

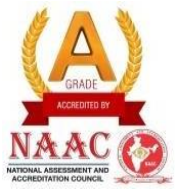


J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

Accredited by NAAC with 'A' Grade

T.N. Palayam (Po), Gobi (Tk), Erode (Dt) – 638 506



INDEX PAGE

3.3.2	Number of research papers per teachers in the journals notified on International journal of aquatic science, IOP conference series website during the year 2022-2023
-------	---

S:No	Description	Page No.
1.	Certificate of head of the Institution	12
2.	Front page of the articles	12



J.K.K.MUNIRAJAH

COLLEGE OF TECHNOLOGY

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Accredited by **NAAC**
"A" GRADE

☎ 02485 260754 / 55
✉ principal@jkkmct.edu.in
🌐 www.jkkmct.edu.in

Smt. VASANTHAKUMARI MUNIRAJAH
Chairman & Managing Trustee

Mrs. M.KASTHURIPRIYA MBA.,
Secretary

DR.K.SRIDHARAN Ph.D.,
Principal

DATE: 27/02/2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the total number of research papers per teacher published during 2022-2023, the year wise details are given below:

ACADEMIC YEAR	2022-2023
NUMBER OF RESEARCH PAPERS	12

<u>TOTAL</u>	<u>12</u>
---------------------	------------------

Principal
27/2/2024
PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 508.
GOBI (Tk), ERODE (Dt).

3.3.2 Number of research papers per teachers in the journal notified on a year (2022-2023)

2022-2023

Title of paper	Name of the Authors	Department of the Teacher	Name of Journal	Year of Publication	ISSN Number	Link to the recognition in International journal of aquatic science, IOP conference series website /Digital Object Identifier (doi) number		
						Link to website of the journal	Link to article/paper/ abstract of the article	It is listed in --- care list/Scopus/web of science/other, intention
A Novel Approach Based on Hybrid Algorithm for Energy Efficient Cluster Head Identification in Wireless Sensor Networks	Dr. K Sridharan	CSC	Computer Systems Science & Engineering	2022	0267-6192	https://www.techscience.com/journal/csse	https://cdn.techscience.com/ueditor/files/csse/TSP_CSSE-43-1/TSP_CSSE_23477/TS_P_CSSE_23477.pdf	Google scholar
Hybrid Long Short-Term Memory Network for Detecting Lung Tumor for Early Treatment	Dr. K Sridharan	CSC	Neuro Quantology	2022	1303-5150	https://www.neuroquantology.com/	http://tinyurl.com/2s4j5j9b	Google scholar
An automated clinical decision support system for predicting cardiovascular disease using ensemble learning approach	Dr. K Sridharan	CSC	Concurrency and Computation: Practice and Experience	2022	1532-0626	https://onlinelibrary.wiley.com/journal/15320634	https://onlinelibrary.wiley.com/doi/abs/10.1002/cpe.7007	Web of science
An automated heart disease prediction approach using linearly support vector regression and stacked linear swarm optimization	Dr. K Sridharan	CSC	Journal of Intelligent & Fuzzy Systems	2022	1064-1246	https://www.iospress.com/catalog/journals/journal-of-intelligent-fuzzy-systems	https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs212772	Web of science
Cancernet Classifier for Breast Cancer Classification Using Deep Neural Networks and U-NET segmentation	Dr. N .Sathyabalaji	CSC	INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT	2022	2456-4184	https://www.ijnrd.org	https://www.ijnrd.org/papers/IJNRD2206009.pdf	Google scholar

Title of paper	Name of the authors	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in International journal of aquatic science, IOP conference series website /Digital Object Identifier (doi) number		
						Link to website of the journal	Link to article/paper/abstract of the article	It is listed in --- care list/scopus/web of science/other, intention
Ensembling MI Models for Advancement in Wmn	Ms.M.C.Savithri	CSC	An interdisciplinary journal of Neuro science and Quantum physics,	2022	1303-5150	https://www.neuroquantology.com/	http://tinyurl.com/423eru4f	Scopus
Effect of Rotating Arc (Spin Arc) on Mechanical Properties and Microstructural Characteristics of Gas Metal Arc Welded Armour Steel Joints	Dr. N. Sanker	MECH	Transactions of the Indian Institute of Metals	2022	0972-2815	https://link.springer.com/journal/12666	https://link.springer.com/article/10.1007/s12666-022-02679-2	Care list
Performance and Characteristics of Stationary Arc and Rotating Arc-Gas Metal Arc Welded DMR 249 Naval Grade Steel Joints	Dr. N. Sanker	MECH	Materials Performance and Characterization	2022	2379-1365	https://www.astm.org/materials-performance-and-characterization.html	http://tinyurl.com/p5vwnm3z	Web of science
Experimental investigation of DI diesel engine emission characteristics using base metals as catalyst	Dr.K.SRIRAM	MECH	Materials Today: Proceedings	2022	2352-9407	https://www.sciencedirect.com/journal/materials-today-proceedings	https://www.sciencedirect.com/science/article/abs/pii/S2214785322032874	Web of science
Effects of emission and performance characteristics study of rubber seed biodiesel fueled DI diesel engine fumigated with methanol	Dr.K.SRIRAM	MECH	Materials Today: Proceedings	2022	2352-9407	https://www.sciencedirect.com/journal/materials-today-proceedings	https://www.sciencedirect.com/science/article/abs/pii/S2214785323016760	Web of science

Title of paper	Name of the authors	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in International journal of aquatic science, IOP conference series website /Digital Object Identifier (doi) number		
						Link to website of the journal	Link to article/paper/abstract of the article	It is listed in --- care list/scopus/web of science/other, intention
Iot-based wireless charging and power sharing for electrical vehicles	Dr.C.Saravanan	EEE	An interdisciplinary journal of Neuro science and Quantum physics, NeuroQuantology	2022	1303-5150	https://www.neuroquantology.com/	https://www.proquest.com/openview/d866de11f103bd2a8e82e58f8cfc0c/1?pq-origsite=gscholar&cbl=2035897	Scopus
A Comparative study & investigation on replacement of cement by chalk piece powder	Ms.V.Sathyapriya	CIVIL	International Journal Of Novel Research And Development	2022	2456-4184	https://www.ijnrd.org/	https://www.ijnrd.org/papers/IJNRD2302024.pdf	Google scholar

A Novel Approach Based on Hybrid Algorithm for Energy Efficient Cluster Head Identification in Wireless Sensor Networks

C. Ram Kumar¹*, K. Murali Krishna², Mohammad Shabbir Alam³, K. Vigneshwaran⁴,
Sridharan Kannan⁵ and C. Bharatiraja⁶

¹Department of Electronics and Communication Engineering, Dr. N.G.P. Institute of Technology, Coimbatore, 641048, India

²Department of Electronics and Communication Engineering, Vignan's Institute of Information Technology, Duvvada, Visakhapatnam, 530049, India

³Department of Computer Science, College of Computer Science and Information Technology, Jazan University, Jazan, 45142, Kingdom of Saudi Arabia

⁴Department of Electronics and Communication Engineering, K.Ramakrishnan College of Engineering, Tiruchirappalli, 621112, India

⁵Department of Computer Science and Engineering, JKK Munirajah College of Technology, Erode, 638506, India

⁶Department of Electrical and Electronics Engineering, SRM Institute of Science and Technology, Chennai, 603203, India

*Corresponding Author: C. Ram Kumar. Email: proframngp@gmail.com

Received: 09 September 2021; Accepted: 10 October 2021

Abstract: The Wireless Sensor Networks (WSN) is a self-organizing network with random deployment of wireless nodes that connects each other for effective monitoring and data transmission. The clustering technique employed to group the collection of nodes for data transmission and each node is assigned with a cluster head. The major concern with the identification of the cluster head is the consideration of energy consumption and hence this paper proposes an hybrid model which forms an energy efficient cluster head in the Wireless Sensor Network. The proposed model is a hybridization of Glowworm Swarm Optimization (GSO) and Artificial Bee Colony (ABC) algorithm for the better identification of cluster head. The performance of the proposed model is compared with the existing techniques and an energy analysis is performed and is proved to be more efficient than the existing model with normalized energy of 5.35% better value and reduction of time complexity upto 1.46%. Above all, the proposed model is 16% ahead of alive node count when compared with the existing methodologies.

Keywords: Wireless sensor network; cluster; cluster head; hybrid model; glowworm swarm optimization; artificial bee colony algorithm; energy consumption

1 Introduction

Wireless Sensor Networks (WSN), the novel technology that stimulates innovative applications like industrial automotive monitoring, system controlling, plant or infrastructure maintenance, etc. The WSN comprises of diminutive and energized sensor nodes that are designated to monitor certain parameters



Articles

- Any time
- Since 2024
- Since 2023
- Since 2020
- Custom range...

- Sort by relevance
- Sort by date

- Any type
- Review articles

- include patents
- include citations

Hybrid Long Short-Term Memory Network for Detecting Lung Tumor for Early Treatment

K Sridharan

NeuroQuantology, 2022 · search.proquest.com

Abstract

One branch of artificial intelligence (AI) that has made significant strides in the digital age is Deep Learning Schemes, in which the approach learns from its mistakes and gradually improves the whole application's performance by studying its inputs. It has found widespread usage in a variety of real-time applications, including the medical field. This method is utilized in a variety of contexts, but it is most prominently in feature extraction and categorization. In this paper, we provide a method for identifying lung cancer that utilizes Hybrid Long-short term memory network (HLSTM) preprocessing of CT images for noise reduction and segmentation prior to feature extraction. Despite the many ongoing and planned studies on lung cancer detection, there is still room for improvement in the precision of predictions. HLSTM is used to improve the reliability of cancer picture recognition. We suggest using a Gaussian Mixture Markov Random Field to segment pictures since this model is more compact in terms of energy efficiency and requires less processing time. In order to evaluate the performance of the proposed model, sample pictures of lung cancer are gathered from the Lung Image Database Consortium. The proposed layout is compared to many established approaches, with the average accuracy coming in at about 96%. When compared to current methods, the suggested approach seems to provide more precise functionality. The confusion matrix is used to analyze the model's accuracy

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

An automated clinical decision support system for predicting cardiovascular disease using ensemble learning approach

Sridharan Kannan ✉

First published: 15 April 2022 | <https://doi.org/10.1002/cpe.7007> | Citations: 1

Read the full text >



PDF



TOOLS



SHARE

Abstract

With the vast advancements in the medical domain, earlier prediction of disease plays a substantial role in enhancing the healthcare quality and assists in taking better decisions making during emergency times. Most of the existing research concentrates on modeling an automated prediction model for heart disease and the risk factors. Nevertheless, accurate classification is a vital challenge in heart disease diagnosis where the managing of high-dimensional data increases the execution time of existing classifiers. In this paper, a new ensemble model has been proposed with the aid of random subspace and K-nearest neighbor (RSS-KNN) scheme for earlier prediction of heart disease. Primarily, the proposed scheme implements an isolation-based outlier removal mechanism to eradicate the noises and outliers in the distributed data. Subsequently, the essential features are identified using RSS by varying the testing and training errors in the evaluation phase. The extracted features are then fed into KNN for the accurate classification of heart disease. Finally, an enhanced squirrel optimizer has been employed in the proposed scheme to obtain the global results which balance the exploration as well as exploitation issues and eliminate the over-fitting problems. The simulation results manifest that the accuracy (without features) of the proposed ensemble RSS-KNN scheme in the UCI ML dataset is 97.65%, accuracy (with features) is 98.56%, and specificity is 98.10% when compared with existing state-of-the-art classifiers.

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

Published between: and [Search syntax help](#)

An automated heart disease prediction approach using linearly support vector regression and stacked linear swarm optimization

Article type: Research Article

Authors: Kannan, Sridharan*

Affiliations: Professor, Department of Computer Science and Engineering, J.K.K. Munirajah College of Technology, Erode, India

Correspondence: [*] Corresponding author. Sridharan Kannan, Professor, Department of Computer Science and Engineering, J.K.K. Munirajah College of Technology, Erode, India. E-mail: srijik77@gmail.com.

Abstract: In today's world, mining and learning applications play an essential role in healthcare sectors and intend to transform all the data into an understandable form. However, the healthcare sectors require an automated disease prediction system for better medical analysis and emphasize better prediction accuracy for evaluation purposes. In this paper, a new automated prediction model based on Linearly Support Vector Regression and Stacked Linear Swarm Optimization (LSVR-SLSO) has been proposed to predict heart disease accurately. Primarily, the features are analyzed in a linear and non-linear manner using LSVR feature learning approaches. The extracted features are then fed into the SLSO model in order to extract the global optimal solutions. These global solutions will reduce the data dimensionality and computational complexity during the evaluation phase. Moreover, the optimal solution facilitates the proposed model to predict heart disease appropriately. The simulation can be carried out through the MATLAB environment by utilizing a publicly available benchmark heart disease dataset. The performance results evident that the proposed LSVR-SLSO model can efficiently predict heart disease with superior accuracy of 98%, precision of 98.76%, and recall of 99.7% when compared with conventional approaches. The better performance of the proposed model will pave the way to act as an effective clinical decision support tool for physicians during an emergency.


Keywords: Heart disease prediction, feature selection, optimization, automated system, mining and learning

DOI: 10.3233/JIFS-212772

Journal: Journal of Intelligent & Fuzzy Systems, vol. 44, no. 2, pp. 3189-3202, 2023

Published: 30 January 2023

Price: EUR 27.50


PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).



Cancernet Classifier for Breast Cancer Classification Using Deep Neural Networks and U-NET segmentation

Anu Krishnan K R 1, Dr. N. Satyabalaji 2

¹PG Student

Department of Computer Science and Engineering,

J.K.K. Munirajah College of Technology, T.N.Palayam anukkr07@gmail.com

²Associate Professor

Department of Computer Science and Engineering,


J.K.K. Munirajah College of Technology, T.N.Palayam hodcse@jkkmct.edu.in

Abstract. In the present situation accurate breast cancer detection using automated algorithms is one of the most discussing issue. Despite the fact that a lot of effort has been put into addressing this issue, an exact answer has that the majority of existing datasets are unbalanced, which means that the number of occurrences of one class vastly outnumber those of the others. In this paper, we proposed a framework based on the concept of transfer learning and segmentation to address this issue and focus on histopathological and imbalanced image classification. To increase the overall performance of the system, we will employ the Convolutional Neural Network model with segmentation and supplement it with many state-of-the-art methodologies. The learnt knowledge was applied to the target domain of histopathology pictures using the ImageNet dataset as the source domain

Keywords: Breast cancer, histopathological images, transfer learning, CNN, VGG-19, UNet

1 Introduction

Breast Cancer (BC) is one of most prevalent form of cancer. The distinction between triple negative breast cancer, the most aggressive and fatal form of breast cancer, and non-triple negative breast cancer is a crucial unmet medical need. Timely identification of breast cancer improves the prognosis and chances of survival by allowing patients to receive timely clinical treatment. More precise benign tumour classification can help patients avoid needless therapies As a result, accurate BC diagnosis and classification of individuals into malignant or benign groups is a hot topic of research. Machine learning (ML) is generally considered as the approach of choice in breast cancer pattern classification and forecast modelling due to its unique benefits in detecting essential characteristics from complex breast cancer datasets. The outcomes that are envisioned in this work involves classifying the large-scale histopathological images using automated machine-driven procedures. The main problem of this task is that the dataset was highly imbalanced.


PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)- 638 506.
GOBI (TE), ERODE (DI)



Ensembling MI Models for Advancement in Wmn

G Revathy^{1*}, Gurumoorthi E², M. C. Savithri³, S.D. Prabu Ragavendiran⁴

Abstract

Wireless Mesh Networks have long been hailed as one of the most promising technologies for future high-bandwidth, high-coverage wireless networks. Consumer demand for such networks, on the other hand, has just recently caught up, making it more critical than ever to optimise WMNs to accommodate massive capacity and provide excellent QoS while being secure and fault-tolerant. Machine learning (ML) has lately gained popularity for addressing several design and administrative difficulties related to WMNs for this purpose. Key machine learning techniques are presented in this study, as well as prior attempts to apply them to WMNs, along with some known obstacles and prospective solutions. There are ideas on how machine learning could aid future research. There's also a discussion of the most current developments in the discipline.

Key Words: Wireless Mesh Networks, Quality of Services, Machine Learning, Computational Intelligence

DOI Number: 10.14704/nq.2022.20.8.NQ44046

NeuroQuantology 2022; 20(8):400-405

Introduction

Each node in the WMN network functions as a congregation and a router, promotion of packets on behalf of supplementary nodes that are not within unswerving wireless transmission range of their destination. Self-organization, self-configuration, and self-healing are dynamic aspects of WMN that enable faster deployment, easier maintenance, cheaper costs, and reliable services to improve network capacity, connectivity, resilience, and robustness. WMN is becoming a popular balancing approach for infrastructure-based wireless networks.

Related Work

Several writers have proposed[3] employing various approaches and procedures to avoid interference and maintain faster transmissions. Unlike the recommended approaches, they have attempted to avoid collisions, but this has resulted in a slew of issues, including packet loss and an increase in error rate. As a result, these strategies were unable to deliver the optimal answer. The

proposed by Glover[1]. Genetic algorithms for channel selection have been discussed by a number of writers, including many has provided an excellent method for boosting throughput. 400

WMN Architecture

Despite the fact that nodes are mobile, there are multiple different paths between source and destination, using hop by hop transmission.

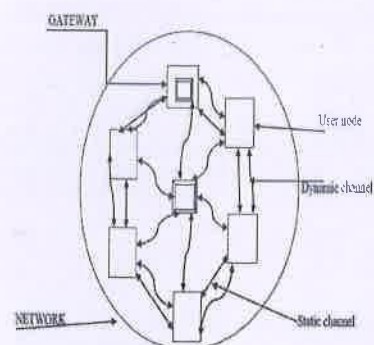


Fig 1.1 Sample WMN Architecture with Channel Assignments

advantages and uses of Tabu search have been

Corresponding author: G Revathy


Address: ¹Assistant Professor III, School of Computing, SASTRA Deemed University, Thanjavur, Tamilnadu, ²Associate Professor, Department of CSE, St.Peter's Engineering College, Hyderabad, Telangana, ³Assistant Professor, Department of CSE, J. K. K MUNIRAJAH College Of Technology, Erode, Tamilnadu, ⁴Professor, Department of CSE, RVS Technical Campus, Coimbatore, Tamilnadu



[Home](#) > [Transactions of the Indian Institute of Metals](#) > Article


Effect of Rotating Arc (Spin Arc) on Mechanical Properties and Microstructural Characteristics of Gas Metal Arc Welded Armour Steel Joints

Original Article Published: 22 JULY 2022

Volume 75, pages 3047–3059 (2022) [Cite this article](#)[Transactions of the Indian Institute of Metals](#)[Aims and scope](#) →[Submit manuscript](#) →**N. Sankar** , **S. Malarvizhi**, **V. Balasubramanian**, **A. Hafeezur Rahman** & **V. Balaguru** 204 Accesses  2 Citations [Explore all metrics](#) →

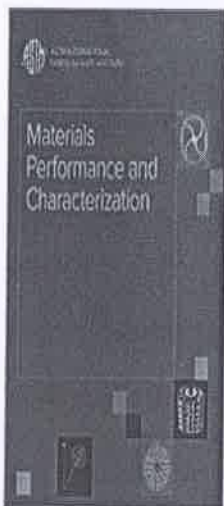
Abstract

In this study, comparison has been made between stationary arc gas metal arc welded (STA-GMW) joints and rotating arc gas metal arc welded (RTA-GMW) joints made of 18 mm thick armour steels. Both the joints were tested to evaluate tensile properties, impact toughness and microhardness variations. From the results, it is identified that RTA-GMW joint consists of minimum HAZ width (45%) than STA-GMW joint due to lower heat density attributed during the welding. The RTA-GMW joint exceeds the STA-GMW joint in terms of transverse tensile strength (784 MPa) and impact toughness (82 J). This is attributed to the presence of a greater volume percentage of fine delta ferrite (29.17%) in the RTA-GMW joint weld metal. Furthermore, the delta ferrite morphology in the STA-GMW joint is globular, whereas it is vermicular in the RTA-GMW joint. This may be one of the reasons behind the RTA-GMW joint's increased performance.


PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

Volume 11, Issue 1

June 2022



< Previous Article Next Article >

TECHNICAL PAPERS

Performance and Characteristics of Stationary Arc and Rotating Arc-Gas Metal Arc Welded DMR 249 Naval Grade Steel Joints

N. Sankar, S. Malarvizhi, V. Balasubramanian

Check for updates

+ Author and Article Information

Mats. Perf. Charact., Jun 2022, 11(1): 170-192 (23 pages)

Paper No: MPC20210131 <https://doi.org/10.1520/MPC20210131>

Published Online: July 11, 2022 Article history

Share Cite Permissions



Get Email Alerts

Article Activity Alert

Accepted Manuscript Alert

New Issue Alert

Cited By

Google Scholar

CrossRef (1)

Latest Most Read Most Cited

Compressive Flow Behavior and Microstructural Evolution of Friction Stir Processed A356-5% B₄C Composite

Mats. Perf. Charact. (January 2023)

Microstructure and Physical Properties of Nonmagnesium and Magnesium-Based High-Entropy Alloys: A Comparison Study

Mats. Perf. Charact. (January 2023)

Abstract

In this investigation, 12-mm thickness naval grade high-strength low-alloy steel plates were welded by rotating arc-gas metal arc welding (RA-GMAW) and stationary arc-gas metal arc welding (SA-GMAW) processes. The main objective of this work was to carry out the comparative analysis of mechanical properties and microstructural characteristics of the joints fabricated by the outlined welding processes. From this experimental work, it is found that the ultimate tensile strength, yield strength, and impact toughness of the RA-GMAW joint are 15 % higher than those of the SA-GMAW joint. This is because of the formation of a higher volume percentage of acicular ferrite microstructure and island martensite/austenite constituent in the weld metal region of the RA-GMAW joint. Moreover, from the productivity point of view, the number of passes in the RA-GMAW process was minimized to three (from six passes), and the width of the heat-affected zone was also reduced by 45 % to SA-GMAW processes. Overall, the RA-GMAW joints are found to have superior mechanical properties and microstructural characteristics compared to SA-GMAW joints.

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).



Article preview

Abstract

Introduction

Section snippets

References (35)

Cited by (1)

materialstoday:
PROCEEDINGS

Volume 64, Part 1, 2022, Pages 517-522

Experimental investigation of DI diesel engine emission characteristics using base metals as catalyst

S. Sathiskumar^a, M. Boopathi^a, K. Sriram^b, T. Sriram^a, R. Shabesh^a,
R. Suga Prasanth^a

Show more ▾

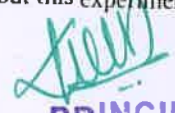
+ Add to Mendeley Share Cite

<https://doi.org/10.1016/j.matpr.2022.05.016>

Get rights and content ↗

Abstract

Despite the fact that there are numerous measures to reduce automotive emissions, the industry's constant manufacturing of automobiles serves as a critical deterrent to the dramatic increase in environmental pollution. The automobile industry contributes about 35% of Carbon monoxide, 30% of Hydrocarbon, and 25% of Nitrogen oxides to the environment, all of which are harmful to the environment. These compounds are hazardous to both the atmosphere and affect living organisms. In automobiles, a catalytic converter was designed to transform more hazardous pollutants into less hazardous pollutants in the exhaust gas. Because it was extremely effective and accurate at reducing hazardous exhaust emissions, this method was commonly accepted for use in vehicles. In the treatment of vehicle exhaust gases, several types of catalysts, such as noble metal and base metal catalysts are used. From this, base metals such as Cu, Mn, and Ni was selected as a catalyst because of their cost, high performance, and high catalytic activity. A single cylinder four-stroke VCR diesel engine with eddy current dynamometer was identified to carry out this experimental work. In this


PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
C.N. PALAYAM (Po)-638 506.
GOBI (T) ERODE (D)



Article preview

Abstract

Introduction

Section snippets

References (24)

Cited by (1)

materialstoday:
PROCEEDINGS

Available online 4 April 2023

In Press, Corrected Proof What's this?



Effects of emission and performance characteristics study of rubber seed biodiesel fueled DI diesel engine fumigated with methanol

K. Sriram ^a, P.C. Murugan ^b, S. Sathiskumar ^b R. Vishnu Ramesh Kumar ^c,
S. Jayakrishnan ^b

Show more

[+](#) Add to Mendeley Share Cite<https://doi.org/10.1016/j.matpr.2023.03.611>

Get rights and content

Abstract

In response to growing fuel costs, rising demand for fossil fuels, concerns over tailpipe emissions, and research into locally produced renewable and alternative fuels, researchers are exploring for fuels that may be produced from renewable sources that burn efficiently. This article explains how to evaluate a compression ignition engine's performance and emissions using rubber seed oil and methanol fumigation. The viscosity of rubber seed oil is lower. Rubber seed **biodiesel** was produced using the transesterification process, and the characteristics of pure and blended Rubber seed **biodiesel** were examined. The emissions of neat diesel fuel are compared to those of B20 rubber seed biodiesel and its methanol fumigation. It has been discovered that as load increases, braking power tends to increase as well. The methanol fumigation decreases when the fuel consumption unique to brakes is taken into account. The brake thermal efficiency is increased by 2.75 % when the methanol fumigation and in the investigation for CO emissions, B20 is found to be increased at an increase in loads. Thus the same is found while it is done with the methanol fumigation. The incomplete combustion has produced the CO. it is found that there is a few amounts of HC is increased in all loads. There is a drop in the

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (TK), ERODE DIST.

IoT-BASED WIRELESS CHARGING AND POWER SHARING FOR ELECTRICAL VEHICLES

Shyamalagowri, M; Sabarinathan, R; Saravanan, C; Tamilvan, S. *NeuroQuantology*; Bornova Izmir Vol. 20, Iss. 8, (2022): 5106 - 5116. DOI:10.14704/nq.2022.20.8.NQ44537

Abstract (summary)

By and by days, we are in situation to make tainting free condition. Consistently _60%_ Percentage of tainting was made by vehicle Co2 spread despite that, the availability of oil based ware for impending years moreover make issue to our fast lifestyle. Thusly, vehicle manufacture growing their assessment and formation of Electric vehicle, which is one choice to make pollution free condition and to restrict lack of oil based merchandise, Electrical Vehicles runs on batteries, while one rides a vehicle it use basic battery power, which uncovers charging organizations dynamically huge. Thusly, various open spots and confidential stores have started to offer free charging kinds of help. In any case, there are a couple of issues that limit the conspicuousness of open charging organization. In the first place, people can with huge exertion find charging spots. Second, there is no reasonable strategy to screen accusing status and arrangement of the chargers. Third, a free charging organization extends functional cost. To resolve these issues, we developed an IoT-based remote charging organization structure. There are five critical pieces of the structure: a Wi-Fi engaged distant charger, an IoT entry, a cloud-based organization stage, a safeguarded Wi-Fi auto-affiliation estimation, and a flexible application. The charger is related with an IoT entryway through Wi-Fi using our safeguarded auto-affiliation computation, and the doorways are associated with the cloud specialist using MQTT. The chiefs can screen and control chargers using the organization stage. Moreover, Android and iOS applications have been made to allow clients to track down free chargers and find the briefest course to the nearest charging spot. Remote Power Transfer (WPT) structures move electric imperativeness from a source to a load with no wired affiliation. WPTs are engaging for a few current applications by virtue of their central focuses diverged from the wired accomplice, for instance, no revealed wires, straightforwardness of charging, and bold transmission of power in troublesome natural circumstances. Determination of WPTs to charge the on-board batteries of an electric vehicle (EV) has got thought from specific associations, and attempts are being made for headway and improvement of the different related geologies. WPT is achieved through the moderate inductive coupling between two circles named as transmitter and recipient twist. In EV charging applications, transmitter twists are canvassed in the road and recipient circles are set in the vehicle. Inductive WPT of resonating kind is typically used for medium-high power move applications like EV charging considering the way that it shows a more unmistakable viability.



PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).



A COMPARATIVE STUDY & INVESTIGATION ON REPLACEMENT OF CEMENT BY CHALK PIECE POWDER

V.Sathiyapriya¹, S.Munieswaran² M.Ganga³ and R.Manikandan⁴

¹Assistant Professor ²Student ³Student ⁴Student

¹J.K.K.Munirajah College of Technology, T.N.Palayam, India

ABSTRACT

This experimental study desires to answer the problem faced by the construction industry due to scarcity of construction materials at the time of needy situation. Thus we initiated to use "CHALK PIECE POWDER" as a replacement of cement to lessen the required volume of cement in the construction industry. In order to reduce the harmful effects of cement and also to decrease the material cost as well as to face the economical challenges. Samples were made in different proportion such as 25%, 50%, 75% and 100% in which every sample had undergone curing period of 7 Days, 14 Days and 28 Days; specimen was being tested and determined its compressive strength, flexural strength and tensile strength. First sample which has 0% of replacement whereas 25%, 50%, 75%, 100% of replacement were done statistically as per the calculation and the requirements.


KEYWORDS: Construction Industry, Chalk Piece Powder, Replacement of Cement, Material Scarcity.

INTRODUCTION

Chalk is composed of the shells of such minute marine organisms the quality of buildings for amini fera, clothes, the purest varieties contain upto 90 percent of calcite. Concrete is a mixture of paste and aggregate or rocks, the paste compared of part and cement and water coats the surface of the fine and coarse aggregate. Concrete production is the process of mixing together the various ingredients water aggregate, cement and any additives to produce concrete. Concrete production is time sensitive. And so choosing an alternative for cement as chalk piece powder to lessen the material scarcity. Also it helps to avoid the health hazards obtained from an additive cementitious materials. Chalk piece powder is beneficial in not only reducing the cost of cement but also it reduces carbon content in concrete production. Additionally it improves the workability and durability performance of resulting concrete and in concrete structure. Our project helps to find out the alternative to overcome the material scarcity & to improve the construction features comparatively.

BENEFITS OF CHALK POWDER IN CEMENT CONCRETE:

- o It acts as a good binder in concrete.
- o It acquires mechanical resistance.
- o Chalk Powder can be used as inexpensive filler.
- o It is valued worldwide for its high brightness and light scattering characteristics.
- o Rub some chalk powder to cover up temporary water and scuffmarks on the ceiling until you permanently paint it.


PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Pc)-638 506.
GOBI (Tk), ERODE (Dt).