## CONFERENCE PROCEEDINGS



#### **EDITORIAL BOARD**

Dr. K J James

(Conference Convener)

(Dr). Praveenkumar K S

(Conference Chairman)

Dr. Meenakshi Sharma

Dr. Gakwaya Nkundimana Joel

Dr. Shince V Joseph

Dr. Bincy Baby

(Dr). Resmi K R

(Dr). Pramod K

(Dr). Dhinulal M

Mr. Joyal Paul



# Online National Conference o n Trends & Technologies in

**20th March 2021** 

**(NCTTMDR-2021)** 

**Multi-Disciplinary Research** 

Organized by

A2Z EduLearningHub
in association with
International Journal of Scientific
Research in Science and Technology
(IJSRST)

	Table of Content						
Sl No	Title of the Paper	Name of the Author/s	Page No				
1	Introduction		4				
2	Message- Chairman, NCTTMDR-2021	(Dr). Praveenkumar K S	5				
3	Message- Inauguration	Dr. K S Divakaran Nair	6				
4	Message- Invited Talk	Dr. Deva Brinda	7				
5	Message- Chair, NCTTMDR-2021	Dr. Meenakshi Sharma	8				
6	Message- Chair, NCTTMDR-2021	Dr Bincy Baby	9				
7	Message- Chair, NCTTMDR-2021	Dr. Shince V Joseph	10				
8	Message- Chair, NCTTMDR-2021	(Dr) Resmi K R	11				
9	Message- Chair, NCTTMDR-2021	Dr.Gakwaya Nkundimana Joel	12				
10	Message- Convener, NCTTMDR-2021	Dr K J James	13				
11	Message- Co-Chair, NCTTMDR-2021	(Dr). Pramod K	14				
12	Message- Co-Chair, NCTTMDR-2021	(Dr). Dhinulal M	15				
13	Message- Co-Chair, NCTTMDR-2021	Mr. Joyal Paul	16				
	Abstract of Presented Paper	s					
14	A Comparative Study of Deep Learning Techniques for the Prediction of Blood Glucose Level in Type-1 Diabetic Patients	Sunandha Rajagopal, Soumya Koshy, Retna Sagar	17				
15	A Comparative Study of different Machine Learning Models for COVID-19 prediction in India	Cina Mathew, Cini Joseph, Dhannya J	18				
16	Face Mask Detection - Using Artificial Intelligence	Jithu Mini Samuel,	19				
17	Augmented Reality in Education	Praseetha M.S	20				
18	An Approach on DNS Amplification Attacks	Spartacus P.P,Jerin Joy Nimitha Mohan	21				
19	Security on Mobile Devices Using Biometric Authentication	Krishnendhu C.M, Aiswarya Venu, Praveenkumar K.S	22				
20	Big Data Analysis For Consumer Behaviour In Mobile App Usage	Meenakshi B Panicker, Rohil N V, Claijo Kurian	23				
21	Molecular Communication in Nanonetworks	Vaishnavi Jayakumar, Varsha K.S, Bibitha Baby	24				

22	Credit Card Fraud Detection Using Data Mining	Chithranjaly K S , Lal	
		Krishna P A , Radhika B	25
23	Malayalam Handwritten Character Recognition –Approaches and Techniques	Shasna K A , Roshna P.S	26
24	A Review on Internet of Things	Mariyam Hiba N ,Sadiyamole P A	27
25	A Review on Biometrics and its Applications	Najeeha A A,Shameema A M	28
26	Prediction of Cardiovascular Disease Using Machine Language	Pooja Manoj, Sreenanda C.K, Nimitha Mohan	29
27	A Comparative Study of different Machine Learning Models for cyber bulling detection	Aby Rose Varghese, Shy Mary Abraham, Tintu Varghese	30
28	A STUDY ON DETECTION AND PREVENTION ON INFECTIOUS DISEASE USING DATA MINING	HSANA T M, JITHIN KUMAR P K	31
29	Sentiment Analysis And Applications – A Review	Sandra Paul,Reseena mol N.A	32
30	Stock Price Prediction Using Machine Learning	Anjali Sunil	33
31	DEEP LEARNING FOR SAILENCY: A REVIEW	Rovina Mariam Jose, Malu G, Binny S, Naveen Thomas Joseph	34
32	Role of Socioinformatics participation in the COVID-19 study: highlighting Healthcare arenas to benefit from Information and Communication Technology.	Dr Sudheer Marar Pramod K Ashish L	35
33	Design and Analysis of Bamboo Substrate Aramid Layered Composite Helmet Shell	Vivek- V G	36
34	INTEGRATION OF DIGITAL TECHNOLOGIES IN THE INDIAN MICROFINANCE SECTOR	Alpa Ghosh	37
34	EMOTIONAL INTELLIGENCE: A COMPARATIVE STUDY ON THE SELECTED PUBLIC (SBI) AND PRIVATE (FEDERAL BANK) SECTOR BANKS WITH SPECIAL REFERENCE TO ERNAKULAM DISTRICT	Mariya Sinta Joseph	38
35	STUDY ON WATER MANAGEMENT AN UPCOMING BUSINESS OPPORTUNITY IN INDIA	Mary Shilpa Sebastian	39
36	REVOLUTIONIZATION OF ONLINE EDUCATIONAL PLATFORM WITH THE OUTBREAK OF COVID19	Ann Martin , Lishna Shaji	40
	Technology Trends that are and will be driving the Banking	Anitta Jomy Thomas	

38	Agile Strategies to bounce back- a Case Study of Small Business	Ms Namrata Kishnani	42
39	CORONA VIRUS AND ITS IMPACT ON VARIOUS INDUSTRIAL SECTORS	Shilda Thomas , Dr. B. Sindhu	43
40	A Study on E-commerce Payment trends during Corona Virus pandemic in Bhopal City	Ms. Aishwarya Sarathe, Dr. Deepak Tiwari	44
41	Locus of Control of Individual Investors: A Segmentation Analysis	FIONA SHEENU FRANCIS	45
42	A Study of youth's behavior to adopt the "GREEN FMCG "in Anantnag District (Jammu and Kashmir)	Mehraj u din lone, Dr. Deepti Maheshwari, Ayash Arif	46
43	Perception towards welfare measures of the labourers in unorganised sector (UOS)	Roney Rose KF	47
44	Green Process Innovations and Green Product Innovations: An Environmental Management Strategy and Its Growth Phases in the Manufacturing Sector	Soumya Varghese, Dr. Jagathy Raj V.P	48

4

NCTTMDR-2021 ISBN: 978-81-951230-1-8

Introduction-

Online- National Conference on Trends & Technologies in Multi-Disciplinary Research

(NCTTMDR-2021) on 20<sup>th</sup> March 2021

A2Z EduLearningHub organizes a National Conference on Trends & Technologies in Multi-

Disciplinary Research (NCTTMDR-2021) in association with the International Journal of Scientific

Research in Science and Technology (IJSRST) on 20<sup>th</sup> March 2021. This conference is a meeting

place for sharing ideas, discoveries and inventions with their peers and experts, online. The

Conference will help academicians, research scholars, UG & PG students to provide them with the

knowledge on recent trends and innovations in Commerce, Engineering and Management

disciplines.

Simultaneously, the conference aims at capacity building, developing and assisting emerging

researchers to promote Social Responsibility and work in the Nongovernmental Sector for

sustainable development project.

With Regards!

Team

NCTTMDR-2021

#### **MESSAGE**



Mr. Praveenkumar K S, Director, A2Z EduLearningHub (Assistant Professor & Head, Dept. of Computer Applications, SNGIST ASC, Kerala)

Since March 2020, Covid has been a threat for our social life. It prevents the traditional ways of education and face to face instruction. Teachers and students are physically isolated, so that interaction is not possible. It is against this background A2ZEduLearningHub thought of an online conference. We decided to provide an opportunity for the researchers and like-minded people to assemble virtually, when all physical meetings are being suspended. We have only one objective here; that is, for academicians, researchers scholars, UG and PG students, to share their ideas, discoveries and inventions, with their peers and experts online. Definitely this type of paper presentation and this type of meeting will be a part of our carer in the coming days. Now in the world, especially in India academicians, professionals, students are getting familiar with the new method of teaching and learning.

This Conference, particularly meeting young researchers from different parts of the world, has given me a lot of hope for a brighter future in a post-Covid era. A good piece of responsible research would unearth the issues deep-rooted in the society, analyse them, evaluate the results through a prism of differing perspectives and provide recommendations that would be beneficial to society. The point that interests me most is that it would help policymakers frame policies that positively impact the people and the community.

Thank you all for your contributions, and I look forward to reading more of your works in the future and seeing you at future conferences.

With Regards!

Mr. Praveenkumar K S

**MESSAGE** 

Dr. K.S. Divakaran Nair

Regional Director (former), IGNOU, Kochi

The objective of research is to create new knowledge or new interpretations of existing knowledge.

Research should be a continuous process. The growth and development of a nation totally depend on

its research initiatives. The investment on research is never a fruitless effort. The developed nations

are competing one another in increasing their share of expenditure in the annual budget, for research.

The National education Policy 2020 of Government of India has recommended for allocating more

investment in Research and Development.

The present on-line conference on multidisciplinary research organised by A2Z EduLearningHub is

timely and congratulatory, in which a good number of papers are presented by the researchers and

experts in the field. By providing a platform, I understand that the organisers are encouraging and

enabling the young and budding researchers from different parts of the country to undertake research

to face the challenges and find solutions for problems faced by society.

This conference proceedings that A2Z EduLearningHub publishes, is a valuable record of all

the papers presented. I hope this collection of papers would be accepted and appreciated by

researchers, research supervisors and the students. I congratulate A2Z EduLearningHub for

organising such a unique online conference and also publishing the proceedings for the cause of

research and dissemination.

Regards!

Dr. K.S. Divakaran Nair

#### **MESSAGE**



Dr. Deva Brinda Professor (former), SRM University

This on-line conference organised by A2Z EduLearningHub is really praiseworthy in the context of Covid pandemic in India and all over the world. This effort brings the researchers and research scholars together to a live platform for showcasing their findings in multi-disciplines. I take this opportunity to congratulate the presenters of papers, participants of the webinar and especially, A2Z EduLearningHub for publishing the collection of papers.

As a researcher with long years of experience in my field and as a power engineer, I am happy to present a concept paper, on which further investigations are necessary.

Smart grid, the computer controlled generation-transmission-distribution system, is an emerging requirement for sustainable development. India too, is not an exception in this technological advancement, which otherwise demands research and development on the nuances of an effectively functioning smart grid in the country. Whatever be the systems, in the form of micro grid or macro-grid, new and new experimentations are highly needed for filling-in knowledge gaps with further research. Smart grid is an umbrella concept under which there are several sub-issues, like: Clean energy, Green energy, Convergence of power systems, Non-conventional power generation, Storage of power, Power for sustainable development etc. are vibrant. Big data analysis is another area of research that has unending limit.

I appreciate the presenters of papers and A2Z EduLearningHub for involving in the services of: production of knowledge and distribution of knowledge for the nation, in multi-disciplines. I wish this conference proceedings could become a valuable reference material for the researchers and students.

With Regards! Dr. Deva Brinda



Dr. Meenakshi Sharma Professor, RNB Global University, Rajasthan

First of all I congratulate the presenters of the papers and A2Z EduLearningHub for realising this online conference. Though the conference is for the presentation of papers from multi-disciplines, this room is for the presenters from the disciplines: Commerce and Management Studies.

In this section we expect papers with more innovativeness and relevance, for which the presenters had taken much care and interest. I understand that there are papers titled: i) Water management as upcoming business opportunity, ii) Educational platform on the outbreak of Covid, iii) Technology trends in banking sector, and iv) Impact of Covid on industrial sector. No doubt, these papers would catch the attention of the presenters, as well as the participants.

I am happy to know that A2Z EduLearningHub is bringing about the proceedings of this conference for the use of researchers, research scholars and students. Let the conference presentations and the dissemination be a great success!

With Regards!

Dr. Meenakshi Sharma

#### CHAIR'S MESSAGE



Dr Bincy Baby
Assistant Professor, St.Peter's College, Kerala

Each and every Conference aims to put forward new knowledge and theories for the benefit of society. NCTTMDR-2021 conference was to provide a forum for disseminating knowledge and information in the area of different disciplines. Students and faculties from several colleges presented papers in the conference. They presented various papers in Commerce and Management. All of them made effort for the insightful presentation. Exactly it was an inspirational event for all the participants. Special congratulations to all the participants for their contributions. Almost all the papers were sound qualified for publication in the International Journal of Scientific Research in Science and Technology.

With Regards!

Dr Bincy Baby

Dr. Shince V Joseph Assistant Professor, Madanappalle Institute of Technology & Science Andhra Pradesh

The use of data to understand phenomena and evaluate designs and interventions in different disciplines is increasingly evident. As a result, engineers and other applied scientists frequently find themselves needing to collaborate in multidisciplinary fields when carrying out research to remain innovative. Multidisciplinary research is an investigation or inquiry to a problem for ascertaining the hypothesis combining many academic approaches, fields or methods. National Conference on Trends & Technologies in Multi-Disciplinary Research held on March 20, 2021 is a platform to spread and share the knowledge among young and dynamic talents across the country. It was a great honour to be a part of the programme as technical chair. I would like to thank you for the invitation and impressively organised and executed conference.

With Regards!
Dr. Shince V Joseph



(Dr). Resmi K R Assistant Professor, Santhigiri College, Kerala

Every person has thoughts and ideas that can lead to the creation of new products and services. The aim of the NCTTMDR-2021 conference is to give academicians and researchers a place to share their ideas in multidisciplinary research. Students and faculties from various colleges presented papers in the conference. Presenters presented various relevant and advanced topics in computer science. All presenters took good effort for effective presentation. Special congratulations to students who took initiative to present the papers. Selected reviewed papers will be considered for publication in the International Journal of Scientific Research in Science and Technology.

With Regards!
(Dr). Resmi K R

Dr. Gakwaya Nkundimana Joel Assistant Professor, Lowry Memorial College, Benguluru

I am delighted in acknowledging and mentioning that the National Conference on Trends and Technologies in Multi-Disciplinary Research (NCTTMDR-2021) as the best and the outstanding ever organized online conference. The presenters and participants had focused on the current lifestyle dependency on technologies and the users' pro and cons face daily life related to findings on current scenario. NCTTMDR-2021 blend of research and practice and as can be seen from the articles of the participants. The chairs' committee accepted papers and presentations, from those papers which meet the criteria of the conference. The review process was manually done and feedback automated using any means convenient to the participant.

I would like to thank all co-chairs' conference for their thorough and time reviews of the submissions, which enabled the rigorous selection of a very strong papers

I appreciate the organizing committee for showing a keen interest in organizing a successful conference and contributing new ideas and research findings. I wish them for the endeavors to spread knowledge

The conference got great support from the A2Z EdulearningHub in association with IJSRST in the presence of DR. K J James General Chair,NCTTMDR and Mr. Praveenkumar K.S Director, A2Z EduLearningHub LLP

With Regards!

Dr. Gakwaya Nkundimana Joel



Dr. K.J. James, General chair of the conference (HoD, SNGIST Group of Institutions, Kerala)

A2Z EduLearningHub might have thought of an off-line mode for the presentation of research papers to be published in this proceedings. Covid-19 pandemic tarnished that dream, but they were not wasting time, against which an on-line conference was the way-out. Every academic and researcher must congratulate A2Z EduLeraningHub and the writers of the papers for their interest and enthusiasm that they expressed in this adverse circumstances.

These papers are from multi-disciplines, namely, Commerce, Management Studies, Science, Technology and Engineering, and the presenters are from different states of India. What makes me happier is that, a good number of presenters are young and vibrant scholars who begin their noble carrier as researchers in their field. Still, they could think in terms of innovativeness and relevance. It makes me proud of reading the papers on most needed themes, including: Big data analysis, Internet of things, E-payment and Human resource management.

I firmly believe that hundreds of researchers, research scholars, post-graduate students and teachers would be attracted to use the proceedings for different research purposes, or least they would keep this as a good reference material. Thus the writers of the papers would be honoured again and again.

With Regards!

Dr. K.J. James



(Dr). Pramod K Associate Professor, SNGIST Group of Institutions, Kerala

The conference on Trends & Technologies in Multi-Disciplinary Research organised by Edu Learning Hub on 20<sup>th</sup> March 2021 was really touch the most awakening research area of Commerce, Engineering, Management and Technologies. The presenters from various research discipline delivered their views which is relevant to the current pandemic situation. Many of the scholars thinking how their research work will turn into get a solution for the current real-world problem which spread in every phase of the life. For example, a mathematical model proposed by a scholar provided the effective way to predicting the frequency of affecting the pandemic in a selected local area. The actual study was looks into a matter which is used for an analytical study related to finance.

Another example is related to an algorithm proposed for a purpose of developing a programme related to analyzing the occurrence of human errors in a micro controller hatchery. The research scholar proved that; the same algorithm concept can be utilized in the area of predicting the occurrence of spreading the pandemic. Similarly, many of the idea developed from the ongoing research works can be utilised in giving solutions for the situation where the society currently faces. The NTTMDR 2021 and its organizers did a remarkable job in the multi-disciplinary research, where the whole world is looking into get off the situation

Regards! Pramod K

#### Co-CHAIR'S MESSAGE

(Dr). Dhinu Lal.M, (Former Assistant Professor, UKFCET, Kerala) PhD Research Scholar, VIT Vellore

It is a great pleasure to welcome you all to the online National Conference on "Trends & Technologies in Multi – Disciplinary Research" (NCTTMDR – 2021) organized by 'A2Z EdulearningHub' in association with "International Journal of Scientific Research in Science and Technology" (IJSRST). NCTTMDR provide a platform to academicians, researchers, NGO', government authorities and policy makers to meet, discuss and propose technologies in commerce, management and engineering. The presenters in the room which I co-chaired was from commerce and management.

The papers entitled i) Locus of Control of Individual Investors: A Segmentation Approach, ii) Green Process Innovations and Green Product Innovations: An Environmental Management Strategy and its Growth Phases in the Manufacturing Sector and iii) A Study on E-commerce Payment trends during Corona Virus pandemic in Bhopal City shows originality in the concept, scope, and presentation. These papers are more relevant in this era, and there is no doubt that these works will benefit both the research community and society. As A2Z EdulearningHub publishes the proceedings of this virtual conference, it will be of great assistance to aspiring researchers conducting literature reviews. I anticipate more research-related initiatives from A2Z EdulearningHub in the future.

As co-chair of this virtual conference, I would like to thank all of the participants who presented their valuable research works, as well as A2Z EduLearningHub and its organizers for organizing a very well virtual conference. Also, many thanks to the editorial team of the International Journal of Scientific Research in Science and Technology for their assistance in publishing the papers.

Regards!

Dhinu Lal M



Mr.Joyal Paul Assistant Professor, SNGIST Group of Institutions, Kerala

Knowledge gaining is an essential part of growth. Research is a tool for achieving the knowledge we seek for finding solutions to the problems in everyday life. Besides that, a mind with determination and passion is a necessity for a successful outcome.

I, firstly, appreciate A2ZEduLearninhHub for all the hard work and diligent effort put into completing the online national conference. All the participants were from the computer science discipline with novel and innovative topics. The topic selection and presentation style of every participant was remarkable. I am sure that this kind of programme will help students and research scholars in gaining knowledge and confidence in research completion. I also wish everyone that your efforts become a success.

Regards!

Joyel Paul

# A Comparative Study of Deep Learning Techniques for the Prediction of Blood Glucose Level in Type-1 Diabetic Patients

Sunandha Rajagopal<sup>1</sup>, Soumya Koshy<sup>2</sup>, Retna Sagar<sup>3</sup>

1,2,3 Assistant Professor, Kristu Jyoti College of Management and Technology Kottayam

#### **ABSTRACT**

Diabetes Mellitus is a physical condition where one's pancreas becomes disable to produce enough insulin, resulting in poor metabolism of carbohydrates and elevated levels of glucose in the blood. Deep Learning Techniques can be used to predict the upcoming hypo or hyper glycaemic condition by learning glucose evolution patterns. This study compares the difference between the prediction using Convolutional Neural Networks (CNN) and Feed-Forward Neural Networks (FNNs), The FNN is an artificial neural network where connection between the nodes do not form a cycle. Working of CNN is same as FNN with a difference that CNN is trained through back propagation.

**Keywords: Diabetes Mellitus, Deep Learning, Convolutional Neural Networks, Feed-Forward Neural Networks (FNNs)** 

# A Comparative Study of different Machine Learning Models for COVID-19 prediction in India

<sup>1</sup>Cina Mathew, <sup>2</sup>Cini Joseph, <sup>3</sup>Dhannya J

<sup>1,2,3</sup> Assistant Professor, Kristu Jyoti College of Management and Technology, Kottayam

#### **ABSTRACT**

Machine Learning (ML) can be deployed very effectively to track the disease, predict the growth of the epidemic and design strategies and policies to manage its spread. Several prediction models for COVID-19 are being used by officials to make relevant control measures. Due to a high level of uncertainty and lack of essential data, standard models have shown low accuracy for long-term prediction In several technology domains, ML models have been used to define and prioritize adverse threat variables. This study applies an improved mathematical model to analyse and predict the amount of forthcoming COVID-19-affected patients in India. An ML-based improved model has been used to predict the threats of COVID-19 in India. In this paper, we have performed a comparative study of four machine learning standard models like Linear regression (LR), decision tree, multi-layer perception (MLP) and random forest to predict the threatening variables of COVID-19. Each of the models makes three forms of predictions, i.e. the total active cases, the total deaths, and the total recoveries in the next seven days.

Keywords: Machine Learning, Linear regression, Multi-layer perception

Face Mask Detection - Using Artificial Intelligence

Jithu Mini Samuel.

Btech CS Student, (Student, Dept. of CS, SBCE, Pathanamthitta),

**ABSTRACT** 

The main concept of this project is to design a mask detecting system so as to control the high rate of

covid. Using face detection program we can implement this. For example this product can be

implemented in a supermarket in order to recognize who all are the people coming to public faces

without masks. When a person enters the supermarket, the product recognizes whether the person has

a mask on his/her face or not. This project can bring a great change in society. Using a user input or

video or live camera we can take a picture of the people who don't wear masks, thereby we can make

an alarm sound and then generate a fine or warning for those people. A notification message will be

sent to the workers phone. When the people get fine it can be updated in our product, so their details

can be removed from the list of people who don't wear masks. Using input data, Keras database,

Tensorflow and face recognition it can be implemented. AI will be the major part in this product.

Phase 1 of the project focuses on mask detection of the people in the shop. Phase 2 of the project

focuses on the full detail analysis of each product in the market and displaying them through a

display or a voice-over to the customer so that he/she will have a complete idea regarding the

product without even touching it. The first phase of the project will be implementing it for a

supermarket or shops. During the second phase we are looking forward to expanding the detection

product by displaying the details of the products in the supermarkets using a display and voice-over,

so that people will know the complete details of the product without even touching them. The

product will have 80% accuracy. It can be used to identify and can help in legal actions against the

people who are not wearing masks.

Keywords: Keras; Tensorflow;

## **Augmented Reality in Education**

Praseetha M.S.<sup>1</sup>

\*1Department of Management Studies, St. Teresa's College(Autonomous), Ernakulam, Kerala, India

#### **ABSTRACT**

The present study explores the concept of Augmented Reality(AR) with special reference to its implications in the education sector. With Augmented Reality catching off well, one can see its applications in different fields like social media platforms,(Eg: Instagram, YouCam, Makeup etc.) gaming platforms or even in shopping. However, the same has not been explored in full in the education sector. The paper discusses the enormous possibilities of AR in education field, how it can be used to improve the teaching learning and the overall skillset of the students. A brief introduction to understand the concept of Augmented Reality is given. The study uses the analogy of 3D movies and its influence on students to suggest breakthroughs in education using the concept. Some of the important and relevant AR apps and their benefits are also discussed. The impact and future possibilities of AR are also discussed.

Keywords: Augmented Reality, Data Science, Artificial Intelligence

## An Approach on DNS Amplification Attacks

Spartacus P.P<sup>1</sup>, Jerin Joy<sup>2</sup>, Nimitha Mohan<sup>3</sup>

<sup>1</sup>Final Semester Student, BCA, (SNGIST ASC N.PARAVUR),

<sup>2</sup>Final Semester Student, BCA, (SNGIST ASC N.PARAVUR),

<sup>3</sup>Assistant professor Dept of CS,(SNGIST ASC N.PARAVUR)

#### **ABSTRACT**

Attackers use DNS as a weapon against unsuspecting victims to bring down their websites. In the past and now in the present Domain Name Servers are under the threat of DOS attacks. This kind of attack takes benefit of the fact that DNS response message may be substantially bigger than DNS query message. The attackers vastly exploit open recursive DNS servers mainly for performing bandwidth consumption DDos attack. In this paper our analysis is based on DNS amplification attacks and ways of DNS attacks protection.

**Keywords:DNS ;DOS attacks;Amplification;** 

## **Security on Mobile Devices Using Biometric Authentication**

<sup>1</sup>Krishnendhu C.M, <sup>2</sup>Aiswarya Venu, <sup>3</sup>Praveenkumar K.S

<sup>1,2</sup>Student, Bachelor of Computer Application. SNGIST Arts and Science College, North Paravur, India 3Assistant Professor, Department of Computer Application. SNGIST Arts and Science College, North Paravur, India

#### **ABSTRACT**

Mobile devices constitutes an important place in society and other aspects of life. Most of the people inherits a weak traditional authentication mechanism, which can potentially be compromised and thereby allow attackers access to the device and it's sensitive data. This problem can be undone by the implementation of biometric authentication on mobile devices. Biometric security systems can replace the traditional methods of entering passwords or PINs with a swipe of a finger so that the phone can be unlocked and used. Biometric methods embedded in mobile phones include fingerprint recognition, face recognition, signature recognition, voice recognition, and iris Recognition. Biometric technology performs individual authentication based on the physiological characteristics like fingerprint, face, iris identification and behavioral characteristics like voice. Mobile device users are now favoring biometric authentication like fingerprint sensors to unlock their smartphones and tablets, mainly because they speed and simplify the unlocking process while reducing the cognitive burden of remembering multiple long passwords. And it is extremely difficult for hackers to access biometric factors. The aforementioned biometric security systems for mobile phones are not only making the mobile phones tauter, but they are also making the usage of cell phones easier and even more entertaining.

Keywords: Biometric Authentication, Biometric Technology, Mobile Devices, Biometric Security System.

## Big Data Analysis For Consumer Behaviour In Mobile App Usage

<sup>1</sup>Meenakshi B Panicker, <sup>2</sup>Rohil N V, <sup>3</sup>Claijo Kurian

<sup>1,2</sup>Student,Bachelor of Computer Application. SNGIST Arts and Science College,North Paravur,India.

3Assistant Professor,Department of Computer Application.SNGIST Arts and Science College,North

Paravur,India.

#### **ABSTRACT**

The rapid developments of technology on the use of mobile applications have become significant and greatly influential in today's living era. Big data analysis on mobile app usage let you understand which elements of your mobile app make users spend more time and which makes them leave. We can use this information to create a list of features that users demand, plan for changes and modification in the design, therefore improves user experience and maximize engagement. A mobile app has to be fast, engaging, satisfying and easy to use to get more downloads. The first choice for a user regarding a mobile app is that it must meet the needs and user expectations. According to a Statista report, the number of mobile app downloads world wide was 205 billion in 2018 and is expected to rise to 258 billion by 2022. This is where big data comes to play. Big data analysis helps the mobile app developers to collect, organize and evaluate different data set in order to identify pattern according to the customer preferences. Mobile app developers can then make advantage of big data according to the analysis done to build innovative and futuristic mobile app. The complex behaviour of modern consumers have compelled the app developers and marketers to constantly compete with each other to provide a wide range of mobile app services. Big data produced by mobile app contain valuable knowledge about customers and market and have been viewed as productive resources. The main features for analysing consumer behaviour regarding mobile app are gender gap, age, platform, user friendliness, experience, authorization and interests. The big data analysis approach is developed using RFM (Recency, Frequency, Monterory), it is a data driven customer behaviour segmentation technique. The idea is to segment customers based on their last purchase, how often they have been purchased and how much they had spend related to mobile app. The identified analysis helps developers improve existing and design new mobile apps to satisfy unfulfilled requirements of the consumer.

Keywords: Big Data, RFM;

#### **Molecular Communication in Nanonetworks**

<sup>1</sup>Vaishnavi Jayakumar, <sup>2</sup>Varsha K.S, <sup>3</sup>Bibitha Baby

<sup>1,2</sup> Student, Bachelor of Computer Applications, SNGIST Arts and Science College, N.Paravur ,India
<sup>3</sup>Assistant Professor, Dept. of Computer Applications, SNGIST Arts and Science College
N.Paravur,India

#### **ABSTRACT**

This article examines the current research in Molecular Communication in Nanonetworks. Molecular Communication in nanonetworks is a bio-inspired paradigm. This exchange of information is realized through transmission, propagation and reception of molecules.

A molecular communication system is defined as a system of bio-nanomachines that transmit and receive the information using chemical signals or molecules. The information exchanged between devices via molecules. There is wireless network.

Nanonetwork is a group of interconnected nanomachines. It is also performed simple task such as data storing, computing and sensing. The molecules are transmitted as information between nanomachines. It also included the architectures of nanonetwork, explain the communication system and also provide the architecture of molecular communication

Keywords: Molecular Communication, Nanonetwork;

## **Credit Card Fraud Detection Using Data Mining**

Chithranjaly K S<sup>1</sup>, Lal Krishna P A<sup>2</sup>, Radhika B<sup>3</sup>

Student, Bachelor of Computer Application, SNGIST Arts and Science College, North Paravur, India
 Assistant Professor, Department of Computer Application, SNGIST Arts and Science College, North
 Paravur, India

#### **ABSTRACT**

Data mining is the process of extracting the useful information from a set of large amount of data. In this modern era, the use of technology has increased and this resulted in online services like elearning, e-commerce, etc. Here we can see that the e-commerce makes use of credit cards and other confidential credential details for payment through online. The growth of e-commerce is still continuing as well as the new technologies for ease of the users and some people are exploiting these technologies to commit fraudulent activities. Nowadays the credit card users are in a great threat due to the credit card frauds. These frauds can access the most confidential documents and they can drain out their bank accounts and can make tired out mentally. Mainly, there are two kinds of credit card frauds: 1. Online frauds (who commit fraudulent activities through internet, phone, or in the absence of the credit card holder), 2. Offline frauds ( who commit fraudulent activities by using the physical credit card that stolen from the holders). Also there are many variants of credit card fraudulent activities like, ID theft, stolen/lost cards, CNP frauds, clean frauds, friendly frauds, affiliate frauds, triangle fraud. Data mining can be used to detect these credit card frauds. The different data mining techniques helps to prevent fraudulent activities before it takes place by the credit card frauds and also can detect the fraudulent activities had that already done by the credit card frauds. In this paper, we talk over how can detect the credit card frauds using different data mining techniques. And the commonly used and most efficient data mining techniques to detect the credit card frauds include K- nearest neighbor (KNN) algorithm, Hidden Markov Model, Bayesian Network, Outlier detection, Neural network, genetic algorithm, Support vector machine, decision tree, fuzzy logic based system. All these techniques are observing data or the pattern and tracks out the variations in the data from the previous history of data to confirm that a fraudulent activity has occurred and the ways to prevent the possible activities like this. This paper compares various datamining techniques to detect credit card frauds and the objective of this study area to detect various Master cards and the moment investigate the method used for the aim of detection.

Keywords: Credit card frauds; Data mining; Genetic algorithm; Neural network; KNN algorithm

# Malayalam Handwritten Character Recognition – Approaches and Techniques

Shasna K A  $^{1}$  , Roshna P.S  $^{2}$ 

<sup>1</sup> Computer Application Student, Mes T.O Abdulla Memorial College Kunnukara

<sup>2</sup> Assistant Professor, Mes T.O Abdulla Memorial College Kunnukara

#### **ABSTRACT**

In the present era of automation and development, Handwritten character recognition is one of the the major field of research in image processing and interpretation. Character Recognition that are handwritten which comes in the area of pattern recognition and Natural language processing has a wide range of utilization from handwritten document recovery and then to use as a reading aid for blinds. The paper focuses on the different steps and techniques used for extracting and interpreting the handwritten characters of Malayalam Language, one of the complex language in the world in terms of character specifications and multiple-style of writing characters. The paper is an attempt to compare and analyse the various approaches used to identify and interpret the malayalam characters written in different styles both in compound, conjunct way as well as in isolated manner. These techniques convert a handwritten document or image into machine editable format so that it can be used for further digital processing and preservation forever.

*Keywords:* Handwritten Character Recognition, Malayalam, Pre-Processing, Feature Extraction, Classification, Neural Networks

## A Review on Internet of Things

Mariyam Hiba N R<sup>1</sup>,Sadiyamole P A<sup>2</sup>

<sup>1</sup>-III Year BCA student,MES T.O Abdulla Memorial College Kunnukara

<sup>2</sup>Sadiyamole P A,Assistant Professor, MES T.O Abdulla Memorial College Kunnukara

#### **ABSTRACT**

Internet has sophisticated our lives in innumerable ways. As we all know before internet, telecommunication was predominant source for information transfer. Today internet has almost completely replaced telecommunication. There is an advanced feature of internet that refers to network of physical objects or things submerged with sensors, software, and other technologies for the purpose of connecting and tracking data's with other devices and it is called IoT. IoT can be defined as a network of different devices interacting with each other through machine to machine communication by collecting and exchanging data each other. This paper is an attempt to explore on "IOT" ecosystem, architecture and features.

**Keywords:Internet of Things,sensors,networks** 

## A Review on Biometrics and its Applications

Najeeha A A<sup>1</sup>,Shameema A M<sup>2</sup>

<sup>1</sup>BCA Student, Dept.Of CA, MES T.O Abdulla Memorial College Kunnukara, Aluva.

<sup>2</sup> Asst. Professor, Dept. of CA, MES T.O Abdulla Memorial College Kunnukara

#### **ABSTRACT**

With the arrival of smartphones, social media, big data, and other technologies, our world is becoming a digital world. Since the data are computerized for better storage, accuracy, efficiency, etc... even though security is a worry in most of us. To achieve this, biometric technology was progressed. Biometrics is an automated identification or recognition technique that uses human's unique characteristics such as iris, hand, fingerprint, etc... this recognition technique seems to be more reliable. It can restrict unauthorized access to personal or sensitive data. The name biometrics has come from bios means life and metrics means to measure, they are ancient Greek words. Through this paper, we are discussing biometric technologies, their features, and their applications.

Keywords: Biometric, biometric Authentication, hand Recognition, Iris Recognition, fingerprint

## Prediction of Cardiovascular Disease Using Machine Learning

<sup>1</sup>Pooja Manoj, <sup>2</sup>Sreenanda C.K, <sup>3</sup>Nimitha Mohan

#### **ABSTRACT**

Machine Learning plays a crucial role in different areas all over the world with healthcare being one of them. Machine Learning can be used to predict various health conditions such as Cardiovascular Diseases, Locomotor Diseases and much more. Cardiovascular Disease is a comprehensive group of diseases affecting heart and blood vessels. Accurate prediction of these illnesses can often become difficult for doctors. Thus, Machine Learning provides more faster and accurate prediction of diseases and ease the task of doctors. Early prediction of such disease before actual diagnosis could reduce risks and is likely to save one's life. Healthcare industry is composed of huge piles of medical data and Machine Learning can be implemented to make effective decisions in Cardiovascular Disease prediction. Over the past few years, the process have been evolved into using Hybrid Machine Learning Algorithm for increased accuracy in results. The modified algorithm is able to produce accurate results using logistic regression with principal component analysis for predicting cardiovascular disease based on various attributes such as age, blood pressure, chest pain, serum cholesterol levels, heart rate and other necessary characteristics of the patient. Algorithms such as Naïve Bayes, decision tree, K-nearest neighbor, gradient boosting, support vector machine and random forest are used to obtain results. The proposed system is essentially used to predict whether an individual have a cardiovascular disease or not and to provide an awareness or diagnosis on that.

Keywords: Machine Learning, Logistic Regression, Principal Component Analysis, Cardiovascular Disease:

<sup>&</sup>lt;sup>12</sup>Student, Bachelor of Computer Application. SNGIST Arts and Science College, North Paravur, India.

<sup>&</sup>lt;sup>3</sup>Assistant Professor, Department of Computer Application. SNGIST Arts and Science College, North Paravur, India

# A Comparative Study of different Machine Learning Models for cyber bullying detection

#### **ABSTRACT**

Cyber bullying generally involves harassing or threatening behavior that an individual engages in repeatedly, this may following a person at a person's home or place of business. It also involves making harassing phone calls, leaving written messages or objects, it also include defacing a person's property. Although it has been an issue for many years, the recognition of its impact on young people has recently increased. With machine learning, we can detect language patterns used by bullies and construct rules to detect cyber bullying content. We used the labeled data, in conjunction with machine learning techniques to train a computer to recognize bullying content. In this paper, we have performed a comparative study among machine learning standard models like Linear regression (LR), Support Vector Machine (SVM) and decision tree(DT)

Keywords: Machine Learning, Cyber bullying, Linear regression, Decision Tree, Support Vector Machine

## A STUDY ON DETECTION AND PREVENTION ON INFECTIOUS DISEASE USING DATA MINING

<sup>1</sup> AHSANA T M, <sup>2</sup>JITHIN KUMAR P K <sup>1</sup> THIRUNILATH HOUSE, MALIPURAM P.O

<sup>2</sup>ASSISTANT PROFESOR, MES TO ABDULLA MEMORIAL COLLEGE, KUNNUKARA

#### **ABSTRACT**

Data mining technology plays an imperative role in the field of biomedical sector and they turned into the subfield of medical research. This paper present a survey of data mining techniques utilized for the detection and mitigation of communicable disease like cold, flu, hepatitis, and so on.

Communicable disease that is pass on from infected individuals or via animal, vector or the inanimate environment to a susceptiple animal or human host. The health related information are put away in large database that scattered through different hospitals, clinics and research centers. Using data mining and its implementation, Health organizations can transform the data of the large database in to a powerful and competitive tool and take new steps in preventing, diagnosing, treating, predicting cause and providing high quality services. Many of data mining techniques is used in health sector, classification is provided with the predictive data set, which contains similar attributes but with different data values, Then it analyse the given data and produce prediction by placing the different data sets in different classes based on the relationship of attributes, The performance of the system is evaluated in terms of different parameter like rules used, classification accuracy, and classification error.

**Keywords: Infectious disease, Data mining** 

## Sentiment Analysis And Applications – A Review

Sandra Paul<sup>1</sup>, Reseena mol N.A<sup>2</sup>

<sup>1</sup>BCA Student, Dept.Of CA, MES T.O Abdulla Memorial College Kunnukara, Aluva.

<sup>2</sup>PhD Research Scholar, KAHE, Coimbatore (Asst. Professor, Dept. of CA, MES T.O Abdulla Memorial College Kunnukara),

#### **ABSTRACT**

Sentiment Analysis is a part of opinion mining. It is focused on the gain of emotions and opinions of the people about a particular topic from a structured, semi-structured or unstructured data. From a piece of text, sentiment analysis can determine the writer's attitude towards a particular topic i.e. positive negative or neutral. It has a vast range of implementation because opinions are primary to almost all human activities and are key influencers of human habits. Truly concentrate to a customer's voice requires deeply recognizing what they have convey in natural language. NLP is the best way to reveal the sentiment behind it. A sentiment analysis system for text analysis unites natural language processing (NLP) and machine learning techniques. Sentiment analysis is frequently carried out on textual data to help businesses and sentiment about a product helps in customer feedback analysis and understanding customer needs. This paper presents the review on sentiment analysis to identify the concept and its application areas. This will be helpful to get a clear knowledge for students and researchers who have deep interest in this topic.

Keywords: Opinion Mining, structured, Natural Language Processing, Machine Learning.

## **Stock Price Prediction Using Machine Learning**

Anjali Sunil

MTech Student, Nehru College of Engineering and Research Centre Pamapdy, Thrissur, Kerala

#### **ABSTRACT**

Stock market is defined to be the process of selling and buying the shares of the various companies. Stock market is subjected to market risk because the stock market value can increase of decrease at any time. So the one who invests in the stock market either gains the profit or else there will a huge loss for the person. If we have a mechanism for the prediction of the stock market price then it will be very helpful for the people. According to the various studies that were conducted on the prediction of the stock market price prediction, it is concluded that machine learning is the best method for the stock market price prediction. Methods like linear regression, support vector machine and LSTM can be used for the stock market price prediction. This paper mainly gives the idea of how these methods can be used for the stock market price prediction and also which is the best method for the prediction.

Keywords: Stock market, linear regression, LSTM, support vector machine

#### **DEEP LEARNING FOR SAILENCY: A REVIEW**

<sup>1</sup>Rovina Mariam Jose, <sup>2</sup>Malu G, <sup>3</sup>Binny S, <sup>4</sup>Naveen Thomas Joseph

<sup>1,2S</sup>student, IIITM-K

<sup>3</sup>Associate professor, kristu jyoti college of management and technology

<sup>4</sup>Student, kristu jyoti college of management and technology

#### **ABSTRACT**

Attention is the process of selectively concentrating on a specific aspect of information by neglecting the other perceivable information. Same concept is deployed in Visual attention through certain set of visual scenes to find some characteristics of the image. It needs the ability to orient to and sustain focus on a stimulus such as a person or inanimate object or task. Our eye movements depict the focus of the visual attention. Visual saliency measures how likely human eyes will fixate in certain part of the image. The process of applying certain image processing and computer vision algorithms to automatically locate the most salient regions of an image. This works uses a deep model for finding the saliency maps.

Keywords: Visual Saliency ,Saliency Detection Model, Saliency Map

# Role of Socioinformatics participation in the COVID-19 study: highlighting Healthcare arenas to benefit from Information and Communication Technology.

Dr Sudheer Marar <sup>1</sup> Pramod K <sup>2</sup> Ashish L <sup>3</sup>

<sup>1</sup>Associate Professor and HOD, <sup>2</sup>Senior Assistant Professor <sup>3</sup>Assistant Professor Department of MCA, Nehru College of Engineering and Research Centre

#### **ABSTRACT**

The coronavirus 2019 (COVID-19) epidemic has had a profound impact on human health and wellbeing. Biomedical informatics is important in the efforts of the COVID-19 study and the delivery of health care to COVID-19 patients. Central to this effort is the participation of students who are actively engaged in other scientific or clinical issues. The purpose of this study is to highlight specific examples of COVID-19 research spots that can benefit from information technology. We present here two related approaches focusing informatics applications health care concealment. The first focuses on the use of Smartdevices and related technologies on educating and monitoring, and the second focuses on the use of sensors in the domain. Few tools have been used to monitor patients and the community found to be helpful in creating information that provides acumen into the dominance of sickness and fitness needs. Digital tools have the power to connect people and to form active support groups. There exists need for tools that can include video conferencing, seamless communication, and more sophisticated functionalities such as virtual reality and augmented reality, designed for diverse audiences with the aim of promoting social interaction meanwhile maintaining physical distances. Modeling pandemic cases accumulated daily in regional variations illuminate the comparative effectiveness of different policy decisions and may point to countries like India, through policies that have succeeded in reducing the spread of epidemic. Each concept summarizes the application area of COVID-19 research, followed by method, methodology, or technology that can make a contribution. Rather than proposing any solid findings, it is our hope that this slice drives to inspire and make it easier for other gurus to embrace the COVID-19 research projects leveraging socio informatics on the base.

#### **Keywords:**

Socio Informatics, Smartdevices, Educating and Monitoring, ICT, Sensors, COVID-19, Epidemic

### Design and Analysis of Bamboo Substrate Aramid Layered Composite Helmet Shell

Vivek- V G<sup>1</sup>,

<sup>1</sup>Assistant Professor, Dept. of ME, CCET

#### **ABSTRACT**

This work presents results from both experimental and numerical simulations of static deflection analysis of a Bamboo Substrate Aramid Layered Composite Helmet Shell and Impact absorption simulation test of the helmet shell to meet the world standards of a Helmet shell. The experiments involve applying design load at different points of the helmet while clamping at different positions. The material properties of Aramid layer and Bamboo substrate aramid layer is found out by performing three point bending tests on specimens cut from the helmet realized. The validation of material properties is done by comparing the experimental data with finite element model constructed from CT images and studied. A comparison of helmet deflection between the test and analysis using both tetrahedral and layered shell elements are made. Drop test simulation performed on the helmet shell with varying thickness of aramid layers to optimize thickness to satisfy the helmet standards. Using layered shell element explicit dynamic analysis is carried out for a touchdown velocity of 30km/hr. at a height of 2.2m from the ground as per the standard. A parametric study with progressively increasing aramid thickness (for a constant 2mm bamboo shell thickness) for the helmet under impact is studied.

Keywords: Composites; Bamboo Helmet,; Aramid layer composites

# INTEGRATION OF DIGITAL TECHNOLOGIES IN THE INDIAN MICROFINANCE SECTOR

Alpa Ghosh Assistant Professor, The Bhopal School of Social Sciences, Bhopal

### **ABSTRACT**

Digital technologies are rapidly making their ways into all realms of human life and the microfinance sector is one such area. Ongoing innovations in digital technology are contributory to reshaping its operational models, structures, risk profile, industry networks and leading practices. Innovation and integration of digital technology are both important because of their potential to promote development by stimulating innovation, improving efficiency and increasing inclusion. This paper explores how these mechanisms - innovation, inclusion and efficiency – have been integral to microfinance operations in the past, and how innovations in digital technology may be yet another opportunity for microfinance institutions to promote development. Examples from the Indian microfinance industry is studied to explore how the digital technology changes are shaping the

Keywords: Digital innovation, Digital technologies, Inclusion Microfinance

microfinance sector.

### "EMOTIONAL INTELLIGENCE: A COMPARATIVE STUDY ON THE SELECTED PUBLIC (SBI) AND PRIVATE (FEDERAL BANK) SECTOR BANKS WITH SPECIAL REFERENCE TO ERNAKULAM DISTRICT"

Mariya Sinta Joseph
M.COM Scholar , AQUINAS COLLEGE EDAKOCHI

### **ABSTRACT**

Emotional intelligence is the ability to identify understand and manage emotions. The measure of emotional intelligence is termed as Emotional Quotient (EQ). Higher the EQ greater is the control over emotions. In today's high pressure cut-throat competition people with high EQs are preferred. It is even said that the high IQ for which you are hired and the low EQ for which you can be fired from the job. Being emotionally intelligent doesn't mean that being without emotions. It simply implies that person's has greater ability to distinguish between functional and dysfunctional emotions and being able to regulate them as per the required situations. The service sector especially banking sector employees need adequate Emotional Intelligence (EI) because their dealings with customers has significant influence on the success of the bank as well as customer employee satisfaction.

The objective of the study is to understand the theoretical concept of Emotional Intelligence. To access the level of Emotional Intelligence among the employees of selected public (SBI) and private sector banks (Federal bank). To compare the dimensions of EI namely Self Awareness (SA), Emotional Resilience (ER), Motivation (M), Interpersonal Sensitivity (IS), Influence (I), Intuitiveness(In), Conscientiousness(C) and to examine the relationship between Emotional Intelligence and job satisfaction to make suggestions and recommendations based on the study.

Methodology used in this study is non-probability convenience sampling for the purpose of data collection. The Emotional Intelligence questionnaire chosen for the study provides a quick profile of the respondents' EI. The broad objective of this study was to compare the level of emotional intelligence between the employees of public and private sector banks. Emotional intelligence is emerging as a critical factor for sustaining high performance . The work in the banking sector is highly stressful. Employee's come in contact with hundreds of customers each day. Only having a high level of EI would help them to balance their work and life moderately. Through this study was found out that employees of both the sector's have a moderate level of emotional intelligence how ever there were some visible variations in some factors . The level of self-awareness and emotional resilience motivation and influence were found to be almost the same. The employees of public sector banks have a comparatively high level of interpersonal sensitivity , intuitiveness, conscientiousness than private sector banks employees. The overall EI is less for private sector banks (federal bank).

Keywords: Emotional Intelligence (EI), Emotional Quotient (EQ), Intelligence Quotient (IQ), Emotional Intelligence Quotient (EIQ), Emotional Resilience.

NCTTMDR-2021 ISBN: 978-81-951230-1-8

# STUDY ON WATER MANAGEMENT AN UPCOMING BUSINESS OPPORTUNITY IN INDIA

Mary Shilpa Sebastian M.com Scholar, Aquinas college, Edakochi

### **ABSTRACT**

Water is one of the basic need of a human beings, and it is vital for personal consumption as well as other activities. so water have a economical role in the economy. Rain, underground water, natural water resources etc. are some of the main source of water. but due to overuse, expositions and depletion of natural resources and climatic changes affected the water supply. unfortunately India is in 13th position in the extremely high water stressed countries categorised by WRI Aqueduct Risk Alta's in 2019. To solve the water shortage or scarcity, a new method was introduced and it was success in it and it turned into a business opportunity called water management. The water shortage in the North India and in developed cities like Chennai, Bangalore etc. Are for some of the proof for water scarcity in India. in this present scenario the concept of water management play a pivotal role in in the country. the water management business offers a wide range of products and services like water treatment plant (WTP), sewage treatment plant (STP), water filtration plant etc. These product helps a consumer to convert waste water into to more portable water for their personal consumption. water management is a sustainable business opportunity that will not harm the environment instead of that it tries to reconstruct the nature and its gift for the next generation. Water corporation, recycles the water from the rivers and give it to people who need it. but this is not possible to give a recycled filtrate that water to big flats apartments hospitals etc. Due to this reason government introduced a new policy for constructing Water Treatment Plant for whose area exceeds from 300 square metres. This paved a way for the growth of water management business in India in past few years. water management business is a futuristic business opportunity that have a long term demand in the market because the need for water will increase because its availability is reduced day by day. This study helps to identify and understand the causes for this business opportunity and factors affecting the growth of this business.

Keywords: water management, sustainable business opportunity, water shortage.

NCTTMDR-2021 ISBN: 978-81-951230-1-8

# REVOLUTIONIZATION OF ONLINE EDUCATIONAL PLATFORM WITH THE OUTBREAK OF COVID19

<sup>1</sup>Ann Martin, <sup>2</sup>Lishna Shaji

<sup>1,2</sup> Students, II M.Com Finance and Taxation, St. Albert's College (Autonomous), Ernakulam

### **ABSTRACT**

Though 2019 pandemic had created many problems in routine lives of people. We find means and ways to survive the plight and the implications of the pandemic. The restrictions from the authority and the COVID19 protocols had made people shut themselves in their homes and places where they stay, restricting the free movement of the people in and around to control the virus infection and transmission. Our routine lives were brought to standstill by this microscopic villain. Amidst all these, the student category also had to bear the plight of the pandemic, their academic progress was a big question. They had to make themselves adapt to the novel technologies in the field of education. The online mode of education was not introduced with the outbreak of novel corona virus. It had its existence even before the outbreak of the pandemic. But the novel corona virus made revolutionization of the existed online academia and its further enhancement. There are now available a wide variety of online tutors to teach us various disciplines at our budgets and they also provide us with attractive packages and offers, urging us to subscribe to their services. These services are now available for kindergartens to high level professional tuitions and for competitive examinations. Due to the pandemic protocols and restricts government also had to digitalize the education with the help of television channels and other medias. And students and academicians are also making a progression in academia with the introduction of technology in education.

In our study we try to analyse the pre- and post-condition of online academia and how the outbreak of pandemic have revolutionized the online educational platforms.

KEYWORDS: COVID19, Online Education, Academia, Technology, Revolutionization

### Technology Trends that are and will be driving the Banking Sector in Agile Times

Anitta Jomy Thomas

Assistant Professor, The Bhopal School of Social Sciences, Bhopal, MP

### **ABSTRACT**

Unpredictable events of 2020 has brought about a humongous change in the Indian Banking Sector thereby making the banks to focus heavily on technological usage to improve managerial abilities, risk mitigation and monitoring. Banking Sector was already at the cusp of change due to grappling system based issues and growing NPA's (Non-Performing Assets) which further ruined the growth of banking with the looming economic slowdown and the COVID-19 pandemic.

Technological transformation is the key to support the banking in VUCA (Volatility, Uncertainty, Complexity and Ambiguity) times. This can be achieved by bringing in changes in the banking architecture, hybrid cloud computing without compromising the security of data, blockchain integration for protecting data distortion and veracity, artificial intelligence models for feedback and data retrievals, Chatbots and API Banking.

The paper being conceptual one intends to focus on the above specified concepts that will help the banks to survive in the VUCA times.

Key words: agile, artificial intelligence, API Banking, blockchain integration, Chatbots, hybrid, technology, VUCA

NCTTMDR-2021 ISBN: 978-81-951230-1-8

### Agile Strategies to bounce back- a Case Study of Small Business

Ms Namrata Kishnani

Asst Professor, Department of Management, The Bhopal School of Social Sciences

### **ABSTRACT**

In current dynamic business environment, technological advancements and complex organizational systems have given birth to Volatile, Uncertain, Complex and Ambiguous (VUCA) world. The success strategy invariably relies on agile business models and systems enabling proactive adjustment to business environment through sustainable initiatives realigning business goals towards projected plans. The research is a systematic effort towards emphasizing agile management strategies for small businesses incorporating the spirit of entrepreneurship and socio-economic sustainability post pandemic economic downturn. The study presents the case of women self help groups in Madhya Pradesh under National Rural Livelihood Mission (Aajivika) who were manufacturing school uniforms and swiftly shifted to masks and PPE kits during pandemic for a novel yet economic motive. Small Businesses having more flat organizational structure and quick communication network fostering faster decision making will huge potential to bounce back quickly in times of stress relying on co-creation / collaboration, quality parameters using right set of innovative technology and constant focus on creating business value through continuous innovations and learning systems. Thus the study proposes a unique "READY" model based on agile strategic interventions for small businesses to outgrow the environmental challenges.

Key words: Agile Management Strategy, Small Businesses, Technological innovations.

# CORONA VIRUS AND ITS IMPACT ON VARIOUS INDUSTRIAL SECTORS

<sup>1</sup>Shilda Thomas , <sup>2</sup>Dr. B. Sindhu <sup>1</sup>Research Scholar,Pavanatma college Murickassery,Idukki <sup>2</sup>Asst. Professor,Research & PG Dept. of Commerce, Pavanatma college Murickassery,Idukki

### **ABSTRACT**

The outburst of COVID-19 is the major incident that happened in 2020, till yet. It already impacted 12.5 million in the world and still going strong. The COVID-19 surge as a pandemic and affected millions of lives, along with the business operations in the global market. Considering the current market conditions, the virus is rapidly impacting the consumption and supply chain for the companies in the market. It will around and create a high degree of uncertainty in all aspects of business. In this study, besides making a brief review of the overall challenges for restarting business and its impact on various industrial sectors like Tourism. IT, Textiles etc. Manufacturing MSMEs supply necessary items to other industries which have also stopped their operations as a result in reduced demand and cancellations of orders. Restarting of business is a mega challenge for these industries. Most are concerned that survival is only possible with a substantive financial and fiscal support from the government.

Key words:- Pandemic, covid 19, supply chain, MSMEs, Fiscal support.

### "A Study on E-commerce Payment trends during Corona Virus pandemic in Bhopal City"

Ms. Aishwarya Sarathe<sup>1</sup>, Dr. Deepak Tiwari<sup>2</sup>

<sup>1</sup>PhD Scholar, Barkatullah University, Bhopal

<sup>2</sup>Director, Duke College of Management, Bhopal

#### **ABSTRACT**

2020 has not been just any year. Encountering COVID-19 Pandemic, it has opened doors for a no. Of opportunities and put the rest through trying times. However, one sector which emerged as a clear new normal is Digital payment industry. People use these online mode of payments from the convenience of their homes through online channels like mobile banking, internet banking, cards, digital wallets etc. and thus can avoid crowded places and can contribute more towards cashless economy. A significant shift in the consumer behaviour with respect to the e-payments can be seen all over. Digital wallets and UPI's are the most trending payment methods dominating over cash. The paper is an attempt to understand the most preferred payment mode of consumers while online shopping during pandemic also, it highlights the most favoured online payment option on the basis of recorded responses. Questionnaire was the tool used to collect the primary data from a total of 110 respondents belonging to Bhopal city of Madhya Pradesh. The data was analysed to find out the pre stated objectives.

Keywords: E-payments, Digital wallets, UPI's, Cashless payments

### Locus of Control of Individual Investors: A Segmentation Analysis

#### FIONA SHEENU FRANCIS

Research Scholar, School of Management and Entrepreneurship, Kerala University of Fisheries and Ocean studies, Panangad, Kochi, Kerala

#### **ABSTRACT**

Investment plays a vital role in a developing country like India, as it provides the necessary funds for undertaking productive activities to be circulated in the economy. Savings are our country's largest source of investment. Investments are subject to the individual's attitudes, beliefs and perceptions. As a result, the attitudes and expectations of investors have a major impact on their investment behaviour. Locus of Control is one of the most important factors that affect individual's decision-making behaviour. Locus of Control is people's assumptions about what causes their lives to have good and bad outcomes (Rotter, 1966). It is said that there is internal and external LOC. Individuals with internal LOC assume they control their own destiny, whereas individuals with external LOC relate their experiences to destiny, luck or chance. Consequently, LOC has a great influence on an individual's investment decision-making behaviour. As a result, this study attempts to assess the impact of LOC on an individual's investment decision-making behaviour.

KEYWORDS: Locus of control, Savings behaviour, Investment behaviour, Individual investor, Decision making behaviour.

# A Study of youth's behavior to adopt the "GREEN FMCG "in Anantnag District (Jammu and Kashmir)

Mehraj u din lone<sup>1</sup>, Dr. Deepti Maheshwari<sup>2</sup>, Ayash Arif<sup>3</sup>

<sup>1</sup>Research Scholar, <sup>2</sup>Professor, <sup>3</sup> Research scholar

#### **ABSTRACT**

This research paper aims to know about today's youths' behavior toward green marketing policy in Fast Moving Consumer Goods. Increasing pollution, the greenhouse effect, and global warming are major environmental problems for future generations in sustainable development. FMCG products are a widely used product in the world; it affects the environment. To solve the environmental problems, most consumer goods companies and governments are taking various measures to promote green marketing in the FMCG sector and other sectors. In today's scenario, almost everybody is aware of green marketing and its responsibility towards protecting the environment. In This study, we have taken two independent variables, .i.e. respondents' health consciousness and environmental issues, whereas the dependent variable intends to purchase the green FMCG. This study is based on both the primary and secondary data, and the data analysis percentage method is used. This research paper shows that today's generation is much aware of green products and very flexible to adopt these products. The finding shows that youths are concerned about the health and environmental problems.

Keywords: Green FMCG, consumer goods, health consciousness, environmental problems, green marketing.

### Perception towards welfare measures of the labourers in unorganised sector (UOS)

Roney Rose KF

(Asst. Professor, MES T O Abdulla Memorial College, Kunnukara, Ernakulam District)
Research Scholar, KAHE Coimbatore

### **ABSTRACT**

Labourers in the organised sectors: railways, manufacturing industries, ports etc., are safe with welfare measures, on the background of their perception and bargaining power. But the poor perception and poor bargaining power of the labourers in unorganised sector lead to non-availability of the welfare measures admissible for them. The present study measures knowledge, understanding and attitude of the labourers in the unorganised sectors, towards welfare measures, like: educational benefit, recreational facilities, food and conveyance. A sample of 64 labourers from Kerala, Karnataka, Andhra, Maharashtra, Delhi and Assam has been taken into consideration. They are Head load workers, Masons, Carpenters, Tillers of the soil, Domestic servants and Painters. Data collected on-line through the co-investigators prove the hypothesis, that the labourers in the unorganised sectors have insufficient knowledge, understanding and attitude of welfare measures, is true. Actions are invited for governmental interventions in this regard.

# Green Process Innovations and Green Product Innovations: An Environmental Management Strategy and Its Growth Phases in the Manufacturing Sector

<sup>1</sup>Soumya Varghese, <sup>2</sup> Dr. Jagathy Raj V.P

<sup>1</sup> Research Scholar, School Management Studies, Cochin University Science and Technology (CUSAT), Ernakulam, Kerala, India

<sup>2</sup>Professor, School Management Studies, Cochin University Science and Technology (CUSAT), Ernakulam, Kerala, India

#### **ABSTRACT**

A company faces several strategic options when it responds to environmental issues (Banerjee, 2002). Green practices have gained in popularity for manufacturers in the hopes of mitigating their environmental damages while achieving performance gains (Cronin, Smith, Gleim, Ramirez and Martinez, 2011; Qi et al., 2010). Adoption of environmental management (referred to as EM hereafter) activity depends on different strategies and objectives of the firm (Hart, 1995; Porter and Linde, 1995; Darnall, Henriques and Sadorsky, 2008). In the words of Cramer (1998), Montabon, Sroufe and Narasimhan (2007), EM is the activities that directly aim to protect the environment, or the techniques, policies and procedures used explicitly by a firm to monitor and control the impact of its operations on the natural environment. Since different "best practices" of management lead to different kinds of competitive advantage, it is essential to focus on specific "best practices" that reduce firms' negative impact on the natural environment. Hence the paper primarily focuses on examining the changing phases incorporate environmental management strategies and the role of green product innovations and green process innovations for sustainable development.

Keywords: Green process innovations, Green product innovations, Environmental management, Environmental management strategy, Manufacturing sector.





www.edulearninghub.com

Email: contact@edulearninghub.com

Printed & Published: April 2021

This conference proceedings contains the abstract of all papers presented in the Online National Conference on Trends & Technologies in Multi-Disciplinary Research (NCTTMDR-2021) organized by A2Z EduLearningHub in association with the International Journal of Scientific Research in Science and Technology (IJSRST) on 20<sup>th</sup> March 2021.

Through this publication scientific researchers and practitioners with similar interests aware of new knowledge in their field and it helps to advance knowledge and its application. It also represents a further extension of our commitment to providing a platform for researchers at all stages of their research career to share their learning in support of cross-cultural and social understanding.

All papers presented in this proceedings, have undergone an extensive and stringent Peer Review process, with full citations and detailed information about the authors. Papers remain the intellectual property of their respective authors and are made available in line with RRI philosophy and academic good practice.

The book is published by the A2Z EduLearningHub which is based in Kerala, India



•