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Dr. Ambedkar College of Arts, Commerce & Science, Chandrapur

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Re-accredited by NAAC 'B +' with 2.61 CGPA

ANNUAL QUALITY ASSURANCE REPORT

AQAR: 2022-2023

CRITERION – 3 RESEARCH, INNOVATION AND EXTENSION

METRIC NO: - 3.2.2

METRIC NAME: 3.2.2 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings during the year

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Sem02

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Brief Contents

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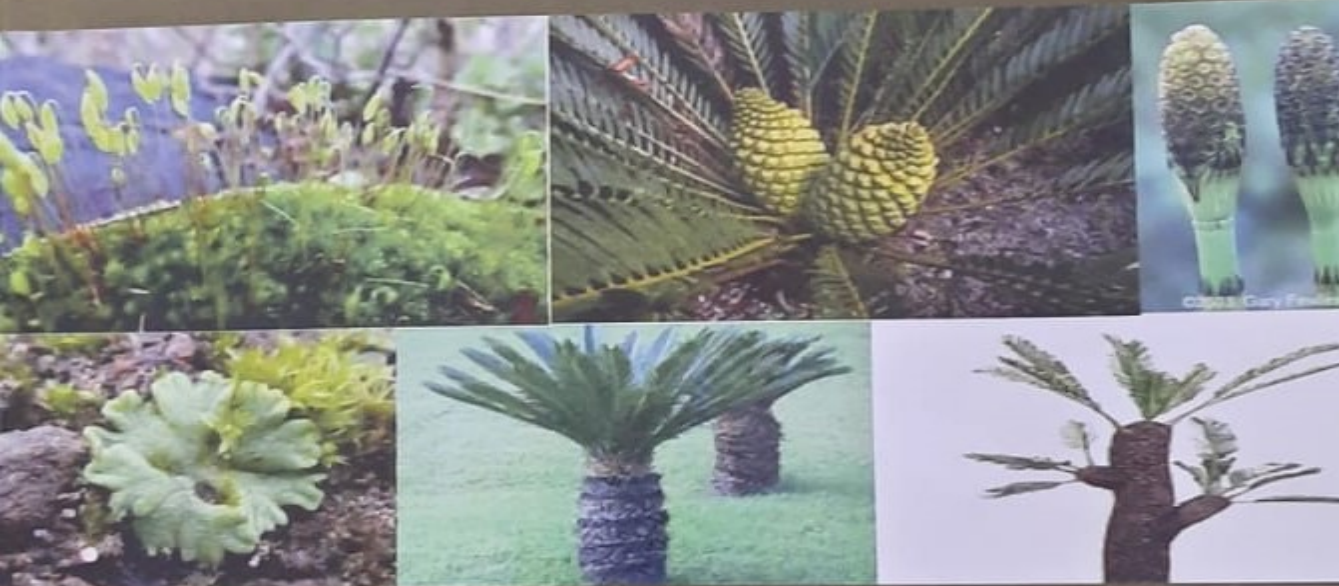**DR. RAJESH R. DAHEGAONKAR**
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Alpha International Publication (AIP)

ISBN
978-93-95978-63-7

Internet of Things (IoT) in 5G Mobile Technologies

Prof. VILAS KISANRAO TEMBHURNE
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Mr. VIJAY DATTATRAY CHAUDHARI
Mr. SANDEEP KHANTWAL

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'DAC Students Journal-2022'

Publisher

Dr. Rajesh R. Dahegaonkar

Principal

Dr. Babasaheb Ambedkar Memorial Society, Chandrapur

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(NAAC Re-Accredited B++ Grade & ISO 9001-2015 Certified)

'DAC Students Journal-2022'

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INDEX

Arts Section

13.	*AGeo-01*	*Geography*	*Change detection in Land use and Land cover using Remote Sensing Data and GIS*	*NiranjanJadhav Dr. Vilas Kale*	**66**
14.	*AMar-01*	*Marathi*	'शेतकऱ्यांचा आसूड या ग्रंथातील फुले यांचे विचार''	मेघा रोहीदास लाकडे, योगिता पुरषोत्तम उईके, सुप्रिया नंदू मेकातिवार, भवन बाबा चौधरी प्रकाश पंडित कौरासे, विशाल विकास खोब्रागडे दिलखुष माणिकचंद अलोणे	**75**
15.	*AMar-02*	*Marathi*	जागतिक तापमानवाढ	दिपाली बाळू उमरे, अश्विनी ईश्वर नंदेश्वर, श्रीकांत प्रकाश भोयर, मंगेश सुरेश दाते, प्रतीविंध्य पुंडलिक परचाके, प्रज्योत सुनील पाटील, हेमंत रमेश दर्शनकार, मोहम्मद जाहिद मोहम्मद ताहेर, मोहित धोडरे, पंकज धनररंजन ठेंगरे, हकिमा सरसार, विवेक खाडे, डॉ. मृदुला निळकंठ रायपूरे	**80**
16.	*AHis-01*	*History*	डॉ. बाबासाहेब आंबेडकरांचे महिला गुलामगिरी मुक्तेबाबत विचार	दिक्षा सुलोचंद साने, प्रा. मनोज सोनटक्के	**85**
17.	*AHis-02*	*History*	गागडेबाबाचा सामाजिक विचार व कार्य	नाझिया उ. शेख, डॉ. मिलींद भगत	**88**
18.	*AHis-03*	*History*	मराठा साम्राज्याचा विस्तार : १७०७ – १८१८	राहुल बंडु बगडे, प्रा. मनोज सोनटक्के	**91**
19.	*AHis-04*	*History*	महात्मा ज्योतिबा फुले व सावित्रीबाई फुले यांचे स्त्री शिक्षणातील योगदान	प्रशिल ज्ञा. कारेकर, डॉ. मिलींद भगत	**94**
20.	*AHis-05*	*History*	संशोधन ग्रंथालय आणि त्या देत असलेल्या सेवा	पूजा अशोक भुजाडे डॉ. मिलिंद बळीराम भगत	**99**
21.	*AHis-06*	*History*	भारताच्या स्वातंत्र्यासाठी नेताजी सुभाषचंद्र बोस यांचे योगदान	निखिल प्रदीप बोबडे, प्रा. मनोज सोनटक्के	**103**
22.	*AHis-07*	*History*	महाराष्ट्राचे आद्य समाजसुधारक भारतातील स्त्री शिक्षणाचे जनक असे :– महात्मा ज्योतिराव फुले	रेणुका रामेश्वर होडबे प्रा. मनोज सोनटक्के	**104**
23.	*AHis-08*	*History*	जोतीराव फुले यांचे शैक्षणिक तत्त्वज्ञान	रोशनी तुकाराम गोमासे, प्रा. मनोज सोनटक्के	**106**

24.	*AHis-09*	*History*	मराठी भाषा आणि साहित्याचे सर्जनशील अध्यापन	सागर अरुण जुमनाके, शुभम बापूराव डांगे	111
25.	*AHis-10*	*History*	बाबा आमटे यांचे जीवनचरित्र	शिवकांत मधुकर बेल्लाळे, डॉ. मिलींद भगत	113
26.	*AHis-11*	*History*	कर्मवीर भाऊराव पाटील यांचे शैक्षणिक कार्ये	श्वेता कान्हू धोंगडे, प्रा. मनोज सोनटक्के	115
27.	*AHis-12*	*History*	भारतातील विविध राज्यांतील पर्यावरणविषयक चळवळी	स्वप्नील प्रभाकर कुळमेथे, डॉ. मिलींद भगत	117
28.	*AHis-13*	*History*	हेमलकसा येथील स्थानिक आदिवासी जीवनावर डॉ. प्रकाश आंबेडकर यांच्या कार्याचा प्रभाव	स्वराज मुर्लीधर मेश्राम, प्रा. मनोज सोनटक्के	120

Commerce Section

29.	*CCom-01*	*Commerce*	पद्मापूर ओपन कास्ट सहकारी पतसंस्थेचे पतसंस्थेचे आर्थिक, व्यावसायीक आणि सामाजीक अध्ययन	अमन डोमा आमटे, शुभम सुखलाल आत्राम, सुरज दयाराम भोयर, प्रणय किशोर चौधरी, डॉ. बिना मून	122
30.	*CCom-02*	*Commerce*	''चंद्रपूर शहरातील इमारत बांधकाम करणाऱ्या मजुरांची आर्थिक व्यावसायिक आणि सामाजिक अध्ययन.''	स्नेहकुश मानकर, अमर इटकलवार अजीत मेश्राम, अपेक्षा माहुलीकर, डॉ. बिना मून	124
31.	*CCom-03*	*Commerce*	ताडोबा अंधारी व्याघ्र प्रकल्पाअंतर्गत चंद्रपूर अंतर्गत चंद्रपूर वनविभागातील (बफर) वन अधिकारी व कर्मचाऱ्यांच्या आर्थिक व सामाजिक स्थितीचे अध्ययन	प्रणाली सुनिल नगराळे, श्रीतिका ताराचंद निमसकर, शुभम परशराम नन्नावरे, राकेश वासुदेव नन्नावरे, प्रा. विश्रांती धडाडे	126
32.	*CCom-04*	*Commerce*	चंद्रपूर शहरातील एन.डी. हॉटेल मधील व्यवस्थापनाचे अध्ययन	स्नेहा दिलीप फुलझेले, दर्शन नंदेश गेडाम, भारती माणिक गदेकार, सोनु देवराव गायकवाड पूजा परमेश्वर गेडाम, डॉ. संजय बेले	129
33.	*CCom-05*	*Commerce*	A STUDY OF IMPACT OF COVID-19 EPIDEMIC ON AGRICULTURE BUSINESS IN WARORA TALUKA	Divya D. Chordiya, Swapnil S. Chamatkar, Sunny L. Chawhan, Shubham S. Chikte, Khushbu R. Chilke, Prof. V. M. Dhadade	132

34.	CCom-06	Commerce	''वरोरा कृषी उत्पन्न बाजार समिती मधील भाजीपाला व फळे ठोक विक्रेत्यांच्या व्यवस्थापनांचे विषलेष्णात्मक अध्ययन''	वैशाली मा. मगरे, आचल जी मडावी, प्रियंका च. मानकर, वृक्षा, सु. मानकर, गौरांज जो. मंडल, डॉ. संजय बेले	137
35.	CCom-07	Commerce	A CRITICAL EVALUATION OF PERFORMANCE APPRAISAL SYSTEM WITH RESPECT TO CPF (SAIL), CHANDRAPUR	Almaj S. Sheikh, Nagma S. sheikh, Samreen S. Sheikh, Saurabh B.; Shende, Sayukta G. Shrikhandwar, Dr. Bina Moon	142
36.	CCom-08	Commerce	A STUDY OF MARKETING STRATEGIES OF RELIANCE JIO IN CHANDRAPUR CITy	Bhagyashri V. Nimkarde Sakshi S. Patil, Sneha K. Pipre, Nikita L. Nannaware, Sandip B. Pohinkar Dr. Bina Moon	150
37.	CCom-09	Commerce	वरोरा नगरपरिषद येथे कार्यरत महिला सफाई कामगारांच्या आर्थिक व आरोग्य विषयक समस्येचे अध्ययन	स्वल्नील रविंद्रराव रेवडे, भागयश्री श्रीराम सयाम, शुभांगी खुशाल सहारे, सोनल सुनिल सालेकर, डॉ. बीना मून	156
38.	CCom-10	Commerce	A STUDY OF CASH CREDIT LIMIT IN CHANDRAPUR DISTRICT CENTRAL CO-OPERATIVE BANK, CHANDRAPUR	Priti V. Dadmal, Suraj L. Dadmal, Nandkapil A. Danaw, Shubham U. Dakhare, Pratiksha P. Dethe, Prof. V.M. Dhadade	158
39.	CCom-11	Commerce	चंद्रपूर शहरातील वनिता आहार उद्योगा उत्पादनाच्या विपणन नितीचे अध्ययन	अमित केशव राऊत, हरिश शंकर तलांडे, प्रा. विश्रांती धडाडे	165
40.	CCom-12	Commerce	भद्रावती तालुक्यातील सेंद्रीय शेती व रासायनिक शेतींचे तुलनात्मक अध्ययन	धनश्री प्रभाकर दांडेकर, अंकिता सुरेश डाखरे, अंकीता दिलीप डाहुले, किरण सुनील डांगे, प्रा. विश्रांती धडाडे	167
41.	CCom-13	Commerce	वरोरा शहरातील नागरी सहकारी पतसंस्थाच्या वित्तपद्धतीचे अध्ययन	महेश ब. ढोले, राखी के. ढोबळे, शितल सु. धुर्वे, रसिका रा. ढोणे साधना रा. दिवसे, डॉ. संजय बेले	171

42.	CCom-14	Commerce	भारतीय जीवन विमा निगम (LIC) च्या विविध विमा योजनांचे चंद्रपूर शहराच्या संदर्भात चिकित्सक अध्ययन	दिनेश विनोद आसुटकर, गजानन रुकचंद आदे, मिना अशोक बागडे, नितीन किशोर बांदुरकर, प्रा.व्ही.एम. धडाडे	175
43.	CCom-15	Commerce	A STUDY ON CUSTOMER SATISFACTION TOWARDS BANKING SERVICES OF STATE BANK OF INDIA IN WARORA REGION	Sangita R. Bhagat, Mrunali V. Awari, Diksha Band, Prachi N. Bartalwar, Saurabha M. Atram, Prof. V.M. Dhadade	177
44.	CCom-16	Commerce	CUSTOMER BUYING BEHAVIOR WITH SPECIAL REFERANCE TO HDFC STANDARD LIFE INSURANCE COMPANY	Ramakant D. Meshram, Sarika D. Mule, Kajal V. Mohitkar, Vikas P. Mukharji, Dipa P. Masalkar, Dr. Bina Moon	183
45.	CCom-17	Commerce	''चंद्रपूर शहरातील गंज वार्ड बाजार चे व्यवस्थापकीय अध्ययन''	शितल मारोती थेरे, अंकिता गुणवंत तेलंग, कोमल राज तुमराम, भावना दादाजी ठेंगणे, आचल अरविंद तेलंग, डॉ. बिना मून	189
46.	CCom-18	Commerce	A COMPARATIVE STUDY OF BISLERI AND AQUAFINA MINERAL WATER" (WITH REFERENCE TO WARORA CITY)	Laxmi S. There, Pooja S. Tumane, Sakshi S. wankhede, Swapnil D. Watekar, Pratiksha P. Prabhakar, Bhavna S. Zatte, Dr. Bina Moon	194
47.	CCom-19	Commerce	बल्लारपूर तालूक्यातील शेतमजूराचे आर्थिक अध्ययन	पुष्पलता इंगळे, कपिल काळे, आरती काळमेंगे, मनिषा कामतवार, अस्मिता कातोरे, डॉ. संजय बेले	196
48.	CCom-20	Commerce	वरोरा आगारातील एस.टी. कामगारांच्या आर्थिक समस्यांचे अध्ययन	कविता तिमाजी नन्नावरे, अनुज ज्ञानेश्वर पंधरे, शुभम बंडूजी पांढरे प्राची कमलाकर मत्ते, प्रिया पत्रू मोरे, डॉ. संजय बेले	200
49.	CCom-21	Commerce	A STUDY ON AQUAPONIC GREEN HOUSE FARMING & IT'S FINANCIAL ANALYSIS	Dipali K. Makode, Deepak Malakar Kundan Mankar, Durga Mandavkar, Shubhangi marape, Dr. Sanjay Bele	203

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ROLE OF ELECTRONIC COMMERCE TO REDUCING OPERATIONAL COST

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ABSTRACT:

Commerce in reducing an operational cost organisation. There are a variety of e-commerce applications that can affect organizational performance; In this research, they are classified into five different categories: electronic advertising, electronic payment systems, electronic marketing, electronic customer support services, and electronic ordering and delivery. According to the literature review, the most common types of organizational performance measures used in recent empirical research include: financial or accounting performance, operational performance, and market-based performance.

Tremendous progress has been made in business and traffic markets, companies and products, multiple and diverse sectors and the intensity of competition among these companies to gain profits has emerged as a means of modern business e-commerce, which has resulted in change. made a significant contribution. Contributed in facilitating the process of electronic buying and selling in increasing the efficiency and strengthening the competitive position of the companies and through its role in marketing the electronic products company to facilitate the access of products and services by the customers in a timely manner Gave.

And at least decrease the cost of the company's products. The benefits and challenges of electronic commerce as well as their role in decreasing the costs will be discussed. Because capital is scarce and those who have it need to enter the world of commerce, electronic commerce has opened up a realm of opportunity for them, and not just those with lots of money, as in the past. as was once the case. an opportunity has opened up. e-commerce sector for them.

For this reason, the utmost dedication to cost reduction has emerged as the focus of this study. The development of the Internet has made a lot possible for people all over the world, and the world seems to have become smaller in size. In addition to the exchange of correspondence and information, it has led to what is known as electronic commerce, the process of doing business over the Internet in its most restricted sense, and has provided businesses with a wealth of benefits.

Key words: - *E-Commerce, Reducing, Operational Cost*

INTRODUCTION :-

As e-commerce businesses developed, they face rising costs for goods and services. This can be anything from delivery fees to marketing expenses. To reduce these costs, it's important to understand the components of ecommerce and how they relate to one another. In this comprehensive guide, you'll learn about the different types of ecommerce businesses, the different ways in which costs can be reduced, and how to reduce operational costs in your own business. You'll also find tips on how to measure your progress and make changes as needed.

What is E-Commerce.

E-commerce is one of the many ways people buy and sell retail merchandise. Some companies sell products exclusively online, but for many, e-commerce is a way to distribute products that are part of a larger strategy that includes brick-and-mortar stores and other sources of revenue. In any case, eCommerce allows startups, small and large companies to sell their products at scale and reach customers all over the world.

E-commerce is the process of organizing transactions between different organizations electronically to achieve organizational or personal goals. An important part of e-commerce, sometimes referred to as e-

Robotics and Artificial Intelligence: The role of AI in Robots

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Abstract: Artificial intelligence (AI) is the study of how to give machines intelligence so they can carry out jobs that once required only the human intellect. AI-based systems are developing quickly in terms of application, adaption, processing speed, and capacities. AI systems are capable of planning, learning, reasoning, problem solving, and decision-making. Non-routine work can now increasingly be completed by machines. AI is described as "choosing" an appropriate decision at the appropriate time, whereas human intelligence is defined as "taking" a perfect decision at the appropriate time. Robotic intelligence has developed through a variety of hierarchies since its inception. Robots were initially solely designed to carry out a pre-programmed list of monotonous duties. At that point, machine learning and AI were the only two foundations for robots. Robotics has been created to extend the stated capabilities of machine intelligence, giving it a solid human vision that can identify powerful inputs. It takes a lot of algorithms and data to build robotic vision to resemble human vision. Robotics can exist without AI, as most existing systems do, but it is also theoretically conceivable to have intelligent robots. We'll discuss the differences between robotics and AI in this study, as well as how the latter is applied to trimming robotic technology.

Keywords: Artificial intelligence, Robotics, Robots, Narrow AI.

6. Introduction:

Robotics is a field of computer science and engineering where machines are built to carry out pre-programmed activities on their own without the assistance of additional humans. Robots has typically been utilised for activities that are either too repetitious or too challenging for humans to complete (like as moving extremely heavy pieces on an assembly line) or both. A robot would be happy to perform the same difficult job every day. Robotics is a subfield of AI that encompasses a broad range of robot subfields and applications. AI-based systems may provide outcomes in a reasonably short amount of time and have elegantly decreased the repetition of human work. The great bulk of current AI research falls under the category of "Narrow AI". The design and programming of robots to carry out particular functions or duties is known as robotics.

Some of the places where AI has been deployed in the field of Robotics are as follows:

- **Assemble:** AI has a range of uses in robotics assembly. Real-time correction, which is essential in the field of aerospace and other complicated production fields, can be aided by AI when integrated with cutting-edge vision systems.

- **Package:** Robotic package uses a variety of AI applications to generate savings, increased efficiency, precise packing, and other advantages. Moreover, it can aid in their preservation by routinely improving robotic system motions. This makes it simple for experts to set up and move robotic devices.

- **Customer Service:** In the most of hotels and retail establishments, customer service is handled by robots. Most robots utilise Natural Language Processing and AI to communicate with their clients and consumers in a way that is as humanlike as possible.

Are robotics and artificial intelligence the same thing?

AI and robotics are not the exactly same thing. AI is the method by which systems imitate the human mind in order to learn, address issues, and come to judgments spontaneously without reference to pre-programmed instructions. Robotics is the study of how robots are built and programmed to carry out particular jobs. The majority of the time, AI is not necessary because the tasks are repeatable, predictable, and do not necessitate more "thinking". AI and robotics are two topics that are linked but distinct from one another. Robotics is the development of machines that can carry out tasks on their own, whereas AI is the process

Transforming Social Data into Visual Insights: A Review of 3D Visualization Techniques

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Abstract: Social media platforms generate vast amounts of data every day, creating new opportunities for businesses and organizations to analyze user behavior and preferences. However, analyzing such complex data is not always easy as the data is typically dynamic, heterogeneous and massive. 3D visualization techniques offer a promising way to visualize and explore social media data. Providing a powerful tool for data analysts and researchers to extract meaningful insights. This paper discusses a review of comprehensive analysis of 3D visualization techniques for social media data, focusing on the advantages and limitations of different techniques. The study assesses the effectiveness of 3D visualization in facilitating data exploration, data interpretation, and data communication, and provides insights into how users perceive and interact with 3D visualizations. In this paper we discuss the review of 3D visualization techniques, case studies and tools with future research directions for 3D visualization in social media data analysis.

Keywords: Social media data, 3D visualization, data exploration, data interpretation, data communication.

1. INTRODUCTION

Now a day, social media has become a valuable source of information for businesses, governments, and researchers. The vast amount of data generated on social media platforms can be analyzed to gain insights into user behavior, preferences and sentiments [1, 2]. However, the challenge lies in making sense of the massive amount of data that is constantly being generated. Traditional data visualization techniques such as graphs, charts and maps have proven to be useful, but they often lack the ability to fully represent the complexity of the data [3, 4]. As a result, researchers and analysts have turned to three-dimensional (3D) visualization techniques to better represent social media data [5].

3D visualization allows analysts to display data in a more realistic and intuitive way, which can help to identify patterns, trends, and correlations that might be missed in traditional two-dimensional representations [6, 7, 8]. This paper focuses on the analytical study of 3D visualization techniques for social media data. The purpose of this research is to evaluate the effectiveness of 3D visualization in the analysis of social media data and to identify the advantages and limitations of these techniques.

The study investigate a range of 3D visualization techniques, including scatter plots, network graphs and spatial maps. The research will be conducted by analyzing a large dataset of social media posts, collected from different platforms such as Twitter, Instagram and Facebook. The dataset will be analyzed using a variety of visualization techniques, and the results will be compared to determine which techniques are most effective in identifying patterns and trends.

The research will also explore the impact of 3D visualization on user perception and interaction. Users may have different levels of familiarity with 3D visualization techniques, and their understanding of the data may be influenced by the visual representation. Therefore, the study will investigate the impact of different 3D visualization techniques on user perception and interaction with the data.

Overall, this research aims to contribute to the growing body of literature on social media data analysis and visualization techniques. The results of the study will provide insights into the effectiveness of 3D visualization techniques for social media data analysis, and will help to identify the advantages and limitations of these techniques. Additionally, the research will provide guidance for analysts and researchers on the selection of appropriate 3D visualization techniques based on the specific data analysis objectives

The emergence of social media platforms has allowed people to engage in conversations and share information in real-time, creating a vast amount of data. This data can be used to gain insights into the behavior and interests of people, as well as to identify trends and patterns in their social interactions. In order to make sense of this data, various tools and techniques have been

Advantages and Challenges using Virtual Library in Education sector than Digital Library

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Abstract:

A collection of material that is electronically stored and accessible is referred to as a virtual library. There should be a few subjects that are covered by all the data in the library. In addition, the usage of digital content has resulted in the development of a new infrastructure and interface, which is represented by the virtual library. The introduction of virtual library provides opportunities for information users to access information across the globe without restriction. But somehow virtual libraries face some challenges over its advantages. Designing and implementing a virtual library is the goal of this study, which will also look at the problems that affect and are impacted by the development of virtual libraries.

Keywords: Virtual library, Impact of Virtual libraries, Digital Libraries, Environment and challenges

Introduction:

The definition of a virtual library is the idea of remote access to the materials and services of libraries and other information sources, combining a single location with a collection of up-to-date, widely used items in print and electronic form with an electronic network that offers access to, and delivery forms for, knowledge sources. It includes information that may be sent electronically and is accessible at any time and place.

In contrast to physically delivering the end-user to a set of resources, a library is "virtual" in that it can bring a variety of distinct information resources to the end-user. The proliferation of online information resources highlights how the World Wide Web has altered the environment for information representation and delivery.

The current environment gives rise to a new kind of library that modifies the notion of the classic library. Libraries will no longer serve as compiling and storing devices for mostly physical content and will instead transform into areas devoid of either physical location or content going forward. A new library focusing on different kinds of documents and requiring to create new user-relations mechanisms. The physical library is changing nowadays with the introduction of the virtual library.

From a variety of fundamental angles, virtual libraries do their duties. The following are some of the most important perspectives among them: on the one hand, providing teaching staff with all the resources they might need to develop and guide the various subjects; and on the other, making support materials and documents available to students as an addition to the lecture materials. By providing information and services that are different from traditional ones, more individualised, and even customised to meet the unique needs of each user, virtuality enables libraries to expand their support activities to learning, teaching, and research.

Virtual or digital libraries cannot take the place of physical ones. In a similar way that mediaeval manuscript libraries merely evolved into a specialised and highly esteemed component of the larger print-based libraries we have today, they represent the future of traditional libraries.

Several versions of the new library model have been created, including an electronic library, digital library, hybrid library, wall-free library, and a simple virtual library. In fact, virtuality has made it possible because this new model uses digital documents (or digital libraries) as a very important part of its assets by which the library's goals can be achieved. We refer to this new model as a virtual library because it performs its function exclusively in a virtual environment.

Virtual Libraries can expand their assistance for learning, teaching, and research by offering content and services that are different from conventional ones, more individualised, and even

INTERNATIONAL JOURNAL OF RESEARCHES IN BIOSCIENCES, AGRICULTURE AND TECHNOLOGY

REPORT OF THE DICOTYLEDONOUS UNILOCULAR FRUIT FROM THE DECCAN INTERTRAPPEAN BEDS OF MARAI PATAN, TALUKA-JIWATI, DIST.-CHANDRAPUR, MAHARASHTRA, INDIA

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ABSTRACT:

The present paper deals with the description of a new species of petrified capsular fruit from the Deccan Intertrappean beds of Marai Patan, Tahsil-Jiwati, Dist.-Chandrapur, Maharashtra, India. The fruit is stalked, oblong, dry, dehiscent, capsular, dicot fruit with basal placentation. Fruit is 2.8 mm long and 1.4 mm broad. Fruit wall is 10.13 µm thick. The fruit wall is differentiated into three zones. The outer layer epicarp is 3.68 µm thick. Middle layer mesocarp is 7.30 µm thick and inner layer endocarp is 0.26 µm thick. The seed is large and measures about 2 mm long and 1 mm broad in size. Seed coat is 2-3 layers thick but is not differentiated in to testa and tegmen. It measures about 0.12 µm thick. Embryo is straight. It consists of two large cotyledons. Radicle is seen attached at the base of embryo. A single stalk is seen attached at the base of fruit. It measures about 3.16 µm in length. Finally summing up the comparison and discussion on the described fossil fruit it can be concluded that the present specimen under investigation does not resemble any of the living capsular fruits as well as recorded fossil flora of Intertrappean beds as described earlier except *Geraniocarpon intertrappea* (Dahegaonkar 2002) with minor differences hence it is named as *Geraniocarpon patanii* sp. nov. The generic name is being after the capsular type of fruit *Geraniocarpon intertrappea* (Dahegaonkar 2002) and specific name indicates the name of the locality from where it was collected.

Keywords: - Capsular fruit, Epicarp, cotyledons, Radicle, Embryo.

INTRODUCTION :

A large number of fossil dicotyledonous fruit are known from Deccan Intertrappean beds of Central India. The material for the present study was collected from of Marai Patan (N 19.53' & E 79.12') in Chandrapur, Maharashtra. Some reported dicot, unilocular single seeded fruit has been described so far from the Deccan Intertrappean beds of India. These are *Unispermospinocarpon keriensis* (Kapgate & Paliwal, 2016), *Rananculaceaeocarpon jamsavlii* (Bonde & Narkhede, 2013), *Tiliaceaeocarpon jamsavlii* (Meshram, Narkhede and Bhowal, 2013), *Compositaeocarpon jamsavlii* (Yadav, 2010), Tamaricaceocarpon patilii (Yadav, 2010), *Valvulocarpon chitaleyii* (Yadav, 2010), *Amaranthocarpon mohgaonese* (Saxena, 2004), *Amaranthocarpon Intertrappea* (Saxena, 2004), *Spinocarpon intertrappea* (Dahegaonkar, 2002) and *Geraniocarpon intertrappea* (Dahegaonkar, 2002). The Present unilocular fruit is the additional report of unilocular fruit from the Deccan Intertrappean beds of Marai Patan, Taluka-Jiwati, Dist.-Chandrapur, Maharashtra, India.

MATERIAL AND METHOD :

The material was very well preserved in a black chert collected from the Deccan Intertrappean beds of Marai Patan, Taluka-Jiwati, Dist.-Chandrapur, Maharashtra, India. Only part was availabled and counterpart lost during breaking. It was exposed in longitudinal view. After etching

CONTEMPORARY RESEARCH IN ENVIRONMENTAL SCIENCE MANAGEMENT, IT, PHARMACEUTICAL & SOCIAL SCIENCES

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IIP

Internet of Things: A Comparative Research on Sensors to Detect Fire and Air Pollution

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Abstract

The Internet of Things is the concept of a novel technology in the field of Science and Technology. Various things are connected through sensors and besides that cloud is used to store online data, through which data is to be analysed and it makes easy to take any concrete and appropriate decision. In this concept the net connection plays the major role, through which the concern object or thing is to be accessed from any platform, anytime and from anywhere in the world. So, it's called as Internet of Things. The acronym IoT is used for the Internet of Things. In this paper we focus on comparative research on sensors to detect fire and air pollution. Without sensor IoT is as dead. Unless and until we cannot uses the sensor technology in IoT concepts, the IoT is meaningless. This is the reason behind that we focus here on sensors. For narrowing the task comparing the few sensors, senses only for detecting the fire and air pollution. Such as LM35, IR sensor, DHT11, DHT22 and DS18B20.

Keywords: IoT, sensor, comparison, LM35, IR sensor, DHT11, DHT22 (AM2302)

I. Introduction

IoT is totally based on Internet and sensors. In this paper we are focusing on a sensor which detects fire and air. We are doing its comparative study according to its various physical properties. Such as measures or detection, operating range, sensing range, communication protocol and accuracy. In this paper we focus on comparative research on sensors to detect fire and air pollution. Without sensor IoT is as dead. Unless and until we cannot uses the sensor technology in IoT concepts, the IoT is meaningless. This is the reason behind that we focus here on sensors. For narrowing the task comparing the few sensors, senses only for detecting the fire and air pollution.

Stochastic Modeling & Applications

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INTERNET OF THINGS: AN IOT AND CLOUD BASED REAL TIME SMART MONITORING AND DETECTION OF FIRE THROUGH BOLT IOT KIT AND LM35 SENSOR

MR. VILAS KISANRAO TEMBHURNE, MR. MEGHRAJ MANIKRAO JOGI AND DR. MOHIUDDIN N. QUADRI

ABSTRACT

The Internet of Things, in short say IoT, is a new paradigm that has shifted people's lifestyles from traditional to high-tech. This technology has brought about changes such as smart cities, smart homes, pollution management, energy conservation, smart transportation, and smart industries. In order to improve technology through IoT numerous important research studies and investigations have been conducted. Research gap will be fulfilled by practical approach towards automated fire detection system. For that credit goes to Bolt IoT platform and sensor LM35. Data read by sensor and collected on Bolt IoT Bolt cloud, detect the fire or air pollution by comparing with threshold value of temperature and humidity, alert the same by alarm and also by displaying the alert message. This paper will assist readers and researchers in comprehending the IoT and its use in the real world in online mode. Entire things are automated and accessed from anywhere. Also it proves that an IoT is the game-changing approach to future innovations in science and technological advancement.

Key words: *Bolt IoT kit, cloud, detection, ESP8266 WiFi, fire, IoT, LM35 sensor*

1. INTRODUCTION

IoT is the Internet of Things, a new paradigm that allows electrical gadgets and sensors to communicate with each other over the internet to make our lives easier. Smart devices and the internet are used by IoT to deliver new solutions to a variety of challenges and concerns faced by businesses, governments, and public/private enterprises all over the world. The Internet of Things is becoming a bigger part of our lives, and it's all around us. We have discussed and elaborate first four references of this paper in the second section titled Literature survey. From entire literature review, we can say that the IoT is the latest and novel technology which is used in multi-disciplinary. It might be makes tremendous transformations in the next generation of smart systems.

As we know today due to negligence of four-wheeler driver there are number of accidents and increases in death ratio as well as injuries and health issues. To overcome the solution is again IoT and smart systems. For driver and passenger's security and safety the project is designed that part will be mentioned and explained in the same section. Besides that, Smart city by using wireless sensor with IoT based smart terminologies were build for the smartness of city.

Again, for the smart car one study were examined and reviewed on the same technology and for the same purpose, differ is only that the previous section focuses on smart driver chair for four-wheeler and in this review focuses on different components of car.

The research gap was found after studying the related work of IoT and same were filled in the next section, titled proposed work and research methodology. In the global point of view either we take any smart city or smart car or four-wheeler whatever may be there might be possibility of problems of fire and air pollution, due to unclean environment and some other relevant reasons. This will be mentioned in this section with terrific solution using Bolt IoT kit and sensor.

2. LITERATURE SURVEY

Bhavya Alankar [1] et. all explain in his premier reference source about the transforming the IoT for next generation smart systems. They focus on the IoT and showing its engaged in coming generation technologies in a different domain. They also cover same logic and techniques in different areas such as computer science applications, education, management, business and agriculture. This book's multidisciplinary approach to IoT makes it an ideal reference work for IT specialists, technologists, engineers, developers, practitioners, researchers, academicians, and students interested in how IoT will be integrated into the next generation of smart systems and play a key role in technological advancement.

Dimple Shimpi et all [2] elaborates the number of individuals driving automobiles has increased in recent years, as has the number of accidents. Drowsiness causes the driver to be distracted and unable to focus on the road, reducing his or her ability to make appropriate decisions while driving. There project is primarily concerned with the driver and passenger's security and safety. Various sensors are utilized to monitor the driver's health,

IoT-based Air Pollution Monitoring System to Measure Air Quality on Cloud Storage

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Abstract— **Air pollution (AP) is today's most pressing issue. Particularly concerning are the potential adverse effects that an excessive amount of certain hazardous gases, such as CO, SO2, particulate matter, and several others, may have on human health. Other environmental gases are affected by temperature, humidity, etc., wind speed, and their causes and impacts. These weather factors include temperature, humidity, as well as wind speed.**
For this project, a centralized cloud-based system using sensors that monitor and analyze AP will be developed. The information gathered by each sensor node is uploaded to a cloud server, where it is stored and can be viewed through a web browser at any time and from any location. Because the environment is being monitored in real-time, prompt action may be performed in response to discovering a contaminant in the ecosystem. This project aims to monitor the AP of the surrounding area and ensure that data are kept up to date on the internet. Readings are conducted continuously throughout the day and in real-time. Many air pollutants like SO2, CO, PM10, humidity, and temperature are considered to measure air quality by IoT-based air pollution monitoring systems (APMS). We created graphics that simplify analyzing the proportion of pollutants in a certain location. The LCD can show the gas sensor's real-time data constantly.

Keywords— ***Air pollution, IoT sensing devices, cloud system, pollutants, MQ-135 gas sensor, Arduino.***

I. INTRODUCTION

The number of Vehicles is rising exponentially each day. Many more vehicles exist in big cities like Delhi, Mumbai, and Pune. Owing to poor combustion in the Vehicle engine, vehicle pollution rises. The CO2 content in the atmosphere increases as the number of vehicles increases. According to the Mumbai Pollution Control Board, pollution levels, especially NOX and SPM, have risen quickly. SPM levels over 100 grams/cubic meter and NOX levels above 88 grams/cubic meter are hazardous to health. Vehicles are the primary pollution producers in metropolitan centers such as Mumbai, Delhi, Pune, and Bangalore. Inadequate (incomplete) combustion in a vehicle's engine produces several hazardous gases, which increase pollution and negatively impact the environment. Identifying or monitoring these Gases' environmental emission sources is a crucial field of research [1]. Although it is impossible to prevent the emission of harmful gases from vehicles entirely, this process can be controlled.

Excessive levels of air pollution and prolonged exposure to it may contribute to the emergence of significant illnesses and symptoms that impact human health. People with respiratory or cardiovascular problems are more likely to perceive the impacts of air pollution at lower amounts than the overall population [2]. Traditionally, huge, costly scientific equipment is permanently built and professionally managed at a restricted number of fixed sites, generally in cities and along key traffic corridors, to measure air quality.

Government agencies oversee and frequently publish environmental monitoring network data gathered at the national, regional, and city levels [3]. Typically, this data is evaluated and consolidated, resulting in at least a 24-hour delay before publishing; hence, there is no possibility to utilize this data in "real-time" to prevent or mitigate the hazards presented by poor air quality conditions that are often undetected. This makes it challenging for residents to comprehend the pollution levels they encounter daily since monitoring data is not accessible in real-time and is severely limited [4].

Smart cities and urban sensing applications illustrate the need for Cloud Computing (CC), an infrastructure centered on the cloud [5]. IoT monitors or assesses live AQ in certain environments [6]. The construction of information technology (IT) facilities using a "cloud-centric architecture" method places the collaborative, residential, or mixture cloud at the design center. This is driven by a want to have flexibility, the expectation of being repaid, and the capability of expansion to satisfy the demands of owners of data-driven or data-driven businesses. The Internet of Things prioritizes innovation, which provides many advantages to this study sector. The creation of the Internet of Items is gearing up to create an environment for many things that can attach to the Internet to connect without the participation of humans [7]. First, the Internet of Things seemed to minimize the number of work humans put into recording data. It also uses a wide variety of sensors to gather data from the environment & enables electronic storage[8] & manipulation of this data. Providers of sensing data often keep their data in the cloud, experts in computational intelligence could make available a machine-learning instrument (useful for transforming data into