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International Conference on Computing, Communication, Electrical and Electronics Engineering
Andhra Pradesh, India, 10th & 11th, January 2020

Performance Analysis of InAlN/GaN MOSHEMT for High Power RF Applications

P.Murugapandiyan, Department of Electronics and Communication Engineering, Anil Neerukonda Institute of Technology and Sciences, Visakhapatnam, India.
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Abstract:--

We presents DC and RF performance of 30 nm gate length AlN spacer based InAlN/GaN based MOSHEMT with InGaN back barrier is investigated using Silvaco ATLAS TCAD tool. The proposed MOSHEMT featuring Al_2O_3 oxide layer, heavily doped n+ GaN Source/ drain region exhibits the sheet carrier density (n_s) of $1.66X10^{13}$ Cm^{-2} , drain current density of 1.8 A/mm. drain current density, transconductance (g_m) of 530 mS/mm, low leakage current 10^{-9} A/mm and current gain cut-off frequency (f_t) of 300 GHz. The excellent electrical characteristics of proposed MOSHEMTs are attractive candidates for future high power sub millimetre wave applications.

Keywords:

HEMT, 2DEG, Leakage current, back-barrier and short channel effects.

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Microelectronics, Electromagnetics and Telecommunications pp 201–211

Positioning Strategies: Implementation and Applications of Major Source Localization and Positioning Approaches Over Indian Subcontinent

Ganesh Laveti, D. Eswara Chaitanya, P. Chaya Devi & T. Vinodh Kumar

Conference paper | First Online: 24 June 2020

Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 655)

Abstract

The Indian subcontinent comprising of a number of countries has a long border and a large coastline. Hence, it is essential to have a strong surveillance and tracking system to locate and monitor the movements of unknown objects and sources from across the border. Global positioning (GP) of an unknown object and source localization (SL) of an unknown radiating source have thus become very critical from a defence point of view. There are many measurement techniques available for the

purpose of global positioning and source localization such as time of arrival (TOA), time difference of arrival (TDOA), received signal strength (RSS) and angle of arrival (AOA). However, for any given application, the precision in the estimated position varies with the measurement uncertainty and measurement technique chosen. This brings about the problem of associating applications specific to Indian geographic conditions with the existing measurement techniques. Hence, this paper discusses the choice of the relevant technique for specific applications concerning diverse fields like defence, medicine, etc. To aid better understanding, this paper uses real-world data collected from GPS receiver located at Andhra University, Visakhapatnam, for validation of TOA and TDOA measurement techniques. The RSS and AOA techniques are validated using simulated data.

Keywords

Angle of arrival **Global positioning system**

Received signal strength **Source localization**

Time of arrival **Time difference of arrival**

- DOI: 10.1007/978-981-15-3828-5_22
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Laveti, G., Eswara Chaitanya, D., Chaya Devi, P., Vinodh Kumar, T. (2021). Positioning Strategies: Implementation and Applications of Major Source Localization and Positioning Approaches Over Indian Subcontinent. In: Chowdary, P., Chakravarthy, V., Anguera, J., Satapathy, S., Bhateja, V. (eds) Microelectronics, Electromagnetics and Telecommunications. Lecture Notes in Electrical Engineering, vol 655. Springer, Singapore. https://doi.org/10.1007/978-981-15-3828-5_22

DOI

https://doi.org/10.1007/978-981-15-3828-5_22

Published	Publisher Name	Print ISBN
24 June 2020	Springer, Singapore	978-981-15-3827-8

Online ISBN	eBook Packages
978-981-15-3828-5	Engineering Engineering (R0)

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2021 | OriginalPaper | Chapter

Design and Analysis of Symmetric and Asymmetric Staircase Patch Antenna

Authors : Bammidi Deepa, P. Chaya Devi, M. Syamala

Published in: Microelectronics, Electromagnetics and Telecommunications

Publisher: Springer Singapore

Abstract

The symmetric staircase patch antenna for multiband resonant frequencies is presented. The work is extended to an asymmetric staircase patch antenna to obtain a wideband frequency response and better impedance match. A clear improvement in the performance characteristics is observed. The staircase antennas are designed using FR4 epoxy material and Rogers-RT Duroid material using the simulator software and their performance characteristics are compared and analyzed. It is observed that the asymmetric staircase patch antenna gives an impedance bandwidth of about 5.1 GHz, which makes the design very attractive in terms of wider bandwidth.

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Intelligent System Design pp 11–19

Smart Agriculture Using IOT

Bammidi Deepa ✉, Chukka Anusha & P. Chaya Devi

Conference paper | First Online: 11 August 2020

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

Abstract

An automated agriculture system is developed to monitor and maintain the important aspects of farming like temperature, humidity, soil moisture content and sunlight using IoT technology. The sensors must be placed at appropriate places and positions to sense and communicate the details using cloud computing to the mobile phones of farmers, to optimize the agriculture yield by automating the field maintenance system. Improved water supply process, brightness maintenance, temperature conditions adjustments can be achieved in the automated system using the proposed idea. Single board Node

MCU microcontroller is used as the decision making and controlling device between various sensors and the farm maintenance equipment. The proposed system is expected to be helpful to the farmers in controlling an irrigation system in a better and accurate way.

Keywords

Farm automation **Node MCU** **Sensors**

Cloud computing **Smart agriculture**

Monitoring

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References

1. Sivakumar, S. A., Mohanapriya, G., Rashini, A., & Vignesh, R. (2018, February). Agriculture automation using internet of things. *International Journal of Advance Engineering and Research Development, 5*(02); (2016 November) *The International Conference on Communication and Computing Systems (ICCCS-2016).*

2. Muthunpandian, S., Vigneshwaran, S., Ranjitsabarinath, R. C., & Manoj Kumar Reddy, Y. (2017, April). *IOT Based Crop-Field Monitoring And Irrigation Automation, 4*(19).

3. Mohanraj, I., Kirthika, A., & Naren, J. (2015, June). Field monitoring and automation using IOT in agriculture domain. *IJCSNS, 15*(6).

4. Nageswara Rao, R. IOT based smart crop-field monitoring and automation irrigation system. In *Proceedings of the Second International Conference on Inventive Systems and Control (ICISC 2018)*, IEEE Xplore Compliant Part Number: CFP18J06-ART, ISBN: 978-1-5386-0807-4; ISBN: 978-1-5386-0806-7.

5. Lee, M., Hwang, J., & Yoe, H. (2013). Agricultural protection system based on IoT. In *IEEE 16th*

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Deepa, B., Anusha, C., Chaya Devi, P. (2021). Smart Agriculture Using IOT. In: Satapathy, S., Bhateja, V., Janakiramaiah, B., Chen, YW. (eds) Intelligent System Design. Advances in Intelligent Systems and Computing, vol 1171. Springer, Singapore. https://doi.org/10.1007/978-981-15-5400-1_2

.RIS .ENW .BIB

DOI
https://doi.org/10.1007/978-981-15-5400-1_2

Published	Publisher Name	Print ISBN
11 August 2020	Springer, Singapore	978-981-15-5399-8

Online ISBN eBook Packages

978-981-15-5400-1

Intelligent Technologies and Robotics

Intelligent Technologies and Robotics (R0)

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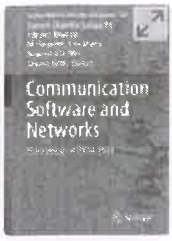

Communication Software and Networks pp 311–320

Arrhythmia Recognition and Evaluation of ECG Signal Using Signal Processing Techniques

G. Gayatri & T. Madhavi

Conference paper | First Online: 04 October 2020

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 134)

Abstract

One of the most common causes of death is heart diseases in human beings. To monitor heart activity, Electrocardiogram (EKG or ECG) is a common diagnostic tool used. Most of the clinically important information about the cardiac activities of heart is contained in this signal. Early diagnosis helps devise medical treatment regimes to prevent early death from the disease. This paper explains the study and analysis of an ECG signal processing by using MATLAB tool effectively. It is very difficult to identify heart problems related to P-wave as the information is found in the P-wave of the ECG signal, since the P wave is of very less amplitude it

is difficult to analyze by simply observing the ECG signal to the physician. So various signal processing techniques such as Frequency-domain analysis (FFT), Time- and Frequency-domain analysis (STFT), and Feature Vector ECG Signal Analysis (FVESA) are applied to extract the data. The signals are recorded from the patients and compared with pre-fed signals to detect the arrhythmias such as atrial fibrillation.

Keywords

ECG **Atrial fibrillation** **Arrhythmias**

Frequency analysis **FFT** **STFT** **FVESA**

References

1. Ojha DK, Subashini M (2014) Analysis of electrocardiograph (ECG) signal for the detection of abnormalities using matlab. Int J Med Health Biomed Bioeng Pharm Eng 8(2):120–123

2. (2019) Arrhythmia detection from ECG based heartbeat classification using deep learning networks. Int J Comput Appl 178(26):0975–8887

3. Kedawat S, Kumar R (2011) Cardiac arrhythmias detection in an ECG beat signal using fast fourier transform and artificial neural network. J Biomed Sci Eng 4(4):289–296

4. Castells F, Laguna P, Sörnmo L, Bollmann A, Roig JM (2007) Principal component analysis in ECG signal processing. EURASIP J Adv Signal Process 1–21

5. Smith LI (2002) A tutorial on principal components analysis, pp 2–8

6. IEEE Trans Biomed Eng 37(4):329–342

7. Schmorth L (1986) An introduction to electrocardiography. Oxford Press, Oxford

8. Thakor NV, Zhu Y (1991) Applications of adaptive filtering to ECG analysis: noise

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cancellation and arrhythmia detection. IEEE Trans Biomed Eng 38(8):785–794

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Microelectronics, Electromagnetics and Telecommunications pp 759–766

Adaptive Beam Steering of Smart Linear Array Using LMS and RLS Algorithms

Bammidi Deepa & B. Roopa

Conference paper | First Online: 26 January 2018

Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 471)

Abstract

Smart antenna improves the gain of the main lobe in a direction of arrival and null generation toward the interference. Using this technique, the direction of arrival (DOA) of the antenna array can be improved and array factor can be derived in the desired direction of Angle of arrival. A report on performance evaluation of adaptive beam steering generation using Least Mean Square (LMS) and Recursive Least Mean Square (RLS) algorithms is presented. LMS algorithm is simple in the computation of Beam Forming. By repeated corrections of the weights, in an iterative procedure the LMS algorithm finds the best

weights. RLS algorithm exhibits very fast conjunction though at the cost of high complexity of computation. The effectiveness of these optimization algorithms would be compared with respect to run time. The two algorithms are compared with respect to less run time while maintaining the required specifications of the antenna is discussed. The simulation of all the results would be carried using MATLAB.

Keywords

LMS **RLS** **Direction of arrival (DOA)**

Beam forming

References

1. Frank B. Gross, "Smart Antennas with Matlab", 2nd edition, Publication, McGraw-Hill Education, section: 8.1–8.4.

2. J.D. Kraus, "Antennas and Wave Propagation", 2nd edition, Publication, McGraw-Hill Education, Page numbers: 8–22.

3. Constantine A. Balanis, Publication: A JOHN WILEY & SONS, Page numbers: 257–288.

4. Subhashree Nibedita Baliarsingh, Anupama Senapati, Arindam Deb, Jibendu Sekhar Roy, "Adaptive Beam Formation for Smart Antenna for Mobile Communication Network Using New Hybrid Algorithms", International conference on communication and signal processing, page numbers: 2146–2151.

5. Ch. Santhi Rani1, P. V. Subbaiah, K. Chenna kesava Reddy and S. Sudha Rani, "LMS and RLS algorithms for smart antennas in a w-cdma mobile communication environment", ARPN journal of Engineering and Applied Sciences, ISSN: 1819–6608, Page numbers: 78–88.

6. Omar Khaldoon Abdulrahman, Md. Mijanur Rahman: Modifying MVDR Beamformer for Reducing Direction-of-Arrival Estimation

Mismatch, Arabian Journal for Science and Engineering, 41(9) 3321–3334 (2016).

7. VVSSS Chakravarthy, PSR Chowdary, Ganapati Panda, Jaume Anguera, Aurora Andujar, Babita Majhi: On the Linear Antenna Array Synthesis Techniques for Sum and Difference Patterns Using Flower Pollination Algorithm, Arabian Journal for Science and Engineering, Aug (2017).

8. Adnan Kaya, Irfan Kaya and Haluk E. Karaca,: U-Shape Slot Antenna Design with High-Strength $Ni_{54}Ti_{46}$ Alloy, Arabian Journal for Science and Engineering, 41(9) 3297–3307 (2016).

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Remote monitoring and control by embedded database design and web server implementation using SQLite database and Boa web server

Publisher: IEEE

Deepa Kundala ; Roopa Bammidi All Authors

Abstract: This paper describes the design of embedded system that enables the remote access of database by the implementation of web server. Porting of Linux to ARM9 is carried out... **View more**

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Abstract:

This paper describes the design of embedded system that enables the remote access of database by the implementation of web server. Porting of Linux to ARM9 is carried out to enable further porting of embedded webserver (BOA server) and SQLite database. The ported database is implemented by creating a table, storing the data into the database and retrieving the same. An application is developed for displaying the data entered into the database in a specific format. BOA web server is ported to home gateway platform and implemented in order to enable further enhancements such as remote monitoring of data stored in the database. The web server is implemented by displaying the web page stored in the server, when the concerned server address is entered into the browser. The SQLite database along with BOA web server on ARM platform can be used in industries, remote areas, even at homes for monitoring and controlling the status of appliances and machinery, by adding additional enhancements and doing slight modifications according to the application.

Published in: 2017 4th International Conference on Electronics and Communication Systems (ICECS)

Keywords

Metrics

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Date of Conference: 24-25 February 2017

Date Added to IEEE *Xplore*: 16 October 2017

ISBN Information:

INSPEC Accession Number: 17259460

DOI: 10.1109/ECS.2017.8067857

Publisher: IEEE

Conference Location: Coimbatore, India

Contents

The need of remote monitoring and access for various embedded applications has increased the demand for investigating an effective technique in terms of cost as well as power. Various remote monitoring and controlling techniques are studied [3]–[6], and it is identified that the best results can be obtained, when the database and webserver are designed specifically for embedded applications [1]. SQLite database and Boa webserver are such softwares [1], [4], which satisfy the requirements of all embedded applications. An attempt of making use of the best features of both SQLite database and Boa webserver has been proposed.

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Intelligent System Design pp 759–769

Neural Network-Based Random-Valued Impulsive Noise Suppression Scheme

Punyaban Patel ✉ & Bibekananda Jena

Conference paper | First Online: 11 August 2020

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

Abstract

Denoising of digital images is one of the important pre-processing stages in image processing. In this paper, a new efficient back-propagation neural network-based impulse noise suppression technique is presented. The proposed technique works in two stages, i.e., impulse noise detection and noise filtering. In noise-detection stage, a feed-forward neural network is trained by back-propagation training algorithm to classify the noisy and non-noisy pixels in the test image. The input patterns for training are selected carefully to make the detector

of impulse noise. *IEEE Signal Processing Letters, 18*(7), 407–410.

18. Xiong, B., & Yin, Z. (2011). A universal denoising framework with a new impulse detector and nonlocal means. *IEEE Transactions on Image Processing, 21*(4), 1663–1675.

19. Wang, Z., & Bovik, A. C. (2002). A universal image quality index. *IEEE Signal Processing Letters, 9*(3), 81–84.

20. Nair, M. S., & Raju, G. (2012). A new fuzzy-based decision algorithm for high-density impulse noise removal. *Signal, Image and Video Processing, 6*(4), 579–595.

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Patel, P., Jena, B. (2021). Neural Network-Based Random-Valued Impulsive Noise Suppression Scheme. In: Satapathy, S., Bhateja, V., Janakiramaiah, B., Chen, YW. (eds) Intelligent System Design. Advances in Intelligent Systems and Computing, vol 1171. Springer, Singapore. https://doi.org/10.1007/978-981-15-5400-1_72

.RIS .ENW .BIB

DOI

https://doi.org/10.1007/978-981-15-5400-1_72

Published	Publisher Name	Print ISBN
11 August 2020	Springer, Singapore	978-981-15-5399-8

Online ISBN	eBook Packages
978-981-15-5400-1	Intelligent Technologies and Robotics Intelligent Technologies and Robotics (R0)

A Comparative Study on Multilevel Thresholding Using Meta-Heuristic Algorithm

Publisher: IEEE

Bibekananda Jena ; Manoj Kumar Naik ; Aneesh Wunnava ; Rutuparna Panda All Authors

Abstract: Current research work is designing the biological visual system which can emulate the human visual system. Image segmentation is one of the important initial steps in thi... **View more**

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Abstract:

Current research work is designing the biological visual system which can emulate the human visual system. Image segmentation is one of the important initial steps in this area. There are different approaches to perform segmentation. One of the well-known techniques in image segmentation to separate objects from the background is Image thresholding. Segmentation using multiple thresholds is treated as an optimization problem in most of the cases. This can be done by maximizing or minimizing a given objective function. This paper presents a comparison of seven well known meta-heuristic techniques to obtain optimal threshold for multilevel thresholding problem: wind driven optimization, grey wolf optimization, firefly algorithm, whale optimization, crow optimization algorithm, and grasshopper optimization. Experimental results present the quantitative and qualitative measures of the different algorithms on multi-level thresholding problem with advantages and drawbacks.

Published in: 2019 International Conference on Applied Machine Learning (ICAML)

Date of Conference: 25-26 May 2019

Date Added to IEEE *Xplore*: 10 February 2020

INSPEC Accession Number: 19342897

DOI: 10.1109/ICAML48257.2019.00019

ISBN Information:

Publisher: IEEE

Conference Location: Bhubaneswar, India

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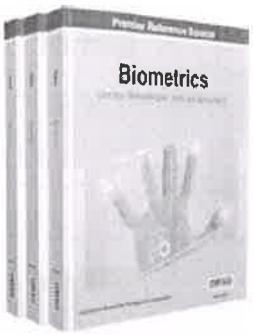

Study of Noise Removal Techniques for Digital Images

Punyaban Patel (Chhatrapati Shivaji Institute of Technology, India), Bibekananda Jena (Purushottam Institute of Engineering and Technology, India), Bibhudatta Sahoo (National Institute of Technology Rourkela, India), Pritam Patel (National Institute of Technology Agartala, India) and Banshidhar Majhi (National Institute of Technology Rourkela, India)

Source Title: Biometrics: Concepts, Methodologies, Tools, and Applications (/book/biometrics-concepts-methodologies-tools-applications/154882)

Pages: 40

DOI: 10.4018/978-1-5225-0983-7.ch044

Abstract

Images very often get contaminated by different types of noise like impulse noise, Gaussian noise, spackle noise etc. due to malfunctioning of camera sensors during acquisition or transmission using the channel. The noise in the channel affects processing of images in various ways. Hence, the image has to be restored by applying filtration process before the high level image processing. In general the restoration techniques for images are based up on the mathematical and the statistical models of image degradation. Denoising and deblurring are used to recover the image from degraded observations. The researchers have proposed verity of linear and non-linear filters for removal of noise from images. The filtering technique has been used to remove noisy pixels, without changing the uncorrupted pixel values. This chapter presents the metrics used for measurement of noise, and the various schemes for removing of noise from the images.

Chapter Preview

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Types Of Image

Image can be classified based on many criteria (Sridhar, 2011) as shown in Figure 1.

Figure 1. Classification of images
978-1-5225-0983-7.ch044.f01(https://igiprodst.blob.core.windows.net:443/source-content/9781522509837_154882/978-1-5225-0983-7.ch044.f01.png?sv=2015-12-11&sr=c&sig=7inLf7%2B7PeM%2FS%2FVd5Lpqgo876cULFR4JimOu3dtuhAs%3D&se=2019-11-15T04%3A29%3A16Z&sp=r)

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Design of Ultra-Wideband Antenna with Dual Notch Characteristics at WiMAX/WLAN Bands

Publisher: IEEE

Venkateswarlu Gujjula ; M. Nirmala ; B.R.M. Krishna ; N. Deepika Rani All Authors

Abstract: In this paper, a compact octagonal shaped ultrawideband (UWB) antenna with C-shaped split ring resonators is presented. The square split ring resonator in the monopole he... **View more**

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Abstract:
In this paper, a compact octagonal shaped ultrawideband (UWB) antenna with C-shaped split ring resonators is presented. The square split ring resonator in the monopole helps to obtain frequency notch in WiMAX, whereas dual C-shaped split rings on either side of feed line give frequency rejection at WLAN band. The designed antenna has the compact size of 33 × 21 mm^2. The simulation results show that the antenna covers the ultra-wideband frequency spectrum from 3.28 to 9.48 GHz with one notch frequency band at WiMAX band and the other at WLAN band.

Published in: 2019 IEEE International Conference on Intelligent Systems and Green Technology (ICISGT)

Date of Conference: 29-30 June 2019 **INSPEC Accession Number:** 19377700

Date Added to IEEE *Xplore*: 13 February 2020

DOI: 10.1109/ICISGT44072.2019.00021

ISBN Information:

Publisher: IEEE

Conference Location: Visakhapatnam, India

Contents

Antenna plays an important role in the working of every communication system viz., mobile communication, satellite communication, and aircraft communication. The constraints such as size, weight, cost and performance of the antenna are to be considered while designing an antenna. Low-profile structures such as Microstrip antennas are preferred to have these applications as they are small in size, light weight, ease of fabrication and can be adjusted to planar and non-planar surfaces [1]. Design of ultra-wideband (UWB) antennas has emerged as an attractive area for many researchers nowadays because of their many advantages such as high speed data rate, low spectral density, strong ability to withstand fading, low cost and less complexity since the Federal Communication Commission (FCC) unlicensed the band ranging from 3.1 GHz to 10.6 GHz for the use of commercial applications in 2002 [2]. However, the design of UWB antenna faces interference issues with some existing narrowband communication systems such as WiMAX (3.3 – 3.69 GHz) and WLAN (5.15 – 5.825 GHz). To avoid the interference issues, it is desirable to band notch at these frequencies. The band rejection in the above undesired frequency bands can be achieved by introducing a notch either in the radiating patch or in the ground plane of antenna configuration. Earlier different types of techniques such as U-shaped slot, C-shaped slot, use of parasitic elements, meandering slot, and minkowski fractal structures are used to achieve band notch characteristics in the UWB antenna [3]–[7].

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International Conference on Intelligent Computing and Communication
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Performance Analysis of Classification Algorithm in Machine Learning over Air Pollution Database

N. Aditya Sundar ✉, P. Samuel, A. Durga Praveen & D. RaghaVendra

Conference paper | First Online: 18 February 2020

Part of the Advances in Intelligent Systems and Computing book series (AISC,volume 1034)

Abstract

Air quality is a vital necessity on the earth, it helps us to live on this planet. Every day, air is polluted heavily because of industries releasing the gases in the atmosphere, burning of e-waste, polluted exhaust from vehicles. It impact on public health causes diseases like cancer, asthma, lung diseases, etc. A study analysis has been done, by observing the increase of day-to-day air pollution, considering the data from the pollution board pertaining to two different years. Analysis was done on this data using Random Forest Algorithm implemented in R programming language, to observe the error rate

between the 2 years of data so as to identify the component which impacts the environment and therefore public health.

References

1. Building a random forest from scratch & understanding real-world data products (ML for programmers) **26**(2), 467–478 (2016)

2. Random Forest Algorithm for the Relationship between Negative Air Ions and Environmental Factors in an Urban Park **9**(12), 463 (2018)

3. Zhang, Y.-L., Cao, F.: Environ. Pollut. **202**, 217–219 (2015)

4. Cogliani, E.: Air pollution forecast in cities by an air pollution index highly correlated with the meteorological variables. Atmos. Environ. **35**, 2871–2877 (2001)

5. Gore, R.W., Deshpande, D.S.: An approach for classification of health risks based on air quality levels. In: International Conference on Intelligent Systems and Information Management (ICISIM), IEEE (2017)

6. (PDF) Using factor analysis to attribute health impacts to particulate pollution sources. Available from https://www.researchgate.net/publication/8502837_Using_Factor_Analysis_to_Attribute_Health_Impacts_to_Particulate_Pollution_Sources. Accessed 3 Jan 2019

7. World Health Organization: Air quality guidelines: global update 2005: particulate matter, ozone, nitrogen dioxide, and sulphur dioxide (2006)

8. Attri, A.K., Kumar, U., Jain, V.K.: Formation of ozone by fireworks. Nature (2001)

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.RIS .ENW .BIB

DOI
https://doi.org/10.1007/978-981-15-1084-7_67

Published	Publisher Name	Print ISBN
18 February 2020	Springer, Singapore	978-981-15-1083-0

Online ISBN	eBook Packages
978-981-15-1084-7	Intelligent Technologies and Robotics Intelligent Technologies and Robotics (R0)

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(BOMSR)
An International Research Journal (Peer-Reviewed / Refereed)
http://bomsr.com/
Volume .5, S1.2017; ISSN: 2348-0580

LRS BIANCHI TYPE-I GENERALIZED GHOST PILGRIM DARK ENERGY MODEL IN SAEZ-BALLESTER THEORY WITH LINEARLY VARYING DECELERATION PARAMETER

V.U.M.RAO[1], G.SURYANARAYANA[2], U. DIVYA PRASANTH1[1], B.JAGAN MOHAN RAO
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ABSTRACT
In this paper, we investigate LRS Bianchi type-*I* Universe filled with matter and generalized ghost pilgrim dark energy in Saez-Ballester [1986] theory of gravitation. We have used linearly varying deceleration parameter proposed by Akarsu and Dereli [2012] to obtain a deterministic solution of the field equations. Physical parameters of the model are obtained and some geometrical and kinematical properties of the model are also discussed.
Keywords: LRS Bianchi type-I space-time, Saez-Ballester theory, linearly varying deceleration parameter, Generalized ghost pilgrim dark energy.

1. INTRODUCTION

Riess et al. [1998] and Perlmutter et al. [199] and Bennett et al. [2003], through their cosmological observations suggested that the Universe is in a state of accelerated expansion. It is believed that the reason for this is an exotic type of unknown force with positive energy density and negative pressure known as dark energy. It is also suggested that more than 70% of our Universe consists of dark energy that exerts a huge negative pressure and causes the cosmic acceleration. Also 30% of the content of the Universe is gravitating matter but most of it is non – baryonic and is called 'dark matter'. Thus, our Universe is that it consists of cosmic fluid made up of dark matter and dark energy evolving independently. However, cosmic acceleration is still a cosmological mystery.

In recent years, modifying general relativity is attracting more and more attention to explain late time acceleration and existence of dark energy component in the Universe such as quintessence, phantom, tachyon and Chaplygin gas (Padmanabhan [2002,2008]; Bento et al. [2002]; Caldwell [2002]; Nojiri and Odintsov [2003] and Feng et al. [2005]).Among the various modifications of general relativity scalar tensor theories of gravity proposed by Brans and Dicke [1961], Saez and Ballester [1986] and *f(R,T)* gravity (Harko et al. [2011]) are considered to be more popular to explain late time acceleration and dark energy. Here, we focus our attention on Saez – Ballester [1986] scalar tensor theory of gravitation.

Brans and Dicke [1961] scalar tensor theory introduces a scalar field φ, in addition to the metric tensor field g_{ij}. This scalar field has the dimension of the inverse of gravitational constant and interacts equally with all forms of matter. Subsequently Saez and Ballester [1986] proposed a new scalar tensor theory of gravitation. In this theory the metric is coupled with a dimensionless scalar field in a simple manner. This coupling gives a satisfactory description of the weak fields and an antigravity regime appears in this theory. This theory also suggests a possible way to solve the 'missing matter problem' in non – flat FRW cosmologies.

LRS Bianchi type-I generalized ghost pilgrim dark energy model in Saez-Ballester scalar tensor theory of garvitation with linearly varying deceleration parameter

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the deceleration parameter exhibits a smooth transition from early deceleration to late time acceleration of the universe and oscillate based on chosen parameters. We have observed that the presented model is compatible with the recent cosmological observations.

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Locally Rotationally Symmetric Bianchi Type-I Cosmological Model in f(R,T) Gravity

M.Vijaya Santhi[1], Daba Meshesha Gusu[1], V.U.M. Rao[1] and G. Suryanarayana[2]

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Journal of Physics: Conference Series, Volume 1344, International Conference on Recent Inventions and Innovations in Mathematical Sciences 28 February to 1 March 2019, Andhra Pradesh, India

Citation M.Vijaya Santhi *et al* 2019 *J. Phys.: Conf. Ser.* **1344** 012004

DOI 10.1088/1742-6596/1344/1/012004

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Abstract

In this paper, we have investigated a spatially homogeneous locally rotationally symmetric Bianchi type-*I* space-time with cosmological term Λ in presence of perfect fluid distribution in $f(R,T)$ gravity theory. We have derived explicitly the field equations of the theory and obtained the exact solution of field equations by employing a periodic varying deceleration parameter, which is a unique feature of the model. We have also performed the analysis of the model such as the equation of state parameter, pressure, energy density, density parameter and jerk parameter which are significant in the discussion of cosmology. Some physical and geometrical properties of the model have also been discussed along with the graphical representation of various parameters. We obtained the presence of quintessence and phantom regions based on chosen parameters. It is observed that

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On Soft Ternary Γ-Semirings-I

B. Ravi Kumar[1,2], B. Sankara Rao[3], D. Madhusudhana Rao[4], P. Siva Prasad[5] and M. Vasantha[6]

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Journal of Physics: Conference Series, Volume 1344, International Conference on Recent Inventions and Innovations in Mathematical Sciences 28 February to 1 March 2019, Andhra Pradesh, India

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DOI 10.1088/1742-6596/1344/1/012023

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Abstract

In this paper with the help of soft set theory the notion of soft ternary Γ-semiring and soft ternary Γ-sub semiring are introduced. Some of the properties of soft ternary Γ-semiring are discussed and some illustrations are also given. It is proved that (1) a soft set $(q, P1, \Gamma)$ over a ternary Γ-semiring T

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[19]. Mishra, B., Sahoo, P.K.: Astrophys Space Sci. **352**, 331 (2014).
[20]. O.Akarsu, C.B. Kilinc:*Astrophys. Space Sci.*, **326**, 315-322 (2010).
[21]. O.Akarsu, C.B. Kilinc:*Gen. Relativ. Gravit.*, **42**, 763-775 (2012).
[22]. O.Akarsu, T. Dereli: *Int. J. Theor. Phys.* **51**, 612-621 (2012).
[23]. P.A.R .Ade et al.: arXiv:1303.5076 (2013).
[24]. R. Bousso: *J. High Energy Phys.*, **07**, 004 (1999).
[25]. R. Caldwell: *Phys. Lett. B*, **545**, 23-29 (2002).
[26]. R.L. Naidu, et al.: *Int. J. Theor. Phys.*, **51**, 1997-2002 (2012a).
[27]. R.L. Naidu, et al.:*Astrophys. Space Sci.*, **338**, 333-336 (2012b).
[28]. S. Nojiri, S.D. Odinstov:*Phys. Lett. B*, **562**, 147-152 (2003).
[29]. S. Perlmutter, et al.: *Astrophys. J.*, **517**, 565-586 (1999).
[30]. S. Sarkar, C.R. Mahanta:*Int. J. Theor. Phys.*, **52**, 1482-1489 (2013a).
[31]. S. Sarkar: *Gen. Relativ. Gravit.*, **45**, 53-62 (2013b).
[32]. S. Sarkar:*Astrophys. Space Sci.*, **349**, 985-993 (2014a).
[33]. S. Sarkar: *Astrophys. Space Sci.*, **351**, 361-369 (2014b).
[34]. T. Padmanabham,: *Phys. Rev. D*, **66**, 021301 (2002).
[35]. T. Padmanabham: *Gen. Relativ. Gravit.*, **40**, 529-564 (2008).
[36]. T. Singh, R. Chaubey: *Pramana*, **71**, 447-458 (2008).
[37]. V. G .Mete, A.S.Nimkar, V.D. Elkar : *Int J Theor Phys.* ,**55**, 412–420 (2016).
[38]. V.U.M.Rao., Vinutha, T., M.Vijaya Santhi.: *Astrophys. Space Sci.* **312**, 189 (2007).
[39]. V.U.M.Rao, Vijaya Santhi, M., Vinutha, T.: *Astrophys. Space Sci.* **317**, 27 (2008).
[40]. V.U.M.Rao, D.Neelima: *Astrophys Space Sci.*, **345**, 427(2013).
[41]. V.U.M.Rao, K.V.S.Sireesha, D.Neelima: *ISRN Astronomy and Astrophysics*, **2013**, Article ID 924834 (2013).
[42]. V.U.M.Rao, K.V.S.Sireesha, B.J.M. Rao : *Prespacetime J.*, **5**, 772 (2014).
[43]. V.U.M.Rao, D.C. PapaRao, D.R.K. Reddy.: *Astrophys. Space Sci.* **357**, 164 (2015).
[44]. V.U.M.Rao, Vijaya Santhi,M., Aditya, Y.: *Prespacetime J.*, **6**, 947-960 (2015).
[45]. V.U.M.Rao,, V.Jayasudha : *Astrophys. Space Sci.* **358**, 8 (2015).
[46]. W. Fischler, L. Susskind: arxiv: hep-th/*9806039* (1998).

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International Journal of Pure and Applied Mathematics
Volume 117 No. 13 2017, 383-393
ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version)
url: http://www.ijpam.eu
Special Issue

ijpam.eu

Kaluza-Klein Holographic Cosmological Model in Brans-Dicke Theory of Gravitation

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Abstract

Spatially homogeneous KaluzaKlein cosmological model filled with two minimally interacting fields, matter and holographic dark energy components in the frame work of Brans-Dicke (Phys. Rev. 124, 925: 1961) scalar-tensor theory of gravitation. To acquire a determinate solution of the field equations we have used two plausible conditions: (i) scalar expansion is proportional to the shear scalar of the model and (ii) relation between scalar field (ϕ) to the average scale factor ($a(t)$) of the model. Some important physical properties of our model are also discussed.

AMS Subject Classification: 83D05, 83F05
Key Words and Phrases: Kaluza-Klein metric, Brans-Dicke theory, Dark matter, Holographic dark energy.

1 Introduction

Recent observation of the luminosity of type Ia supernovae indicate (Bachall et al. [1]; Perlmutter et al. [2]) an accelerated expansion of the universe and the surveys of clusters of galaxies show that the density of matter is very much less than the critical density. This observation leads to a new type of matter which violate the strong energy condition i.e., $\rho + 3p < 0$. The matter (fluid) content responsible for such a

MNS Mathematics in Natural Science
An International Journal

Fixed points of generalized $F - H - \phi - \psi - \varphi-$ weakly contractive mappings

Volume 7, Issue 1, pp 1--15

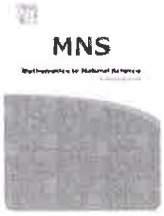
http://dx.doi.org/10.22436/mns.07.01.01 (http://dx.doi.org/10.22436/mns.07.01.01)

Publication Date: June 27, 2021

Submission Date: May 14, 2020

Revision Date: September 11, 2020

Accteptance Date: December 25, 2020



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Abstract

We introduce the notion of generalized $F - H - \phi - \psi - \varphi-$ weakly contractive mappings and prove the existence of fixed points of such mappings in complete metric spaces. We draw some corollaries and provide examples in support of our main results. Our results extend the results of Cho [S. Cho, Fixed Point Theory Appl., **2018**(2018), 18 pages] and Choudhury, Konar, Rhoades and Metiya [B. S. Choudhury, P.

Konar, B. E. Rhoades, N. Metiya, Nonlinear Anal., **74**(2011), 2116--2126] in the sense that the control function that we used in our results need not have monotonicity property.

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G. V. Ravindranadh Babu, M. Vinod Kumar, Fixed points of generalized $F-H-\phi-\psi-\varphi-$ weakly contractive mappings, Mathematics in Natural Science, 7 (2021), no. 1, 1--15

AMA Style

Ravindranadh Babu G. V., Vinod Kumar M., Fixed points of generalized $F-H-\phi-\psi-\varphi-$ weakly contractive mappings. Math. Nat. Sci. (2021); 7(1):1--15

Chicago/Turabian Style

Ravindranadh Babu, G. V., Vinod Kumar, M.. "Fixed points of generalized $F-H-\phi-\psi-\varphi-$ weakly contractive mappings." Mathematics in Natural Science, 7, no. 1 (2021): 1--15

Keywords

$\alpha-$admissible | $\mu-$subadmissible | $C-$class function, the pair (F,H) is upclass of type I | the pair (F,H) is special upclass of type I

MSC

47H10 | 54H25

References

[1] Ya. I. Alber, S. Guerre-Delabriere, Principles of weakly contractive maps in Hilbert spaces New results in Operator theory, Adv. Appl., 98 (1997), 7--22

View Article (https://link.springer.com/chapter/10.1007/978-3-0348-8910-0_2)

[2] A. H. Ansari, Note on φ-ψ-contractive type mappings and related fixed point, The 2nd Regional Conference on Mathematics and Applications, Payame Noor University Tehran, 2014 (2014), 377--380

View Article (https://www.researchgate.net/publication/309033585_Note_on_ph-ps-contractive_type_mappings_and_related_fixed_point)

Comparative Performance Analysis of DTC fed Three-Phase and Five-Phase Induction Motor

Publisher: IEEE

Richa Pandey ; Anup Kumar Panda ; Nishant Patnaik All Authors

Abstract: This paper presents a comprehensive comparative analysis between a three-phase induction motor and five-phase induction motor, both of which are controlled using a direct... **View more**

▸ **Metadata**

Abstract:

This paper presents a comprehensive comparative analysis between a three-phase induction motor and five-phase induction motor, both of which are controlled using a direct torque control (DTC) based algorithm. The analysis is based on their respective mathematical models. Also, DTC algorithm for both the machine drives is discussed in the paper. The main focus of this analysis is based on their torque response under fixed and variable load. Also, the torque ripple content is another important parameter where evident differences is observed between the two induction motor drives. A DTC based three-phase induction motor has proved to be a very effective drive, however, it develops considerable ripple content and is less fault tolerant. These drawbacks are overcome in a five-phase induction motor along with effective controlling due to DTC algorithm. This comparative analysis is based on simulation design of both the drives using MATLAB/SIMULINK.

Published in: 2020 5th International Conference on Devices, Circuits and Systems (ICDCS)

Date of Conference: 05-06 March 2020 INSPEC Accession Number: 19569018

Date Added to IEEE *Xplore*: 23 April 2020

DOI: 10.1109/ICDCS48716.2020.243572

ISBN Information:

Publisher: IEEE

ISSN Information:

Conference Location: Coimbatore, India

Contents

The power available for our generation transmission and distribution is basically three phase. Three phase is considered as the most optimal phase for generation and transmission With these three-phase AC machines, controlled electric drive were correspondingly adopted. Moreover, in order to feed such three-phase drives, power electronic based converters, such as a voltage source inverter is popularly used. A major advantage with these converters is that, the number of output phase obtained can be varied by changing corresponding number of legs. The number of legs in an inverter decides the number of output phases from an inverter. Therefore, the output phases can be escalated by including [illegible] inverter. Henceforth, popularity of multi-phase electric drives came increased manifold due to this degree of freedom in selecting the phase output number from inverter. In 1969, an initial proposal is supposed to have been made of a five- phase induction motor drive [1]. Square wave mode of operation was used initially for the five-phase inverter. Nonetheless, later on the pulse width modulation (PWM) operational mode was implemented. Subsequently, with the introduction of economical and dependable power electronic based switching devices and processors with high computational capability, the multi-phase drive appealed ample attraction from research fraternity [2].

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Comparative Analysis of Control Design for Uncertain MIMO Systems

Publisher: IEEE

Cite This PDF

T Narasimhulu ; G Raja Rao ; Mallikarjuna Rao Pasumathi All Authors

Abstract:A method of designing the Continuous dynamic Sliding Mode Controller (SMC) by considering reduced order model of a given large scale MIMO system. It has been shown that t... **View more**

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Abstract:
A method of designing the Continuous dynamic Sliding Mode Controller (SMC) by considering reduced order model of a given large scale MIMO system. It has been shown that the controller designed for the original system improves the transient performance over the usage of conventional PID controller. This projected method produces stable reduced order models for given original higher order established system and it gives better track of rounding and transition errors for each measured value by automatically. The method has been tested by considering typical numerical example, available in the literature.

Published in: 2020 5th International Conference on Devices, Circuits and Systems (ICDCS)

Date of Conference: 05-06 March 2020

Date Added to IEEE *Xplore*: 23 April 2020

INSPEC Accession Number: 19569032

DOI: 10.1109/ICDCS48716.2020.243561

Publisher: IEEE

▸ ISBN Information

▸ ISSN Information:

Conference Location: Coimbatore, India

Contents

I. Introduction

Fundamentally, the higher order system is very difficult to analyze, design and control. Because of this reason higher order system can be represented in the form of lower order system model from original higher order system. The analysis and design problem are appeared due to involvement of uncertainty to varying degree in the engineering and science technology. The type of uncertainty that occur in system may be affected by problems with the data. Sign in to Continue Reading or inaccessible data, data might be present but unpredictable or uncertain due to computation errors, the representation of the data may be inaccurate or unpredictable, etc. Uncertainty may be described in number of ways, like probabilistic, rounded or fuzzy descriptions. However, in many systems the factors are constant but, in some cases, uncertain within a predetermined range. Such systems are known as interval systems.

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ISBN 978-3-11-061868-6
e-ISBN (PDF) 978-3-11-062110-5
e-ISBN (EPUB) 978-3-11-061871-6
ISSN 2512-8868

Library of Congress Control Number: 2019945100

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at http://dnb.dnb.de.

Typesetting: Integra Software Services Pvt. Ltd.
Printing and binding: CPI books GmbH, Leck
Cover image: shulz/E+/getty images

www.degruyter.com

Intelligent Decision Support Systems

Applications in Signal Processing

Edited by
Surekha Borra, Nilanjan Dey, Siddhartha Bhattacharyya,
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Fuel Cell Based Sapf System with Dual Mode Operation

Publisher: IEEE Cite This PDF

Nishant Patnaik ; Anup Kumar Panda ; Richa Pandey All Authors

Abstract: This paper presents a comprehensive fuel cell based shunt active power filter (SAPF) system operated in dual mode of power quality improvement and sustaining the load pow... **View more**

▸ **Metadata**

Abstract:

This paper presents a comprehensive fuel cell based shunt active power filter (SAPF) system operated in dual mode of power quality improvement and sustaining the load power requirement during supply interruption condition. The former mode of this system is based on synchronous reference frame (SRF) control algorithm and for the latter mode it is switched to sine pulse width modulation (SPWM) control. This complete system is applicable for handling the prime power quality issue of current harmonics, improving the supply side power factor by taking care of reactive power demand of load and maintaining the continuity of power supply in case of supply interruption with an alternate supply arrangement of fuel cell stack system, which is highly essential for sensitive and emergency type loads. The whole system is simulated using MATLAB/SIMULINK and the results are analyzed accordingly.

Published in: 2020 5th International Conference on Devices, Circuits and Systems (ICDCS)

Date of Conference: 05-06 March 2020

INSPEC Accession Number: 19569009

Date Added to IEEE Xplore: 23 April 2020

DOI: 10.1109/ICDCS48716.2020.243564

▸ ISBN Information:

Publisher: IEEE

▸ ISSN Information:

Conference Location: Coimbatore, India

Contents

Power quality improvement in distribution power system is now a quite widely adopted research domain in researcher fraternity [1]-[3]. The widespread and ever growing application of switching devices (that may be BJTs in case of low power level electronic application or power electronic based devices such as power diodes, IGBTs, SCRs etc. for high power applications) in load systems is a never ending and never depreciating process. A majority share of power consumers (may be large or small) aren't aware or more or less bothered about such issues which are not affecting them directly, but the power utilities and surely the power consumers indirectly. The major power quality issue which is the main root cause of affecting the power supply and the loads directly or indirectly is the introduction of a large of harmonic contamination in the source current. The nature of current drawn by the load cannot be altered under any circumstances, however, there exist a scope of mitigating the current harmonics on the supply end by injecting appropriately selected and adjusted current harmonics from another device which is usually termed as shunt active power filter (SAPF). A lot research has been carried out on SAPF since its inception which includes its various topologies and different control structures [4]-[6].

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Materials Today: Proceedings

Volume 42, Part 2, 2021, Pages 1138-1144

A feasibility study on the production of methyl ester from second and third generation feed stocks

Veluru Sridevi [a], P.A. Satyanarayana [a], R. Srikanth [b], Karra Dayana [c]

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https://doi.org/10.1016/j.matpr.2020.12.496

Highlights

- Castor & Microalgae oil methyl esters blends used in a conventional diesel engine without any modification.
- Methyl ester from COME will be environmentally and economically more feasible.
- With this blend percentage engine develops better power.
- High power output.
- Reduces friction loss and better combustion.

Abstract

This paper includes comparison between Fatty acid profiles of Castor & Microalgae oilmethyl esters (COME & MAME), comparison of qualitative and elemental analysis, A feasibility study on performance, emission and cost analysis was also conducted. Thus from the above result, it may be concluded that COME still remains the best petroleum diesel alternative based on its yield, elemental content and lowerhydrogenation requirement. Microalgae based methyl ester production is getting more interest but the genetic modification of the strains only can improve the yield to surpass the 2nd generation feedstock based FAME production and this also helps in reduction of PUFA content. The lower brake thermal efficiency observed for blended COME (B10, B20) & MAME (B10, B20) as compared to diesel fuel, this may be due to fuel flow problems which are owing to higher viscosity and density. In view of comparable engine performance and reduction in most of the engine emissions, it can be concluded and methyl ester derived from COME & MAME blends could be used in a conventional diesel engine without any modification. Even though both oils are costlier than diesel, the cost become of less importance as the emission from the methyl ester reduces which supports the human health as well as the environment. It was concluded that the production of methyl ester from COME will be technically, environmentally and economically more feasible compared to MAME.

Previous Next

Keywords

Methyl ester; Castor oil; Microalgae oil; Transesterification; Engine performance; Emission and cost analysis

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2016-17/IC/16, 17, 18, 19

Novel Approach of DNA Sequencing Algorithm to Image Security

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Abstract— **DNA computing is new wave of advancement in the field of cryptography .DNA is an ultra compact information storage medium with high security and theoretically unbreakable algorithm. We present a new technique for securing the image using DNA computing. In practical steganography images can be broken with some assumption on the information theoretic entropy of the plaintext .We discuss a modified DNA sequencing algorithm for encoding image which appear to be more secure. The image is converted to DNA code and divide into fragments .The fragments are sorted and cloned as a bacterial library which acts as cipher. The clones are extracted from the DNA mixture and decrypted using the DNA sequencing technique . Greedy Shortest Common Substring algorithm(GSCS).This algorithm takes the advantage of decreasing the time complexity and increasing the rate of accuracy in the field of image cryptography.**

Keywords —DNA Computing; DNA Sequencing; Steganography; GSCS

I. INTRODUCTION

DNA is a kind of molecules code of genomes, which codes the genetic information or genes. Genome is a book of recipes, with a separate recipe of each type, each little piece which forms the 'skin cell, brain cells , neurons' etc. These are the machines that build and maintains an human being .The DNA is built of Adenine(A),Thymine(T),Guanine(G) and Cytosine(C) molecules.DNA shapes like a double helix which looks like a twisted ladder, this ladder is made of pairs of bases called as complementary base pairs. A is complementary to T and vice versa, G is complementary to C and vice versa. To read the DNA molecules we can start right all the way from the top and walk away down over one side of the ladder reading of each bases we get the sequence of DNA strings .DNA molecules of human chromosomes are very long even longer than 100 of thousand or 100 of millions longer.

DNA cryptography is a study of using DNA as an information carrier system. DNA computing is expensive to build the hardware and the equipment but even the silicon area was also expensive during the startup .Similarly once the DNA computing comes into practical implementation, the front end will be cheaper compared to the modern computers [1].DNA has the advantage of very large scale parallelism, large capacity of storing information and low power consumptions. The increased funding can be obtained for these research that has the potential to benefit many circles of science and Industry. This technique is a promising field for doing research and some quantum of contributions) can be made in the areas of the integrity factor of the algorithm, to provide more layer of protection and Improving the time and space complexity.

In order to provide high security and reliable data transmission, an effective method of DNA sequencing algorithm is proposed in the area of Image Cryptography. There are various methods to perform the steganography .In the ground of spatial steganography the image pixel are embedded with the secret message. Major works are contributed in the area of LSB based steganography grayscale images. It work by replacing LSB of randomly selected pixels in the cover images with the secret message bits using equation yi -[xi/2]*mi where yi is the output pixel after embedding the message, xi is the present ith selected pixel, mi is the ith bit of the message. These leads to a disturbance due to which the histogram is varied. Attacker can attack by chi-square attach, LSB matching etc which need to vulnerable to attach implies no guarantee a high security level. To overcome the disadvantages, we proposed Greedy Shortest Common Substring(GSCS) sequencing algorithm in the field of image cryptography to improve the security.

II. PROPOSED WORK

The general overview of the proposed work is shown in Fig. 1. DNA encoding is applied to the 1D array obtained by processing the input image. This is followed by fragmentation and indexing through the use of private key. Cloning is applied on this resultant fragment and it is subjected to amplification. Finally, the cipher is generated.

A. Prerequisite of DNA Sequencing Algorithm

In the proposed system we have taken the advantages of indexing and assembling of DNA genomes into consideration for the Encryption and decryption of the image. The detail description is given in subsequent sections in a sequel

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Smart Water Monitoring and Purifying System

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Abstract

Proper maintenance of water outlets, their proper scheduling of repairing is must in order to reduce the water losses to leakages and breakages optimized the energy consumption requirements for pumping water. This can be achieved by ensuring a right combination of pumping configuration predictive analysis techniques can be used for getting the right amount of water at the right destination for the right duration.

Keywords - *Smart water, IOT with Arduino Uno, Water Management, Water Monitoring and Purification system.*

I. INTRODUCTION

Water has been considered exploitable and the renewable resource from the beginning of the civilization. There is a need to manage the sustainability of water resources is called water management. Misuse of this resource on large scale contributes to water scarcity and unequal access to millions of people across the world. To overcome the wastage of water the techniques are used to reduce such exploitation, which helps in saving water in the long run. Scientists and engineers developed brilliant technologies to notify the user whenever the tank overflows or underflows so that he or she can manually turn the machine off or on respectively. A microcontroller is a small computer on a single integrated circuit which is used to detect water level and control the pumps by functioning throughout the task. This microcontroller can be effectively implemented by the regular monitoring and maintenance so as to prevent the water wastage.

A. Basic Iot Implementation

Ever since mankind came into existence, we have been hearing that we need to make a proper management of our resources and energies as a caution from everyone. And water is one such vital resource, which should be properly managed and used. Proper management of water can be done with the help of IOT. Here level sensors are equipped across overhead tanks and reservoirs, these sensors indicate passed to the management and they determine the amount of water usage on daily basis. We can also monitor the temperature of water present in the tank using L-35 sensor.

B. IOT Application

- When we want to buy something from the grocery store we need to make an handwritten list and we need to go store and purchase it, but in today's busy schedule, IOT made it easy with the help of smart refrigerator this is able to examine customers buying habits and build a list of items on its own. And here RFID (Radio Frequency Identification Tags) are embedded in the refrigerator, these tags notify the customer when an item is no longer fresh or nearing to its expiration date. So,there will be no loss of food items and always keeps them in fresh condition.
- In today's major cities moving from one place to another place is a nightmare. But IOT makes it easier by using your navigation system communicates with sensors that are embedded in the environment with the help of this, people can reach their destination in correct time. Example: GPS with Radar
- They are many smart devices in farming which are used for monitoring the climate condition, soil quality, cattle health and crops growth progress. And is allows us to automate multiple process across your production cycle. By using these smart devices we will be able to mitigate the risks of losing our yield.

II. DISADVANTAGES OF IOT

A. Security

Every device that person uses now a days is connected to the internet, so the data that is collected by sensor/device is placed on to the internet and it be available online for lifetime. As the data is open it can be easily hacked and it leads to know about individuals' life, these data acts as an input for the companies.

B. Over -Reliance On Technology

Our next generation will be growing in the availability of internet and technology. So they will be completely depend on the technology and try to make decision based on the information given by IOT/Internet, which would led them to devastation. And they work in-front of the system for 24/7 and no system in this is fault free. So, we shouldn't solely rely on them.

C. Impact On Employability

In the coming days the work which should be done by humans will be completely replaced by machines in an efficient manner. So, IOT has an impact on employability.

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Identification of Natural Disaster Affected Area Using Twitter

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Abstract. Any social network activity can be posted now a days in Twitter. People reach out to twitter during natural disasters for help by tweeting the areas that are affected with the natural disaster and the type of natural disaster that has occurred. As, Social media is greatly relied at the times of natural disasters, this makes it very important that there must be an efficient method to analyze the disaster related tweets and find out the largely affected areas by the natural disaster. In this paper we classify the natural disaster-based tweets from the users using classification machine algorithms like Naïve Bayes, Logistic Regression, KNN, Random Forest and determine the best machine learning algorithm (based on metrics like accuracy, kappa etc.) that can be relied to ascertain the severity of the natural disaster at a desired area.

Keywords: Sentimental analysis · Machine learning algorithms · Twitter · Natural disasters

1 Introduction

Lots of information of different types is generated due to the advent of new technologies. To handle these huge amounts of data we need to follow some big data analysis techniques rather than traditional methods for analysis. Data mining is one of such technique which is used to discover interesting knowledge from large amounts of data. This project is to identify the natural disaster effected area using real-time tweets by finding the locations' latitude and longitude and then mapping the location on to the graphical map.

The twitter data regarding the natural disaster affected areas is obtained by first creating a twitter app and by requesting authentication from R studio using the consumer key and consumer secret key of the created twitter app. Then the keywords which are synonyms of the natural disaster keyword are grouped and then all the tweets having those keywords are obtained. Only the tweet texts are obtained by removing the re tweet entities, people, HTML links, punctuations, numbers and unnecessary spaces from the twitter data.

S. C. Satapathy, ... (Eds.): ICETE 2019, LAIS 3, pp. 792–801, 2020.
https://doi.org/10.1007/978-3-030-24322-7_92

Multiple Hand Gestures for Cursor Movement Using Convolution Neural Networks

Intelligent System Design pp 813-825 | Cite as

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1. ANITS Engineering College, , Visakhapatnam, India

Conference paper
First Online: 11 August 2020

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

Abstract

Developing a multi-hand gesture to create a magical mouse movement by which we can tab, swipe, zoom-in, zoom-out by using one or more fingers. The machine learning technique can be used to perform all the operations as a state of art. The objective of the proposed algorithm is to use the hand gesture in front of the built-in webcam in the computers or the cellphones which can control the mouse movement. A multilayer convolution neural network is proposed in this paper which considers the pixel-level segmentation to identify the hand region, in the second stage, it identifies the number of fingers used, and in the last stage, the movement detection of the fingers to identify the operations is to be performed.

Keywords

Multi-hand gesture Multilayer convolution neural networks Segmentation Lucas–Kanade

References

1. Matilainen, M., Sangi, P., Holappa, J., & Silvén, O. (2016). OUHANDS database for hand detection and pose recognition. In 6th *International Conference on Image Processing Theory Tools and Applications* (pp. 1–5). IEEE.

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Session C2	**15.30-16.45**
Topic	**Computing Systems**
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	Prof. P V Nageswara Rao
Venue	**Room. No 208, ICT Bhavan**

Paper ID	Title of the Paper
NCA19-02	Big Data Framework for storage Extraction and Identification of Data using Hadoop Distributed File system ***B.Suvarnamukhi and M.Seshashayee***
NCA19-05	Finding Page Rank using Transition Matrix and Random Vector ***Sreekanth Kavuri and Vedavathi Katneni***
NCA19-09	Encryption techniques for different messenger applications ***Maganti Manasa, Dasari Veera Reddy and AmanapuYaswanth***
NCA19-10	A Secure framework for Communicating Multimedia Data in Cover Images using Hybrid Steganography Algorithms in Wireless Local Area Network –A Critical Analysis ***Jagadish Gurrala and Pasala Sanyasi Naidu***
NCA19-13	High-performance computing analysis using Apache Ignite Hadoop Accelerator ***Chaya S, Srinivas Chevula and P.V.Y.JayaSree***

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Session C2

NCA19-02 Big Data Framework for storage Extraction and Identification of Data using Hadoop Distributed File system

B.Suvarnamukhi and M.Seshashayee

Abstract: Big data is all about the developing challenge that associations face in today's world, As they manage enormous and quickly developing wellsprings of information or data, with the complex range of analysis and the problem includes computing infrastructure, accessing mixed data both structured and unstructured data from various sources such as networking, Recording and stored images. Hadoop is the open source software framework includes no of compartments that are specifically designed for solving large-scale distributed data storage. MapReduce is a parallel programming design for processing.

NCA19-05 Finding Page Rank using Transition Matrix and Random Vector

Sreekanth Kavuri and Vedavathi Katneni

Abstract: Today, the web is growing at a very fast and rapid rate. Also, there is a fast growth in using of the internet compared with a past years. Due to the dynamic nature of web, the information on the internet in form of pages is added and removed in no time. The information on the web had become very important and a large amount of information is hidden inside the web. Getting the information, which is in need has become very difficult. Hence mining of the web data deeply in-terms of the content, structure, and usage is necessary. The search engines, in general, give us a list of web pages for user queries. For the users to move on that list comfortably a ranking mechanism is applied. Many of the rank based mechanisms are based upon content-based or link-based. An algorithm is proposed to find the rank of the mined web pages is presented in this paper. The proposed algorithm is compared and analysed with existing mining algorithms namely page rank and HITS algorithms. This paper highlights respective strengths, weaknesses, variations, and carefully analyses all the algorithms with an example. The added feature of the algorithm is that the most valuable page of the list, which is given by the search engine, is displayed at the top of the list.

NCA19-09 Encryption techniques for different messenger applications

Maganti Manasa, Dasari Veera Reddy and AmanapuYaswanth

Abstract: With the advancements in number of technologies, communication has taken a bigger leap. A number of messenger applications have been developed to exchange data and information through the Internet. This data is very private and can be vulnerable to security attacks. Hence, it must be protected with certain encryption technique to keep the information confidential and away from unauthorized access. In this paper, a brief study is done on different encryption techniques in messenger applications and the conclusions are presented.

NCA19-10 A Secure framework for Communicating Multimedia Data in Cover Images using Hybrid Steganography Algorithms in Wireless Local Area Network –A Critical Analysis

Jagadish Gurrala and Pasala Sanyasi Naidu

Abstract: This paper presents a critical analysis on new and original proposed algorithm based on hiding any data has been used that overcomes the disadvantages of the existing algorithms and helps to provide less similarity between cover image and stego image and obtain accuracy upto 69.6 percentage and increases its robustness using metrics called mean square error and peak signal to noise ratio. In the wireless environment cryptography suffers

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from various spyware programs that shows corrupted secret information to innocent users who uses image steganography services from user. In our proposed prototype helps to authenticate the sender to make the unnoticeable image from original image. In our proposal work discovers a secure authentication communication model would able to cover multimedia data like first text to be hide, second image to be hide and third audio secret data to be hide in cover image without much noticed to any user in between network. The proposed algorithm has been tested against various existing algorithms to develop how effectively the hybrid steganography algorithm is works, and how effectively it is overcoming the drawbacks of the present image steganography algorithms. The present work is projected to serve the purpose of prevention of changing secret data in cover image after evaluating the distraction values using PSNR and RMSE quality metrics under various image data set taken from facebook shared images . In the scientific investigation, researchers found that three reasons to show that given secure communication is successfully designed with the help of hybrid steganography algorithm that could break attackers intention using TLNUS merged with AES and Key based positioning system[4] gain access the sensitive information available in remote system.

NCA19-13 High-performance computing analysis using Apache Ignite Hadoop Accelerator

Chaya Shivalingegowda, Srinivas Chevula and P.V.Y.JayaSree

Abstract: Recently, IT has popularized the term high performance computing. In STEM High Performance Computing is used not only to model complicated calculations, but also to improve the applications, reduce costs and reduce development times, in order to solve large problems, in a much higher level of performance than a normal computer. In simple terms, the memory computing primarily relies on keeping data in the RAM as storage implies at high speeds. The HPC allows big data to be processed as quickly as possible.

This book aims and considers the problem of group key management in dynamic setting for Resource Constraint Networks.
In Chapter 1, we present introduction and summary of the Book.
In Chapter 2, we discuss and analyze the requirements for key establishment which handles dynamic groups. we then investigate in **Chapter 3** the cryptographic foundations. We take a closer look at back ground of elliptic curve cryptography; cryptographic assumptions based on discrete logarithms. **Chapter 4** presents DACGKA a complete family of GKA protocols for SGC, namely, initial group key agreement, Join and Leave protocols for membership change, in a model with authenticated links. In **Chapter 5** demonstrates Security Analysis and Security model. Beyond that we define a formal model for GKA protocols. In **Chapter 6**, we study about the results and comparative analysis, in which communication and computation efficiency of the protocols are analyzed and compared with popular ECDH and DH based protocols. **Finally in Chapter 7**, we summarize the work in the form of conclusion and give an outlook on open problems and possible research directions in the form of future work.

Srinivasa Naresh Vankamamidi
V.E.S Murthy Nistala
Sivaranjani Reddi

Secure Multiparty Key Agreements: Theory and Practice

Secure Dynamic Authenticated Group Key Agreement for Resource Constrained Networks

Dr. Vankamamidi S.Naresh is currently working as Asso-Dean and Professor, in Dept of CSE, Sri Vasavi Engg College,T.P.Gudem, AndhraPradesh, India. He published papers in reputed SCI journals with high impact factor in the area of cryptography. He is also a recipient of State Best Researcher. He successfully completed a UGC-Minor Research project.

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4 Coronary Heart Disease prediction using genetic algorithm based decision tree

Abstract: Heart disease prediction is a burning issue, irrespective of age, work pressure, stress, and food habits, which can disturb the heart functionality. Classification of heart disease can be a value addition to doctors; this chapter aims at supporting doctors in taking decision to classify healthy and coronary heart disease (CHD) patients using popular modified decision tree by using genetic algorithm. Performance analysis of the proposed method is compared against data-mining approach, probability rule base classification; Five machine-learning algorithms include K-Nearest Neighbor (KNN), artificial neural network, support vector machine (SVM), decision tree, and modified decision tree using genetic algorithm. Analysis was performed with reference to accuracy, execution, and sensitivity. Results show that the decision tree using genetic approach predicts the CHD patient more accurately than other existing algorithms.

Keywords: coronary heart disease, genetic algorithm, machine learning, decision tree

4.1 Introduction

Today, machine learning helps the researchers in the process of tracing the unclear patterns and arrangements in databases, which are also used to build the predictive models. Healthcare is one of the dominating areas, where machine-learning algorithms were helpful in disease analysis and prediction. Medical industry generates huge amounts of complex patient diagnostic data, hospital resources, electronic records of the patients, details about doctors, diagnostic devices, and so on. This voluminous data is the key source for doing research in data analysis, knowledge extraction, and decision making. Coronory Heart Disease (CHD)[1] is the current alarming topic to do research now a days, from published statistics [2-9] 23% of loss of life in USA during 2008 is due to CHD. Also, in consonance with CDC (Center for Disease Control and prevention), around 735 thousand American citizens are effected with CHD. This motivated us to do the research in this area. Heart is a muscle, which is of the size of a human fist and is responsible for pumping blood to lungs, primarily collects blood, and transmits this rich-in-oxygen blood to the entire body via arteries.It receives blood through the vascular system named coronary circulation, mainly consists of arota, which is bifurcated into arteries called left and right coronary arteries. These coronary

https://doi.org/10.1515/9783110621105-004

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An Automated Segmentation of Brain MR Image Through Fuzzy Recurrent Neural Network

Bio-inspired Neurocomputing pp 163-179 | Cite as

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Chapter
First Online: 22 July 2020

Part of the Studies in Computational Intelligence book series (SCI, volume 903)

Abstract

The human brain is the major controller of the humanoid system. The abnormal growth and division of cells in the brain lead to a brain tumor, and the further growth of brain tumors leads to brain cancer. In the area of human health, Computer Vision plays a significant role, which reduces the human judgment that gives accurate results. CT scans, X-Ray, and MRI scans are the common imaging methods among magnetic resonance imaging (MRI) that are the most reliable and secure. MRI detects every minute objects. Our paper aims to focus on the use of different techniques for the discovery of brain cancer using brain MRI. In this study, we performed pre-processing using the adaptive bilateral filter (ABF) for removal of the noises that are present in an MR image. This was followed by the binary thresholding and Fuzzy Recurrent Neural Network (FR-Net) segmentation techniques for reliable detection of the tumor region. Training, testing, and validation datasets are used. Based on our machine, we will predict whether the subject has a brain tumor or not. The resultant outcomes will be examined through various performance examined metrics that include accuracy, sensitivity, and specificity. It is desired that the proposed work would exhibit a more exceptional performance over its counterparts.

Keywords

Brain tumor Magnetic resonance imaging Adaptive bilateral filter
Fuzzy recurrent neural network

References

1. Sivaramakrishnan, A., Karnan, M.: A novel based approach for extraction of brain tumor In MRI images using soft computing techniques. Int. J. Adv. Res. Comput. Commun. Eng. **2**(4) (2013, April)
Google Scholar (https://scholar.google.com/scholar?q=Sivaramakrishnan%2C%20A.%2C%20Karnan%2C%20M.%3A%20A%20novel%20based%20approach%20for%20extraction%20of%20brain%20tumor%20In%20MRI%20images%20using%20soft%20computing%20techniques.%20Int.%20J.%20Adv.%20Res.%20Comput.%20Commun.%20Eng.%202%284%29%20%282013%2C%20April%29)

2. Aslam, A., Khan, E., Beg, M.M.: Improved edge detection algorithm for brain tumor segmentation. Procedia Comput. Sci. **58**, 430–437 (2015). ISSN 1877-0509
Google Scholar (https://scholar.google.com/scholar?q=Aslam%2C%20A.%2C%20Khan%2C%20E.%2C%20Beg%2C%20M.M.%3A%20Improved%20edge%20detection%20algorithm%20for%20brain%20tumor%20segmentation.%20Procedia%20Comput.%20Sci.%2058%2C%20430%E2%80%93437%20%282015%29.%20ISSN%201877-0509)

3. Sathya, B., Manavalan, R.: Image segmentation by clustering methods: performance analysis. Int. J. Comput. Appl. **29**(11), 0975–8887 (2011, September)
Google Scholar (https://scholar.google.com/scholar?q=Sathya%2C%20B.%2C%20Manavalan%2C%20R.%3A%20Image%20segmentation%20by%20clustering%20methods%3A%20performance%20analysis.%20Int.%20J.%20Comput.%20Appl.%2029%2811%29%2C%200975%E2%80%938887%20%282011%2C%20September%29)

4. Devkota, B., Alsadoon, Abeer, Prasad, P.W.C., Singh, A.K., Elchouemi, A.: Image segmentation for early stage brain tumor detection using mathematical morphological reconstruction. Procedia Comput. Sci. **125**, 115–123 (2018). https://doi.org/10.1016/j.procs.2017.12.017 (https://doi.org/10.1016/j.procs.2017.12.017)
CrossRef (https://doi.org/10.1016/j.procs.2017.12.017)
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5. Sudharani, K., Sarma, T.C., Satya Rasad, K.: Intelligent Brain Tumor lesion classification and identification from MRI images using k-NN technique. In: 2015 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT), Kumaracoil, 2015, pp. 777–780 (2015).

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Soft Computing for Integration and location of Wind Power Generation in a Distributed System

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***Abstract*—Wind generation is one of the leading renewable energy sources and has much potential to improve the distribution system performance by reducing the Transmission and Distribution losses and improve the voltage stability of the system. The paper here describes, modeling and simulation of wind power generation, with AC/DC-DC/AC conversion are done by using PSCAD software. The optimal location of the DG is determined based on voltage index and loss reduction index using Fuzzy IF-THEN rules on an IEEE-33 bus distribution system. The Simulation process is carried out with and without DG penetration at the optimal location. From the simulations results it is observed that there will be reduction in losses and there is improvement in voltage profile with DG penetration at optimal location.**

Keywords— Distributed generation, distributed system, optimal location,fuzzy, PSACD Introduction

I.Introduction

A small-scale generation situated at or near the load centers is known as "Distributed Generation". It is also been known as on-site generation, embedded generation, distributed energy, decentralized generation, decentralized energydispersed generation etc..,With high availability uncertainties wind power is well known intermittent power source in distributed generation. Wind energy plays an important role in future energy generation in most of the areas of the world due to its high reliability and the level in sophistication of wind turbine technology and the reduction in cost. Generally, most of the wind turbines are connected to distribution grids not to the main grids still now. And because of this reason,these generators which provide power through wind affect the current flow and also power flows in the distribution system to which the connections are made, and voltages at the nodes are mainly related to power flows and are changed accordingly. When injecting wind power into a distribution grid, voltage quality is changed [1].

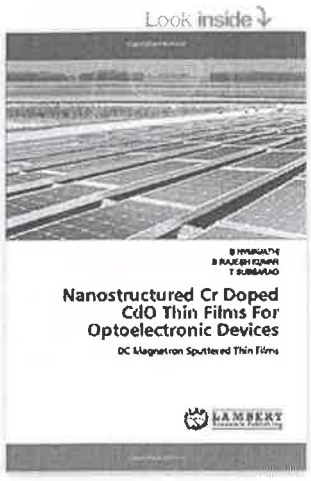
Induction machines are sometimes used as generators, in wind power stations, but with the new permanent magnet generators development, the AC-DC-AC conversion improvement and the advantages for other solutions are possible. The use of permanent magnet generator is a recent solution with a conversion stage and variable speed [2]. There are many uncertainties in various power system problems. Because of this it becomes very difficult to stick to mathematical formulae alone. To overcome this, theory of fuzzy set has applied for many problems of the power systems. Fuzzy sets theory (FST) provides a solution for the lack and uncertainty in the data given. Huristic rules are used for fuzzy expert system to determine the placement suitability index at each node in the distribution system. Rules are defined to determine the suitability of a node for DG unit placement [3]-[7]. Load Flow is a power system analysis approach that determines the steady state system operating conditions. For the analysis of power systems it is very important toolfor the operation as well as planning stages. In some applications, especially in automation distribution and optimization require repetitive load flow analysis. As the power distribution networks become more and more complex, there is a higher demand for efficient and reliable system operation. The distributed network is a radial network and the current measurement are based on the protection [8].

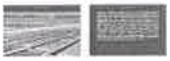
In this paper wind power generation and AC/DC – DC/AC conversion was modeled for IEEE-33 bus radial distribution system using PSCAD software and optimal placement of DG is determined by calculating loss reduction index and voltage index by running load flow analysis and these inputs are given to the fuzzy inference system in order to obtain the location of DG at optimal locality.

II. DG ON DISTRIBUTION SYSTEM

A. Wind power Generation

Distributed Generation (DG) is assumed to play a vital role in the electric power generation system of the future. Photovoltaic, wind turbines, fuel cells and internal combustion engine-generators are included in DG technologies [9]-[11]. The paper is a consideration of a permanent Magnet Synchronous Generator to which a wind turbine is attached with 100 pairs of poles. The connection is given to AC/DC-DC/AC converter and a step up transformer from the grid.This method helps in the removal of the gear box in the system. The wind source component simulates every condition of the wind i.e. Mean wind speed, sinus form of Periodic gust, NoiseRamp, and Damper for all the conditions that are preceding. Thefollowingthree wind characteristics are important for a wind turbine:
The mean wind speed: The rated characteristics of the turbine and the generator are determined according to the mean speed of the wind. Based on the speed of the wind





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Nanostructured Cr Doped CdO Thin Films For Optoelectronic Devices: DC Magnetron Sputtered Thin Films

Paperback – July 27, 2020

by B. Hymavathi (Author), B. Rajesh Kumar (Author), T. Subbarao (Author)

Transparent conducting oxides (TCOs) such as pure and doped cadmium oxide have attracted much attention owing to their potential applications in opto-electronic device technology. In particular CdO based TCOs are of great interest due to their metal like charge transport behaviour with an exceptionally large

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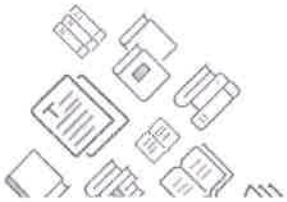

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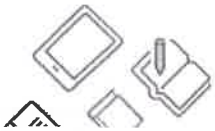

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An Improved Control Scheme of Electric Springs for Voltage Regulation in Distribution Systems with Renewable Energy Sources

J. Vijaya Kumar,

K.K.Deepika, G.Kesava Rao

Abstract

Penetration of renewable energy sources in the distribution systems paved way to the development of smart load device, Electric Springs (ES) that makes voltage regulation more flexible. The voltage disturbances are caused due to the power electronic converters, solar irradiation and wind speed variations. This paper implements Radial Chordal Decomposition technique to stabilise the voltage profiles at the chosen six locations in the distribution system. Performance of Electric springs based on PI controller and RCD controller is compared and verified on a modified IEEE-15 distribution network. Demonstration of the results is carried out in MATLAB Simulink GUI environment.

Volume 12 | Issue 2

Pages: 160-167

DOI: 10.5373/JARDCS/V12I2/S202010018 ()

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Fuel Cell Based Sapf System with Dual Mode Operation

Publisher: IEEE

Nishant Patnaik ; Anup Kumar Panda ; Richa Pandey All Authors

Abstract: This paper presents a comprehensive fuel cell based shunt active power filter (SAPF) system operated in dual mode of power quality improvement and sustaining the load pow... **View more**

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Abstract:

This paper presents a comprehensive fuel cell based shunt active power filter (SAPF) system operated in dual mode of power quality improvement and sustaining the load power requirement during supply interruption condition. The former mode of this system is based on synchronous reference frame (SRF) control algorithm and for the latter mode it is switched to sine pulse width modulation (SPWM) control. This complete system is applicable for handling the prime power quality issue of current harmonics, improving the supply side power factor by taking care of reactive power demand of load and maintaining the continuity of power supply in case of supply interruption with an alternate supply arrangement of fuel cell stack system, which is highly essential for sensitive and emergency type loads. The whole system is simulated using MATLAB/SIMULINK and the results are analyzed accordingly.

Published in: 2020 5th International Conference on Devices, Circuits and Systems (ICDCS)

Date of Conference: 5-6 March 2020 **INSPEC Accession Number:** 19569009

Date Added to IEEE *Xplore*: 23 April 2020 **DOI:** 10.1109/ICDCS48716.2020.243564

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