana) and the system has achieved prediction percentage of above 90%.

Keywords Automotive systems · Radar backscattering · Signal processing · Cepstral coefficients · Machine learning · Road surface detection

1 Introduction

Over the past few years, advanced driver-assistance Systems (ADAS) have been a significant area of research. The reason being, ADAS includes many novel applications such as detecting guardrail and vehicle [1], collision avoidance [2], detecting pavement and lane boundaries [3], and automatic cruise control [4] that are to be the part of modern cars. Nowadays radars are used in the above applications as a

S. Darapu (✉) · S. M. Renuka Devi
G Narayanamma Institute of Technology and Science, Shaikpet, Hyderabad, India
e-mail: reddy.sudeepini@gmail.com

S. M. Renuka Devi
e-mail: renuka.devi.sm@gmail.com

S. Katuri
Ineda Systems Pvt. Ltd., Kothaguda, India
e-mail: srinivasarao.katuri@inedasystems.com

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Low Complexity Two-Stage Sensing using Energy Detection and Beamforming

M. Madhuri Latha, Prakash B. Gohain, Sachin Chaudhari
Signal Processing and Communications Research Center
International Institute of Information Technology-Hyderabad, India
Email: madhuri.latha@research.iiit.ac.in, prakash.gohain@research.iiit.ac.in, sachin.c@iiit.ac.in

***Abstract*—In this paper, we propose two two-stage spectrum sensing schemes for a single secondary user (SU) or cognitive radio (CR) with multiple antennas to detect a primary user (PU) transmission. For both the proposed schemes, the first stage involves low-complexity coarse-sensing using simple energy detection (ED). The second stage for both methods involve high-performance fine-sensing using beamformed energy detection (BFED) in the estimated direction of arrival (DoA) of the PU signal. In the two-stage method, the second stage is conditional and sensing process goes to the second stage only if certain performance criteria is not met in the first stage. The two proposed methods differ in the performance criteria, which decides if the second stage of BFED is needed or not. The first two-stage method is designed to reduce complexity when there is no PU transmission while the second method is designed to reduce complexity when the PU signal is present. It is shown through simulations that the proposed two-stage schemes have significantly lower complexity as compared to only employing single-stage BFED with little or no performance loss.**

I. Introduction

Cognitive radio (CR) is going to be a key enabler for 5G. CR can provide efficient spectrum utilization through dynamic spectrum reuse so that requirement of high number and high density of users is satisfied [1]. Given that huge number of devices belonging to different technologies will coexist in the same frequency bands in 5G [2], cognitive radio can provide spectrum awareness for efficient interference management among the heterogeneous networks in 5G [1].

Spectrum sensing is an important component of cognitive radio as it provides spectrum awareness required for cognitive processing. Among the several sensing schemes suggested in the literature, energy detection (ED) is the simplest detector and does not require any a priori knowledge of the primary user (PU) signal. Also it is an optimal sensing algorithm when detecting a random signal in AWGN when the noise floor is exactly known [3].

Most of the papers in the spectrum sensing literature, including ED, have assumed the use of omni-directional antennas. However, use of beamforming can improve the performance of sensing, which is the focus of this paper. Beamforming uses spatial filtering technique on a radio with multiple antennas to form beams in order to boost reception of signal radiating from a specific location and attenuate signals from other locations [4]. Beamforming is achieved by using an antenna array where each antenna is multiplied by a specific weight such that the combined radiation pattern is in the direction of the PU. Here, the weight vector is obtained based on the direction-of-arrival (DOA), (also called angle-of-arrival (AOA)) of PU signal. Beamforming using a simple uniform linear array of M antennas can provide M times increase in the signal-to-noise ratio (SNR) [4]. Beamforming based sensing is even more lucrative now that wireless systems are moving from simple multiple-input-multiple-output (MIMO) to massive MIMO architectures [5].

Most of the beamforming methods in cognitive radio literature only consider transmit-beamforming to reduce the interference from secondary users (SUs) to the PUs [6]–[8]. The scope of this paper is different from the above papers on beamforming in cognitive radios as this paper focuses on receive-beamforming for spectrum sensing purposes using single user with multiple antennas. There have been only few papers on this topic [9], [10]. In [9], eigenvalue-based spectrum sensing algorithm is proposed using beamformed received data. In [10], the angular domain is divided into sectors using beamforming and these sectors are then sensed serially. A electronically steerable parasitic antenna receptor is used for sensing so that only a single RF front end is required simplifying the cost, power and size requirements of the radio.

In this paper, we propose two two-stage spectrum sensing schemes. The first stage is coarse sensing using low-complexity ED using multiple omni-directional antennas, second stage is fine sensing using high-performance beamformed ED (BFED). Note that if the DoA is known, the beamforming gives better performance only at slight increase in complexity with respect to ED. However, DoA of PU is generally not known and has to be estimated. In this paper, we assume that DoA is not known and the second stage of the proposed spectrum sensing schemes includes DoA estimation. In this paper, we have employed widely used multiple signal classification (MUSIC) [11] for estimating the DoA of an active PU signal. Algorithms for estimating DoA including subspace DoA estimation algorithms are computationally complex. For example, MUSIC involves singular value decomposition which is computationally complex. This motivated us to look for two-stage spectrum-sensing methods to reduce the complexity of the sensing stage without sacrificing much on the detection performance. In the proposed two-stage methods, the sensing process goes to the second stage of high-complexity fine-sensing

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Contents

Chapter - 3
Impact of Communication and Coordination Factors on GSD Projects

Author

Dr. S. Ramacharan

Associate Professor, IT Department, G. Narayanamma Institute of Technology & Sciences, Hyderabad, Telangana, India

Chapter - 3

Impact of Communication and Coordination Factors on GSD Projects

Dr. S. Ramacharan

Abstract

One of the main challenges in GSD is to establish effective communication and coordination mechanisms among the teams to utilize their full potential. The GSD practices are to ensure effective communication between the team members for better outcome for the project under development.

Keywords: effort estimation, GSD (global software development), COSEEKMO, COCOMO II, SLIM

Introduction

Due to Globalization market has radically influenced the field of software product development. Today, majority of software projects are implemented in global environments as well as GSD is growing like a software industry standard because of its outstanding as well as expected benefits like lesser costs and utilizing global resources. Many software companies making their effort to amplify revenues by refining the product deliver time to the market, minimizing expenditure by engaging software developers from several nations with inexpensive development cost per work-hours and challenging the watch by administrating the development of software projects throughout 24 hours. GSD permits development of a software product to proceed autonomously irrespective of geological place, entities or groups. So, for GSD it is very important to make precise and reliable estimates for the software project at the preliminary to support project forecasting as well as software project control within the bounds of budget and duration. Basically, Distributed projects also struggles with problems similar to that of single-site projects such as quality, schedule and cost [1]. Where as in GSD projects, administration of resource creates it even tougher to manage and regulate these difficulties. There are many challenges caused due to various issues such as Communication and coordination, background knowledge that's why, in GSD projects it is very

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Evaluation of Machine Learning Models for Employee Churn Prediction

Ch Ramesh, Assistant Professor, G. Narayanamma Institute of Technology & Science (for Women), Hyderabad, Telangana
P.V Ajitha, Student, G. Narayanamma Institute of Technology & Science (for Women), Hyderabad, Telangana

Abstract:--

The aim of this paper is to study a new prediction method for the churn problem in Information Technology Sectors. For this end, a logistic regression model is built, which integrates a machine learning algorithm logistic regression model from statistics and data analytics. First, we have to classify churn and non-churn employees utilizing the logistic regression model to, and then the organization can do the needful to retain them. At last, we present the outcomes of a simulative assessment and prove that the presented method is conducive to analyzing the churn problem in human resource analytics.

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Evaluation of Machine Learning Models for Credit Scoring

Ramesh Cheripelli, G.Narayanamma Institute of Technology & Science, Hyderabad, Telangana
Kovvuri Ramya Sri , G.Narayanamma Institute of Technology & Science, Hyderabad, Telangana

Abstract:--

It is significant for banks to develop credit card services to compete with foreign capital, On the other side it is urgent to improve the ability to control credit risks. Customers are the valuable assets of any bank. The payment of timely bills is important for the running of banks. But if the customers do not pay on time, it may incur huge loss to any financial organization. In this paper we try to build several models which will predict the credit score of customers. Credit score is calculated on banking and finance datasets. To show the relation between attributes, the correlation matrix is generated. In the experimental part, the graphs are generated, which shows the contrast for better analysis. This paper predicts and proposes the factors or attributes which optimize the profits of any banking organization. The best model will be selected based on the accuracy, sensitivity and specificity values obtained.

Index Terms

Credit Scoring, Machine Learning, Weight Of evidence analysis, Crisp DM Framework.

Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019)
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Application of Big Data Analytics in Power under Single Transmission Line Outage Co

*Shaik Abdul Shafaat**, *Pathakota Vishnu Teja, Patil Sai Kiran Reddy, Ratala Manoj,*
UG Students, Dept. of EEE,
Sree Vidyanikethan Engineering College, Tirupati, India
*shafaat.abdul19@gmail.com

Suresh Babu Daram,
Assistant Professor, Dept. of EEE &
Research Coordinator,
Centre for Energy
Sree Vidyanikethan Engineering College, Tirupati, India
sureshbabudaram@gmail.com

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***Abstract*—The contingencies on the system are carried based on the static line voltage stability indices for single transmission line outage occurred in the system. Under the static conditions, the deployment of information will be large in size with respect to the data. This data has to be communicated properly to the planning power engineer. In this regard, the data given to the power engineer has to be monitored properly with the removal of the bad data. So, big data analysis provides a new paradigm for removal of bad data in the system. In this paper, the contingencies are ranked based on the line voltage stability index. The ranking has been carried for single transmission line outage and for different variations in the system load. The data obtained for all the contingencies has been clustered using simple k-mean clustering approach using WEKA software. The proposed algorithms were carried on IEEE 30 Bus system and MATLAB environment is used for generating the data.**

Keywords*— *Line Voltage Stability Index, Simple K- Mean Clustering, Contingency Ranking, Single Line Outage Condition.

I. INTRODUCTION

Power is the main requirement of the daily human life. The load is varied according to the requirement of the human need. This leads to different loading conditions in the transmission system. The behaviour of the transmission lines depends on its power transfer capability i.e., on both active power and reactive power. For the system to be stable the understanding of the behaviour of the transmission line is required and it should not

cluster according to the line voltage stabili
Mean clustering is used for the cluste
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The total flow of this methodology is
This process is totally based on the big d
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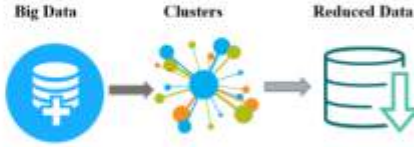

Fig 1. Clustering and rank

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voltage stability index, whereas the section
of Simple K Mean clustering algorithm.
comprises of the proposed flow chart, r
discussions and concluded with briefed out

Application of Big Data Analytics in Power System under Single Transmission Line Outage Condition

Shaik Abdul Shafaat ; Pathakota Vishnu Teja ; Patil Sai Kiran Reddy ; Ratala Manoj ; Suresh Babu Daram ; O. Obulesu **All Authors**

Abstract: The contingencies on the system are carried based on the static line voltage stability indices for single transmission line outage occurred in the system. Under the stati... **View more**

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Contents

SECTION I.
Introduction

Power is the main requirement of the daily human life. The load is varied according to the requirement of the human need. This leads to different loading conditions in the transmission system. The behaviour of the transmission lines depends on its power transfer capability i.e., on both active power and reactive power. For the system to be stable the understanding of the behaviour of the transmission line is required and it should not collapse under different load conditions, the transmission lines behaviour is to be analysed prior to the outage conditions. These types of analysis help in the improvement of safety and react quickly based on the occurred incident [1].

For this sort of analysis, data regarding the bus voltage with magnitude, parameters like line resistance, line reactance in the transmission line is required for carrying load flow analysis through the converging algorithm Newton-Raphson Method [2]. Data generated from this technique is used for calculating the line voltage stability index which is based on the reactive power of the receiving bus of the particular transmission line.

The line voltage stability index for different contingency conditions are combined [3]. This combined data is utilized to cluster according to the line voltage stability index. Simple K-Mean clustering is used for the clustering data [4]. The clustered data is then prepared for the ranking of the transmission lines. Rank is given based on its number of times the line is under stressed conditions and its line voltage stability index value.

The total flow of this methodology is as shown in fig. 1. This process is totally based on the big data analytics i.e. the obtained huge data of the line voltage stability index value is reduced according to the requirement through the use of most fast and accurate method Simple K Mean clustering. This helps in ranking the lines based on the severity.

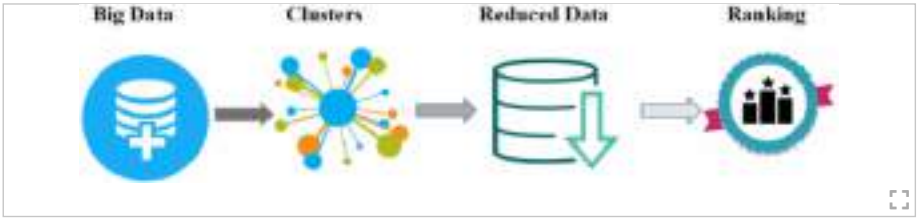

Fig 1.
Clustering and ranking

The parts of paper are as classified as section 2 is line voltage stability index, whereas the section 3 briefs out the use of Simple K Mean clustering algorithm. The further sections comprises of the proposed flow chart, results with required discussions and concluded with briefed out advantages.

SECTION II.
Line Voltage Stability Index

The Line Voltage Stability Index (L_{mn}) [16] of a particular line is directly proportional to the [illegible] reactance of the receiving line. It is inversely proportional to

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Advances in Decision Sciences, Image Processing, Security and Computer Vision

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Editors: Suresh Chandra Satapathy, K. Srujan Raju, K. Shyamala, D. Rama Krishna, Margarita N. Favorskaya

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Multi Controller Load Balancing in Software Defined Networks: A Survey

K. Sridevi & M. A. Saifulla

Conference paper | First Online: 13 July 2019

Part of the Learning and Analytics in Intelligent Systems book series (LAIS,volume 3)

Abstract

As the single centralized controller is not meeting the requirements of large scale networks, the distributed control plane have been proposed for software defined networks. But the distributed SDN also have overlooked challenges in terms of scalability, consistency, reliability and load balancing. The increase in traffi
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SDN Control plane Load balancing Switch migration

References

1. Nunes BAA, Mendonca M, Nguyen X, Obraczka K, Turletti T (2014) A survey of software-defined networking: Past, present, and future of programmable networks. IEEE Commun Surv Tutor 16(3):1617–1634, Third 2014

2. Hu T, Guo Z, Yi P, Baker T, Lan J (2018) Multi-controller based software-defined networking: A survey. IEEE Access 6:15980–15996

3. Zhang Y, Cui L, Wang W, Zhang Y (2018) A survey on software defined networking with multiple controllers. J Netw Comput Appl 103:101–118

4. Open network foundation (2015). https://www.opennetworking.org/ (OpenFlow Switch Specification (Version1.5.0))

5. Stallings W (2016) Foundations of Modern Networking: SDN, NFV, QoE, IoT, and Cloud, Pearson Education, Inc, USA

6. Mininet. mininet.org

7. Ry

8. O

9. Onos controller. https://onosproject.org/

10. Dixit A, Hao F, Mukherjee S, Lakshman TV, Kompella R (2013) Towards an elastic distributed sdn controller. In: Proceedings of the second ACM SIGCOMM workshop on hot topics in software defined networking, HotSDN 2013, ACM, New York, NY, USA, pp 7–12

11. Cheng G, Chen H, Wang Z, Chen S (2015) DHA: distributed decisions on the switch migration toward a scalable SDN control plane. In: IFIP networking conference (IFIP Networking), IEEE, pp 1–9

12. Wang C, Hu B, Chen S, Li D, Liu B (2017) A switch migration-based decision making scheme for balancing load in SDN. IEEE Access 5:4537–4544

13. Kim W, Li J, Hong JWK, Suh YJ (2018) Hes-cop: heuristic switch-controller placement scheme for distributed SDN controllers in data center networks. Int J Netw Manag 28(3):e2015

14. Rest api. https://restfulapi.net/

15. Cello M, Xu Y, Walid A, Wilfong G, Chao HJ, Marchese M (2017) Balcon: A distributed elastic SDN control via efficient switch migration. In: 2017 IEEE international conference on cloud engineering (IC2E), IEEE, pp 40–50

16. Hu T, Lan J, Zhang J, Zhao W (2017) EASM: Efficiency-aware switch migration for balancing controller loads in software-defined networking. In: Peer-to-Peer networking and applications, pp 1–13

17. Ammar HA, Nasser Y, Kayssi A (2017) Dynamic SDN controllersswitches mapping for load balancing and controller failure handling. In: Wireless communication systems (ISWCS), 2017 international symposium on, IEEE, pp 216–221

18. Filali A, Kobbane A, Elmachkour M, Cherkaoui S (2018) SDN controller assignment and load balancing with minimum quota of processing capacity. In: 2018 IEEE international conference on communications (ICC), May, pp 1–6

Auth

Auth

Univ

K. Sri

Corresponding author

Correspondence to K. Sridevi .

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K. V. N. Sunitha
BVRIT Hyderabad College of Engineering
for Women
Hyderabad, Telangana, India

Vicente Garcia Diaz
Department of Computer Science
University of Oviedo
Oviedo, Spain

Vijender Kumar Solanki
Department of Computer Science
and Engineering
CMR Institute of Technology (Autonomous)
Hyderabad, Telangana, India

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Preface 00001

Suresh Kumar Tummala and Phaneendra Babu Bobba

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An optimised system for energy monitoring and data acquisition in substations/domestic applications using IoT

V. Badri Rama Krishnan*, Keerthana Sandepudi and Shaista Gazal

G.Narayanamma Institute Of Technology and Science, Electrical and Electronics Engineering

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Compact High Gain Hexagonal Fractal Antenna for 5G applications

Dr Srivalli Gundala
Dept of ECE
GNITS
Hyderabad
India
srivalligundala@gmail.com

Dr VSSN SrinivasaBaba
Dept of ECE
ACE Engineering college
Hyderabad
India
vssnsbaba@gmail.com

Adepu Vijaya
Dept of ECE
KITS
Warangal
India
adepuvijaya1@gmail.com

SoujanyaMachanna
Dept of ECE
GNITS
Hyderabad
India
machannasoujanya@gmail.com

***Abstract*— This paper presents a Hexagonal Fractal antenna with a side feed. The proposed antenna is designed for 4.2GHz operating frequency and it can be used for wide band application. The results include parametric variation of substrate and also with different feed positions. This antenna offers 5.98dBi of peak gain. Experimentation is carried out and the results are in good agreement with the simulated results. The proposed antenna is of compact size 23mm × 27.5mm. VSWR is less than 2 for total performing frequency spectrum of 3.6 to 23 GHz with a Bandwidth of 19.4 GHz. A good radiation pattern and return loss are obtained in simulation and experimentation.**

Index terms: Arrowhead slots, fractal, hexagon, partial ground plane, wide-band.

I. INTRODUCTION

Wireless and mobile communications are in need of compact and low-profile antennas with wideband characteristics. Miniaturized antennas have more demand for present day communication systems. Fractals possess the nature which satisfies the above criteria and presents itself for the current trend in communications. Using pre-fractal shapes as radiators improves the scope of obtaining far-fetched antenna capabilities that are restrained for normal patch antennas. Researchers have been studying and implementing fractal antennas for diverse applications over the past 40 years. They provided substantial amount in the field of antennas with their unique properties.

Nowadays radiators with less volume and easy to design is preferred as it can be responsible for obtaining desired attributes. Various techniques have been suggested to obtain wideband performance. Patch antennas with different radiator shapes, closed shape slots and open slits in ground or in patch implemented for wideband applications. Kaushik Mandal and Partha Pritam Sarkar [1] have presented a high gain wideband U-shaped patch antenna with modified ground structures for wireless applications. A U slot patch antenna with L feed probe is implemented to obtain multi band performance [2]. Wei Xing Liu et al. [3] have presented a compact open-slot antenna to enhance the bandwidth by maintaining ultra-wideband performance.

Using fractal shapes is one of the techniques for bandwidth enhancement and antenna miniaturization. The self-similarity and space filling properties of fractal are key factors to obtain wide bandwidth [4]-[5]. The self-similarity property can be considered as whole shape is divided into subparts and each part is reduced copy of the whole. This causes multiband and broadband behaviour in antennas. The space filling property leads to size reduction as they have long electrical length but accumulates into small physical volume and utilizes space effectively. The discontinuities due to convoluted and ragged shape of fractal increases bandwidth and effective radiation of antenna.

Mohammad T. Islam, et al.[6] have presented a circular-hexagonal fractal antenna for super wide band applications. W. J. Lui, et al. [7] have presented a frequency notched ultra-wideband (UWB) fractal printed slot antenna with a Koch curve slot. A. Azari et al. [8] have presented a fractal microstrip antenna for modern telecommunication systems. Naresh K. Darimireddy et al. [9] have presented a miniaturized hexagonal-triangular fractal antenna with ROGERS RT DUROID 5870 as substrate for wide-band applications. A defective ground structure with a rectangular open slit at the center is taken as ground structure. Patch consists of hexagonal rings along with triangular elements, which creates a fractal nature with antenna.

A partial ground plane minimises the return loss compared to full ground plane. M. Koohestani et al. [10] have presented an ultra-wide band printed monopole antenna with partial ground plane for UWB communication systems. By altering patch and slot shapes, using stacked patches and different feed structures wide band characteristics can also be achieved. In this

A Heuristic Recurrent Neural Network Load-balancing model (HRNNL) for OFDM-CRN

V.Hindumathi, Associate Professor ECE Department BVRIT Hyderabad College of Engineering for women Hyderabad, India
Dr. K.RamaLinga Reddy, Professor & HOD ETM Department G.Narayanamma Institute of Technology and Science(for women) Hyderabad, India

Abstract:--

Proportional fair resource allocation acts as a major role to stability the spectrum efficiency and fairness for Cognitive Orthogonal frequency division multiplexing network. The resource allocation and scheduling in traditional OFDM system need to know about channel condition. To aware of channel state in typical Cognitive-OFDM model produces more spectrum holes which it leads a Quality-of-Service issue due to the channel allocation and spectrum allocation errors. To minimize the error rate we proposed a Heuristic Recurrent Neural Network Load-balancing model (HRNNL) for OFDM-based Cognitive radio network model. The proposed model categorize the channel scheduling process by considering resource allocation and load. The proposed HRNNL employs a load optimization algorithm to optimize the channel status, based on the different traffic states the RNN model predict the spectrum allocation rate based on the channel and sub-channel status.

Keywords-

CRN, OFDM, RNN, Heuristic, Spectrum

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Comparative Analysis of LEEAR, AFDP and ARPASC Routing Protocols in MANETs

A.Naveena, Assistant Professor, ETM, G Narayanamma Institute of Technology and Science for Women, Hyderabad, Telangana

Dr. K.RamaLinga Reddy, Professor, HOD, ETM dept, G Narayanamma Institute of Technology and Science for Women, Hyderabad, Telangana

Abstract:--

The recent development made in mobile technologies has demanding increase of secured networks in real-time applications. Security is more significant in Mobile Adhoc Network than in wired environment. When two or more different attackers collaborate together to interrupt the network performance it results in collaborative attacks. Due to lack of resources and centralized authority, these collaborative attacks have to be handled effectively. Prior security protocols may not be appropriate or may compromise the Network performance. In this paper three proposed techniques: hybrid security protocol for detecting malicious nodes, distributed anonymity fault diagnosis protocol and Adaptive risk prediction protocol are compared. The performance of proposed secured routing protocols is evaluated through simulations using Network simulator 2.35. The performance metrics are evaluated in terms of Packet Delivery Ratio (PDR), End-to-End delay, Throughput, Energy Consumption.

Keywords-

Anonymity, Blackhole, Greyhole, Risk Evidence, Trapdoor, Zero Knowledge Proof.

VGDRA: A Virtual Grid-Based Dynamic Routes Adjustment Scheme for Mobile Sink-Based Wireless Sensor Network

V. Manisha[1], *G. Krishna Reddy*[2]

1.Student, Branch of WMC,G.Narayanamma institute of technology and science, JNTUH, Hyderabad, India.

2.Associate Professor, Dept. of ETM, G. Narayanamma institute of technology and science, JNTUH, Hyderabad, India

ABSTRACT: In wireless sensor networks, nodes energy decadence can be managed by exploiting the sinks mobility. Due to the dynamic network topology caused by the sinks mobility, distribution of information to sink node is considered as a challenging task. In order to reduce energy consumption by nodes, nodes need to reconstruct their route to the latest location of mobile sink and that result in efficient data delivery. The main aim of this paper is to reduce reconstruct cost of the sensor nodes by maintaining minimal route to the latest location of sink node. In order to reduce energy consumption and route reconstruction cost, sets of communication rules are proposed .These rules governs route reconstruction process thereby requiring only few nodes to readjust their route to the latest location of mobile sink.

KEYWORDS:—Route reconstruction cost, energy consumption, sink mobility , wireless sensor network.

I.INTRODUCTION

A Wireless sensor networks can be used to sense data from various fields such as environment, healthcare, military operation and that sense data will be sent to centralized processing units such as base station or sink nodes for processing. Wireless sensor network consists of enormous amount of sensor nodes sense the change in physical parameters from the sensing range and forward the information to the mobile sink. Uniform distribution of nodes exhibit n-to-1 communication that means observed information is sent to single sink. Sensor nodes are placed at different points of interest based on application. In an intelligent transport system sensors are placed at junctions, carparks, these can provide early warning to mobile sink. The topology of the network is dynamic as sink nodes moves from one location to another. In order to provide efficient data delivery nodes need to reconstruct their route to the latest location of mobile sink. As scant energy resources are available propagation of sink's mobility updates should be reduced as it consumes more energy. In the virtual infrastructure based data distribution schemes, only few nodes present in the sensor field need to keep track of sink's location. Those selected nodes will gather information from nodes present in the vicinity and they send the gathered information to sink node, this can be done proactively or reactively. Virtual grid based dynamic routes adjustment is proposed for periodic collection of data from wireless sensor network. In existing techniques multiple mobile sinks were deployed in order to improve network performance and also to improve data delivery ratio of nodes. In the proposed technique only single mobile sink is considered as it aims to minimize the trade-off between data delivery performance and energy consumption.

The proposed technique permits sensor nodes to maintain a minimal route to the latest location of the mobile sink. The sensor field is divided into k equal sized cells and constructs a virtual backbone network, which consists of all cell-headers. Nodes present at the midpoint of cells are considered as cell-headers. Cell-header are responsible for collecting data from the member nodes present in the cell, and then delivering the data to the sink node by using virtual backbone structure.

The main goal of constructing virtual structure is to minimize energy consumption and also to reduce route-reconstruction cost by setting only few nodes to construct their route to latest location of sink. VGDRA also sets up communication routes such that the end-to-end delay and energy cost is minimized in the data

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A Fuzzy Based Cross Layer Protocol for Trust Erection in Wireless Sensor Networks

K.Anusha, Student, Branch of WMC,G.Narayanamma institute of technology and science,JNTUH,Hyderabad,India.
A.Naveena, Assistant Professor,Dept.of ETM,G.Narayanamma institute of technology and science,JNTUH,Hyderabad,India.

Abstract:--

The cross layer model is used to admit synchronization, exchange by overlapping multiple layers and joint improvement of procedures holds the key purpose of primary layers. It enables elasticity, reliability and efficiency in communication method. The fuzzy logic system(FLS) is employed to implement node selection mechanism to offer an effective transmission. Amongst these assistances, this model outsides a problem with security attacks in a network. To diminish these threats in a network, The Trust based fuzzy implicit cross layer protocol (TruFiX) which is a Trust based cross layer module(T-XLM)based protocol is used to allow and grip inter layer data exchange to adapt traffic attentiveness and develop system form. The enhancement of TruFiX is proposed protocol to overcome the problem of malicious node during transmission by choosing an substitute route. By taking into account with simulation results, proposed protocol was compared with FUGEF and TruFiX which shows an increment in the packet delivery ratio(PDR) and throughput of the system.

Keywords:-

Cross layer approach, Fuzzy logic system, wireless sensor networks, malicious node, forced fairness approach

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Different Channel Estimation Techniques Used In MIMO-OFDM Communication Systems-A Survey

S. Zubiya Hashmi, P.G Student, Assistant Professor, Department of Electronics and Telematics, G. Narayanamma Institute of Technology and Sciences (for Women).

M.Vijaya Lakshmi, P.G Student, Assistant Professor, Department of Electronics and Telematics, G. Narayanamma Institute of Technology and Sciences (for Women)

Abstract:--

Modern communication system is more fascinated about wireless communication, in which the data can be delivered wirelessly. Wireless communications, usually works through "Electromagnetic" (EM) waves by which the data is send by air, which acts a medium. But the medium or channel considered in wireless system changes over time i.e., it is time-varying in nature. Even the signals transmitted through wireless systems may get affected by multipath propagations. In realism, the status of channel is unknown. So, the "Channel Estimation" is very essential in wireless communications. Mostly the estimation of channel is carried out at the receiver end. Therefore to precisely estimate the channel various techniques are employed. The techniques like Least Square (LS), Minimum Mean Square Error (MMSE), blind and semi-blind, training based channel estimation methods. As the estimation is carried out at the receiver the pilot sequences are utilized by which the evaluation can be done with ease and accurately estimate the channel. In technologies like, OFDM, MIMO-OFDM this estimation plays a very crucial role as high data rate signals are transmitted through the subcarriers which are modulated and overlapped orthogonally with each other. The paper gives the introduction to OFDM and MIMO-OFDM systems and also briefs about different pilot allocation methods used for estimation and discusses about the channel estimation algorithms deployed in wireless communications.

Key words

Orthogonal Frequency Division Multiplexing (OFDM), Multiple Input Multiple Output (MIMO), Least Square (LS), Minimum Mean Square Error (MMSE), Electromagnetic (EM).

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A Situation Aware Emergency Path Navigation Using WSN

L.Nityasri, Student, Branch of WMC, Dept. of ETM, G. Narayanamma institute of technology and science, JNTUH, Hyderabad, India
T.Sunitha, Assistant Professor, Dept. of ETM, G. Narayanamma institute of technology and science, JNTUH, Hyderabad, India.

Abstract:--

Navigation services which guide people to safe exits are more critical in saving people lives when emergencies happen. To achieve successful navigation for emergencies, the sensors need early and automatic detection of emergencies, and quick reaction with safe navigation paths to exits by continuous network monitoring and regular data transmission. Wireless sensor networks (WSNs) is the reliable infrastructure for emergency navigation services because of their easy deployment, affordable costs and continuous communication with neighbouring sensors. Most of the existing works fail in consideration of hazard levels of emergencies and the voidance capability of safe exits. Without any consideration of such aspects, existing navigation algorithms are not successful to keep the people away from emergencies with high levels of emergencies and could not encounter the congestion at exits. In this paper, the proposed system, a situation aware emergency navigation algorithm, considers the hazard levels of emergencies and voidance capability of exits and provide the mobile users in network the safest navigation paths to exits. The algorithm evaluates the situation aware emergency problem and establishes the hazard potential field which is theoretically free from emergency changes. By following the decreasing gradient of hazard levels, guaranteed success of navigation and optimal safety can be achieved.

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Performance analysis of MIMO OFDM for QAM by using VBLAST MMSE technique

M. Jyothsna, Assistant Professor, ETE Dept., G. Narayanamma Institute of technology and Science for Women, INDIA

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Abstract:
This Paper indicates the presentation exam of MIMO-OFDM (certainly one of a kind facts numerous yield with symmetrical recurrence department multiplexing) framework utilizing leveling approach minimum mean rectangular blunders. A recognition plan, as an example, V-BLAST calculation is applied over MMSE so you can reduce the innovative obstruction, with the quit purpose that BER execution is advanced. The presentation research of a 4x4 MIMO-OFDM framework by way of the usage of V-BLAST MMSE for QAM regulation strategy is classed w.R.T BER versus SNR. The replica outcomes show that the preseatation of V-BLAST MMSE method is advanced to the customary technique MMSE.

Keywords: *MMSE, V-BLAST, MIMO-OFDM.*

I. INTRODUCTION

In the recent years wireless networks and mobile communications have grown massively and achieved huge business success. When a signal is transmitted in a wireless networks due to obstacles between transmitter and receiver the signal will undergo several multipath effects. It is well known fact that the wireless multipath channel causes attenuation, phase shift and time dispersion in the received signal. This effect is called fading. Fading is caused due to interference between transmitted signals coming from multiple paths. There are several diversity techniques to handle attenuation issue, interference issue such as MIMO, OFDM, Rake receiver etc.

In the recent times MIMO OFDM system, i.e. OFDM with a MIMO transceiver system garnered a lot of interest because as the name indicates multiple outputs at receiver and multiple inputs at transmitter is much better and advantageous when compared to a single transceiver (SISO-Single input Single output) system and it increases diversity gain and the capacity of the system. The two main goals of MIMO wireless system are high data rate and high performance. The combined MIMO-OFDM system is advantageous because OFDM is able to sustain more number of antennas and it simplifies equalization in MIMO systems.

II.V-BLAST BASED SYSTEM MODEL

A V-BLAST [1] transmission system is shown in figure1. The incoming bits are given to demulitplexer and then modulated with QAM. The modulated signal is given to IFFT block and cyclic prefix is added to the output of IFFT block and the signal is transmitted through the wireless channel[3].

At the receiver end, cyclic prefix is removed and the FFT is applied on the resultant signal and passed through a V-BLAST detector. The received signal at first antenna can be represented as,

$$y_1 = [h_{1,1} h_{1,2}] \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} + n_1$$

and the received signal at the second receive antenna can be represented as,

$$y_2 = [h_{2,1} h_{2,2}] \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} + n_2$$

So, in general the received signal can be represented as,

$$y = Hx + n$$

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Enhanced Secrecy Capacity under Eavesdropping Attack in Multi-Traffic Industrial WSN

A.Chandra Shaker
Department of Electronics and Telematics Engineering
G.Narayanamma Institute of Technology and Science
Hyderabad, Telangana, India
chandrashakerarrabotu@gmail.com

***Abstract*—Industrial networks are increasingly based on open protocols and platforms that are also employed in the IT industry and internet background. It is essential to secure the important information throughout transmission so highest secrecy capacity is chosen in Wireless Sensor Networks. The employment of sensing element to improve the physical layer security of industrial WSN can counter the eavesdropping attack and optimal sensor scheduling scheme targets to increase the secrecy capacity of wireless transmissions from the sensors to the sink. The system model with one eavesdropper and multiple sources with different data type is used. The scheduling theme satisfies the requirements in multiple traffics and achieves maximal secrecy capacity. Numerical results validate the proposed optimum scheduling theme in Nakagami fading environment. This system model performs better than the traditional Round Robin scheme in terms of the throughput, delay and packet delivery ratio and monitors the packet transmission according to the assigned priorities.**

Keywords—eavesdropping attacks, industrial wireless sensor networks, multi-traffic, secrecy capacity

I. INTRODUCTION

A wireless sensor network is a network which has many sensor devices that are connected with each other wirelessly. The sensor nodes can communicate the collected information from the physical monitored field or environment through the intermediate nodes to the destination. Using like Wireless Ethernet the data is passed to another network through interlinked nodes and gateways. A wireless sensor network are useful in applications where the physical environment like pressure, temperature, sound etc. can be monitored and transmitted to some other device it may be a mobile, laptop, computer or any other electronic device using wireless medium. The monitored information may help to control the application device or to take care of things to be done as per the requirement.

Every industry can have their own network, which is responsible for their own industry and also have a link with the global network. Using Bluetooth, WIFI, router communication one can develop their own personal network in industries by securing the network with passwords and can divide the access availability according to the level of authority in industry. For passing the internal communication the WSNs can be used in between labours and higher authorities.

II. LITERATURE SURVEY

Initial motivation of wireless sensor networks are done by the military [1], and now these are introduced in the industrial applications. These networks are used for line monitoring, automated manufacture of a product to improve the efficiency of factory, to have more productivity and very reliably work in industries [2][3], which can be called as industrial wireless sensor networks [4]-[6].

As the sensor networks are spatially distributed in a region, there is a need of maintaining strict security [7]. If a sensor failed to send exact sensed information to the destination then it is out of production line, or it may cause damage to the machine in factory or sometimes in critical work it may lead to loss of worker. The other aspect in the industrial environment is having machinery obstacles, engine vibrations and the noise generated by the machine.

The wireless sensor network has broadcast nature where the medium access is open to authorized and unauthorized users. So there are more chances of eavesdropper to attack the wireless network than wired networks. The eavesdropper hides within in the industry and the hidden attacker node can steal the information or tap the transmissions if there is no security for the information. Therefore finding the hidden attacker in industrial networks is main concern.

M. Mckay and X. Zhou [15] discussed about the secure transmission with help of generating external noise in the system at the transmitter end. By considering the multiple antennas, the transmitter starts transmitting original signal to the intended receiver and noise signal to the eavesdropper. It acquires systematic secrecy rate and target capacity to optimize the power allocations at the transmitter side for a single eavesdropper.

The specific considerations of industrial WSNs is the fading of channel due to the environmental constraints like machinery affects in the form of frictions and vibrations called as fading signals. Fading affects the signal loss or irrelevant additional signal to the main signal transmission in the channel.

III. PROBLEM FORMULATION

These days many industries are showing interest to implement the wireless networks in their work place for smart work. Sensor network has many advantages that attract industries to take step forward towards implementation of work. The security is the main concern of the industries; any way outside user cannot enter into the network. The intruder may hide within the network. As the technology is improving, intruder is also becoming more intelligent to crack the information. To secure the communication from the eavesdropper, many techniques came up, but still they have some limitations. Few cases how eavesdropper can attack the networks are explained below:

Case 1: Consider the communicational info is hacked by the intruder. In these days of developing technology, labour need not have the knowledge of protocol or algorithm implementation of the machine; it is automatically suggested by the predefined system updating software or new updating instructions may come from the higher technical authority to labour. If the intruder attacks on this information, the wrong updating of protocol installed in the machine damages the

Inventive Communication and Computational Technologies pp 1015–1028

An Enhanced Trust Based Fuzzy Implicit Cross-Layer Protocol for Wireless Sensor Networks

Kompalli Anusha & Ambidi Naveena

Conference paper | First Online: 30 January 2020

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 89)

Abstract

Cross-layer procedure integrates functionalities from first layer of OSI model (physical layer) to transport layer. It enables flexibility, trustworthy and effectiveness in communication process. In this approach, it collects system parameters from multiple layers to enhance the capability of the network. The standard level is decreased by enabling flexibility through inter-layer information exchange. The node selection mechanism is done

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About this book

This book gathers selected papers presented at the Inventive Communication and Computational Technologies conference (ICICCT 2019), held on 29–30 April 2019 at Gnanamani College of Technology, Tamil Nadu, India. The respective contributions highlight recent research efforts and advances in a new paradigm called ISMAC (IoT in Social, Mobile, Analytics and Cloud contexts). Topics covered include the Internet of Things, Social Networks, Mobile Communications, Big Data Analytics, Bio-inspired Computing and Cloud Computing. The book is chiefly intended for academics and practitioners working to resolve practical issues in this area.

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ARCHIVES

MBOA based Pilot Optimization in Channel Estimation for MIMO OFDM System

M. Vijayalakshmi and Dr.K. Ramalinga Reddy

Abstract

The channel state information should be known by the receiver for obtaining transmitted data in multiple inputs multiple output orthogonal frequency division multiplexing (MIMO-OFDM) systems. Channel estimation algorithms are used to inspect the multipath effects of frequency selective Rayleigh fading channels. In this paper, Compressed Sensing (CS) based channel estimation method is considered for reconstructing the signal with enhanced spectral effectiveness. According to the theory, the smaller mutual coherence the reconstruction matrix has, the higher success probability the estimation can obtain. For estimating channel information it involves transmitting the known pilot data to the recipient subsequently. The optimum pilot designs are picked through decreasing the mutual coherence of measurement matrix. To outline a pilot the proposed approach plans that can make the framework reconstruction matrix having the smallest mutual coherence. In order to maximize the accuracy of channel estimation and to reduce the computational complexity, an optimization algorithm, Monarch butterfly optimization algorithm (MBOA) is proposed. Using the proposed MBOA, the set of pilot indices are optimally selected from the number of subcarriers, which is a significant issue in channel estimation.

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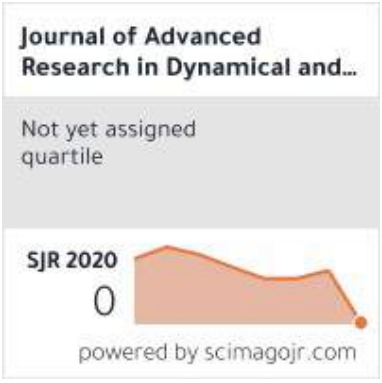

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An Efficient Trust and Energy Aware Protocol Using TAODV-ACO in MANETs

Ambidi Naveena(✉) and Katta Rama Linga Reddy

Electronics and Telematics Department,
G.Narayanamma Institute of Technology and Science, Hyderabad, India
ambidinaveena@yahoo.com, kattareddy2000@yahoo.com

Abstract. Mobile Ad-Hoc Network (MANET) is a relationship of the mobile nodes with constrained transmission range and asset with no fixed infrastructure. But, malicious attack of node reduce the trust-level nodes that lead to insecure in delivering data. The increments in attacks cause extreme energy consumption that tends to a decrease in network-lifetime. The security and routing issues are concentrated by introducing trust aware ad-hoc protocols. In this research proposal, Trust-Aware ad-hoc Routing (T2AR) with Ant Colony Optimization (ACO) is used for maximizing the trust level based on trust-rate, energy, mobility based malicious behavior prediction. Ad-hoc On-Demand Distance Vector (AODV) uses two processes to find and maintain routes: the route detection process and the route maintenance. Hence, the T2AR-AODV-ACO methodology precisely transmits data from source to destination (S-D) by executing better throughput, routing overhead, end-to-end delay and energy consumption in trust aware ad-hoc routing.

Keywords: Ad-hoc On Demand Distance Vector · Ant Colony Optimization · Mobile Ad-Hoc Network · Trust-Aware ad-hoc Routing

1 Introduction

Trust management for MANET has risen as dynamic research region, which is appeared by the expansion of trust protocol to help mobile gathering based applications lately [1]. The social trust came from the communication network to get a composite trust metrics as a reason for evaluating trust of mobile nodes in MANETs [2]. The interruption location and reaction on the reliability of a Cyber-Physical System (CPS) including sensors, actuators, control units and physical objects for controlling and securing a physical foundation are major drawbacks in Trust-based MANETs [3].

A dependable Routing Protocol (RP) for improved reliability, quality and security of communication in portable adhoc networks and sensor systems are utilized for level calculation for finding the best route between nodes [4]. The distributed mobile nodes incorporated with the ad-hoc mobile network in such a way it prevent and identify best route and misbehaving nodes while transmitting data packets to destination [5]. The Payload based mutual authentication (PAWN) performs on optimal percentage of cluster heads election, authentication and allows to communicate with nearby nodes using cluster head based tokens for limiting the energy consumption [6].

S. Balaji et al. (Eds.): ICICV 2019, LNDECT 33, pp. 591–598, 2020.
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Proceedings of the Third International Conference on Computational Intelligence and Informatics pp 501–511

Performance Analysis of Feature Extraction Methods Based on Genetic Expression for Clustering Video Dataset

D. Manju, M. Seetha & P. Sammulal

Conference paper | First Online: 18 March 2020

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Abstract

Clustering of high-dimensional video datasets consists of thousands of features, which encounter problems related to feature selection, computational complexities, and cluster quality. Features are extracted from key frames of videos using feature extraction techniques. Feature selection improves cluster quality by removing

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Intelligent Engineering Informatics pp 11–18

A New Term Weight Measure for Gender Prediction in Author Profiling

Ch. Swathi, K. Karunakar, G. Archana & T. Raghunadha Reddy

Conference paper | First Online: 11 April 2018

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Abstract

Author profiling is used to predict the demographic characteristics such as gender, age, native language, location, and educational background of the authors by analyzing their writing styles. The researchers in author profiling proposed various features such as character-based, word-based, structural, syntactic, and semantic features to differentiate the writing styles of the authors. The existing approaches in author profiling used the frequency of a feature to represent the document

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Implementation of Spatial Images Using Rough Set-Based Classification Techniques

D. N. Vasundhara & M. Seetha

Conference paper | First Online: 18 March 2020

Part of the Advances in Intelligent Systems and Computing book series (AISC,volume 1090)

Abstract

"Artificial neural networks (ANNs)" and support vector networks have been widely used for the purpose of analysis of spatial remote sensory images. Attributes selection plays a major role in reduction of computational time for model processing and improvement in performance accuracy. In this paper, we present rough set-based artificial neural network (RS-ANN) and support

Conference Paper

Execution of Ant Colony Algorithm (Optimization) with High Energy Level Transmission in Wireless Sensor Network

July 2018
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Conference: 2018 International Conference on Inventive Research in Computing Applications (ICIRCA)

Authors:

Y.J. Sudha Rani **M. Seetha**

Proceedings of the Second International Conference on Computational Intelligence and Informatics pp 69–79

Relative-Feature Learning through Genetic-Based Algorithm

K. Chandra Shekar, Priti Chandra & K. Venugopala Rao

Conference paper | First Online: 24 July 2018

807 Accesses | **1** Citations

Part of the Advances in Intelligent Systems and Computing book series (AISC,volume 712)

Abstract

A relative-feature learning system development within the data mining is showing its capability in genetic algorithms to diagnose the normal behavior and misuse features and anomalies in chosen learning environment. Under this contribution research work, we investigated a learning method to diagnose the features in data mining through genetic algorithm. The investigated

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Communications Engineering, Networks, Information Systems Applications (incl. Internet), Web Development

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applications to engineering. He has more than 19 publications in various reputed international journals and for conference proceedings to his credit, and is a senior member of the Computer Society of India.

Munaga V. N. K. Prasad received his doctoral degree from the Institute of Technology, Banaras Hindu University, Varanasi, Uttar Pradesh, India. Currently, he is an Associate Professor at the Institute for Development and Research in Banking/Technology, Hyderabad. He has published numerous papers in international and national journals. His research interests include Biometrics, Payment System Technologies and Digital Watermarking. He is a senior member of the IEEE, and member ACM.

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First International Conference on Artificial Intelligence and Cognitive Computing	AICC 2018	Raju Surampudi Bapi, Koppula Srinivas Rao, Munaga V. N. K. Prasad
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Intelligent Technologies and Robotics, Intelligent Technologies and Robotics (R0)	Springer Nature Singapore Pte Ltd. 2019	978-981-13-1579-4 Published: 05 November 2018

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CERTIFICATE

International Conference on Recent Innovations in Electrical, Electronics & Communication Engineering - (ICRIEECE) - 2018

This is to certify that Dr. / Mr. / Mrs. / Miss **L.Smitha** *has published a paper entitled:* **Improved Topical and Trust Based Page Ranking for Web pages Using Trust Features** *in International Conference on Recent Innovations in Electrical, Electronics & Communication Engineering - (ICRIEECE) - 2018 with catalog "CFP18F98-PRT: 978-1-5386-5994-6", School of Electrical Engineering, Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar, Odisha, India during July 27th & 28th 2018.*

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Improved Topical and Trust Based Page Ranking for Web pages Using Trust Features

L.Smitha,
PhD.Scholar,OUCE, Osmania university,
Hyderabad,India
Smitha2005sri@gmail.com

Dr.S.Sameen Fatima,
Professor,Dept of CSE, OUCE,Osmania university,
Hyderabad,India
sameenf@gmail.com

Abstract— **For many people, finding the information is a daily activity on web, availability of the data on the web has helped many users in obtaining their information need. Scientist are coming up with good and faster ways to find relevant information. Topic and Trust becomes important elements of data retrieval framework. Because of the extent of the web, it is basic to have positioning capacities that satisfy the user's needs. To this end the Web offers a rich setting of data which is communicated through the hyperlinks. This paper presents the idea of improving Page Rank, "Improved Topical and Trust Based Page Ranking for Web pages Using Trust Features" to filter out malicious sites which has vast limit as contrasted with conservative Page Rank Algorithm.**

Keywords: Ranking, Page Rank, Backlinks, Hyperlinks, topical and trust.

I. Introduction

Searching on the World Wide Web is the most frequent operation on the Web .Therefore, it is important to have tools that perform search efficiently and effectively. Recently, much research has been done in producing good search engines to search user queries efficiently and effectively. There is a rich literature getting published in the area of information retrieval [2], the Web, due to its big size, and the diversity of the users that perform search, postures new challenges and difficulties.

II. Related Work

We are also not the first to have combined a notion of Topic-specification with Trust using some lexical and host based features. This idea taken from the PageRank paper by Larry Page and Sergey Brin (1998), who debates about the personalization of PageRank by introducing a bias towards only some trusted websites. Some information providers can easily make high quality pages to increase the ranking in the web. Some try to change the features of pages, this is Web spam [24, 12]. Henzinger et al. [3] declaration that search engine spam is one of the major search engines difficulties. Several scholars followed Brin and Page and Haveliwala in changing Page rank algorithm some tried by changing only the bias probabilities, including Wu et al. (2006). Many researchers have worked to struggle with many kinds of web spam, and their work can be summered here. D. Fetterly, .et al. Spam, damn spam, and statistics. [9].A. A. Benczur, et al. suggested Spam Rank [13] fully automatic link spam detection in which for each page, the PageRank calculation is computed for all incoming links. Wu and Davison used the grouping both incoming, outgoing link sets and a propagation step to identify link farms. Drost and Scheffer [8] suggested using a machine learning method to identify link spam. Recently, while the idea of a focused or custom PageRank vector as existed from the start [8], Haveliwala [10] was the first who gave the idea of fetching topical information into PageRank design. At first topics are created and then apply PageRank to find expertise within topical domains using trust features. We evolve a real-time system for collecting URL features and pair it with a real-time feed of labeled URLs from a large Web mail provider. From these features and labels, we are capable to train an online classifier that detects malicious Web sites with 89% accuracy and over a balanced dataset.

III. Page Rank

PageRank [12] is a well-known algorithm that uses link information to allocate overall significance scores to all pages on the web. The indication behind PageRank is that a web page becomes important if numerous other important web pages are pointing to it. Steadily, PageRank is based on a collaboration between pages: the importance of a page effects and is effected by the rank of other pages in the web.

The PageRank score r(p) of a page p is defined as:

$$r(p) = \alpha \sum_{q \in (q,p) \in \varepsilon} \frac{r(q)}{\omega(q)} + (1-\alpha).\frac{1}{N}$$

$r = \alpha.T.r + (1-\alpha).\frac{1}{N}.1_N$Hence, we can sum up two elements to get the importance of a page p: one element is from the score comes from pages that point to p and the other (static) element is equal for all web pages.

$r = \alpha T.r + (1-\alpha).d$It is important to note that while the regular PageRank algorithm assigns the alike static score to each page, this rule is cancelled in a biased PageRank version. In the matrix equation,

d is a static score distribution vector of arbitrary, nonnegative entries adding up to one.

PageRank is an important algorithm implemented by Google to rank websites for the generating their search engine

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Simulink implementation of sensitivity analysis of radial distribution network

Publisher: IEEE

G. Pranava ; Gurram Ravindranath ; K. Ramesh Reddy All Authors

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A cloud-based dashboard for time series analysis on hot topics from social media

Ehsan Akbari Dahouei
2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)
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Solar Powered Auto Watering System for Irrigation using Embedded Controller

Gouthami Eragamreddy
Asst.Professor, Electrical and Electronics Engineering
G.Narayanamma Institute of Technology and Sciences (For Women)
Hyderabad, India
gouthami.erp@gmail.com

K.Ramya Sree
Electrical and Electronics Engineering
G.Narayanamma Institute of Technology and Sciences Women)
Hyderabad, India
ramyakorra123@gmail.com

***Abstract*—In today's human life scenario both water and electricity are costly and scarce in supply. In the irrigation system, frequent watering of plants is needed based on the requirement. Sufficient watering is to be done to the plants for good growth of plants in the irrigation. The frequent monitoring of soil status is needed for good yield in the fields. The proposed model of Solar Powered Automatic watering system consists of Soil Moisture sensor which senses the Soil moisture condition, A Solar Powered Electric Motor which makes the water pump to pump the water and an Embedded Controller is used to achieve the automatic watering operation to the plants. The moisture in the soil is sensed and based on which the motor operation takes place. Working status of the electric motor is monitored using Bluetooth Connectivity and LCD display. This system is environment- friendly and cost effective.**

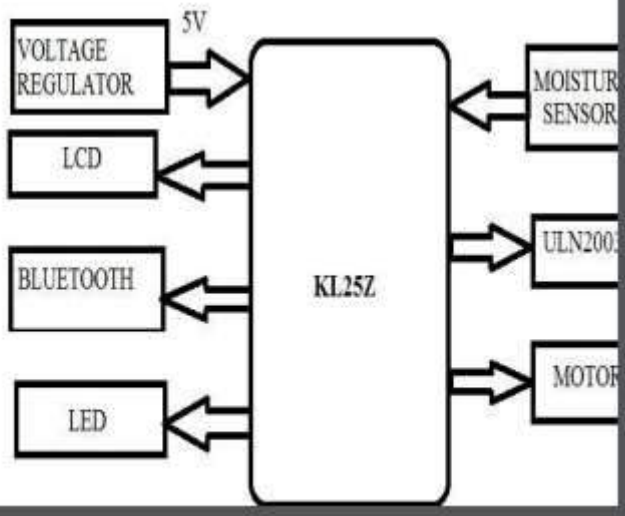
Keywords—Irrigation System; Soil Moisture Sensor; Solar Power; KL25Z Embedded Controller; Electric Motor; Bluetooth Connectivity.

I. INTRODUCTION

Irrigation system is the one which requires water in the large quantity based on the requirement. Most frequent watering of plants is needed and to be monitored in a regular basis. In today's scenario the technology can be utilized for the monitoring purpose and automatic watering in irrigation. [4] The automation can be achieved using an embedded controller KL25Z with very low cost.

The entire system can be solar powered to make the system environment friendly because solar energy is widely available energy source on the earth. Solar power is good in the view of the economy and also environment friendly form of the energy. Now days this energy is used in street lighting and in other domestic loads. In today's life due to advance technologies the cost of solar panels is decreased. One of the applications of solar energy is in irrigation system. In India

In this model the solar energy is harvested through the panels and the electrical energy is obtained which is stor the battery and used whenever necessary. In the fig Functional block diagram is shown. The working o system (in fig.1.1) is based on the moisture content of the To achieve this Moisture sensor is placed. Whenever moisture content of the soil is less or it is completely dry sensor gives the signal to the KL25Z Embe microcontroller, Controller gives the signal to the Relay w switches the motor ON. The Running state of the mot given to the Bluetooth module. The Bluetooth module s the status to the mobile which is connected to the Bluet The LCD display also is shown with the motor ON statu its display. The frequent sensing of soil moisture takes and as soon as the soil gets wet and moisture is sensed b sensor the signal is passed to the controller which turns o relay which intern switches OFF the motor. The same stat motor condition is communicated through Bluetooth an the LCD display.



Improved Vertical Handoff Decision Scheme in Heterogeneous Wireless Network Based on SCS

M. Naresh, D. Venkat Reddy and K. Ramalinga Reddy

Abstract Seamless continuity is the main objective and challenge in fourth era remote networks (FERNs). To help intelligent constancy in heterogeneous networks, the traditional vertical handover management (VHM) approaches are sufficiently bad. Thus, it is essential to manage those difficulties like a choice of a system and activating of contradictory handover. In heterogeneous remote systems, principle test is a consistent relationship of diverse systems like Wi-Fi, WI-Max, WLAN, and WPAN and so forth. This paper proposed a system called scatter cuckoo searches (SCS) algorithm for vertical handoff, the handover choice stage as well as to mitigate the handling delay and improve the fitness of nodes and quality of a network. We additionally contrasted along and GRA and TOPSIS techniques over SCS in view of the mobile terminal (MT) to get the availability with the best system it estimating by quality of service (QOS) parameters.

Keywords FERNs · VHM · TOPISS · GRA · SCS · QOS

1 Introduction

Mobility is a very important feature of a 4G wireless networks system. Mobile terminals ought to have the capacity to pick the best system among the accessible systems including WLAN, Wi-MAX, and satellite frameworks and after that make handover [1]. The conventional strategies where the handover is performed on the

M. Naresh (✉)
ECE Department, Matrusri Engineering College, Hyderabad, India
e-mail: nareshmuddamalla@gmail.com

D. Venkat Reddy
ECE Department, Mahatma Gandhi Institute of Technology, Hyderabad, India
e-mail: dasari_reddy@yahoo.com

K. Ramalinga Reddy
ETM Department, GNITSW, Hyderabad, India
e-mail: kattareddy2000@yahoo.com

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Performance Analysis of MIMO MC-CDMA System Using Optimization Algorithms

Parnapalli Sreesudha & Barooru Lakshmi Malleswari

Conference paper | First Online: 03 November 2018

Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 521)

Abstract

Now a days, there is a huge demand for wireless communications. In order to satisfy huge customer demand, new technologies are required. Multi-Carrier Code-Division Multiple Access (MC-CDMA) is one of the promising technologies for mobile radio communications. The performance of the wireless system highly depends on the channel attributes. In this paper, the MC-CDMA system performance is

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SUSHMA BRAHMADEVARA teaches English in a reputed institution of Telangana. A versatile scholar, she obtained Ph.D. Degree from Osmania University, Hyderabad. Her areas of interest include Indian Diasporic Fiction, ELT, Soft Skills and Business Communication. She has published more than fifteen scholarly papers in prestigious literary journals.

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