B.V.RAJU COLLEGE

VISHNUPUR – BHIMAVARM -534202

RESEARCH PAPERS PUBLISHED

3.3.2

2016-17

Sl No	Name of the Faculty	Department	Subject	TITLE OF THE PAPER	NAME OF THE JOURNAL	ISSN NUMBER	MONTH &YEAR OF PUBLISHING
1	DR I RAMAKRISHNAM RAJU	MCA	COMPUTER SCIENCE	Big Data Normalization for Massive Databases	INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH AND TECHNOLOGY	2278-0181	Oct-16
1	DR K B V BRHMA RAO	MCA	COMPUTER SCIENCE	Big Data Normalization for Massive Databases	INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH AND TECHNOLOGY	2278-0181	Oct-16

Big Data Normalization for Massive Databases

Suresh Varma Penmasta
Department of CSE
Adikavi Nannaya University
Rajahmundry, A.P, India

K. B. V. Brahma Rao
Department of MCA
B. V. Raju College
Bhimavaram, A. P, India

R. Krishnam Raju Indukuri
Department of MCA
B. V. Raju College
Bhimavaram, A. P, India

Abstract— Data normalization is a technical database operation performed by a database analyst with the assistance of normalization tools; the goal is to associate similar forms of the same data item into a single data form. Based on how close the association of these various data permutations of the "same" data item are, the data variants can be normalized as a first normal, a second normal, or a third normal form, with the third normal form representing the loosest association of two data forms. This paper reviews the theoretical and experimental for retrieving the required data from large databases in computational complexity with respect to Comparison of CPU time taken for data retrieving from the database before and using normal forms, Elimination of data redundancy and Less volume of data stores in Main Memory.

Keywords— *Big Data, MPP, database, normalization, analytics, Map/Reduce, Broadcast Join, HDFS, commodity hardware*

I. INTRODUCTION

"Information explosion is the rapid increase in the amount of published information and the effects of this abundance of data. As the amount of available data grows, the problem of managing the information becomes more difficult, which can lead to information overload." [1]

Big Data analytics is rapidly becoming a commonplace task for many companies. For example, banks, telecommunication companies, and big web companies, such as Google, Facebook, and Twitter produce large amounts of data. Nowadays business users also know how to monetize such data. For example, various predictive marketing techniques can transform data about customer behavior into great monetary worth. The main issue, however, remains to be implementations and platforms fast enough to execute ad-hoc analytical queries over Big Data. Until now, Hadoop has been considered a universal solution, but it has its own drawbacks, especially in its ability to process difficult queries, such as analyzing and combining heterogeneous data, and performing fast ad-hoc analysis.

To store digital data is not sufficient, its needs to be queried as well. But with such huge volumes of data, there is a need to look at query algorithms from a different perspective. For instance, algorithms need to be storage-aware in order to load and retrieve data efficiently. There is tremendous amount of research being undertaken towards creating such algorithms, for example, Google's BigTable [8] or Facebook's Cassandra [1] which is now open-source and is maintained by the Apache Software Foundation. Many of the leading Information Technology companies have invested a lot into this research and have come up with a number of innovative ideas and products.

One of the most common operations in query evaluation is a Join. Joins combine records from two or more tables, usually based on some condition. They have been widely studied and there are various algorithms available to carry out joins. For example, the Nested-Loops Join, the Sort-Merge Join and the Hash Join are all examples of popular join algorithms. These algorithms (and more) are used for joining two as well as more datasets. But more often than not, when multiple datasets are involved, selectivity factor is exploited to structure the order in which the joins are made. Selectivity factor can be defined as the fraction of the datasets involved in the join that will be present in the output of the join. Join Algorithms have been studied extensively with many variants existing for each algorithm. For instance, Hash-Join itself has three different variations – Simple Hash Join, Grace Hash Join and Hybrid Hash Join [17].

The MapReduce framework is a widely used programming paradigm for distributed environments [2]. MapReduce provides an abstraction away from the details of parallelizing computation; the framework automatically divides a job into individual tasks, handles scheduling of individual tasks, distributes data and deals with machine failures. The basic MapReduce model expresses computations as a 'Map' and a 'Reduce' function. Hadoop is a framework for the execution of MapReduce jobs. Classic Hadoop has been widely used and studied since its release, but we focus on the more recently developed Hadoop YARN [3]. Both Classic Hadoop and Hadoop YARN use the idea of dividing resources into logical partitions (called 'slots' and 'containers' respectively) which are as-signed to executing tasks.

Map/Reduce framework hides management of data and job partitioning from the programmer and provides in-built fault-tolerance mechanisms. This lets the programmer concentrate on the actual problem at hand instead of worrying about the intricacies involved in a distributed system. It was designed for processing large amounts of raw data (like crawled documents and web-request logs) to produce various kinds of derived data (like inverted indices, web-page summaries, etc.). It is still a prominently used model at Google for many of its applications and computations [9]. Map/Reduce was not developed for Database Systems in the conventional sense. It was designed for computations that were conceptually quite straightforward, but involved huge amounts of input data. For example, finding the set of most frequent queries submitted to Google's search engine on any given day. It

B.V.RAJU COLLEGE

VISHNUPUR – BHIMAVARM -534202

RESEARCH PAPERS PUBLISHED

3.3.2

2017-18

Sl No	Name of the Faculty	Department	Subject	TITLE OF THE PAPER	NAME OF THE JOURNAL	ISSN NUMBER	MONTH &YEAR OF PUBLISHING
1	DR K B V BRHMA RAO	MCA	COMPUTER SCIENCE	DATASETS USING LINEAR AND INTERPOLATION TECHNIQUES	International Journal of Computer Engineering and Applications	2321-3469	Dec-17
2	DR K B V BRHMA RAO	MCA	COMPUTER SCIENCE	BIG DATA NORMALIZATION FOR MASSIVE PATIENT DATASETS	International Journal of Innovations & Advancement in Computer Science IJIACA	2347-8616	Nov-17
3	DR I RAMA KRISHNAM RAJU	MCA	COMPUTER SCIENCE	DATASETS USING LINEAR AND INTERPOLATION TECHNIQUES	International Journal of Computer Engineering and Applications	2321-3469	Dec-17
4	DR I RAMA KRISHNAM RAJU	MCA	COMPUTER SCIENCE	BIG DATA NORMALIZATION FOR MASSIVE PATIENT DATASETS	International Journal of Innovations & Advancement in Computer Science IJIACA	2347-8616	Nov-17

Big Data Normalization for Massive Patient Datasets

K.B.V. Brahma Rao
Department of MCA
B. V. Raju College
Bhimavaram, A. P, India

P. Suresh Varma
Department of CSE
Adikavi Nannaya University
Rajahmundry, A.P, India

I R Krishnam Raju
Department of MCA
B. V. Raju College
Bhimavaram, AP, India

M V Rama Sundari
Department of CSE
SITE
Tadepalligudem, AP,

Abstract— Normalization is a process of organizing relations (tables) and attributes (columns) of a relational database to reduce data redundancy and improves the data integrity. This is also known as Database Normalization. Normalization is a systematic approach to eliminate data redundancy by decomposing tables and also undesirable anomalies like insertion, deletion and update. Normalization can also remove data dependency i.e. data will be stored logically. In this paper reviews (a) theoretical and experimental approach for retrieving the required data from large patient datasets in computational complexity with respect to Comparison of CPU time taken for data retrieving from the dataset before and after using normal forms (b) Eliminating the redundant data while less amount of data is stored in Main Memory and (c) computation for generating the required dataset by joining normalized datasets.

Keywords— Big Data, Normalization, MPP, Map/Reduce, HDFS, Broadcast Join

I. Introduction

The amount of data is being produced rapidly in these days. The main problems with this data is storing, managing and analyzing it either to make decisions or to retrieve the required information [1].

Many companies are treating Big Data Analytics as a commonplace task. Different types of companies such as banks, big web users such as Facebook, Twitter and Google produce massive amounts of data. The business users also know how to monetize such data in these days. There are different types of predictive techniques to transform the behavior of customer into great monetary worth. To execute ad-hoc analytical queries over Big Data require suitable platforms to design, develop and implement. Till now Hadoop has been considered a global solution. But it has also its drawbacks. It is difficult to process queries for analyzing and combining heterogeneous data and performing at high speed ad-hoc analysis.

It is not only sufficient to store digital data, but also it needs data to be queried. So it is needed different perspective query algorithms to operate on huge volumes of data. For example, awareness is required on storage of this much of data to load and retrieve data efficiently. There is fabulous amount of research being undertaken towards creating such type of algorithms. For example, Facebook's Cassandra [2] or Google's BigTable [7] which is now open source and is maintained by the Apache Foundation. Several number of leading Information Technology firms have been investing a lot into this research and have come up with a number of innovative ideas and products.

'Join' is one of the most common operations in query evaluation. The join operation can combine one or more tables based on some condition. There is a lot of valuable information and algorithms about Joins to understand clearly the use of joins. The most popular join algorithms are Nested-Loops joins, the Sort-Merge Join and the Hash Join. If there are multiple datasets to join, selective factor is exploited to structure the order in which the joins are made. There are different variants of Join algorithms. For example, Hash-Join is having three variations such as Simple Hash Join, Grace Hash Join and Hybrid Hash Join [18].

The Map and Reduce framework is widely used programming paradigm for distributed systems [8]. It automatically divides a job into several individuals and handles scheduling of individual tasks. This also provides distribution of data and handles machine failures. The MapReduce is a combination of Map function and Reduce function. The output of Map function is send to the Reduce function as input. The Reduce function can generate output as a single or multiple files.

Save Tree! Save World!

DATA NORMALIZATION FOR MASSIVE PATIENT DATASETS USING LINEAR AND INTERPOLATION TECHNIQUES

K. B. V. Brahma Rao[1], P. Suresh Varma [2], R Krishnam Raju Indukuri[3], M V Rama Sundari[4]

[1]Department of MCA B. V. Raju College Vishnu Campus Bhimavaram A. P, India
[2]Department of CSE Adikavi Nannaya University Rajamahendravaram A. P, India
[3]Department of MCA B. V. Raju College Vishnu Campus Bhimavaram A. P, India
[4]Department of CSE, SITE, Tadepalligudem A. P, India

ABSTRACT:

Big data is a phrase for massive data sets that are so complex and the traditional data processing application software is inadequate to deal with them. The main challenges are capture, storage, analysis, data curation, search, sharing, transfer, visualization, querying, updating, and information privacy. By analysing data sets one can find new correlations to prevent diseases, prediction the behaviour of patient disease, business trends and so on. The data sets consist structured, semi-structured and unstructured data. Accelerating the adoption of Electronic Health Records (EHR), and the volume and detail of patient information is growing rapidly. By combining and analysing a variety of structured and unstructured data across multiple data sources provides the accuracy of diagnosing patient conditions, matching treatments with outcomes, and predicting patients at risk for disease or readmission. EHRs data is useful to predict a model is being used for early diagnosis. The data sets consist redundant data also. The normalization technique can be used to reduce the redundancy. In this paper we presented theoretical and experimental approach for retrieving the required data of specific patient information from large patient datasets in computational complexity with respect to Comparison of CPU time taken for data retrieving from the dataset before and after using normal forms through Linear Search and Interpolation Search.

[1] INTRODUCTION

Big data is generating a lot of excitement in every industry including healthcare. In healthcare, we do have large volumes of data coming in. EMRs alone collect huge amounts of data. Most of that data is collected for recreational purposes. An EMR (Electronic Medical

B.V.RAJU COLLEGE

VISHNUPUR – BHIMAVARM -534202

RESEARCH PAPERS PUBLISHED

3.3.2

2018-19

SI NO	Name of the Faculty	Department	Subject	TITLE OF THE PAPER	NAME OF THE JOURNAL	ISSN NUMBER	MONTH &YEAR OF PUBLISHING
1	DR K B V BRHMA RAO	MCA	COMPUTER SCIENCE	KNOWLEDGE REDUCTION IN MASSIVE PATIENT DATASETS USING ROUGH SET	ETIR	2349-5162	Nov-18
2	DR I RAMAKRISHNAM RAJU	MCA	COMPUTER SCIENCE	KNOWLEDGE REDUCTION IN MASSIVE PATIENT DATASETS USING ROUGH SET	ETIR	2349-5162	Nov-18
3	DR D RAVI SANKAR	MICROBIOLOGY	MICROBIOLOGY	ISOLATION AND SCREENING OF HEAVY METAL RESISTANT ORGANISMS FROM INDUSTRIAL SOIL	JOURNAL OF PURE AND APPLIED MICROBIOLOGY	1667-1674	Sep-18

KNOWLEDGE REDUCTION IN MASSIVE PATIENT DATASETS USING ROUGH SET APPROACH

[1]K. B. V. Brahma Rao, [2]P. Suresh Varma, [3]R Krishnam Raju Indukuri, [4]M V Rama Sundari
[1]Associate Professor, [2]Professor, [3]Professor, [4]Professor
[1]Department of MCA,
[1]Department of MCA, B.V. Raju College, Vishnu Campus, Bhimavaram, A.P, India

Abstract : In order to eliminate redundancy of massive datasets, we developed parallel large-scale technique for knowledge reduction using rough set and MapReduce methods on patient massive datasets. Our technique will reduce the utilization of memory and processing time. The superfluous data is removed without significant accuracy loss using type of disease. In this paper we presented theoretical and experimental approach for knowledge reduction from large patient datasets using significance of attributes by organizing the data in discernibility and indiscernibility matrices. The experimental results demonstrate that the proposed parallel knowledge reduction method can efficiently process massive datasets on Hadoop platform, with highly speed up the grouping process and largely reduce the storage requirements. In all the experiments the introduced method based on significance of attributes is compared with the method based on positive region or information entropy. The comparison clearly shows that the former method outperforms the latter one.

Index Terms - **Big Data, MapReduce, Rough Set, Knowledge Reduction, HDFS.**

I. INTRODUCTION

The growing data in industry is like healthcare and scientific areas for the last eight years makes it difficult to store, manage and analyzing it either to make decisions or to retrieve the required data. In order to deal with the data explosion and knowledge reduction, we develop a parallel large-scale knowledge reduction method based on rough set method to acquire the knowledge using MapReduce technique.

We designed the parallel algorithm model for knowledge reduction using MapReduce which can be used to compute for the algorithms using indiscernibility matrices and functions. The proposed technique removes some superfluous data from a dataset by conserving its properties. The experimental results demonstrate the proposed technique that can efficiently process massive datasets with highly speedup the classification of data and largely reduce the storage requirements. In all the experiments the introduced method based on indiscernibility matrices is compared with the method based on positive region. This method clearly shows that the former method outperforms the latter one.

The information of a dataset attributes can classify into two classes called condition and decision (action) attributes. Each row of a decision table determines a decision rule, which specifies decisions (actions) that should be taken when conditions pointed out by condition attributes are satisfied. Objects in a decision table are used as labels of decision rules. Decision tables comprising inconsistent decision rules are called inconsistent (nondeterministic, conflicting); otherwise the table is consistent (deterministic, non-conflicting). The number of consistent rules in a decision table can be used as consistency factor of the decision table.

A set of decision rules is called a decision algorithm. Thus with each decision table we can associate a decision algorithm consisting of all decision rules occurring in the decision table. A decision table is a collection of data, whereas a decision algorithm is a collection of implications. To deal with data we use various mathematical methods, e.g., statistics but to analyze implications we must employ logical tools. Thus these two methods are not equivalent; however for simplicity we present here decision rules in the form of implications, without referring deeper to their logical nature.

An important issue in data analysis is discovering dependencies between attributes. We would need also a more general concept of dependency of attributes, called a partial dependency of attributes.

Knowledge finding has become a new challenge using big data. The Rough set theory has been successfully used in data mining. The MapReduce technique has been using for big data analysis in the recent times. Large amounts of data are collecting daily from various sources using sensors and devices in different formats by industries and scientific community. The size of the data may be zetta byte or yotta byte. The core data is processed by different applications and is used to convert the core data into the same format. To process this much of data, Google developed a software frame work is known as MapReduce.

The MapReduce technique supports large distributed datasets on clusters of computers which can analyze massive amounts of data. This has been a popular computing model for cloud computing platforms and is followed by Google's work, many implementations of MapReduce have emerged and lots of traditional methods combined with MapReduce have been presented here until now.

Isolation and Screening of Heavy Metal Resistant Microorganisms From Industrial Soil

V. Sridevi[1]*, M. Raghuram[1] and D. Ravisankar[2]

[1]Department of Microbiology, Acharya Nagarjuna University , Guntur - 522 508, India.
[2]Department of Biochemistry, Bhupathiraju Vissamraju College, Bhimavaram, India.

Two industrial soils around west Godavari districts were analyzed for the concentration of nine heavy metals such as zinc, nickel, copper, manganese, cadmium, chromium, lead, iron and arsenic using atomic absorption spectrophotometer and simultaneously isolated nine morphologically distinct bacterial cultures from the same soil to check for the metal tolerance against copper, zinc and lead. The analyzed data revealed that iron and manganese metals were found to be the most abundant metals in these industrial soils and also noticed that the industrial soil 2 contained high amount of Cu, Zn and Pd. Control sample contained very low concentrations of the above mentioned heavy metals. That is therefore nine bacterial cultures (DPMC1-5 and TSC1-4) were checked for their metal resistance to Cu, Zn and Pb in nutrient broth at various metal concentrations. In in vitro application there was a drastically metal reduction observed in soils inoculated with nine bacterial strains. It can be concluded that this work will be the reference for the bioremediation of heavy metal polluted soils. As the industrialization in Bhimavaram creating the environmental pollution and hence treatment of industrial waste with metal resistant microorganisms called bioremediation is highly essential to clear the metal pollution instead of releasing industrial effluents into nearby water bodies or fields or choosing a costly chemical treatments.

Keywords: Industrial soils, heavy metal resistant bacteria, heavy metals, bioremediation.

West Godavari District has a richly cultivated land among all districts in Andhra Pradesh. West Godavari is popularly known as the Granary of India since about 50% of the state's rice production comes from the district. Cotton barrage was built on River Godavari at Dhavaleswaram channeling two canals, from which one canal passes through West Godavari, making the soil fertile. In the coastal belt of the district, a large portion of prawns and fish is exported to Japan, and the United States. Bhimavaram is a hub for Prawns export. It is the richest town in the State of Andhra Pradesh. Vendra paper mills in Bhimavaram, and Andhra Sugars, a sugar factory, in Tanuku are some of the more famous industries of the district. Due to the rapid industrialization and urbanization,

many industries located in and around the district have released their untreated and semi treated effluents into the environment, more particularly to the nearby agriculture fields and water bodies. Even the pollutants such as heavy metals and other chemicals, which are present in the effluents moved through soil, surface water, sediments of the lake bed and percolated into ground water affecting the soil and groundwater quality. However, given significant industrialization and urbanization with ascendance of random dumping of untreated industrial wastewater and municipal sewage in to the environment, heavy metals have been reported to accumulate to unsafe or lethal concentrations[1-4]. High concentrations of heavy metals are dangerous to animals, plants and human cause many kinds of diseases. Indeed, even the purported essential components like Zn and Fe, if present in high concentration, are lethal in nature[5, 6]. All heavy metal are not destructive to people,

* To whom all correspondence should be addressed.
Tel.: +91-8985144223;
E-mail: sridevivishnumolakala1@gmail.com

B.V.RAJU COLLEGE

VISHNUPUR – BHIMAVARM -534202

RESEARCH PAPERS PUBLISHED

3.3.2

2019-20

Sl No	Name of the Faculty	Department	Subject	TITLE OF THE PAPER	NAME OF THE JOURNAL	ISSN NUMBER	MONTH &YEAR OF PUBLISHING
1	DR K B V BRHMA RAO	MCA	COMPUTER SCIENCE	DIMENSIONALITY AND KNOWLEDGE REDUCTION IN MASSIVE PATIENT DATASETS USING ICA AND HDFS	INTERNATIONAL JOURNAL OF MANAGEMENT TECHONOLOGY AND ENGINEERING	2249-7455	JAN-19
2	DR I RAMAKRISHNAM RAJU	MCA	COMPUTER SCIENCE	DIMENSIONALITY AND KNOWLEDGE REDUCTION IN MASSIVE PATIENT DATASETS USING ICA AND HDFS	INTERNATIONAL JOURNAL OF MANAGEMENT TECHONOLOGY AND ENGINEERING	2249-7455	JAN-19

DIMENSIONALITY AND KNOWLEDGE REDUCTION IN MASSIVE PATIENT DATASETS USING ICA AND HDFS

K. B. V. Brahma Rao[1], P. Suresh Varma[2], R Krishnam Raju Indukuri[3], M. V. Rama Sundari[4]

[1]*Department of MCA B. V. Raju College Vishnu Campus Bhimavaram A. P, India*
[2]*Department of CSE Adikavi Nannaya University Rajamahendravaram A. P, India*
[3]*Department of MCA B. V. Raju College Vishnu Campus Bhimavaram A. P, India*
[4]*Department of CSE, SITE, Tadepalligudem, A. P, India*
[1]*brahmaraokbv@gmail.com*
[2]*vermaps@yahoo.com*
[3]*Irk.bvrice@gmail.com*
[4]*mvramasundari@yahoo.co.in*

Abstract

The central idea of Independent Component Analysis (ICA) is to reduce the dimensionality of dataset consisting of a large number of interrelated variables, while retaining the variation present in the dataset as much as possible. In this paper we use, ICA and HDFS based algorithm for massive patient datasets to achieve lossless data reduction and to acquire required knowledge. The experimental results demonstrate that the proposed ICA technique efficiently processes massive datasets, eliminates irrelevant data, reduces storage space for the data and also the computation time. The results of ICA are compared with those of the Principal Component Analysis (PCA) and normal method where the accuracy of ICA is found to be good with respect to the Receiver Operating Characteristic (ROC) curve technique, also known as Area Under the Curve (AUC) or Area Under Receiver Operating Curve (AUROC).

Keywords: Big Data Analytics, Independent Component Analysis, HDFS Principal Component Analysis, Knowledge Reduction

1. Introduction

The data is growing day by day in industry such as social websites, healthcare scientific areas etc., for the last ten years makes it difficult to store, manage and analyzing it either to make decisions or knowledge reduction. In order to deal with the data detonation and knowledge reduction, we develop a parallel large-scale knowledge reduction method using independent component analysis to acquire the required knowledge for analysis.

Patient informatics data needs to be store in an efficient manner and include a lot of attributes (Variables). Most of the tools crash when large data is stored in it. The proposed technique removes some needless data from a dataset by conserving its properties. The experimental results demonstrate the proposed technique that can efficiently process massive datasets with highly speedup the classification of data and mainly reduce the storage requirements. In all the experiments the introduced method based on independent component analysis is compared with normal method and principal component analysis. This is found to be better than above specified methods.

ICA test is used to select or extract relevant and specific information about attributes (variables) in large dataset. ICA looks for independent factors while PCA looks for uncorrelated factors. If the variables are independent, it means they are not dependent on other variables. If two variables are uncorrelated, it means there is no true relation between them.

B.V.RAJU COLLEGE

VISHNUPUR – BHIMAVARM -534202

RESEARCH PAPERS PUBLISHED

2020-21 3.3.2

Sl No	Name of the Faculty	Department	Subject	TITLE OF THE PAPER	NAME OF THE JOURNAL	ISSN NUMBER	MONTH &YEAR OF PUBLISHING
1	B S SEHSAGIRI RAO	PHYSICS & ELECGTRONICS	NANOTECHNOLOGY	Properties and Applications of Nanomaterials in Electronics for Health – A Review	INTERNATIONAL JOURNAL OF CREATIVE TESEARCH THOUGHTS(IJCRT)	2320-2882	Mar-21
2	K ESWARA PRASAD	PHYSICS & ELECGTRONICS	NANOTECHNOLOGY	Properties and Applications of Nanomaterials in Electronics for Health – A Review	INTERNATIONAL JOURNALOF CREATIVE RESEARCH THOUGHS(IJCRT)	2320-2882	Mar-21
3	K SATYANARAYANA RAJU	PHYSICS & ELECGTRONICS	NANOTECHNOLOGY	Properties and Applications of Nanomaterials in Electronics for Health – A Review	INTERNATIONAL JOURNAL OF CREATIVE TESEARCH THOUGHTS(IJCRT)	2320-2882	Mar-21
4	B V SATYA PRAKASH	COMMERCE	COMMERCE	DIGITAL MARKETING - A POTNETIAL BUSINESS HIGHWAYAHED	INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH	2348 - 7666	Jan-21
5	Y RAVINDRA SIVA KUMAR	COMMERCE	COMMERCE	DIGITAL MARKETING - A POTNETIAL BUSINESS HIGHWAYAHED	INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH	2348 - 7666	Jan-21
6	N DURGA SOMESWARA RAO	COMMERCE	COMMERCE	Public Private Partnership for Transforming India-	INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH	2348 - 7666	Jan-21

				A Focus			
7	D SATYANARAYANA A	COMMERCE	COMMERCE	Impact of Covid on Economy and Industry-A Sectoral Analysis	INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH	2348 - 7666	Jan-21
8	P SYAMALA DEEPTHI	COMMERCE	COMMERCE	Public Private Partnership for Transforming India-A Focus	INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH	2348 - 7666	Jan-21

9	E A V V RAMBABU	LIFE SCIENCES	BIOTCHNOLOGY	SCREENING, ISOLATION AND PRODUCTION OF CELLULOSE FROM SOIL	MUKT SHABD JOURNAL	2347-3150	Dec-20
10	B RADHA SIRISHA	LIFE SCIENCES	BIOTCHNOLOGY	SCREENING, ISOLATION AND PRODUCTION OF CELLULOSE FROM SOIL	MUKT SHABD JOURNAL	2347-3150	Dec-20
11	V A S S D V PRASAD RAJU	LIFE SCIENCES	BIOTCHNOLOGY	SCREENING, ISOLATION AND PRODUCTION OF CELLULOSE FROM SOIL	MUKT SHABD JOURNAL	2347-3150	Dec-20
12	B DURGA PRASAD	LIFE SCIENCES	BIOTCHNOLOGY	SCREENING, ISOLATION AND PRODUCTION OF CELLULOSE FROM SOIL	MUKT SHABD JOURNAL	2347-3150	Dec-20
13	DASIKA RAVI KUMAR	CHEMISTRY	CHEMISTRY	A REVIEW ON HUMAN AND ENVIRONMENTAL IMPACTS DUE TO LEAD TOXICITY	INTERNATIONAL RESEARCH JOURNAL OF SCIENCE ENGINERRING AND TECHNOLOGY	2454-3195	Apr-21
14	JLSS PHANI KUMAR	CHEMISTRY	CHEMISTRY	A REVIEW ON HUMAN AND ENVIRONMENTAL IMPACTS DUE TO LEAD TOXICITY	INTERNATIONAL RESEARCH JOURNAL OF SCIENCE ENGINERRING AND TECHNOLOGY	2454-3195	Apr-21
15	P RAJENDRA BABU	CHEMISTRY	CHEMISTRY	A REVIEW ON REGULATORY PROTEINS AS POTENTIAL SALIVARY BIOMARKERS IN ORAL CANCER DETECTION	INTERNATIONAL JOURNAL OF CREATIVE TESEARCH THOUGHTS(IJCRT)	2320-2882	Dec-20

16	R L SATYANARAYANA	CHEMISTRY	CHEMISTRY	A REVIEW ON REGULATORY PROTEINS AS POTENTIAL SALIVARY BIOMARKERS IN ORAL CANCER DETECTION	INTERNATIONAL JOURNAL OF CREATIVE TESEARCH THOUGHTS(IJCRT)	2320-2882	Dec-20
17	S RAMESH	CHEMISTRY	CHEMISTRY	A REVIEW ON REGULATORY PROTEINS AS POTENTIAL SALIVARY BIOMARKERS IN ORAL CANCER DETECTION	INTERNATIONAL JOURNAL OF CREATIVE TESEARCH THOUGHTS(IJCRT)	2320-2882	Dec-20
18	R SWAMI SABARIBADH	CHEMISTRY	CHEMISTRY	A REVIEW ON REGULATORY PROTEINS AS POTENTIAL SALIVARY BIOMARKERS IN ORAL CANCER DETECTION	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGTHS(IJCRT)	2320-2882	Dec-20
19	K KRISHNA	ENGLISH	ENGLISH	ROBERT GANGNE'S NINE INSTRUCTIONAL MODEL OF SESSION PLAN TO BLOOM'S TAXONOMY LEVELS OF QUESTIONS WITH INNOVATIVE DIGITAL PLATFORMS	JOURNAL OF LANGUAGE IN IN INDIA	1390-2940	Jan-21
20	CH SATYANARAYANA	MATHEMATICS	MATHEMATICS	A REVIEW ON MATHEMATICAL MODELING OF THE GLUCOSE-INSULIN SYSTEM	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGTHS(IJCRT)	2320-2882	Apr-21
21	P MADHURA SUBHASHINI	MATHEMATICS	MATHEMATICS	A REVIEW ON MATHEMATICAL MODELING OF THE GLUCOSE-INSULIN SYSTEM	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGTHS(IJCRT)	2320-2882	Apr-21
22	D S PRIYADARSINI	MATHEMATICS	MATHEMATICS	A REVIEW ON MATHEMATICAL MODELING OF	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH	2320-2882	Apr-21

			THE GLUCOSE-INSULIN SYSTEM	THOUGTHS(IJCRT)		
23	M SIVA	MATHEMATICS	MATHEMATICS	A REVIEW ON MATHEMATICAL MODELING OF THE GLUCOSE-INSULIN SYSTEM	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGTHS(IJCRT)	2320-2882	Apr-21
24	DR I R KRISHNAM RAJU	MCA	COMPUTER SCIENCE	EVALUTION OF VARIOUS DR TECHNIQUES IN PATIENT DATASETS USING HDFS	INTERNATIONAL JOURNAL OF RECENT TECHNOLOGY AND ENGINEERING (IJRTE)	2277-3878	Nov-21
25	DR K B V BRHMA RAO	MCA	COMPUTER SCIENCE	EVALUTION OF VARIOUS DR TECHNIQUES IN PATIENT DATASETS USING HDFS	INTERNATIONAL JOURNAL OF RECENT TECHNOLOGY AND ENGINEERING (IJRTE)	2277-3878	Nov-21
27	DR N PRUDHVI RAJU	MSC	CHEMISTRY	Domino Prins cyclisation for Stereo selective synthesis of Oxygen bridged bicyclic thioesters using Amberkyst-15	Asian J. Research Chem.	0974-4169	Mar-21
28	R L SATYANARAYANA	MSC	CHEMISTRY	Domino Prins cyclisation for Stereo selective synthesis of Oxygen bridged bicyclic thioesters using Amberkyst-15	Asian J. Research Chem.	0974-4169	Mar-21
29	J V PADMAVATHI	MSC	CHEMISTRY	Domino Prins cyclisation for Stereo selective synthesis of Oxygen bridged bicyclic thioesters using Amberkyst-15	Asian J. Research Chem.	0974-4169	Mar-21
30	S RAMESH	MSC	CHEMISTRY	Domino Prins cyclisation for Stereo selective synthesis of Oxygen bridged bicyclic thioesters using Amberkyst-15	Asian J. Research Chem.	0974-4169	Mar-21

| 31 | B NAGAMANI | MSC | CHEMISTRY | Domino Prins cyclisation for Stereo selective synthesis of Oxygen bridged bicyclic thioesters using Amberkyst-15 | Asian J. Research Chem. | 0974-4169 | Mar-21 |
| 32 | B KIRAN | PHYSICS | PHYSICS | DESIGN OF AUTOMATED SOLAR LAN ROWER | INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY | 2808-0181 | DEC-20 |

Properties and Applications of Nanomaterials in Electronics for Health — A Review

B.S.Seshagiri Rao* K. Eswara Prasad** K.Satyanarayana Raju***

Department of Physics & Electronic, B.V. Raju College, Vishnupur, Bhimavaram, West Godavari District, Andhra Pradesh, 534202

Abstract: Employments of nanotechnology in gadgets and electrical merchandise that do give rise straightforwardly to natural and human wellbeing concern. This is the utilization of artificially created nanoparticles in 'nanomaterials' to make electronic segments or surface coatings for electrical merchandise. Nanomaterials are usually characterized as materials planned and created to have underlying highlights within any one component of 100 nanometers or less. In hardware, various distinctive nanomaterials are now being utilized economically or are being utilized for innovative work purposes. Probably the most regularly utilized nanomaterials for electronic and electrical hardware are carbon nanotubes and quantum dots nanomaterials are being utilized as surface coatings in certain electrical products, principally in the light of the fact that they have against microbial properties. Items previously showcased as having 'hostile to microbial' nanomaterial coatings incorporate fridges, vacuum cleaners, clothes washers, cell phones and PC mice.

Key words: Nanoparticles (NP). Electronics, Metals.

Introduction:

Nanotechnology resembles a toolbox for the hardware business. It permits to make nano materials with unique properties changed by super fine molecule size, crystallinity, structure or surfaces. These will turn out to be industrially significant to make new items.

The term 'nano' is utilized in science as a prefix meaning one billionth (utilizing billion in its American feeling of a one followed by nine zeros). A 'nanometer' hence implies one billionth of a meter and it is tiny — around 10 particles across. Nanotechnology alludes to advances that are working at the nanometer level (1) and, all things considered, incorporates both a)

Digital marketing-a potential business highwayahead

B.V.Stya Prakash, M.Com*
Y.Raveendra SivaKumar, M.Com*
*Lecturers in Commerce, B.V.Raju college,Vishnupur,Bhimavaram-534202

Abstract

Digital Marketing refers to the marketing of products or services via digital channels to reach consumers. Digital marketing encompasses all marketing efforts that use an electronic device or the internet. Businesses leverage digital channels such as search engines, social media, email, and other websites to connect with current and prospective customers. The *role of digital marketing*–and of content *marketing*, specifically–is a huge help to leverage some free advertising and help the business grow. And finally, *digital marketing* makes it simple to target the exact audience. Focusing on specific target audience increases both customer satisfaction and revenue. With the unfurling of present-day Digital advancements, organizations are doing all that they can to coordinate with the pace to benefit from the advanced role of Digital Marketing for business. Today, many of the business entities have been either changing their channelization into the Digital one or intensifying existing Marketing procedures with Digital methods.

Key Words: Content Marketing, Digitalisation, Social commerce,

INTRODUCTION:

The development of digital marketing is inseparable from technology development. One of the first key events happened in 1971, when Ray Tomlinson sent the first email, and his technology set the platform to allow people to send and receive files through different machines.[8] However, the more recognizable period as being the start of Digital Marketing is 1990 as this was where the Archie search engine was created as an index for FTP sites. In the 1980s, the storage capacity of computers was already big enough to store huge volumes of customer information. Companies started choosing online techniques, such as database marketing, rather than limited list broker.[6] These kinds of databases allowed companies to track customers' information more effectively, thus transforming the relationship between buyer and seller. However, the manual process was not as efficient.

Digital India was initiated by the Government if India in 2015.The aim of the initiation is to ensure the government services made available to the cirizent electronically.The objective is to to make every Indian digitally empowered and all informationis digitally availabele. It is intended to make cent percent electronic governance in India. Digital marketing is any form of marketing products and services which involves electronic devices. It can be both online or off line.search engine optimisation,.search engine marketing,pay for click advertising,social media marketing,content maketing,mobile marketing,web analytics,marketing automation and content writinga dn rRate optimisation are the popularand most demanded areas

Impact of Covid on Economy and Industry-
A Sectoral Analysis

Dasari Satyanarayana, M.Com.,
Head, Department of Commerce, B.V. Raju College, Vishnupur,
Bhimavaram-534 202

ABSTRACT

The wave of Corona Virus in Wuhan-2019 and in Beizing in 2020 and also across different countries of the Globe played havoc and stood as pandemic with human suffering and toll. The Corona Virus Gripped and spread it pangs of Pandemonium over 213 countries of the world. The situation raises more Questions than Answers..Economic Danger Vs. Health Risk. India risked Economic Suicide by extending lockdown much longer up to 5.o realizing and unlocking from June 8. India's Dream of 5 trillion economy stands as Nightmare. *The Economy is rushed on to the Ventilator and the Industry is pushed into the ICU*. The state Incomes came down drastically- Liquor sales restarted with increased prices-the duties on Petrol – Diesel experienced an unbridled rally standing near Rs.90 per litre. The corona crushed the productive activity, disturbed the economic activity across the sectors of the economy and industry over the entire Globe.

Key Words: Atmanirbhar Bharath, Black Swan Event, Vocal for Local

Introduction

The outbreak of the Novel Corona virus (COVID-19), which originated in Wuhan, China in end-December 2019, has fast spread its tentacles across the world and resulted a major impact on all aspects of society, With the World Health Organization declaring the COVID-19 outbreak a pandemic and an unprecedented global disruption. The corona virus outbreak shut down schools and businesses, imposed social distancing, and completely up ended almost everything we thought of as typical daily life.

People are felt communal anxiety and grief, their daily routines have likely changed completely, and some have either lost their jobs or are risking their health to keep essential services functioning. Given the uncertainty over the duration of the pandemic, the recession is bound to be prolonged still and the recovery delayed. India, being the fifth largest economy in the world, cannot be seen lagging in taking necessary measures. In CII survey about 45 per cent of the CEOs in India said they don't see economic normalcy returning before a year. Another 36 per cent were more optimistic but it would take 6 to 12 months for economy to function with normalcy. The global COVID-19 pandemic has emerged as the "black swan event which is going to require extraordinary measures from governments across the globe to help resume economic stability.

SECTORAL IMPACT: The COVID-19 pandemic impacted the economy across the sectors.These include a) Aviation and Transportation b) Hospitality & Tourism, c)MSME Sector d)Stock Markets, e) Energy& Power, f)E-Commerce, g) Automobile Sector, h) Supply chain &Logistics, i) Real Estate and

Public Private Partnership for Transforming India-A Focus

P.Syamala Deepthi, M.Com., and N.Durga Someswara Rao, M.Com., Lecturers in Commerce, B.V.Raju college, Vishnupur, Bhimavaram-534202

ABSTRACT

PPPs are an important tool for developing infrastructure and therefore fostering economic development. They are used with infrastructures like roads, airports, ports, power, water, and solid waste treatment and typically involve investment and operation and maintenance. PPPs are also used in social infrastructure like health and education, e.g.. construction and maintenance of a hospital or school facilities, but can also include total or partial clinical or education services. According to the National PPP Policy 2011 Government of India is committed to improving the level and the quality of economic and social infrastructure services across the country. In pursuance of this goal, the Government envisages a substantive role for Public Private Partnership (PPPs) as a means for harnessing private sector investment and operational efficiencies in the provision of public assets and services. There's potential for PPPs in any sector. Interesting examples are agriculture or social housing.

Key Words: Public Finance Initiative, Lease-Develop-Operate (LDO), Operate-Maintain-Transfer (OMT).

Introduction

Public-private partnership (PPP) refers to the procurement approach where the project is executed with a broader span of contractual relationships between the public and private sectors to provide an asset and/or a service . It is a procurement model to deliver public infrastructure and/or service crossing various sectors including transportation, water treatment, energy, environment, health, and education . PPP is believed to provide benefits to the public sector, private sector, and consumers by involving the participation of the government and the private financing initiatives . However, conflicting opinions exist considering the negotiation efficiency, service quality, and accountability within PPPs. PPP-based research has aroused wide interests in recent decades. Both developing and developed countries have actively been inviting private sectors to be involved in constructing infrastructure projects.

The public–private partnership (PPP or 3P) **is** a commercial legal relationship defined by the Government of India in 2011 as an arrangement between a government / statutory entity / government owned entity on one side and a private sector entity on the other, for the provision of public assets and/or public services.

A public–private partnership is a cooperative arrangement between two or more public and private sectors, typically of a long-term nature. It involves an arrangement between a unit of government and a business that brings better services or improves the city's capacity to operate effectively. A public-private partnership (PPP) is a long-

Screening, Isolation and Production of cellulose from Soil.

E.A.V.V Rambabu[1].M, Radha Sirisha.B, V.A.S.S.D.V Prasad Raju.V and Durga Prasad.B.

DEPARTMENT OF LIFESCIENCES,B.V RAJU COLLEGE,

BHIMAVARAM,WEST GODAVARI DIST,ANDHRA PRADESH,INDIA,PIN:534202.

*Corresponding Author:E.A.V.V Rambabu.

ABSTRACT: -Cellulose is the most abundant biological compound on terrestrial and aquatic ecosystem. Cellulose is also the most common organic compound on earth. It is well known that plants are the most common source of renewable carbon and energy on the earth. (Yakubu*et al.,* 2011).Cellulolytic enzymes play an important role in natural biodegradation processes in which plant lignocellulosic materials are efficiently degraded by cellulolytic fungi, bacteria, actinomycetes and protozoa.Cellulose is commonly degraded by cellulase. Cellulolytic enzyme system consists of three major components such as endoglucanases, exoglucanases and ß-glycosidase.

KEY WORDS:-Cellulose, Terrestrial, Enzymes, Endo-glucanases, Exo-glucanases and ß-glycosidase.

1. INTRODUCTION

1.1 Introduction tocellulose

Cellulose is the most abundant biological compound on terrestrial and aquatic ecosystem and is the main component of plant biomass (Shankar *et al.,* 2011). It is the dominant waste material from agricultural industry in the form of stalks, stems and husk, there has been great interest in utilizing cellulose as an energy resource and feed (Balachandrababu*et al.,* 2012). The cellulose is composed of D-glucose units linked together to form linear chain via ß-1, 4-glycosidic linkages (Salmon and Hudson, 1997).
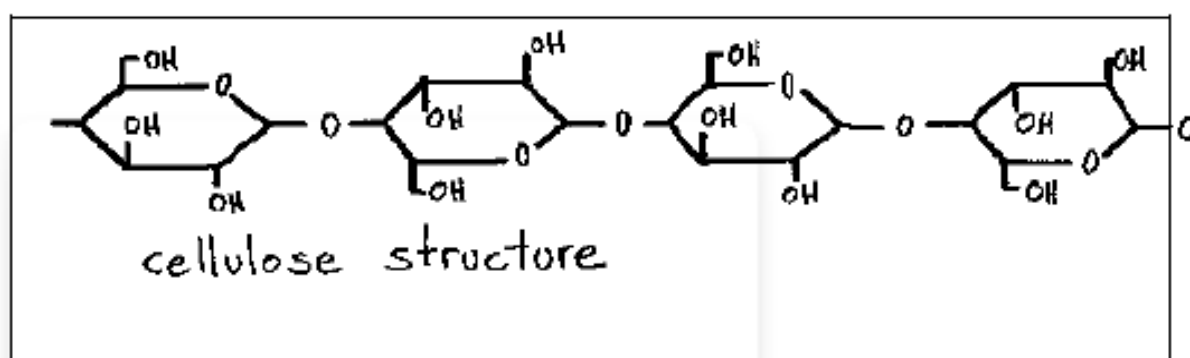

FIGURE 1.1: STRUCTURE OF CELLULOSE

A Review on Human and Environmental impacts due to LEAD Toxicity

Dasika Ravikumar * JLSS Phani Kumar **

Bhupathi Raju Vissam Raju College , Vishnupur, Bhimavaram, West Godavari District, Andhrapradesh-534202

Abstract: Lead is virtually immobile, does not break down in the environment; if left undisturbed and is a heavy metal that occurs naturally in the Earth's crust. Lead moves into and throughout ecosystems. Atmospheric lead is deposited in vegetation, ground and water surfaces. Lead bioaccumulation, nondegradability, and the excessive amounts in which they exist, contaminate the food chain and subsequently become a source of toxicity to human beings and the entire ecological function. The chemical and physical properties of lead and the biogeochemical processes within ecosystems will influence the movement of lead through ecosystems. Lead can also cause hemolytic anemia due to disruption of the cellular membrane by lipid per oxidation. Lead toxicity also affects neurotransmitter levels and causes severe health issues related to organ damage, some even leading to death. The main aim of this review article is to summarize lead toxicity detection, its sources, and its mechanism including various toxicological effects on human health. Lead is highly persistent in the environment and because of its continuous use its levels rise in almost every country, posing serious threats. Low blood lead levels are sufficient to inhibit the activity of these enzymes and induce generation of reactive oxygen species and intensification oxidative stress. Oxidative stress plays important role in pathogenesis of lead-induced toxicity and pathogenesis of coupled disease.

Key words: lead toxicity, exposure, Health Impacts, toxicological effects

Need of Review:

Science is constantly refining and increasing and never static in nature as the process of scientific research and exploration is dynamic to the core. This will become extra relevant inside the present   day landscape of science while there   is an   explosion   of know-how   sharing of records is sort of immediate. Heavy metals are abundant in the environment and contribute largely to the sustainability and equilibrium of ecosystem processes. Emerging statistics often not pertains to molecular mechanism of lead toxicity but it contains the interplay between lead compounds and molecules engaged in biological pathways of cell protection, DNA replication, Protein   synthesis,   regulation   of   cellular   multiplication   and   apoptosis.   For   this reason, I felt that various vital aspects of lead toxicity needs be up reviewed which offer the outline of the hassle that could be a global environmental situation.

Introduction: Lead is the most important toxic heavy element in the environment. It's important physico-chemical properties, utilized to retracing the historical times. It is an abundantly distributed globally, yet a dangerous environmental chemical (Mahaffay, 1990). Its important properties like softness, malleability, ductility, poor conductibility and resistance to corrosion seem to make difficult to give up its use. Due to its non-biodegradable nature and continuous use, its concentration accumulates in the environment with increasing hazards. The metal can

A REVIEW ON REGULATORY PROTEINS AS POTENTIAL SALIVARY BIOMARKERS IN ORAL CANCER DETECTION

P.Rajendra Babu* S.Ramesh ** R.L.Satyanarayana***R.Swamy sabharinadh****

Senior Lecturer * Senior Lecturer ** Lecturer *** Senior Lecturer ****

Department of Chemistry

B.V.Raju College, Vishnupur , Bhimavaram, Andhrapradesh, India -534202

Abstract: The Preventive measures and therapeutic strategies are attaining timely with a great efforts of clinicians and scientists of the same on oral cancer. Mere improvement in therapeutic strategies is not enough to decrease the mortality and morbidity rate of oral cancer. However the recent studies have proved that delay in diagnosis remains one of the major causes of the high morbidity and mortality rate. Therefore the aim of this review is to cover the most recent data on salivary biomarkers in the detection of oral cancer.

Salivary biomarkers serve as the diagnostic tool in oral cancer namely increased salivary fluid levels of cell cycle regulatory proteins such as Cyclin D1, Ki67, glycolytic enzymes like Lactate Dehydrogenase (LDH) and Matrix Metallo Proteinase (MMP) as diagnostic tools in oral cancer is reviewed.

Key words: Saliva, Oral Cancer, Cyclin D1, LDH, MMP\

I Introduction:

Saliva, a biological fluid serves as the diagnostic tools as it possess several biomarkers. Bio monitoring of these biomarkers like proteins, nucleic acids, circulating tumor cells, or disease drivers related to infections proved their usefulness in the diagnosis of human diseases including oral cancer [1]. Oral cancer reported as one of the serious health problem globally [2]. The morbidity and the mortality rate of oral cancer has been increased day by day it is because of the late diagnosis in an advanced stage [3]. Screening and an early detection of oral cancer have however increases the survival rate, the reason is pre- malignant tumors even can be detected in saliva unlike that of the biopsy procedures that are available [4].

Robert Gagne's Nine Instructional Model of Session Plan to Bloom's Taxonomy Levels of Questions with Innovative Digital Platforms

Dr. D. Vijaya Lakshmi, Associate Professor, Vishnu Institute of Technology, Bhimavaram
K. Krishna, Lecturer, Padmasri Dr. BV Raju Institute of Computer Education, Bhimavaram
N. Krishna Mohan Raju, Associate Professor, Vishnu Institute of Technology, Bhimavaram
vijayalakshmi.d@vishnu.edu.in
9490133459

==

Introduction

English is not just a language. It is a language of empowerment through teaching and learning and of enrichment and entertainment. Innovation is the driving force of progress. Today, the digital revolution is playing a vital role in taking English language teaching forward and has become core to language teaching. Globally, English is the medium of instruction in higher education. Teachers can make active use of tools and technologies to improve standards of the students. Approaches and techniques in teaching may differ according to the student's skills. This paper aims to make acquainted the techniques and methods of English language teaching in exploring the new ways for teaching learning approach. As a part of techniques and methods, the development of this paper focuses on Robert Gagne's Nine Instructional Model of session plan to Blooms Taxonomy levels of question paper with innovative digital platforms like Google Classroom, Mind mapping etc. If English language is taught through innovative technologies the entire ambience of the classroom will be pleasant, enjoyable, satisfying and amusing.

There are many ways to plan a session. Among all of them the highlighted session plan is Robert Gagne's Nine Instructional Model with teacher details. For instance:

Faculty & Subject Details		Class Details	
Name of the Faculty		Academic Year	
Designation		Semester	
Department		Branch	
Subject Name		Class / Section Name	
Session Topic		Date	

==
Language in India www.languageinindia.com ISSN 1930-2940 21:1 January 2021
Dr. D. Vijaya Lakshmi, K. Krishna and N. Krishna Mohan Raju
Robert Gagne's Nine Instructional Model of Session Plan to Bloom's Taxonomy Levels of Questions with Innovative Digital Platforms   55

A REVIEW ON MATHEMATICAL MODELING OF THE GLUCOSE–INSULIN SYSTEM

Authors: Ch. Satyanarayana*, P.Madhura Subhashini**, D.S.Priyadarsini*** M.Siva **** Department of Mathematics, B.V.Raju College, Vishnupur, Bhimavaram , West Godavari District, Andhra Pradesh 534202

Abstract: The only possibility to investigate the metabolic disease dynamics is by Mathematical models. The present review was performed in order to determine to what extent different mathematical models have been incorporated in understanding the homeostatic controls, for analyzing experimental data, for identifying as well as for evaluating diabetes disease progression. A silent epidemic Diabetes is sweeping the world contributing the growing burden of human activities' reducing levels as well as growing incidence of obese. In the earlier studies various models were proposed and investigated to interpret about aldohexose and hypoglycemic agent and rate of diabetes prevalence among the population with series health impacts. Several reviews have been studied about the significance of mathematical models in various aspects of disease progression. The variables required for the mathematical model includes the glycogen's concentration in the tissues/liver, glucose, hormone glucagon, and insulin in the venous blood plasma.

Keywords: Mathematical model, diabetes, glucose-insulin dynamics, disease progression.

Introduction:

The study of science is ubiquitous that deals with the spatial arrangement, quantity and it is the indivisible units of life for everything in our daily lives, including various appliance, ancient and modern designing and constructing buildings, art, economy, engineering, and even competitive physical activity. Biomathematics is a fast-growing with exciting modern applications such as differential equations one among them which has basic importance in mathematics due to many biological laws and relations. To study the molecular process of the cell species related to time of natural selection, ordinary differential equations methods are used to formulate. The process of diffusion in the cell is high enough to describe these equations particularly about the arrangement of a phenomenon across homogenous molecules. To

CERTIFICATE

Lattice Science Bibliographic Database

This certifies that the research paper entitled 'Evaluation of Various DR Techniques in Massive Patient Datasets using HDFS' authored by 'K. B. V. Brahma Rao, R Krishnam Raju Indukuri, P. Suresh Varma, M. V. Rama Sundari' was reviewed by experts in this research area and accepted by the board of 'Blue Eyes Intelligence Engineering and Sciences Publication' which has published in 'International Journal of Recent Technology and Engineering (IJRTE)', ISSN: 2277-3878 (Online), Volume-10 Issue-4, November 2021. Page No.: 1-6. on merit basis.

Your published paper available at: https://www.ijrte.org/portfolio-item/d65081110421/.

No article publication charges was given by the authors for publication of this article in the Journal.

Jitendra Kumar Sen
(Manager)

BHOPAL

Dr. Shiv Kumar
Editor-In-Chief

ajrc

RESEARCH ARTICLE

Domino Prins cyclisation for Stereoselective synthesis of Oxygen bridged bicyclic thioethers using Amberlyst-15

N. Prudhviraju[1*], R.L. Satyanarayana[1], S. Ramesh[1], J. Padmavathi[1], B. Nagamani[1],
B. Jagan Mohan Reddy[2], B. V. Subba Reddy[3]
[1]B.V. Raju College, Vishnupur, Bhimavaram, West Godavari District, 534202, India.
[2]Department of Organic Chemistry, Adikavi Nannaya University, Rajahamahendravaram, 533105, India.
[3]Natural Product Chemistry, CSIR-Indian Institute of Chemical Technology, Tarnaka, 500007, Hyderabad, India
*Corresponding Author E-mail: prudhvil15@gmail.com

ABSTRACT:
A domino reaction has been developed for the synthesis of Oxygen bridged bicyclic thio ethers through the coupling of 4-(2-mercaptoethyl)-1-methylcyclohex-3-en-1-ol with aldehydes in the presence of Amberlyst-15 in dichloromethane at 25°C. This method is a highly diastereoselective affording the corresponding bicyclic thio ethers i.e. (1R,4aR,7R,8aR)-7-methyl-1-(2,4,5-trifluorophenyl)octahydro-4a,7-epoxyisothiochromene in good yields with high selectivity. It is the first report on the synthesis of Oxygen bridged bicyclic thioethers using a domino Prins strategy.

KEYWORDS: Amberlyst-15, dichloromethane, 4-(2-mercaptoethyl)-1-methylcyclohex-3-en-1-ol, octahydro-4a, 7-epoxyisochromenes, Domino Prins.

INTRODUCTION:

Oxygen bridged bicyclic core (englerin) is frequently found in various natural products such as englerin, orientalol, oxyphyllol and saniculamoid A etc (Figure 1).[1]
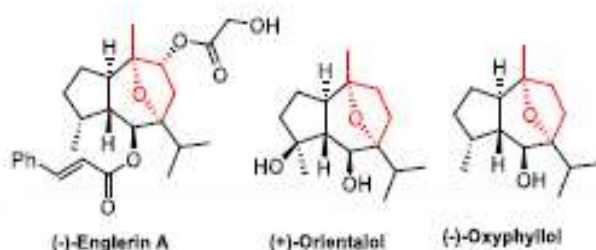

(-)-Englerin A   (+)-Orientalol   (-)-Oxyphyllol

Figure1. Representative examples for Oxygen bridged bicycles

They are known to exhibit promising cytotoxicity against renal cancer cell lines.[2] Of various sulphur oxygenated heterocycles, tetrahydropyran ring is often present as a core structure of many biologically active natural products.[3]

Therefore, several efforts have been made to develop efficient synthetic approaches for the synthesis of these heterocycles.[4]

Among them, Prins cyclization is one of the most reliable strategies for the construction of tetrahydrothiopyran ring system.[5,6] In particular, Prins cascade is a highly convergent approach for the stereoselective synthesis of fused/bridged tetrahydrothiopyran derivatives.[7,8] Besides its potential use in natural products synthesis,[9-10] the scope of this cascade process has not yet been explored for the synthesis of Oxygen bridged thiobicycles from readily accessible aldehydes and 4-(2-mercaptoethyl)-1-methylcyclohex-3-en-1-ol. However, the development of a simple and metal-free approach for the construction of Oxygen bridged bicyclic thio ethers using inexpensive and readily available reagents is well appreciated. Recently, Amberlyst-15 has received a considerable attention in organic synthesis because of its low cost and ready availability.[11] The mild Lewis acidity associated with Amberlyst-15 has enhanced its use in organic synthesis to perform several organic transformations using stoichiometric levels to catalytic amounts.[12]

Design of Automated Solar Lawn Mover

[1]V. V. Vijetha Inti, [2]Ch. Rajya Lakshmi,[3] D. Mamatha, [4] G. Rama Swamy, [5]B. Kiran

[1]Assistant Professor, Department of EEE, Vishnu Institute of Technology,Bhimavaram, A.P., India
[2]Associate Professor, Department of Chemistry, Vishnu Institute of Technology,Bhimavaram, A.P., India
[3]Assistant Professor, Department of EEE, Vishnu Institute of Technology,Bhimavaram, A.P., India
[4]Assistant Professor, Department of Chemistry, Vishnu Institute of Technology,Bhimavaram, A.P., India
Assistant Professor, Department of Physics, B.V.Raju College, Bhimavaram, A.P., India

Abstract:- Automation is rising quickly in the present technology. So mechanization assumes an imperative part in the horticultural field which is useful for the ranchers. In the previous days, the grass cutters utilized were physically handheld gadgets. Along these lines, there was contamination and loss of energy as they utilized gas and petroleum motors. So the old grass cutters should be supplanted via mechanized ones, where the framework will work for direction and hindrance discovery utilizing sunlight based energy as a force source.

Keywords: Automation, Solar energy, Grass cutter, Arduino

1. INTRODUCTION

In this paper we present an automated grass trimmer, fueled with sun based energy and ready to work just with the perfect energy from the sun; this one is an extraordinary contrast from the business ventures having a robot needing a charging station associated with the electrical matrix. It utilized Arduino UNO microcontroller board as the principle regulator of the framework, Ultrasonic sensor for object location, a NODE MCU for Wi-Fi association, a straight sharp edge for cutting the grass, and an engine drive for the wheels of the Robot. This is completely robotized and sustainable power based project.In Subsisting framework the gas or petroleum motors are used for the working of the grass cutting machines, yet in our plan we are made a grass shaper robot [1]which works by giving sunlight based energy as the source and the principle disadvantage of the remaining alive framework is it need a different individual to work the robot[2][3], to conquer this downside we are planning the robot with programmed block recognize and shirking by using the finish to stop switch , for the programming of the arduino microcontroller board we used the arduino programming and disentangled variant of c++ language as the programming language to indite the code.

In this paper we present a robotic lawn mower, fueled with sun powered energy and ready to work just with the perfect energy from the sun; this one is an incredible contrast from the business ventures having a robot[4] needing a charging station associated with the electrical matrix. When planning a grass cutter fueled by sun based energy, it is basic that the majority of the energy comes from the sun, and obviously a definitive outcome would be acquired if sun oriented energy were sufficient to totally control up the robot: this one is anyway a target that will be extremely hard to get, given the low effectiveness of existing sun based boards. In our venture the entire surface of the robot is bound to sunlight based boards, acting likewise as a cover: just the sides have been left free, and at any rate they wouldn't assume an unequivocal function in providing energy. Clearly, this decision represents a genuine imperative to the remainder of the undertaking, since in this way we previously characterized the greatest force accessible.

We need to consider that sunlight based power[5] won't generally be accessible, the same number of nursery territories are frequently in shade, or at any rate not straightforwardly hit by the sun, so we need to consider extensive misfortunes of influence. These misfortunes can be made up just if the robot has a gatherer fit for providing energy when it is missing from the sun. In this circumstance the battery functions as a cushion, collecting energy when it is bounty, and providing it when the robot, in actuality, is in shade. Starting here of view lead batteries are the most appropriate ones, however nothing restricts us to utilize batteries that can be performing more as far as weight and limit, similar to lithium ones. In full sun, the sun oriented board is equipped for reviving the inner battery with a flow at about 0,6A, adding up to about 8W, well under the force utilized by even the most proficient electric yard trimmer, fueled at 220Vac. This causes us to see as of now that an item like the one we're depicting in these pages can't substitute a physically worked yard trimmer totally, as this last one should be utilized from time to time, when the grass is excessively tall. Or maybe, the mechanical grass cutter can be utilized for a nonstop and consistent trimming of the grass.

These arrangements likewise offers a further bit of leeway, since the persistent taking care of guarantees that the lawn is consistently youthful and soft[6], and as it is cut in tiny pieces it is expected to decay itself in a brief timeframe, consequently filling in as preparation for the grass. You shouldn't expect the grass that has been sliced to be accumulated: in actuality, it will store itself among the grass cutting edges that have quite recently been cut.

For this sort of use, less force is required, and can be handily dealt with a battery fueled system[7]. The feeble force in play persuaded us to pick footing and a cutting motor with diminished force. Most likely, they may not totally suit the requirements of our perusers, who may in any case get the motors and the structure they like, contingent upon their spending plan and individual exigencies. To characterize the cutting zones in a yard, the underground wiring framework ends up being