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Department of Computer Science and Engineering (AI & ML)

21 BATCH 3CSM Term Projects

AY:2023-24

S.N	Roll No.	Name of the Student	Batch	Title of the Project
1	21JG1A4214	GORTHI SRI SIVAANANDINI	B01	DIAGNOSIS OF DIABETIC RETINOPATHY USING TRANSFER LEARNING
2	21JG1A4242	PAALURU DIVYA		
3	21JG1A4206	Chatti Anu Sri		
4	21JG1A4257	TOOPATI DURGA PRASANNA		
5	22JG5A4205	RAVADA NAGA SUPRIYA		
6	21JG1A4217	GUNIMANIKALA SURYAJAYASRI	B02	ANALYSIS AND DETECTION OF AGE AND GENDER USING DEEP LEARNING HEURISTIC
7	22JG5A4203	MEESALA GEETHA GAYATHRI		
8	21JG1A4233	MOHAMMED ARSHIYA FIRDOUS		
9	21JG1A4215	GUDIVADA DEEKSHITHA		
10	21JG1A4235	MUDUDANA NANDINI		
11	21JG1A4228	Mallipeddi Prasanthi	B03	Stress detection using NLP and ML
12	21JG1A4263	Yavanamanda Sri Phani		
13	21JG1A4258	Trisha Jenna		
14	21JG1A4202	Annam Mallika		
15	21JG1A4208	DEVARAPALLI SANJANA		
16	21JG1A4256	Telukala Anitha	B04	Prevention And Detection Of Ddos Attacks Using Ensemble Technique
17	21JG1A4246	POSHITHA INAGANTI		
18	21JG1A4223	KODIDASU YETENDRIYA LAMANI		
19	21JG1A4211	Gadiraju Satvika		
20	21JG1A4216	GUGGILI SIREESHA		
21	21JG1A4253	SURAPANENI DEEPIKA	B05	INTRUSION DETECTION SYSTEM USING GATED RECURRENT NEURAL NETWORKS
22	21JG1A4240	NAREMSETTI SHARMILA		
23	21JG1A4222	KATIKIREDDI SRIVAISHNAVI		
24	22JG5A4204	PALLAPATI BHAVITHA		
25	21JG1A4238	NALLA SRI RAMYA		
26	21JG1A4227	Malla Esha Thaniya	B06	A Hybrid Machine Learning Technique For Heart Disease Prediction
27	21JG1A4248	REDDI RENUKA SAI		
28	21JG1A4224	Kola Indu		
29	21JG1A4225	KOLLURU BHARATHI		
30	21JG1A4243	PENTAPATI RAJ TANUJA		
31	21JG1A4232	MOHAMMAD BASHEERA SULTANA	B07	CREDIT CARD FRAUD DETECTION USING AUTOENCODERS
32	21JG1A4205	Boni Pujitha		
33	21JG1A4230	MANYAPURI TEJASWINI		
34	22JG5A4206	GUMMADI MEGHANA		
35	21JG1A4251	Yamini Seerapu		

36	21JG1A4262	Voleti Vaishnavi	B08	FAKE NEWS DETECTION USING NLP
37	21JG1A4250	S S N SATVI ABHIGNYA NADAKUDIT		
38	22JG5A4202	KOKKILIGADDA MYTHILI		
39	21JG1A4244	PODUGUMATI SUSMITHA		
40	21JG1A4218	JAMI SOWMYA		
41	21JG1A4229	Mandapati Yasaswini	B09	BRAIN TUMOUR IDENTIFICATION USING CONVOLUTIONAL NEURAL NETWORK
42	21JG1A4239	NANDURI SAI HARIKA		
43	21JG1A4254	T SAI SREE MOKSHA		
44	21JG1A4260	V.B.Spoorthi		
45	21JG1A4220	JUSTIN JESLIN		
46	21JG1A4221	Kasarapu Harshitha	B10	IDENTIFICATION OF BIRD SPECIES USING CONVOLUTION NUERAL NETWORKS
47	21JG1A4231	Mogilipuri Keerthi		
48	21JG1A4252	CHINMAYI SISTA		
49	21JG1A4259	UPPALPATI PRAPADHYA		
50	21JG1A4261	DHANISHYA VADLAMUDI		
51	21JG1A4236	MULUPURI VENKATA MEGHANA	B11	Cryptographic Approach For Detection And Prevention Of Ransomware Attack using Machine Learning Techniques
52	21JG1A4201	Amirsetti Lakshmi Prasanna		
53	21JG1A4213	Golusu.Evangeline		
54	21JG1A4249	REDDY DIVYA VARSHITHA		
55	21JG1A4204	Bonela Praveena		
56	22JG5A4201	KAKI ROSHINI	B12	HEART DISEASE PREDICTION USING MACHINE LEARNING ALGORITHMS
57	21JG1A4219	JETTI SRAVANTHI		
58	21JG1A4255	Tammina. Kanchana Rekha		
59	21JG1A4241	Nidamanuri Sirisha		
60	21JG1A4234	Mothikivalasa Thanushya		
61	21JG1A4226	KORIBILLI PALLAVI	B13	Handwritten recognition using deep learning techniques
62	21JG1A4207	CHINTAPALLI MEENAKSHI		
63	21JG1A4247	POTLADA .SWATHI SINDHUJA		
64	21JG1A4203	Bandaru Shweta Evangeline		
65	21JG1A4237	Nagara.keerthana		
66	21JG1A4245	POLAROUTHU TULKA LAKSHMI	B14	Multi Modal Learning with Deep Neural Networks
67	21JG1A4210	Ejjada Nandini		
68	21JG1A4212	G Sri Chaahna		
69	21JG1A4209	DIKALA .MANASA PRANEETHA		
70	20JG1A4233	N JAYAVARDHINI		

Signature of the Coordinators

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Review IJCSL

Optimizing Heart Disease Prediction: Comparative Analysis of Machine Learning Algorithm for Early Detection

Purushotam Naidu K.[1,*], K. Roshini[2], J. Sravanthi[2], T. Kanchana Rekha[2], N. Sirisha[2], M. Thanushya[2]

Abstract

The expanding realm of data analysis holds considerable importance in healthcare, particularly in the medical sector where forecasting heart disease is considered a complex endeavor. Early prediction of serious health conditions can be the determining factor between survival and fatality, with heart disease being one such critical health issue. Over the past decade, the main reason for death has been heart disease. Heart disorders come in many different forms, and they are often referred to as cardiovascular diseases. These can range from heart rhythm issues to birth abnormalities to illnesses of the blood vessels. For several decades, it has continued to be the leading cause of death worldwide. It is imperative to find a precise and trustworthy method for automating the task in order to detect the sickness early and manage it effectively. Machine learning, a prominent application of artificial intelligence, is making significant strides in various research domains. This study examines supervised learning models, including logistic regression, naïve Bayes, support vector machine, K-nearest neighbors, decision tree, random forest, and the ensemble technique XGBoost, offering a comparative analysis to identify the most effective algorithm. Results indicate that random forest achieves the highest accuracy at 90.16% compared to other algorithms.

Keywords: Classification accuracy, logistic regression, naïve bayes, support vector machine, K-nearest neighbor, decision tree, random forest

INTRODUCTION

Since heart disease instances are increasing daily, it is both important and concerning to be aware of potential heart disease cases in advance. Making this diagnosis is a difficult undertaking that calls for efficiency and accuracy. The primary objective of the research article is to pinpoint individuals with an elevated risk of developing heart disease by considering various medical criteria. We created a heart disease prediction algorithm based on the patient's medical history to ascertain whether or not a heart disease diagnosis is likely. It can improve the decision-making abilities of healthcare professionals in terms of identifying an appropriate treatment plan and aid in the process of accurate diagnosis. These characteristics have a dataset that is gathered and examined. Gathering information from the right source is essential when building a prediction model since it affects the model's accuracy.

In this work, we aim to create a comprehensive predictive model for heart disease by utilizing machine learning (ML) algorithms such as naive

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Review JoCTA

Textual Clues to Stress: A Machine Learning Approach

K. Purushotam Naidu[1,*], M. Prasanthi[2], Y. S. P. Kousalya[3], Trisha Jenna[4]

Abstract

Nowadays, numerous individuals utilize social media platforms to share tweets about their daily lives, which often reflect their mental well-being. Recognizing and managing stress is essential before it becomes a serious issue. Each day, a significant volume of informal messages is posted on discussion forums, blogs, and social networking sites. This study introduces a method for detecting stress using information gathered from social media, with a focus on Twitter. The project encompasses various tasks, including data collection, data cleaning, system training, and stress identification for users. Natural Language Processing (NLP) and Machine learning [ML] methods like SVM, Random Forest [RF], K-Nearest Neighbour [KNN], Naïve Bayes [NB], Decision Tree [DT] will be used to do this. Detecting stress in a timely manner for preventive care is challenging. The proposed study consists of two main components: stress detection through machine learning methods and information extraction through natural language processing. The four primary stages of this study involve text mining, auto summarization, stress detection, and collection of social media data. The suggested model can predict an internet user's stress level or cognitive load. It incorporates several machine learning strategies, with Support Vector Machine demonstrating superior performance concerning F1 score, accuracy, recall, and precision compared to other methods. The early detection of stress offered by the current methodology will bring significant benefits to society. Therefore, the proposed system utilizes tweets as input to make informed decisions.

Keywords: SVM, random forest, k-nearest neighbour, naïve bayes, decision tree, text mining, auto summarization

INTRODUCTION

Over the last few years, the prevalence of stress-related issues has prompted observers to explore innovative methods for early detection and intervention. Leveraging the wealth of real- time data available on social media channels like Twitter, the present research paper investigates the feasibility of utilizing social tweets to detect and understand stress levels among users. By analyzing linguistic patterns, sentiment and content; researchers aim to develop computational models and algorithms capable of accurately identifying indicators of stress. This paper explores the methodological approaches, potential applications, and ethical considerations associated with stress detection using social tweets, contributing to the advancement of digital mental health research.

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Mental stress is a medical or physical condition that affects a person and their life. Each year, an increasing number of individuals are experiencing higher levels of stress, which can sometimes result in thoughts of suicide. In 2021, there will be approximately 16.7 suicides per 100,000 people in India. Stress, which was considered harmful to human health, has become part of everyday life. Some of the current stress sensing methods are slow in nature and have many limitations such as

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Review IJSCT

Intrusion Detection System Using Gated Recurrent Neural Network

Purushotam Naidu K.[1,*], S. Deepika[2], N. Sri Ramya[3], N. Sharmila[4], K. Vaishnavi[5], P. Bhavitha[6]

Abstract

In the realm of cybersecurity, the constant evolution of threats demands sophisticated intrusion detection systems (IDSs) capable of discerning intricate patterns in network traffic. This study proposes an IDS leveraging the capabilities of gated recurrent neural networks (GRNNs) to enhance the detection of anomalies and potential security breaches. The GRNN architecture, employing mechanisms like long short-term memory (LSTM) and gated recurrent unit (GRU), demonstrates efficacy in capturing long-range dependencies within sequential data, a critical attribute for analyzing network traffic. The proposed system undergoes a comprehensive process, including data collection, preprocessing, and training on a labeled dataset encompassing normal and malicious network behaviors. During the training phase, the GRNN refines its parameters to recognize patterns in network traffic. In the operational phase, the system continuously analyses incoming traffic, employing a predefined threshold to trigger alarms upon detecting potential intrusions. The benefits of employing GRNNs lie in their adaptability to changing traffic patterns and their capability to provide real-time intrusion detection. However, challenges include the need for substantial labeled training data and careful model optimization. The proposed IDS not only contributes to the arsenal of cybersecurity tools but also underscores the importance of leveraging advanced neural network architectures for effective and adaptive network security in the face of evolving threats.

Keywords: Neural networks, cybersecurity, GRU, IDS, real-time detection, XGBoost, GRNN, LSTM

INTRODUCTION

The escalating complexity of cyber threats in today's interconnected world necessitates robust and adaptive security measures. In safeguarding digital environments, intrusion detection systems (IDSs) play a crucial role by monitoring network activities and detecting anomalies that may signal security breaches. While conventional IDS methods have shown efficacy, the dynamic landscape of cyber threats necessitates more advanced approaches. Figure 1 illustrates two distinct types of IDS.

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A Host-Based IDS (HIDS) operates on a specific endpoint, aiming to safeguard it from both internal and external threats. It possesses capabilities such as monitoring network traffic to and from the endpoint, observing active processes, and examining system logs. While its scope is confined to the host machine, reducing contextual information for decision-making, it offers extensive insight into the internal workings of the host computer.

A Network-Based IDS (NIDS) is crafted to oversee the entirety of a secured network. It possesses insight into all network traffic and makes

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CONTINUOUS INTEGRATION AND CONTINUOUS DEPLOYMENT USING JENKINS – EVENT MANAGEMENT SYSTEM

College of Engineering For Women

A MINI DEVOPS PROJECT REPORT

by

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This is to certify that the project report titled **"CONTINUOUS INTEGRATION AND CONTINUOUS DEPLOYMENT USING JENKINS-EVENT MANAGEMENT SYSTEM"** is a bonafide work of following III B.Tech. students in the Department of Computer Science and Engineering, Gayatri Vidya Parishad College of Engineering for Women affiliated to JNT University, Kakinada during the academic year 2023-2024 Semester-I.

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Personal Accounts Management System

(Insurance, Loans, Mortgage Payments, Etc.,)

A DATABASE APPLICATION REPORT

By

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STRESS DETECTION USING NLP AND ML

A Term Project Report

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This is to certify that the ~~Internship~~ project report titled **Stress Detection Using NLP and ML** is a bonafide work of following III B. Tech students in the Department of Computer Science and Engineering (AI &ML), Gayatri Vidya Parishad College of Engineering for Women affiliated to JNT University, Kakinada during the academic year 2023-2024, Semester-1.

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A HYBRID MACHINE LEARNING TECHNIQUE FOR HEART DISEASE PREDICTION

A Term Project Report

By

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This is to certify that the ~~internship~~ project report titled **A Hybrid Machine Learning Technique ır Heart Disease Prediction** is a bonafide work of following III B. Tech students in the Department of omputer Science and Engineering (AI&ML), Gayatri Vidya Parishad College of Engineering for Women filiated to JNT University, Kakinada during the academic year 2023-2024, Semester-1.

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DIAGNOSIS OF DIABETIC RETINOPATHY USING TRANSFER LEARNING

A TERM PROJECT REPORT

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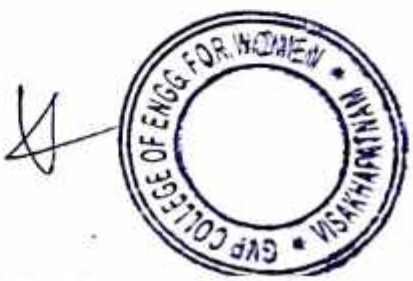

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This is to certify that the ~~internship~~ project report titled **Diagnosis of Diabetic Retinopathy Using Transfer Learning** is a bonafide work of following III B.Tech. students in the Department of Computer Science and Engineering(AI&ML), Gayatri Vidya Parishad College of Engineering for Women affiliated to JNT University, Kakinada during the academic year 2023-2024, Semester-1.

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HTML5 - The Language

on February 6, 2024

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Issued on: Tuesday, February 6, 2024
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GVP COLLEGE OF ENGG FOR WOMEN
VISAKHAPATNAM
Date:

ULTRASONIC GLASSES FOR VISUALLY IMPAIRED

ACommunityServiceProjectreportsubmittedinpartialfulfillmentoftherequirementfor

theawardoftheDegree

BACHELOROFTECHNOLOGY

In

ELECTRONICSANDCOMMUNICATIONEN GINEERING

By

D. Jahnavi(21JG1A0436) **K. Lohitha(21JG1A0454)**

UndertheEsteemedguidanceof

CH. SIRISHA

AssociateProfessor

DEPARTMENTOFELECTRONICSANDCOMMUNICATIONENGINEERING

GAYATRIVIDYAPARISHADCOLLEGEOFENGINEERINGFORWOMENMADHURAW ADA,VISAKHAPATNAM-48

(Affiliatedto JawaharlalNehruTechnologicalUniversity Kakinada)

(Accredited by NBA for B.Tech-CSE,ECE and IT -valid from 2019-22 and 2022-25)(2021-2025)

GAYATRIVIDYAPARISHADCOLLEGEOFENGINEERING FORWOMEN

DEPARTMENTOFELECTRONICSANDCOMMUNICATIONENGINEERING

CERTIFICATE

This is to certify that the report on **ARM Based Arduino Lab Skill project titled " Ultrasonic Glasses for Visually Impaired "**is abonafidework of following III B.Tech- II Semester student in the Department of Electronics andCommunication Engineering during the academic year 2023-2024, inpartial fulfillment of therequirementfortheawardofthedegreeofBachelorofTechnologyofJawaharlalNehruTechnologicalUniversity,Kakinada.

D. Jahnavi (21JG1A0436)
K. Lohitha(21JG1A0454)

Mentor
Ch. Sirisha
AssistantProfessor
Department ofECE

HeadoftheDepartment
Dr.P.M.K.Prasad
AssociateProfessor
DepartmentofECE

HEAD
DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENG
G V P COLLEGE OF ENGINEERING FO
MADHURAWADA, VISAKHAPATNAM - 5

INDIA JAPAN HACKATHON 2024

The India Japan Hackathon was conducted by IIEC-IIT Gandhinagar in Collaboration with New Energy and Industrial Technology Development Organization (NEDO), Japan's largest public management organization promoting research and development as well as deployment of industrial, energy and environmental technologies on March 10-12, 2024

Fig: IIT Gandhinagar's India Japan Hackathon

PERSONAL EXPERIENCE AND ACHIEVEMENT

There were 10 teams competing head on head in total.
My team **stood first** at the 36 hour long Hackathon, and won a prize money of **3,00,000** Rupees.
The hackathon also declared prizes for all the top three teams with a prize pool of a total of **5,00,000** Rupees.

Fig: Our team winning first and a cash prize of 3,00,000

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TIMELINE

I traveled to Ahmedabad, Gujrat to IIT gandhinagar on 9 th of March. The Event commenced with a Design thinking workshop by a delegate from NEDO on March 10 th and the coding began on the same day from around 6 pm. The coding continued till 6 am of 12 th march 2024.

Fig: Participants assemble at the IIT Gandhinagar Research park

Fig: India Japan Hackathon timeline

Fig: Design thinking workshop

FINAL PITCH EXPERIENCE AND JURY

The final pitch was at the Research center of the IIT Gandhinagar, on 12 th march at 12 pm, the judge panel had around 20 members.
The esteemed jury consisted of industry stalwarts like
Mr.Mayur Shah(Executive Director, Suzuki R&D Center India),
Mr.Tsyuoshi Morimoto(General Manager, DensoGeneral Manager, Denso),
Mr.Parul Shah(Head - IBU, Mitsubishi UFJ Financial Group),
Mr.Ajey Mehta(Business Leader, Startup mentor and Investor) and
Ms. Neeldhara Misra(Prof.Computer Science discipline, IIT Gandhinagar)
and a few other delegates from NEDO and Chair members of the Research Park of IIT Gandhinagar.

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Fig: Winner felicitation, our team standing first

Fig: Total Winning teams during felicitation ceremony

Fig: Judge panel during felicitation

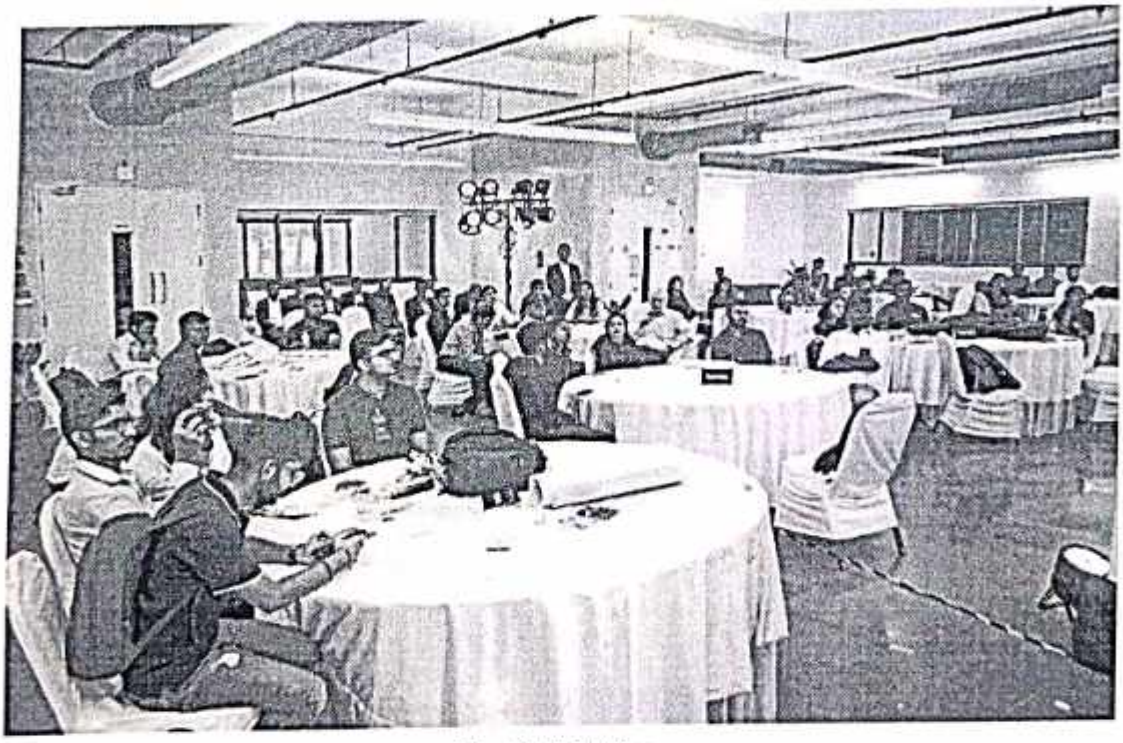

Fig: Felicitation

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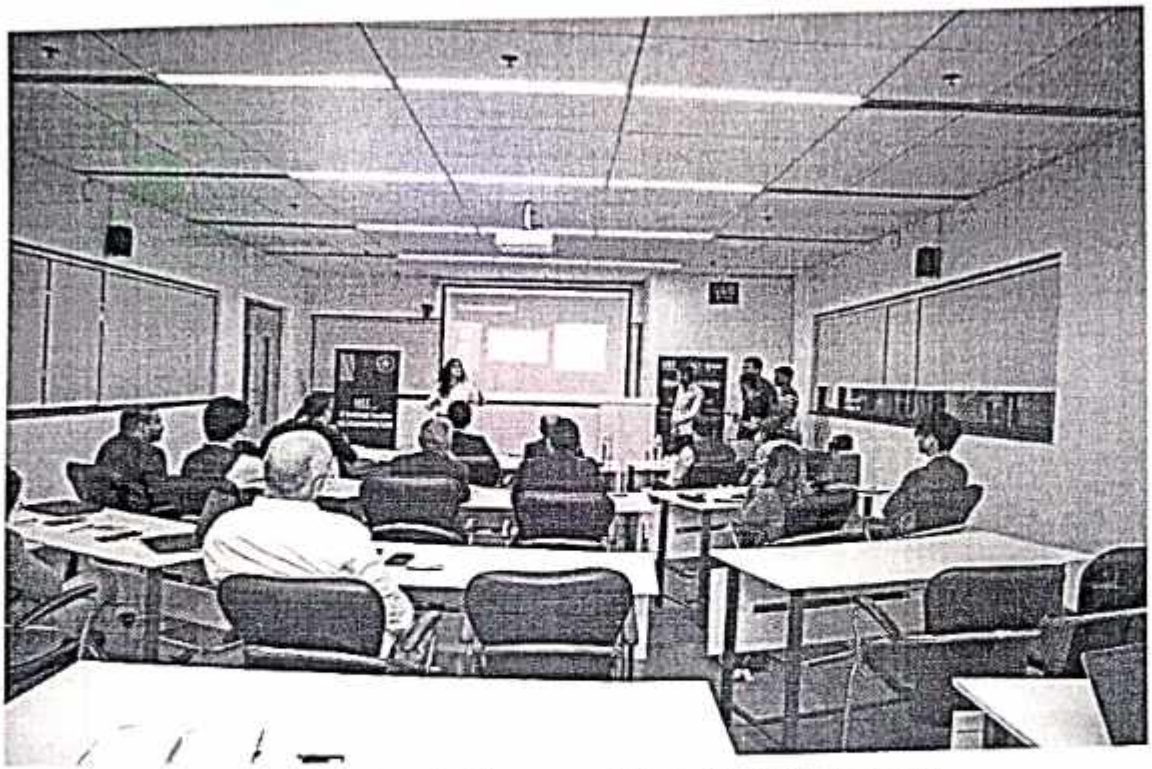

Fig: Our Team theta pitching our solution "Pathik" to the panel

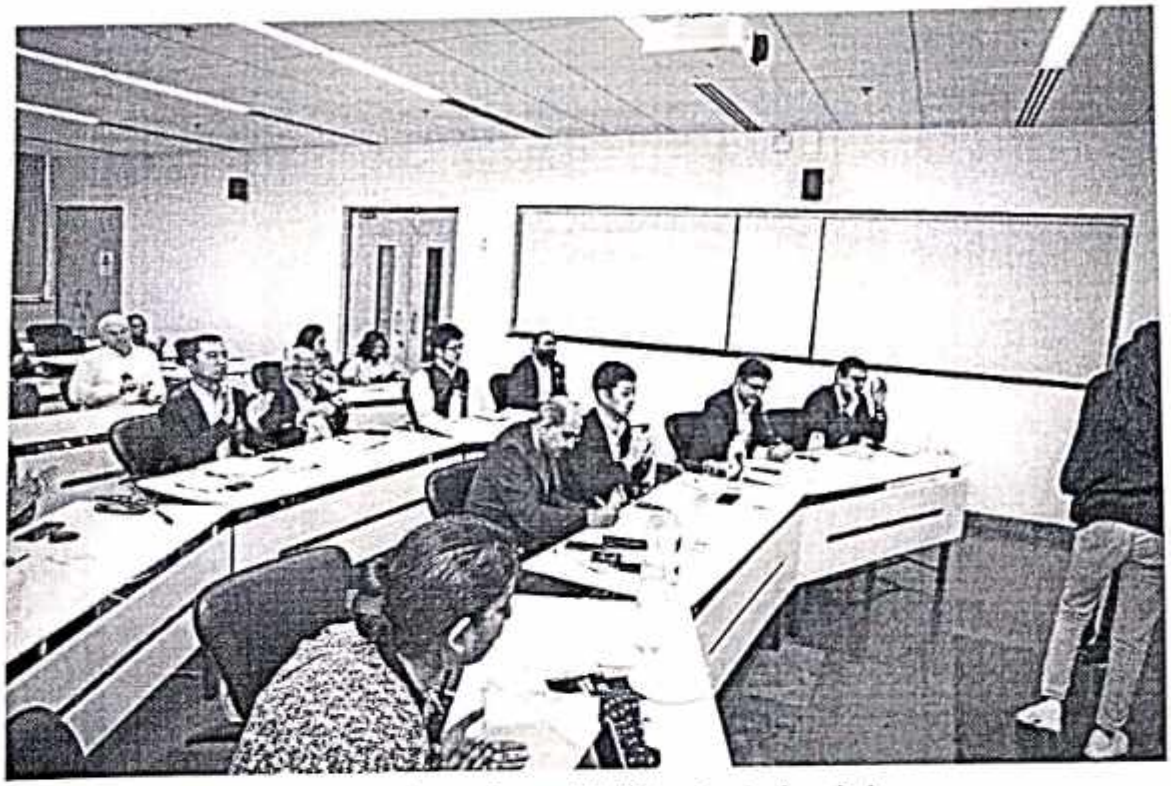

Fig: Panel members while listening to the pitch

TEAM MEMBERS

My team members were from varied backgrounds and colleges:

Bhagyasree Sanapala (Myself, Gayatri vidya parishad college of Engineering for Women, Vizag)
Pratham Savaliya (3 rd year undergrad - Karnavati University, Gujrat)
Rahul Rathore (3rd year undergrad - IIIT Vadodara, Gujrat)
Ruchit Chudasama (Final year undergrad - IIT Gandhinagar, Gujrat)
Saksham Jain (2 nd year undergrad - NIT goa, Goa)

PROBLEM STATEMENT

Many public transportation systems struggle to optimize their bus scheduling and routing, leading to increased wait times for passengers and decreased overall service quality and User Experience. We must be looking at redesigning public transport systems if we want to align with the evolving needs of commuters for enhanced accessibility and efficiency.

SOLUTION APPROACH

We have curated a solution to improve the efficiency and convenience of public bus transportation by collecting and processing real-time data from buses, which uses new-age technologies like **Artificial Intelligence, IoT and Machine Learning** that prioritize overall stakeholder experience.

Ensuring there is Feasibility, Utility, and Innovative touch to the solution, we came up with **PATHIK,** our application which makes use of **PTMS: Public Transport Management System,** an integrated web and mobile platform for users to book, track and board the public buses for admin to monitor, manage and schedule their fleet and for the drivers to navigate, transit and identify the optimal path.

PATHIK helps you track and monitor the crowd level on the bus you desire to board, hence eliminating **UNCERTAIN CROWDING ON PUBLIC TRANSPORT** , therefore enhancing the user experience.

We believed in enhancing the current infrastructure rather than starting from scratch, ensuring a seamless transition and maximizing cost effectiveness.

EXPECTED OUTCOME

- **Significant increase** in the number of people opting for public transport
- The digitalisation of Public Transportation in **cities like Ahmedabad**
- Real-Time Bus Tracking and Scheduling System catering to **all the stakeholders (Driver, Admin, General Passengers)**
- A robust platform **(web and mobile)** that integrates various technologies to provide accurate information and efficient management

- Improved **air quality**, and **lower carbon emissions** as a consequence of reduced traffic congestion within the city
- Seamless **boarding and departure**
- Instant **feedback** system
- Effective **Cost Analysis**
- **Accessible ticketing** system

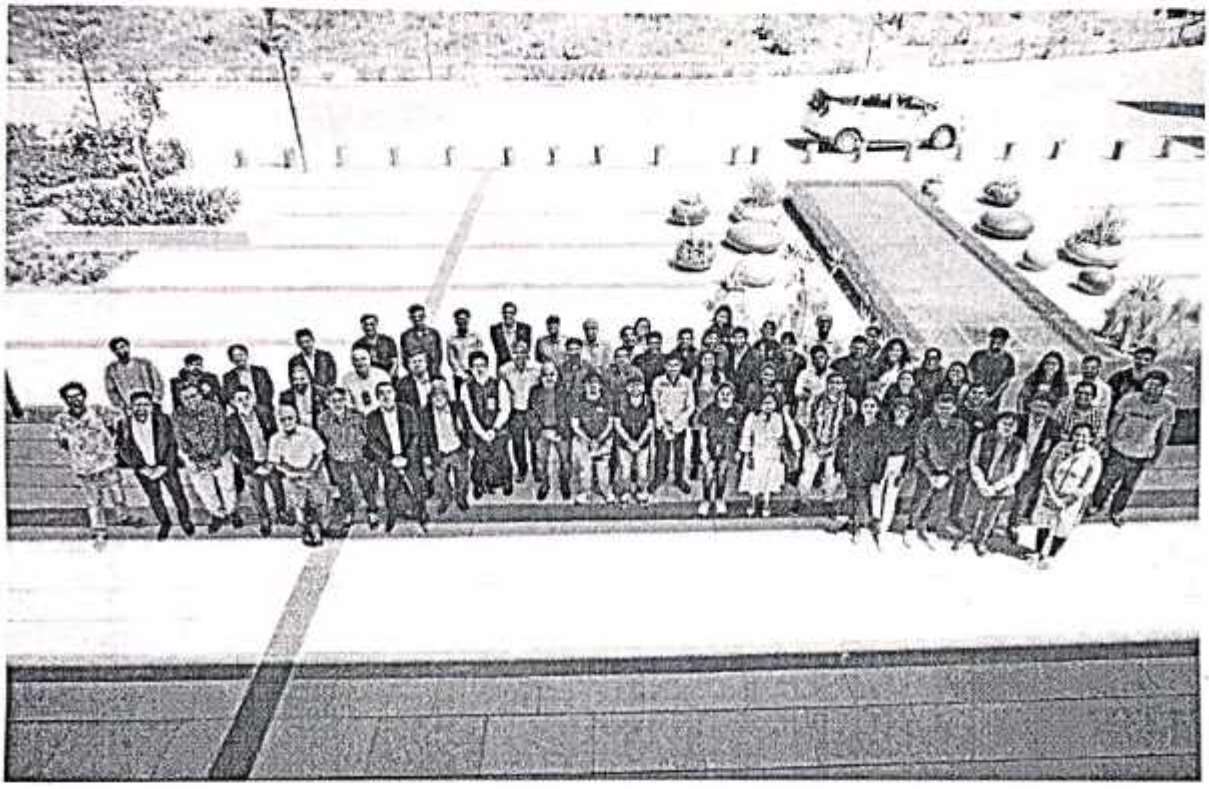

Fig: Total participants and panel members

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN
Madhurawada :: Visakhapatnam – 530 048

Date: 16/04/2022

CIRCULAR

1. All students are requested to note that Internal Hackathon (Screening Round) for the prestigious Smart India Hackathon (SIH) will be held in the college auditorium on 20th April, 2022 from 2.00 pm onwards. Interested students are requested to form a team of 6 members and consult the following department coordinators for any guidance and support.

   (a) Mr.CH.V.V.D.Prasad, Asst Prof, Dept of IT - SPOC Coordinator
   (b) Mr.A Uday Kumar, Asst Prof, Dept of CSE - Coordinator
   (c) Mr.P V K Chaitanya, Asst Prof, Dept of ECE - Coordinator
   (d) Mr.M.Krishna, Asst Prof, EECE - Coordinator

2. All Heads of Departments are requested to encourage the students to participate in large numbers.

PRINCIPAL

To
All Class Room Circulation

Copy to:
1) All Notice Boards
2) College SPOC & Dept Coordinators
3) All Heads of Departments

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Sub: Smart India Hackathon 2023 – Finalist Teams

Respected Sir

I am delighted to share with you the success of our college in the Smart India Hackathon 2023 (SIH-23). A total of around 40 teams from our institution participated in this prestigious event, showcasing the exceptional talent and innovative spirit of our students.

I am proud to inform you that out of these 40 teams, an impressive 5 teams have been selected to compete in the final round. This achievement is particularly noteworthy as it marks the highest number of teams selected from our college in the entire state of Andhra Pradesh.

This remarkable feat speaks volumes about the dedication, creativity, and problem-solving abilities of our students. It reflects our college's commitment to fostering innovation and excellence among our student community.

I extend my heartfelt congratulations to the participating teams and their mentors for this outstanding accomplishment. With your continued support, I am confident that our college will continue to excel in such prestigious competitions.

Here is the list of students selected for SIH-2023 Final round from Gayatri Vidya Parishad College of Engineering for Women (CC-JG).

1. **Team Name :** PLANT PERFECT

Roll Number	Name	Email id	Mobile no.	Stream	Year
21JG1A04258	TRISHA JENNA	santhi.jenna22@gmail.com	9502794050	CSE(AI-ML)	3
21JG1A4259	U.PRAPADHYA	21jg1a4259.prapadhya@gvpcew.ac.in	8919357232	CSE(AI-ML)	3
21JG1A4250	N.ABHIGNYA	21jg1a4250.abhignya@gvpcew.ac.in	8125921689	CSE(AI-ML)	3
21JG1A4211	G.SATVIKA	21jg1a4211.satvika@gvpcew.ac.in	9951922345	CSE(AI-ML)	3
21JG1A4242	P.DIVYA	21jg1a4242.divya@gvpcew.ac.in	8790410166	CSE(AI-ML)	3
21JG1A1244	P.SRUJANA RAM	21jg1a1244.srujanaram@gvpcew.ac.in	7981224313	IT	3

2. **Team Name :** YUKTHI9

Roll Number	Name	Email id	Mobile no.	Stream	Year
21JG1A1257	Taddi Jhansi Rani	21jg1a1257.jhansirani@gvpcew.ac.in	7993515639	IT	3
21JG1A1223	Kannepogu Hima Pranavi	21jg1a1223.pranavi@gvpcew.ac.in	7981068170	IT	3
21JG1A1262	Vungarala Sai Chitti Prasanthi	21jg1a1262.prasanthi@gvpcew.ac.in	6302204212	IT	3
21JG1A4246	Poshitha Inaganti	21jg1a4246.poshitha@gvpcew.ac.in	7702209629	CSE(AI-ML)	3
21JG1A4256	Telukala Anitha	21jg1a4256.anitha@gvpcew.ac.in	9347224068	CSE(AI-ML)	3
21JG1A0519	Chukka Manasa	21jg1a0519.manasa@gvpcew.ac.in	9441155692	CSE	3

3. **Team Name :** SAPHALYAH

Roll Number	Name	Email id	Mobile no.	Stream	Year
21JG1A4223	Yetendriya Lamani Kodidasu	21jg1a4223.lamani@gvpcew.ac.in	7799434579	CSE(AI-ML)	3
21JG1A4221	Harshitha Kasarapu	21jg1a4221.harshitha@gvpcew.ac.in	7993923902	CSE(AI-ML)	3
21JG1A4229	Yasaswini Mandapati	21jg1a4229.yasaswini@gvpcew.ac.in	9866812172	CSE(AI-ML)	3
21JG1A4262	Vaishnavi Voleti	21jg1a4262.vaishnavi@gvpcew.ac.in	8555063991	CSE(AI-ML)	3
21JG1A4239	Nanduri Sai Harika	21jg1a4239.harika@gvpcew.ac.in	7989341660	CSE(AI-ML)	3
21JG1A05A1	Pyla Likhitha	21jg1a05a1.likhitha@gvpcew.ac.in	8555922815	CSE	3

4. **Team Name : AYUR BHARATH**

Roll Number	Name	Email id	Mobile no.	Stream	Year
20JG1A4256	Thyadi Jayasree	20jg1a4256.jayasree@gvpcew.ac.in	9381416029	CSE(AI-ML)	4
21JG1A4255	T Charishma Reddy	21jg1a4255.charishma@gvpcew.ac.in	6302721113	CSE(AI-ML)	4
21JG1A4206	Chatti Anu Sri	21jg1a4206.anusri@gvpcew.ac.in	7337214375	CSE(AI-ML)	3
322103282078	Srivani pokkuluri	322103282078.srivani@gvpcew.ac.in	8688583756	CSE(AI-ML)	2
322103282083	Reddy Gayatri	322103282083.gayatri@gvpcew.ac.in	7396155453	CSE(AI-ML)	2
322103282094	Sirisha Arangi	322103282094.sirisha@gvpcew.ac.in	9490748577	CSE(AI-ML)	2

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5. Team Name : SAHA

Roll Number	Name	Email id	Mobile no.	Stream	Year
21JG1A0520	D Vineetha Reddy	21jg1a0505.vineetha@gvpcew.ac.in	7989125710	CSE	3
21JG1A0505	A.kavya	21jg1a0505.kavya@gvpcew.ac.in	9704393150	CSE	3
21JG1A05C2	V.Komali	21jg1a05c2.komali@gvpcew.ac.in	8919957175	CSE	3
21JG1A0552	K.Harini	21jg1a0552.harini@gvpcew.ac.in	9652611590	CSE	3
21JG1A0548	K.Akshaya	21jg1a0548.akshaya@gvpcew.ac.in	9963070811	CSE	3
21JG1A05b8	V.parvathi	21jg1a05b8.parvathi@gvpcew.ac.in	9866119277	CSE	3


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Participation
Certificate
This Certificate is awarded to
Srivani Pokkuluri, Gayatri Vidya Parishad College of Engineering for Women
for participating in Smart India Hackathon, 2023
Sh. K Sanjay Murthy
Secretary Higher Education, Ministry of Education
Prof. T. G. Sitharam
Chairman, AICTE
Ministry of Education
Dr. Abhay Jere
Vice Chairman AICTE &
Chief Innovation Officer (CIO),
Ministry of Education
Dr. M. Sreenivasa Reddy
Principal
Aditya Engineering College (A)
Media Partner
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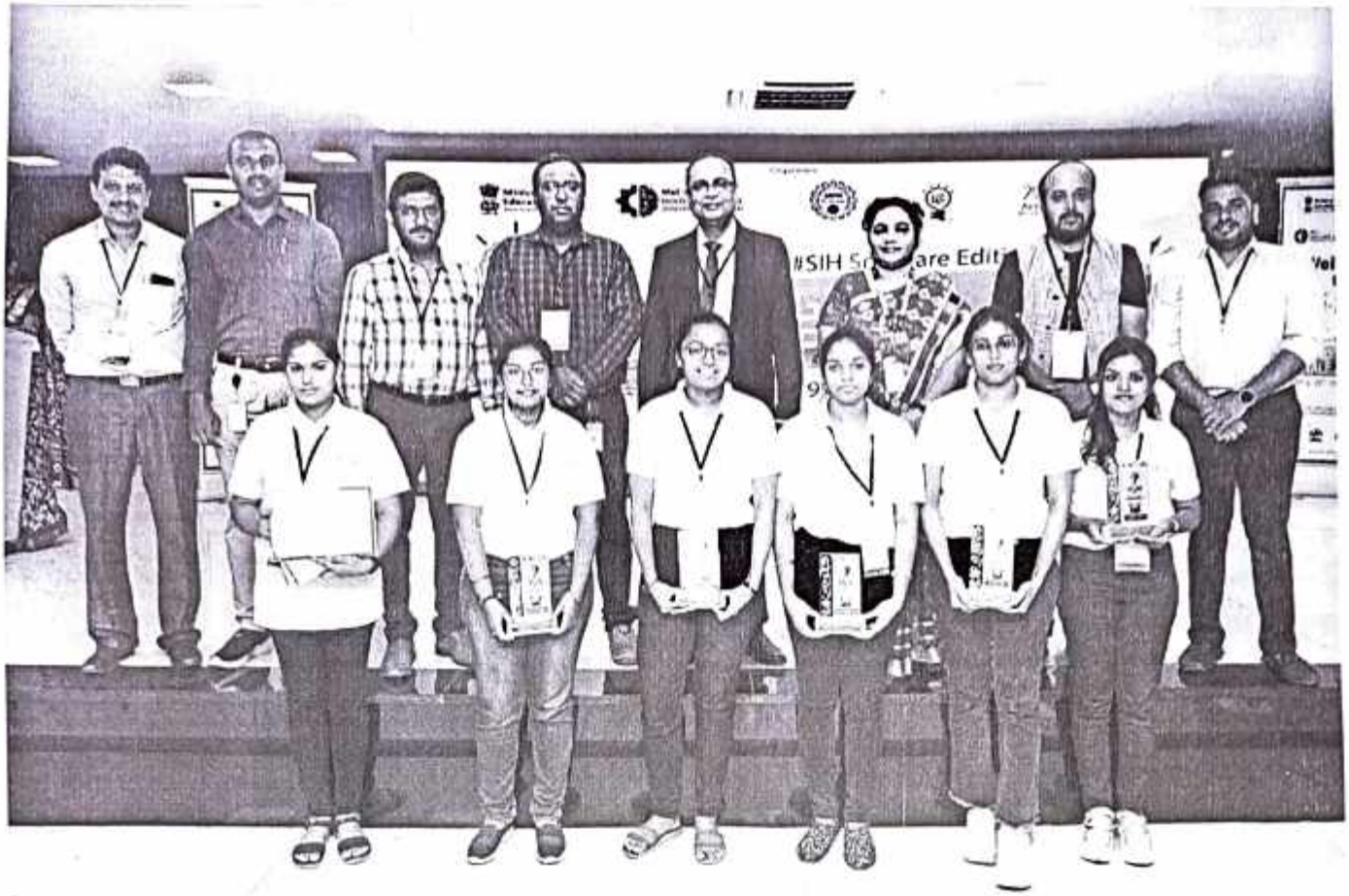
December 19-20
PARTICIPANT
ADITYA ENGINEERING COLLEGE (A)



GAYATRI VIDYA PARISHAD

COLLEGE OF ENGINEERING FOR WOMEN

(Approved by AICTE, New Delhi)

(Affiliated to Andhra University, Visakhapatnam)

(Accredited by NAAC with "A" Grade from 2022 to 2027)

CERTIFICATE OF PARTICIPATION

This certificate is awarded to the team

Byte Learners

comprising of the members

Vanamali Sirisha, Anuradha, Sravani and Jaya Sri

For participating inMachine Learning (ML) Hackathon
conducted on 6th January, 2024

Dr. K.P. Naidu
Coordinator
ML Hackathon

Dr. G. Sudheer
Organizing Secretary
ML Hackathon

Dr. Rajkumar Goswami
Principal
GVPCEW

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN

Madhurawada, Visakhapatnam – 530 041
(Approved by AICTE, New Delhi and Affiliated to Andhra University)
(Accredited by NBA & NAAC (Grade A))

Industrial Visit to **Centre for Excellence in Maritime and Shipbuilding (CEMS), Visakhapatnam**

Date: 26-07-2023

Title: Industrial Visit to "CEMS, Visakhapatnam"
Date: 25-07-2023 10:00AM-3:00PM

Preamble:

Industrial visits provide students with the opportunity to observe real-world applications of the concepts they learn in the classroom. It helps bridge the gap between theoretical knowledge and practical implementation. Students can witness how theories are put into practice and understand the functioning of various industrial processes. Also, provide insights into the functioning of different industries and the overall business environment.

CEMS is a skill development initiative undertaken by Ministry of Shipping along with Siemens Industry Software India Pvt Ltd. & Indian Register of Shipping in line with Prime Minister's initiative of Skill India. The project aims to impart Industry 4.0 relevant training in latest software & hardware tools and technology used in the engineering industry with 18 state-of the art labs.

Participants profile:

In total 46 students from various branches who are the members of IEEE and IIC have participated in the industrial visit. Two faculty members Dr.L.Ganesh and Mrs.P.Sridevi have accompanied the students. The participants include: 20 (IT), 08 (CSM), 03 (ECE), 12(EEE) and 03(CSE) students.

About the Visit:

The industrial visit was organized by the IIC (Institute Innovation Council) and the IEEE Student Chapter at GVPCEW. It commenced on July 25th, 2023, at 10:00 AM and concluded at 3:00 PM. Upon our arrival at the company, the entire technical team, along with the HR and Operations Manager, warmly welcomed all the participants. Livingston Francis, the HR representative, delivered an informative presentation about CEMS, highlighting its facilities, career opportunities, research and development activities, training programs, internship opportunities and work environment.

Following the presentation, the students were divided into groups and granted access to different sections of the company, includes IoT and IIoT lab, Process automation lab, Robotic Arch welding lab, Numatics and hydraulics and tube and plumbing. This allowed them to gain firsthand experience and insights into the company's operations. The visit culminated with visit to Augmented/Virtual and Mixed reality lab.

Registration/Sponsorship/Funding:

- Student members/representatives of IEEE and IIC are allowed to take part in Industrial visit.
- Rs.150 per students is paid as registration amount to the company.

Report Submitted by:
Dr.L.Ganesh, IIC & IEEE Coordinator, GVPCEW

Coordinator

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN

Madhurawada, Visakhapatnam – 530 041

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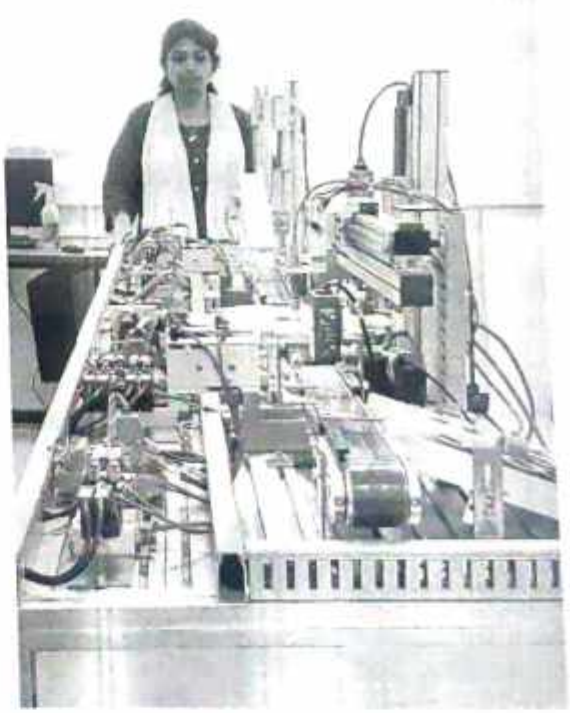

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INSTITUTION'S INNOVATION COUNCIL

Ph : 0891-2739144

Fax : 0891-2526639

e-mail: gvpcew@gmail.com

List of Students attending Industrial Visit to CEMS, Visakhapatnam

Date 25-07-2023

S.NO	NAME	BRANCH	Signature
1.	M. M. LAKSHMI PRASANNA CHANDRA	INFORMATION TECHNOLOGY	Prasanna
2.	R. KHYATHI	INFORMATION TECHNOLOGY	Khyathi
3.	A.SRIYA	INFORMATION TECHNOLOGY	A. Sriya
4.	B.SAI SRI	INFORMATION TECHNOLOGY	B. Sai Sri
5.	P.NISHA	INFORMATION TECHNOLOGY	P Nisha
6.	K.B.S ANUSHA	INFORMATION TECHNOLOGY	K B S Anusha
7.	U.JASWITHA	INFORMATION TECHNOLOGY	U Jaswitha
8.	M.NIKHITHA	INFORMATION TECHNOLOGY	M. Nikhitha
9.	V.SANJANA	INFORMATION TECHNOLOGY	Sanjana
10.	G.YASASWINI PRIYA	INFORMATION TECHNOLOGY	G. Yasaswini Priya
11.	K.SAI LIKITHA	INFORMATION TECHNOLOGY	K. Likitha
12.	B.SAHITHI	INFORMATION TECHNOLOGY	Sahithi
13.	SHAIK NAFISA NAZ	INFORMATION TECHNOLOGY	Nafisa Naz
14.	R.DHATRI	INFORMATION TECHNOLOGY	R. Dhatri
15.	V.S.C.PRASANTHI	INFORMATION TECHNOLOGY	Prasanthi. V
16.	K.H.PRANAVI	INFORMATION TECHNOLOGY	Pranavi
17.	B.SARITHA	INFORMATION TECHNOLOGY	B. Saritha
18.	CH.DEEPTHI	INFORMATION TECHNOLOGY	Ch. Deepthi
19.	R.RUKMINI	INFORMATION TECHNOLOGY	R. Rukmini
20.	N.VIDYA VALLIKA	INFORMATION TECHNOLOGY	
21.	M.TEJASWINI	CSM (AI & ML)	M. Tejaswini
22.	N.KEERTHANA	CSM (AI & ML)	N. Keerthana
23.	N.SRI RAMYA	CSM (AI & ML)	N. Sri Ramya
24.	J.SOWMYA	CSM (AI & ML)	J. Sowmya
25.	R.RENUKA SAI	CSM (AI & ML)	R. Renuka Sai
26.	R.VARSHITHA	CSM (AI & ML)	R. Varshitha
27.	G.DEEKSHITHA	CSM (AI & ML)	G. Deekshitha
28.	D.MANASA PRANEETHA	CSM (AI & ML)	D. Manasa Praneetha
29.	B.NAVYA	ELECTRONICS AND COMMUNICATIONS ENGINEERING	B. Navya
30.	P.KANCHANA REKHA	ELECTRICAL & ELECTRONICS	P. Kanchana
31.	P.DEEPIKA	ELECTRICAL & ELECTRONICS	P. Deepika
32.	B.SOWMYA	ELECTRICAL & ELECTRONICS	B. Sowmya
33.	D.DHANUSHA	ELECTRICAL & ELECTRONICS	D. Dhanusha
34.	K.CHARISHMA	ELECTRICAL & ELECTRONICS	K. Charishma
35.	P.PUSHPA LATHA	ELECTRICAL & ELECTRONICS	P. Pushpa Latha
36.	T.SRILAKSHMI	ELECTRICAL & ELECTRONICS	T. Srilakshmi
37.	A.VASAVI	ELECTRICAL & ELECTRONICS	A. Vasavi
38.	M.JAYA CHANDRIKA	ELECTRICAL & ELECTRONICS	M. Chandrika
39.	R.RAMANI DURGA	ELECTRICAL & ELECTRONICS	R. Ramani
40.	R.HARI PRIYA	ELECTRICAL & ELECTRONICS	R. Hari Priya
41.	V.RESHMA	ELECTRICAL & ELECTRONICS	V. Reshma
42.	G.PRAVALLIKA	COMPUTER SCIENCE	G. Pravallika
43.	I.KUSHYANTHI	COMPUTER SCIENCE	I. Kushyanthi
44.	K.PRANATHI	COMPUTER SCIENCE	K. Pranathi
45.	V. Jahnavi Sivani	ECE	Jahnavi
46.	M. Kavya Reddy	ECE	M. Kavya Reddy
47.			
48.			
49.			
50.			

IEEE Coordinator

Gmail

Laveti, Dr Ganesh <ganeshlaveti2010@gvpcew.ac.in>

IEEE SB Industrial Visit to CEMS on 25 July 2023 Reg.

1 message

Laveti, Dr Ganesh <ganeshlaveti2010@gvpcew.ac.in> Sat, Jul 22, 2023 at 1:23 PM
To: Gopika Varshini Lagudu <gopikavarshini.23@gmail.com>, Sahithi <dashsohan@gmail.com>, Pravallika garmidi <pravallikagarmidi@gmail.com>, pranathi081104@gmail.com, Kushyanthi Immidisetti <immidisetikushyanthi@gmail.com>, Deekshi Gudivada <deekshigudivada@gmail.com>, manuviharikad453@gmail.com, renukasareddi13@gmail.com, Soumya Jami <jamisoumya7@gmail.com>, vanshithasylee@gmail.com, nallaramya1404@gmail.com, manyapuritejaswini@gmail.com, Keerthana Nagesh <keerthananagesh019@gmail.com>, Behara Harshitha <harshithabehara5@gmail.com>, macharlaprasanna894@gmail.com, mukkutlakavya@gmail.com, deepikaperla640@gmail.com, Kanchana Rekha Ponnapu <kanchanarekhaponnapu@gmail.com>, RamaniDurga Reddy <ramanidurgareddy@gmail.com>, vasaviamipalli@gmail.com, sowmyapatnaik17@gmail.com, dhanushadekka@gmail.com, chandhmavelly1111@gmail.com, Pushpa Latha Peddada <peddadapushpalatha@gmail.com>, tamminaina1805@gmail.com, Meghana Surada <suradameghanas@gmail.com>, reddy Hanpriya <reddyhanpriya4@gmail.com>, vanipalliteshma07@gmail.com, navyaburada834@gmail.com, challalavanya990@gmail.com, bsusmitha2004@gmail.com, Supriya moyyeti <supriyamoyyeti@gmail.com>, mohanavamsikomara@gmail.com, jahnaviviyani365@gmail.com, Kavya Reddy <kavya21reddi@gmail.com>, tulasi03jayasree@gmail.com, sreejakancharapu@gmail.com, Rohini B <rohinibtiro77@gmail.com>, ayyagarisricha610@gmail.com, sarithabongu09@gmail.com, deepthi Challa <deepthichalla121@gmail.com>, Vidhathri Chintamaneni <v16620043@gmail.com>, priyagadi8@gmail.com, Pranavi Kannepogu <pranavikannepogu@gmail.com>, bhuvanasrianusha@gmail.com, likhitakundala@gmail.com, magapumlpc@gmail.com, nikhithamotamarry@gmail.com, Vidya Vallika <nvidyavallika6@gmail.com>, nishapalla35@gmail.com, khyathi.r764@gmail.com, RENDUCHINTALA RUKMINI <rukminireddy.kumala2003@gmail.com>, dhatrirobbi@gmail.com, shaik Nafisa Naz <shaiknafisanaz@gmail.com>, likhitha SUNDUNAGUNTA <likhithasun@gmail.com>, ugginajaswitha@gmail.com, Prasanthi Vungarala <prasanthivungarala28@gmail.com>, sanjanavunty1209@gmail.com, sasiriboyina@gmail.com, Sahithi B <bsahithi2004@gmail.com>, deekshithagovindu2003@gmail.com
Cc: Sridevi P <psridevi@gvpcew.ac.in>

Dear Studnets (IEEE Members),

GVPCEW IEEE Student Branch, in association with IIC, is planning to organize an Industrial Visit to CEMS (Center for Excellence in Maritime and Shipbuilding) in Visakhapatnam on July 25, 2023 (Tuesday, 10 a.m. to 1:00 p.m.).

Company link: https://cemsindia.org/

As you were informed earlier, it is the company policy that each student is required to pay a registration fee of 150 rupees to visit the company. Since the event is specifically designed for IEEE students, the college is contributing Rs. 50 per student, and transportation will be arranged from the college.

Students are required to submit the parent undertaking form attached to this email along with Rs. 100 on or before July 24, 2023.

Join the **IEEE WhatsApp group** for communication and further information on various IEEE events

https://chat.whatsapp.com/KCZ0yba7G2PGrZRubgFOIP

Regards
IEEE SB Counselor and Coordinator

Letter of Undertaking.docx
14K

GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING FOR WOMEN
Madhurawada, Visakhapatnam – 530 041
(Approved by AICTE, New Delhi and Affiliated to Andhra University)
(Accredited by NBA & NAAC (Grade A))

Invited Talk on "An Introduction to MSME Schemes"

Date: 03-04-2024

Title: Invited Talk on "An Introduction to MSME Schemes"

Date: 3rd April 2024, 1:30 PM to 4:30 PM

Preamble:

An insightful session on "An Introduction to MSME Schemes," presented by Dr. Vinay, Dean of Academics at GVP College for PG Courses. This talk is designed to provide an in-depth understanding of the various schemes offered by the Ministry of Micro, Small, and Medium Enterprises (MSME) in India.

Dr. Vinay brings extensive expertise and academic leadership to the discussion, offering valuable perspectives on how these schemes can benefit startups, small businesses, and entrepreneurs. The session aims to equip participants with the knowledge required to navigate and leverage MSME initiatives effectively for business growth and innovation.

Participants profile:

A total of 62 students, all IEEE members, participated in the event. The participants included 11 students from the Computer Science department, 9 from the CSE AI and ML departments, 36 from the Electronics and Communications Engineering department, and 6 from the Information Technology department.

About the Event

Inviting dignitaries on to the dias by Ms.Likhitha ,IT	1:30-1:35
Prayer Song by Ms.Sailaja, CSE	1:35-1:37
Welcome address by Principal Sir	1:37-1:44
IEEE SB Annual report by Dedeepya, CSE	1:44-1:46
A brief Video clip on IEEE student branch	1:46-148
Introduction of Chief guest by Vidhatri, IT	1:48-1:50
Invited talk by Chief Guest	1:50-4:15
Appreciation certificates to IEEE SB officers	4:15-4:17
Felicitation to chief guest	4:17-4:19
Vote of thanks by Pravallika, CSE	4:19-4:21
Refreshments	

Registration/Sponsorship/Funding:

Registration for IEEE members was complimentary, fostering inclusivity and encouraging membership. Non-IEEE members were invited to register at a nominal fee of 10 rupees, enabling broader participation in these enriching activities.

Report Submitted by:

Ms.P.Sridevi , IEEE Counsellor, GVPCEW
Dr.L.Ganesh, IEEE Coordinator, GVPCEW

Faculty Coordinator,


Shot on OnePlus


Gayatri Vidya Parishad
Shot on OnePlus


Shot on OnePlus

Gayatri Vidya Parishad College of Engineering for Women
(Approved by AICTE, New Delhi, Affiliated to JNT University, Kakinada)
MADHURAWADA, VISAKHAPATNAM – 530048
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IETE STUDENTS' FORUM (ISF)

Date: 04-02-2024

NOTICE

All III B.Tech ECE Students are hereby informed that, IETE Students' Forum is organizing a session on "Analog Circuits for GATE Examination" by Mr. S Mani Mohan Trinadh, Faculty, ACE Engineering Academy on 6th February, 2024 from 10:00AM to 12:00 NOON in the College Auditorium.

With prior approval of the Head of the Department.

Coordinator – IETE
(Mr. P V K Chaitanya)

HEAD
DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING
G V P COLLEGE OF ENGINEERING FOR WOMEN
MADHURAWADA, VISAKHAPATNAM – 530 048

Gayatri Vidya Parishad College of Engineering for Women
(Approved by AICTE, New Delhi, Affiliated to JNT University, Kakinada)
MADHURAWADA, VISAKHAPATNAM – 530048
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IETE STUDENTS' FORUM (ISF)

Talk on "Analog Circuits for GATE Examination" – 06-02-2024

A talk on Importance of Analog Circuits in GATE Preparation is organized by IETE Students' Forum by Mr. S Mani Mohan Trinath, an esteemed faculty member from ACE Engineering Academy. With a master's degree in Electronics from Andhra University and a postgraduate degree in Artificial Intelligence & Machine Learning from the University of Texas at Austin, Mr. Trinath provided valuable insights into higher education opportunities, the semiconductor industry, and career paths.

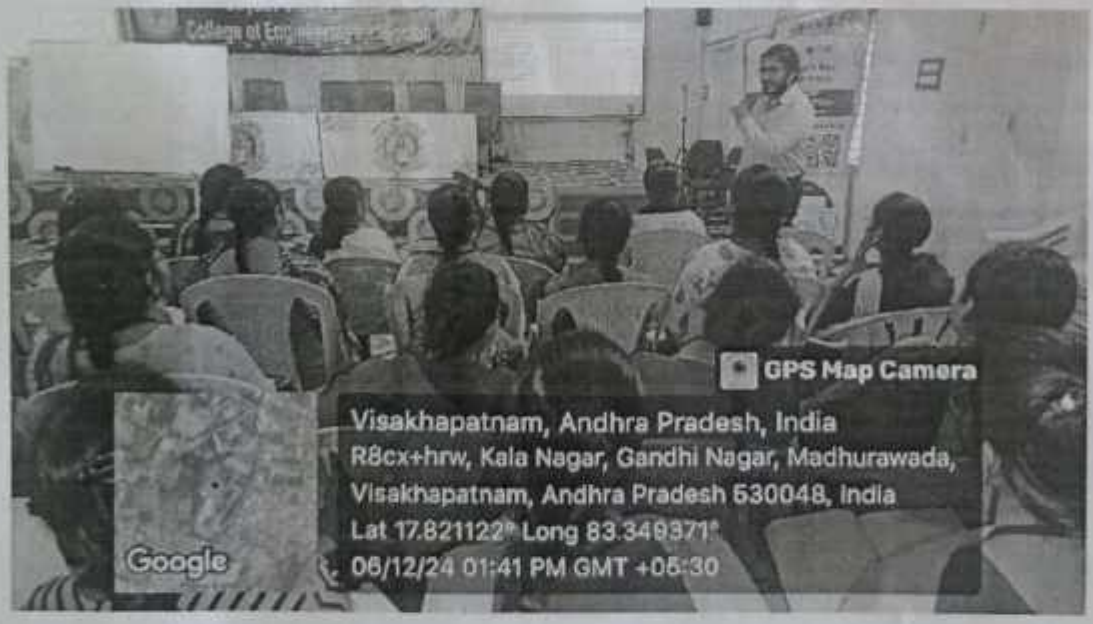
Mr. Trinath began by introducing the GATE exam, explaining its structure, eligibility criteria, and significance in pursuing postgraduate studies at prestigious institutions such as IITs, IISc, and NITs. He emphasized how the GATE score is a gateway for higher education and recruitment in PSUs. He further highlighted alternate exams like UGC-NET and CSIR-NET for students aspiring for research and academic careers. He elaborated on top IITs like IIT Bombay, IIT Delhi, and IIT Madras, which offer advanced specializations in fields like robotics, VLSI, and embedded systems.

The lecture transitioned into a discussion on the semiconductor value chain, including IC design, wafer fabrication, and end-product integration. Mr. Trinath outlined the stages of IC fabrication and their impact on sectors such

IETE STUDENTS' FORUM (ISF)

as AI, automotive, and telecommunications. He also shed light on the market size and key players in each part of the value chain, mentioning global AI companies like NVIDIA, Intel, Apple, and Qualcomm. He then discussed the role of Indian companies such as INOX CVA, KAYNES, and HCL in areas like pre-silicon validation, wafer thinning, and packaging. He provided a breakdown of contributions from entities like the Adani Group in wafer fabrication and the Hiranandani Group in testing and assembly.

Concluding the session, Mr. Trinath spoke about the classifications of PSUs as MAHARATNA, NAVARATNA, and MINIRATNA, their financial autonomy, and their contribution to industrial growth. He explained basic design concepts like VI characteristics, which form the foundation of semiconductor and circuit analysis.



The students engaged actively in the Q&A session, finding the talk insightful and motivational. Mr. Trinath's guidance left the attendees with a better understanding of how to align their academic efforts with career aspirations in core engineering and emerging technologies.

6/12/24

Gayatri Vidya Parishad College of Engineering for Women
(Approved by AICTE, New Delhi, Affiliated to JNT University, Kakinada)
MADHURAWADA, VISAKHAPATNAM – 530048
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IETE STUDENTS' FORUM (ISF)

Session on "Analog Circuits for GATE Examination"

by Mr. S Mani Mohan Trinadh, Faculty, ACE Engineering Academy

06/02/2024

Attendance Sheet

S.No	Regd. No.	Name	Signature
1	21JG1A0401	AKULA MANASWINI	Manaswini
2	21JG1A0402	ALLAKA BHAVANA	A
3	21JG1A0403	ALLU NAGA DHANESWARI	A
4	21JG1A0404	AMMU BHARGAVI	A Bhargavi
5	21JG1A0405	AREPALLI SRAVYA	A. Sravya
6	21JG1A0406	ASWINI PATNAIK	Aswini Patnaik
7	21JG1A0407	AYSETTI VENKATA DIVYA HARINI	A
8	21JG1A0408	BALLA JAYA DEEPIKA	Jaya Deepika
9	21JG1A0409	BANDI BHARATHI DARALAXMI	A
10	21JG1A0410	BAYALAPUDI ANJALI	A
11	21JG1A0411	BELLALA NIKITHA	A
12	21JG1A0412	BEZAWADA BHUVANESWARI	B. Bhuvana
13	21JG1A0413	BITRA ROHINI	B. Rohini
14	21JG1A0414	BOGI GOWTHAMI	A
15	21JG1A0415	BOMMALI BAHULA SRI	Bahula
16	21JG1A0416	BOORLE YUVA CHANDANA	A
17	21JG1A0417	BURADA HARIKA	B-Harika
18	21JG1A0418	BURADA NAVYA	B. Navya
19	21JG1A0419	BURUJUVADA SUSMITHA	A
20	21JG1A0420	CH YASHASWINI	Yashaswini
21	21JG1A0421	CHALLA LAVANYA	Lavanya
22	21JG1A0422	CHAMANTHULA AKHILA	A
23	21JG1A0423	CHELLURI TULASI	Ch. Tulasi
24	21JG1A0424	CHENNA SHIREESHA	Shireesha
25	21JG1A0426	DASARI BHAVANA	A
26	21JG1A0427	DASARI VENISHA	A
27	21JG1A0428	DEVAVARAPU MAHITA	D. Mahitha
28	21JG1A0429	DHANYA SREE ARISILLI	
29	21JG1A0430	DHARMANA MANIKUMARI	D. Manikumari
30	21JG1A0431	DODDI HIMASRI	D. Himasri
31	21JG1A0433	DOMANA JYOTHI	A
32	21JG1A0434	DOODA MAHESWARI	D. Maheswari

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IETE STUDENTS' FORUM (ISF)

Session on "**Analog Circuits for GATE Examination**"

by Mr. S Mani Mohan Trinadh, Faculty, ACE Engineering Academy

06/02/2024

Attendance Sheet

S.No	Regd. No.	Name	Signature
33	21JG1A0435	DUNE SRI DURGA LAVANYA	D.S.D Lavanya
34	21JG1A0436	DUPPALAPUDI JAHNAVI	D. Jahnavi
35	21JG1A0437	GARIKIPATI YUVA TEJA SREE	G. Yuva Teja Sree
36	21JG1A0438	GAVARA POOJITHA	A
37	21JG1A0439	GEDELA JAHNAVI	A
38	21JG1A0440	GOKEDA JAYASRI	A
39	21JG1A0441	GULUVINDALA NAGA SRIVANI	G. NagaSriVani
40	21JG1A0442	GUNUPURU HANSIKA NAIDU	G. Hansika
41	21JG1A0443	INDUPURI VENKATA SAI LALITHAMBICA	A
42	21JG1A0444	JOGI PAVANI	A
43	21JG1A0445	JUTTIGA PUJITHA	A
44	21JG1A0446	KADALI HARIKA	A
45	21JG1A0447	KALLEPALLI DEEPANJALI	K. Deepanjali
46	21JG1A0448	KANCHI BHAVYA SRI	K. Bhavyasri
47	21JG1A0449	KANDI DILLESWARI	A
48	21JG1A0450	KANURI PRIYANKA	A
49	21JG1A0451	KARRI SRIJA DURGA	A
50	21JG1A0452	KILLAMSETTI ABHINAYA	K. Abhinaya.
51	21JG1A0453	KODAVANTI HARSHITHA	A
52	21JG1A0454	KOLLI LOHITHA	A
53	21JG1A0455	KOMARA MOHANA VAMSI	
54	21JG1A0456	KORLANA BHAVYA SRI	A
55	21JG1A0457	MADDULA SIREESHA	M. Sireesha
56	21JG1A0458	MAJJI VENKATA RAJEEV HARI PRIYA	M. Haripriya
57	21JG1A0459	MANCHALA NIKHITHA	A
58	21JG1A0460	MATTA JHANSI	A
59	21JG1A0461	MEDAPALLI SAITHI SOWMYA	A
60	21JG1A0462	MITTIREDDI SAI SARAYU	Sai Sarayu M
61	21JG1A0463	MOYYETI SUPRIYA	A
62	21JG1A0464	KASIMAHANTHI BHAVANI	K. Bhavani
63	21JG1A0467	NAIDU BHARGAVI	N. Bhargavi
64	21JG1A0468	NAMBARI NAVYA SRI	N. Navyasri

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IETE STUDENTS' FORUM (ISF)

Session on "Analog Circuits for GATE Examination"

by Mr. S Mani Mohan Trinadh, Faculty, ACE Engineering Academy

06/02/2024

Attendance Sheet

S.No	Regd. No.	Name	Signature
65	21JG1A0469	NANDIGANA JYOTHI	N. Jyothi
66	21JG1A0470	NEMALI KRISHNA KALA HARSHITA	Harshitaj
67	21JG1A0471	NISSIE RUBY VANTIMI	A
68	21JG1A0472	OMMI SRAVANI	O. Sravani
69	21JG1A0473	PANDIRI MUKTHIKA	P. Mukthika
70	21JG1A0474	PAPPU VEDASRI SUHANI ANAND	P.V.S. Anand
71	21JG1A0475	PENTAKOTA CHANDHINI	pchandhini
72	21JG1A0476	POLEPALLI MONIKA	A
73	21JG1A0477	POLURU SHARMILA	P. Sharmila
74	21JG1A0478	P SAI GANARATNA KAVYA HARSHINI	P. Harshini
75	21JG1A0479	PYLA SAI RUSHITHA	P. Sai Rushitha
76	21JG1A0480	RANGALA SNEHANJALI	R. Snehanjali
77	21JG1A0481	REJETI SRI VIDYA LAKSHMI	A
78	21JG1A0482	ROUTHU SAHITHI	R. Sahithi
79	21JG1A0483	RUPPA DURGA PRASANNA	R. Durga prasanna
80	21JG1A0484	SAI RAMA THEEKSHANI PAMULA	A
81	21JG1A0485	SAMOJU SOWJANYA LAKSHMI	A
82	21JG1A0486	SANKU LALITHA	A
83	21JG1A0487	SANKU MADHU SRUTHI	S. Madhu Sruthi
84	21JG1A0488	SAPIREDDY KALYANI	S. Kalyani
85	21JG1A0489	S PRATHIMA SATYA RAMA PUNITHA	S. Prathima
86	21JG1A0490	SARAKANAM YASASWINI	S. Yasaswini
87	21JG1A0491	SATTI SAILAJA	S. Sailaja
88	21JG1A0492	SAVALAPURAVI DEEPIKA	S. Deepika
89	21JG1A0493	SEEKU JAYA SREE	S. Jayasree
90	21JG1A0494	SHAIK RESHMA	A
91	21JG1A0495	SIGMANTHI DIVYA	S. DIVYA
92	21JG1A0496	SIRIGINEEDI SRI TEJA MANI	A
93	21JG1A0497	SIRIPURAPU MERCY ANGEL	S Mercy Angel
94	21JG1A0498	SNEHA SHARMA	Sneha Sharma
95	21JG1A0499	SOMPALLI SAI PRIYA	Saipriya.S
96	21JG1A04A0	SREEJA KANCHARAPU	Sreeja

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Session on "**Analog Circuits for GATE Examination**"

by Mr. S Mani Mohan Trinadh, Faculty, ACE Engineering Academy

06/02/2024

Attendance Sheet

S.No	Regd. No.	Name	Signature
97	21JG1A04A1	SUKLA BHANU KOWSHITHA	S Bhanu Kowshitha
98	21JG1A04A2	SUNKARI SAILAJA	S. Sailaja
99	21JG1A04A3	THIRUMALASETTI PAVANI	pavani
100	21JG1A04A4	THOTA KUSUMA	A
101	21JG1A04A5	VASAMSETTY JAHNAVI SIVANI	A
102	21JG1A04A6	VISSA MEGHANA	V. Meghana
103	21JG1A04A7	YEDURU KAVYA REDDY	Y. Kavya Reddy
104	21JG1A04A8	YELLISETTI NITYA PRANATHI	y. Nithya
105	21JG1A04A9	YENDU SAILAJA	Y Sailaja
106	21JG1A04B0	YENNI HARIKA	Y. Harika
107	21JG1A04B1	YALLA TEJA SRI	Y. tejasri
108	22JG5A0401	BALADARI VAISHNAVI	B. Vaishnavi
109	22JG5A0402	BOYEDA LAVANYA	B. Lavanya.
110	22JG5A0403	CHODIPALLI PAVITRA	ch. pavitra
111	22JG5A0404	DONGA SRI PRAVALLIKA	D. S. Pravallika
112	22JG5A0405	KANISETTY VASAVI	K. Vasavi
113	22JG5A0406	KOLANTI BHAVITHA	K. Bhavitha
114	22JG5A0407	KORIBILLI USHA SAI PRIYA	K. U. S. Priya
115	22JG5A0408	KUNDRAPU SAI MANOGNA	K. Sai Manogna
116	22JG5A0409	LANKA NEELIMA	L. Neelima
117	22JG5A0410	ORIGITA SRIVALLI	O Srivalli
118	22JG5A0411	SEEKARI VEDHALATHA	S. vedhalatha
119	22JG5A0412	TAMARAPALLI GOWRI	T. Gowri
120	22JG5A0413	VEMULA SUREKHA	V. Surekha
121	22JG5A0414	BONDAPALLI BHARATHI	B. Bharathi
122	22JG5A0415	CHITRADA PURNIMA	A
123	22JG5A0416	EEKA SIVA SRI	A
124	22JG5A0417	MAJJI TRIVENI	M. Triveni
125	22JG5A0418	MATCHA SOWJANYA	A
126	22JG5A0419	NAMMI ARUNA	A
127	22JG5A0420	PALAKOLLU PAVANI	P. Pavani
128	22JG5A0421	TANAVARAPU BHAVYA SRI	A
129	22JG5A0423	VUDATTA SAI SATVIKA	A

HEAD
DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING
G V P COLLEGE OF ENGINEERING FOR W...
...AM – 5...

6/2/24

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

MAMIDALA GAUTAMI

for successfully completing the course

Data Analytics with Python

with a consolidated score of **77** %

Online Assignments	18.13/25	Proctored Exam	59.04/75

Total number of candidates certified in this course: **7860**

Prof. Sanjeev Manhas
Coordinator, Continuing Education Centre
IIT Roorkee

Jan-Apr 2023
(12 week course)

Prof. Priti Maheshwari
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

FREE ONLINE EDUCATION swayam

Roll No: NPTEL23CS08S64941355

To validate the certificate

No. of credits recommended: 3 or 4

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

MADHABATTULA DEEPTHI

for successfully completing the course

Data Analytics with Python

with a consolidated score of **73** %

Online Assignments	24.06/25	Proctored Exam	48.75/75

Total number of candidates certified in this course: **7860**

Prof. Sanjeev Nanhas
Coordinator, Continuing Education Centre
IIT Roorkee

Jan-Apr 2023
(12 week course)

Prof. Priti Maheshwari
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL23CS08S24941327

To validate the certificate

No. of credits recommended: 3 or 4

659

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

DEEKSHITHA

for successfully completing the course

Cloud Computing

with a consolidated score of **69** %

Online Assignments	25/25	Proctored Exam	43.88/75

Total number of candidates certified in this course:16686

Jul-Oct 2023

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23CS89S650101515 To verify the certificate No. of credits recommended: 3 or 4

Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

PENTAKOTA CHANDHINI

for successfully completing the course

Analog Communication

with a consolidated score of **65** %

Online Assignments	21.56/25	Proctored Exam	43.5/75

Total number of candidates certified in this course: **141**

Jul-Oct 2023

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

FREE ONLINE EDUCATION swayam शिक्षित भारत, उन्नत भारत

Roll No: NPTEL23EE117S650104430

To verify the certificate

No. of credits recommended: 3 or 4

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

DOODA MAHESWARI

for successfully completing the course

Programming in Java

with a consolidated score of **56** %

Online Assignments	24.75/25	Proctored Exam	30.86/75

Total number of candidates certified in this course: **11713**

Jul-Oct 2023

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

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To verify the certificate

No. of credits recommended: 3 or 4

227G1S10208

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(Funded by the MoE, Govt. of India)

This certificate is awarded to

CHITTARAPU VINEELA

for successfully completing the course

Data Science for Engineers

with a consolidated score of **49** %

Online Assignments	18.75/25	Proctored Exam	30/75

Total number of candidates certified in this course: **2868**

Devendra Jalihal

Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Mar 2024

(8 week course)

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras

Indian Institute of Technology Madras

FREE ONLINE EDUCATION swayam शिक्षित भारत, उन्नत भारत

Roll No: NPTEL24CS53S642701468 To verify the certificate No. of credits recommended: 2 or 3

22JGSA0209

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

CHUKKA MONIKA

for successfully completing the course

Data Science for Engineers

with a consolidated score of 57 %

Online Assignments	22.71/25	Proctored Exam	34.02/75

Total number of candidates certified in this course: 2868

Devendra Jalihal

Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Mar 2024

(8 week course)

Prof. Andrew Thangaraj
NPTEL, Coordinator
IIT Madras

Indian Institute of Technology Madras

FREE ONLINE EDUCATION swayam

Roll No: NPTEL24CS53S542700234

To verify the certificate

No. of credits recommended: 2 or 3

Wayfair Global Technology Private Limited

3 January 2024
Talari Tanuja
Email : talaritanuja14@gmail.com
Phone : 7995129576

CONFIDENTIAL

SUB: Internship Letter

Dear **Talari Tanuja**,

We are pleased to confirm your request for an internship with the Company. Your internship will be for a period of 6 months starting from **16th Jan 2024** to **20th June 2024** ("**Term**"), at the Company's Bengaluru office, subject to the terms contained below:

1. Rules: You will be expected to conform to the Company's policies and code of conduct, during the term of your internship. These will be provided to you on your joining date.

2. Stipend: You shall be entitled to a stipend of **INR 75,000** per month subject to your compliance with the terms of this letter. The stipend shall also be payable subject to you submitting detailed records of the work undertaken and the work product, to your assigned supervisor. If any statutory deductions or taxes become applicable, your stipend shall be subject to the same.

3. Leave: You will be entitled to 6 days of paid sick leaves, for the duration of the internship. You will also be entitled to the declared public holidays as notified by the Company. However, do note that leave entitlement and policies are subject to change at the discretion of the Company. In the event of absence for other reason or in excess of the said number of days, your stipend will be deduced on a pro rata basis.

4. Timings: Your internship hours will be from 9 am to 6 pm from Monday to Friday. You shall not be required to work overtime or over weekends or public holidays.

5. Confidentiality:

   (a) You may during the course of your internship become aware of, or otherwise obtain confidential information. You undertake to keep strictly confidential and not disclose at any time during your internship or thereafter any confidential and non-public information, data or knowledge relating to the Company or a third party in business relation with the Company to any other third party or non-authorized employees.

(b) If any business document is given by the Company or a third party to you, for custody, as part of your training or otherwise, it shall be considered property of the Company. You are not allowed to copy, transcript or reproduce these documents in any form for personal reasons or to pass on to a third party. You are obliged to return all such documents to the Company on request, at the latest on the last day of your internship, including all copies. The aforementioned provision shall also apply to any other object, data medium, software or material, given during the internship and you shall have no right of retention. On request you shall give a written statement on the fulfillment of the return obligation.

(c) You should be aware that you shall be liable for damages if you violate the aforementioned obligations.

(d) It is reiterated that the obligation to maintain secrecy shall continue to apply even after the internship.

6. Intellectual Property Rights:

(a) "**IP Rights**" or "**Intellectual Property**" shall mean all rights in and in relation to all intellectual property rights subsisting in the products, software, etc., developed, being developed or proposed to be developed by you, including all patents, patent applications, moral rights, trademarks, trade names, service marks, service names, brand names, internet domain names and subdomains, inventions, processes, formulae, copyrights, business and product names, logos, slogans, trade secrets, industrial models, formulations, processes, designs, database rights, methodologies, computer programs (including all source codes), technical information, manufacturing, engineering and technical drawings, know-how, all pending applications for and registrations of patents, entity models, trademarks, service marks, copyrights, designs and internet domain names and subdomains and all other intellectual property or similar proprietary rights of whatever nature situated in any country and the benefit of any of the foregoing (in each case, whether registered or not, whether now or hereinafter existing and including applications for the grant or registration of any of the foregoing or rights to apply for grant or registration of any of the foregoing in any part of the world).

(b) If at any time during your internship, you make, discover, or participate in the making or discovery of, any invention or improvement upon, or addition to, any invention, secret process, design, appliance or method of operation in the context of the business of the Company, it shall be the property of the Company and, you shall provide the Company with such information and execute such documentation in the favour of the Company as may be required for obtaining patent or similar protection for that invention, improvement or addition where applicable, to formally assign to the Company any of these Intellectual Property Rights (including any future rights) on a worldwide basis.

7. Conflict of Interest: You hereby confirm that you have disclosed, fully to the Company, all information and interests that are likely to be in conflict with the business(es) or activities of the Company. You agree to disclose, fully to the Company, any such interest or circumstances that may arise during your internship immediately upon such interest or circumstances arriving. Upon the completion of the

internship as per terms of this letter, you shall forthwith return to the Company all the assets and property of the Company (including any leased properties), documents, files, books, papers, memos or any other property or Confidential Information of the Company in your possession.

8. No Disparagement: You shall not, at any time during your internship and thereafter, make statements or representations, or otherwise communicate, directly or indirectly, in writing, orally, or otherwise, or take any action which may, directly or indirectly, disparage the Company, any of its customers or any of its affiliates or their respective officers, directors, employees, advisors, agents and consultants.

9. As this internship program is a coveted learning platform, if you do not propose to join it shall be your obligation to inform the Company immediately. Further, if you propose to terminate or cancel the internship, you will be required to provide the Company with a 30 days' prior notice.

10. The Company reserves the right to terminate, cancel or suspend the internship program for one or more departments or for one or more interns, at any time, at its sole discretion and without any prior notice. In case such an event affects you, you shall be paid the stipend for the duration that you have interned and subject to the terms contained herein. Provided that in the event of your indulgence in any act or activity which amounts to misconduct or disrepute to the Company, breach of this letter or non-compliance of the applicable laws, your internship may be terminated with immediate effect, with/without the payment of the stipend.

11. You are required to submit the softcopy of following documents at the time of joining:
    (a) Passport size colour photograph;
    (b) PAN Card and Aadhar for address proof;
    (c) a permission letter from your college for the 6-month onsite internship with the Company.

You understand and acknowledge that this is not an employment offer and successfully completing the internship program does not automatically entitle you to employment with the Company.

You are advised to go through the contents of this offer letter carefully. On your joining date you will be required to provide a signed copy of the acceptance of this offer letter. Notwithstanding the same, you will be deemed to have accepted the terms of this letter once you start with the internship.

We sincerely wish you a rich and rewarding learning experience at Wayfair.

With warm regards,
For Wayfair Global Technology Private Limited

DocuSigned by:
Rohit Kaila
A73FCB444B9445F...

Name: Rohit Kaila
Designation: Head of Technology and Site Lead

Wayfair Global Technology Private Limited

ACCEPTANCE

I hereby provide my unconditional acceptance of the terms of the internship offered by Wayfair Global Technology Private Limited pursuant to the letter dated 1/4/2024.

Signed: DocuSigned by:  58520740F2EC417...

Name: Talari Tanuja

Location: Bangalore

Date: 1/3/2024

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Original Article

Automatic Text Summarization Using Deep Learning

A.Udaya Kumar[1], B.Roshini[2], K.Mounika[3], B.Tejaswini[4], B.Y.Sahitya[5]
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Received Date: 26 August 2023 Revised Date: 10 September 2023 Accepted Date: 26 September 2023

Abstract: *Text summarising is a method for taking the most crucial information from various texts, compressing it, and keeping the text's overall meaning. Rarely does one need to read reams of documentation to get the gist of a topic; frequently, a brief synopsis is adequate. Automatic Text Summarization (ATS) can be useful in this situation by compressing the text and gathering important information in one place. Only the important sentences from the original document are recognized by the extraction techniques and extracted from the text. As a result, it is more difficult when using abstractive summarization approaches, which create the summary after reading the original text. In this paper, we implemented text summarization using the t5 algorithm and evaluated it based on different criteria, such as the amount of compression or summarization, the amount of meaning lost, and the number of grammatical errors. We also made sure that the information we got from the output was accurate and useful.*

Keywords: *Natural Language Processing, T5 Model, Feature Extraction.*

I. INTRODUCTION

It is frequently important for a machine learning model to parse text in a way that permits downstream learning when training the model to execute natural language processing (NLP) tasks. This might be interpreted as the model acquiring all-purpose information that enables text comprehension. Using this information, a low-level equal contribution to an equal high-level contribution can be made. The core tenet of our work is to treat text processing as a text-to-text issue: to accept the existing text as input and output new text. This method was motivated by earlier unifying frameworks for NLP jobs, for tasks for span extraction, language modeling, or treating all text problems as questions.

With the text-to-text architecture, we can use the same model, aim, training procedure, and decoding strategy for every problem we face. Using a unified approach to NLP research, we may compare the efficacy of various transfer learning targets, unlabeled datasets, and other elements. By scaling up models and datasets beyond what has been previously taken into consideration, we may additionally investigate the limitations of transfer learning for NLP.

A summary is a text that has been created from several texts and condenses the most important information from the source material. The objective of automatic text summarising is to provide consumers with a condensed, semantically rich version of the original material that is easier to read and comprehend. The reduction in reading time is the main advantage of text summarization. Using an extractive summarising technique, significant sentences, paragraphs, and other portions of a material are taken out and combined into a condensed version. Understanding the key ideas in a paper and then articulating them in plain words constitutes an abstract summary.

A sort of information retrieval application called text summarization involves reducing the length of the supplied text. It strives to keep its general meaning and informational content. The process of gathering the required data involves a variety of technologies, giving rise to the summarizing technique. A text constructed from one or more texts and includes a sizable amount of the original material is called a summary. An extracted document is the end result of text summarization. Automatic text summarization is the term used when a computer performs this task automatically.

II. LITERATURE SURVEY

Extracting the most instructive sentences, developed a variety of query-oriented text summarizing techniques. In this, a variety of features are taken from the sentences, each of which assesses the significance of the sentences from a different angle. More precise selection of the most instructive sentences results in a better-quality summary that is generated. In this case, the ROUGE criterion has been applied to extract the 11 best features from each of the sentences and use them to generate more appropriate features that result in improved summaries [1].

Building a single neural network that can be cooperatively changed to improve translation performance is the goal of neural machine translation. A member of the encoder-decoder family uses an encoder to transform a phrase into a vector of a predetermined length; a decoder then uses this vector to provide a translation. To better handle unfamiliar or uncommon

Detection of Network Layer Attacks in Wireless Sensor Network

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***Abstract*— The Wireless Sensor Network (WSN) technology is being used in a huge number of monitoring applications. It consists of a large number of sensor nodes with limited battery life. These sensor devices are deployed randomly in a sensor zone to collect the data. But these are threatened and attacked by several malicious behaviors caused by some nodes, which result in security attacks. Several security attacks occur in different layers of the wireless sensor network. Due to these attacks, confidential information can be stolen by attackers or unauthorized users, which can cause several problems for authorized users. Cyber-attacks by sending large data packets that deplete computer network service resources by using multiple computers when attacking are called wormhole and Sybil attacks. It is important to identify these attacks to prevent further damage. To overcome these problems, we use a prediction module that consists of various machine learning algorithms to find the best-performing algorithm. we use XGBoost, Adaboost, Random Forest, and KNN algorithms. To train these algorithms, we have used the WHASA dataset which contains 10 different attacks of the VANET environment and benign (normal) class. By using these algorithms classification of attacks can be done which occur on the computer network service that is " normal " access or access under " attack " by Wormhole and Sybil attack as an output.**

Keywords*— *Wireless Sensor Network, XGBOOST, Adaboost, Random Forest, and KNN.

I. INTRODUCTION

In engineering, communication, and networking, new sensor designs, information technologies, and wireless systems have recently been invented. Advanced sensors are used to bridge the gap between the physical and digital worlds. Wireless sensor networks are used in a variety of devices, military surveillance, industries, and machines to help avoid infrastructure failures and accidents conserve natural resources, preserve wildlife, increase productivity, and provide security, among other things. Data from nodes is highly confidential, but some unauthorized users wish to mislead this confidential data through security attacks.

A security attack is an action that jeopardizes the security of an organization's information. These attacks can be launched from any location. The attacker could be a a single person or a group of people. Security attacks are classified as either active or passive. In an active attack, the victim knows whether the attack occurs or not, and the attacker can change or modify the content of the messages, whereas in a passive attack, the victim is unaware of the occurrence of the attack, and the attacker observes or copies the content of the messages.

This paper provides a brief overview of network layer attack detection in Wireless Sensor Networks. The OSI architecture model is used for Wireless Sensor Networks. It has five layers: Application, Transport, Network, Data Link, and Physical, as well as three cross layers: Power Management Plane, Mobility Management Plane, and Task Management Plane. These three cross-layers are primarily used for network control and sensor integration to improve overall network efficiency.

Different types of attacks can occur in different layers of a Wireless Sensor Network. In Wireless Sensor Networks, the Network Layer will be the primary layer for misdirecting information or data, as data routing occurs only in this layer. Wormhole attacks, Flooding attacks, Selective Forwarding, Black Hole attacks, Sinkhole attacks, Sybil attacks, and Replay attacks are examples of network layer security attacks. These attacks and their detection have been discussed in previous studies [3]. Wormhole attack detection and Sybil attack detection are discussed in this paper because these are the two main attacks in the Network Layer of a Wireless Sensor Network.

In any network, a wormhole attack creates a virtual tunnel between two or more nodes. Through that virtual tunnel, two or more nodes can transfer data packets, whereas Sybil attacks, which consist of a malicious node illegally forming an unbounded number of identities, are harmful threats to wireless sensor networks. Because of these types of attacks, security for Wireless Sensor Networks has become a difficult task in today's modern world. As the nodes in Wireless Sensor Networks are attacked by attackers, the information traveling in the network layer nodes is stolen by unauthorized persons. Detection of these types of attacks is required to prevent data/information loss or node damage in Wireless Sensor Networks.

Previous studies [1-15] describe Wireless Sensor Networks, Applications of Wireless Sensor Networks, and different types of attacks that occur in the layers of the

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Customer Segmentation in Retailing using Machine Learning Techniques

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***Abstract*—Having multiple competitors in order to find new buyers and keep existing clients, has resulted in great deal of tension between competing businesses. As a result, offering the best customer service may benefit companies of all sizes. The technique of grouping a client base into several categories based on requests, behavior, money, etc. is known as Customer Segmentation. Whereas product segmentation is the process of classifying products into different categories. The major objective of our study is to divide customers and products into multiple clusters based on different criteria in order to acquire results. There are several algorithms that may partition customers based on various metrics. These are utilized to discover hidden patterns in data, discover valuable, loyal clients, understand consumer purchasing habits, and more. In order to improve decision-making and create the most accurate model possible, cluster analysis is done. This research study has compared seven clustering algorithms and selected the best of them for further analysis**

Keywords*— *Customer Segmentation, Product Segmentation, Clustering, Business, Clients

I. INTRODUCTION

The company's top priority is to comprehend its customers. A system in place to manage that relationship is essential because it is now impossible for firms to avoid having a relationship with their customers. The technique of managing client interactions with businesses is known as customer relationship management (CRM) .

Customer segmentation is an important aspect of customer relationship management that enables companies to market to their consumers successfully. Businesses are required to comprehend their clients and demonstrate these insights by communicating with them exclusively in a relevant and focused manner. Customers want to be appreciated and handled individually, yet this level of customer awareness is unattainable for all but the smallest of firms. Additionally, segmentation enables companies to allocate resources effectively. Client psychographic and demographic analysis provides a variety of insights that aid in developing new products and services and predicting customer demands. In turn, this makes it possible for marketers to more precisely target the clients or prospects who would be most interested in them.

Through customer segmentation, businesses can apply numerous marketing techniques to each segmented group. Customer segmentation boosts a company's predicted earnings as well as customer satisfaction.

This study proposes a model to identify ideal clients based on purchase histories. The suggested strategy groups consumers using machine learning techniques to find hidden patterns and insights that can help the organization's business grow. It becomes easy to grasp the differences among your clients and satisfy their needs if you can identify an ideal amount of distinct customer groups. Customer segmentation raises company revenue and enhances customer experience. In order to outperform your rivals and draw in more clients, segmentation is a necessity.

The rest of the paper is organized as follows. Relevant research studies are reviewed in Section 2. In Section 3, the methodology and the model employed for the present research are described. Results of empirical experiments are given in Section 4. Section 5 concludes our research with some marketing strategies recommended.

II. RELATED WORK

In[1], Nadhira Riska Maulina," Data Mining Approach for Customer Segmentation in B2B Settings using Centroid-Based Clustering". The classification is done using different clustering techniques such as K-means, CLARA and PAM with fuzzy c-means clustering. The comparison of time-complexity of fuzzy c-means and k-means resulted in the k-means algorithm outperforming the fuzzy c-means algorithm.

In[2],B.Sekhar Babu, "Customer Data Clustering using Density based algorithm". In this process, a thickness-based neighborhood contrast to DBSCAN clustering algorithm is preferred rather than the demographic segmentation. The advantage of DBSCAN is that it is robust to outliers and also well suited for arbitrary shaped clusters. The main limitation of this DBSCAN algorithm is that it is not suitable for high dimensional data resulting in performance and computational complexity.

In[5],Dr. Huma Lone Dr. Prajakta Warale,"Cluster Analysis: Application of K-Means and Agglomerative Clustering for Customer Segmentation". This is focused on creating customer clusters by applying K-means and

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Stock Time Series Prediction Using Machine Learning Techniques

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Abstract: ***Stock is a place where buying and selling of shares be for intimately listed companies and stock exchange is the middleman that allows buying and selling of shares. Stock request vaticination is a grueling task due to the largely noisy, complex and chaotic nature of the stock price data. The intraday patterns are linked using the point engineering schemes and several machine literacy techniques. The deep literacy styles are combined with rearmost machine literacy models to rognosticate the direction of the ending price. Accuracy plays an important part in stock request vaticination. Although numerous algorithms are available for this purpose, opting the most accurate one continues to be the abecedarian task in getting the stylish results. In order to achieve this we're combining different models and creating a hybrid model(LSTM with GRU) which provides better accuracy.***

Keywords: LSTM (Long short term memory), GRU (Gated recurrent network)

I. INTRODUCTION

A. Objective

The charm of getting profit by suitably investing the stocks in the stock market attracts thousands of investors. Since every investor wants profit with lower threat, they need realistic models to prognosticate the stock price. As investors are investing further and further plutocrat in the market, they get anxious to know the unborn trends of the colorful stocks available in the market. The major part of the trends in the market is to know when to buy, hold or vend the stocks. Stock market vaticination is observed as a grueling task because of high change and irregularity. therefore, multitudinous models have been depicted to give the investors with more precise prognostications. Stock market has attracted a lot of exploration interests in former literature. With a successful model for stock vaticination, we can gain insight about market behavior over time, spotting trends that would else not have been noticed. With the increasingly computational power of the computer, machine learning will be an effective system to solve this problem. still, the public stock dataset is too limited for numerous machine learning algorithms to work with. We want to introduce a framework in which we integrate user predictions into the current machine learning algorithm using public historical data to improve our results. The motivated idea is that, if we know all information about moment's stock trading(of all specific dealers), the price is predictable. therefore, if we can gain just a partial information, we can expect to improve the current prediction a lot. With the growth of the Internet, social networks, and online social · relations, getting daily user predictions is a doable job. therefore, our motivation is to design a hybrid model or a stronger model that will profit everyone.

B. Problem Definition

The rate of investment and business openings and benefit of the investors in the Stock market can increase if an effective algorithm could be used to predict the short term closing price of an individual stock. The predicted results can be used to help the former styles of stock predictions which has an error loss at an normal of 20. The overall ideal of my work will be to predict accurately the ending price of the stock. Attributes considered form the primary base for tests and give accurate results more or less. multitudinous farther input attributes can be taken but our thing is to predict with numerous attributes and faster effectiveness the ending price of stock. opinions are constantly made predicated on the knowledge rich data hidden in the data set and databases. We want to produce a model that has stronger capability to predict the ending price of stock..

C. Background

There are existing methodologies which are proposed in the field of stock time series data prediction system. There are existing works using machine learning techniques to provide a solution to the problem. But there are certain drawbacks like limited extent to which data is used, the accuracy is quite unsatisfactory and there is a scope for improvement. Thus, to provide a solution using machine learning techniques is to ensure these problems are taken care of.

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SELF DEFENCIVE GLOVE FOR WOMEN SECURITY

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Abstract—Out of 100 more than 81% of women population has experienced some sort of harassment so that the women are becoming more afraid of stepping out of their homes. Women must have a capability to be free from violence, harassment, and discrimination; keeping this as a goal an IOT based device is introduced to solve this social problem. The solution is "SELF DEFENCIVE GLOVE FOR WOMEN SECURITY". This idea is to design a system which makes every place and every hour safer for women. Previous methods used GPS and GSM modules which increased the system complexity and size. Thus, to bring up the portability feature into existence this proposal uses mobile app connectivity through Bluetooth HC-05. This system sends geotag and SOS alert to the nearest police station, emergency contacts. The unique feature is the ESP32 Camera, which helps in capturing the images of the culprit. The idea is to make up for the time it takes police to arrive at the location.

Keywords—Glove, Bluetooth HC-05, Emergency, Women security, ESP-32, SOS alert.

I. INTRODUCTION

The safety of women matters whether it is at home, outside or at workplace. A lot of NGOs, rehabilitation centers and helpline numbers have been made operational in the past years but they are all cures to the harassment that has already happened and not the 'preventions' that we need. According to the National Crimes Records Bureau (NCRB), India recorded 88 rape cases every day in 2019. NCRB report highlights that rape vulnerability of a girl or woman has increased up to 44% in the last 10 years. The crime rate is skyrocketing. Women are not safe either at home or outside. Female travelers from other countries also find themselves in a precarious position when traveling to India. But these fears cannot stop them from social activity. There are laws, but there must be adequate security measures that must be strictly followed to protect against violence against Women.

II. LITERATURE SURVEY

There were many methods to get over the problem of women safety in the past days. Some of them used different kinds of sensors to measure the body parameters to generate the shock voltage (Reference 1). Then the shock circuit was incorporated in the heel of the footwear so the victim has to protect themselves with the kick with foot (Reference 2). Then the shock circuit is embedded in the glove but the alert messages were sent with help of GPS and GSM modules (Reference 3). Keeping all this in mind this approach is implemented.

Design a Self-Defensive Glove for Women Security. The primary purpose of this device to ensure that Women can protect themselves using a Smart Glove. An application named "Trace me" is developed to send the SMS to Emergency contacts. The hardware circuit incorporated in the glove that consists of electric shock circuit. The electric shock is enabled by click of push button that weakens the attacker.

Self-Defensive Glove for Women Security overcomes the demerits of the current situation for Women Safety. This proposed project deals with a quick responding, economical protection system for an individual and especially for women. Self Defense module for women safety with location tracking. It could help women with technologies that are embedded into a compact device. Specially designed for women safety and protection this device is also provided with a shock mechanism to produce non – Lethal electric shock. The camera module is used for capturing and storing the picture of the culprit for further reference. All they need is a device that can be carried everywhere easily. An application named "Trace me" is developed to send the SMS to emergency contacts. The electric

design and implementation of approximate booth multiplier using different 4:2 compressors

G.V. Spandana, J. Manideepika, B. Usha Sri , M. Divya, B. Lakshmi,

student, student, student, student, Assistant professor

Abstract - Presently, the design of a multiplier is playing a vital role in the stream of VLSI signal processing, DSP, Modern wireless communication etc. In order to speed up the processing operation and optimize the performance of the system, some high-performance approximate multipliers with reduced area, power and delay are required. An area, power and delay efficient approximate booth multiplier is designed by using booth algorithm in this study. The proposed approximate booth multiplier is designed by using 4:2 compressor by ensuring better performance than the previous existing booth multiplier. Tabulated the comparison between different 4:2 compressors in the proposed design. Based on the area, power and delay results of different compressors, a new approximate booth multiplier design is implemented with best compressor on FPGA Kit.

Index Terms - Booth Algorithm, Booth Multiplier, Approximate Multiplier, 4:2 Compressor and FPGA kit.

I.INTRODUCTION

The multiplier design is mostly classified into two types which is signed and unsigned multiplier. In the signed multiplier it will perform both positive and negative multiplication. But in the unsigned multiplier is used to imply only positive number of multiplication. For example, Array multiplier, Wallace multiplier, parallel multiplier etc. are unsigned multiplier. From that booth multiplier is the one among the signed multiplication scheme .A Booth multiplier consists of three parts: partial product generation using a Booth encoder, partial product accumulation using compressors and final product generation using a fast adder. The Booth encoding has been proposed for improving the performance of multiplication of two's complement binary numbers and it has been further improved by the 4:2 compressor. Therefore, multiplier designs are mainly focused on high-speed, low area and low power. These parameters are achieved by approximate multipliers. Generally, approximate computing has a significant attention as a rising strategy to decrease power consumption of error tolerant applications like image processing. Booth Radix-4 algorithm can reduce the number of partial products that must be calculated. By implementing this algorithm in higher radix, Approximate Booth Algorithm can reduce the number of calculations in exchange to the design complexity. For digital circuit implementation, radix-4 is considered the best trade-off between speed and complexity because it is able to halve the number of partial products needed to be calculated while only adding a bit-shift function as an additional operation. The Booth Radix-4 algorithm reduces the number of partial products by half while keeping the circuit's complexity down to a minimum. This results in lower power operation in an FPGA.The Radix-4 Booth Recoding is simply a multiplexer that selects the correct shift-and-add operation based on the groupings of bits found in the product register. The product register holds the multiplier. The multiplicand and the two's complement of the multiplicand are added based on the recoding value.

(i) Radix-4 Booth Multiplier

Block	Partial product (operation)
000	0
001	+1*multiplicand
010	+1*multiplicand
011	+2*multiplicand
100	-2*multiplicand
101	-1*multiplicand
110	-1*multiplicand
111	0

Figure (1)

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Design of Generic Mesochronous FIFO using DPRAM

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ABSTRACT

FIFO which stands for First in First Out which means whatever data is written first is read first. when the clock domains of write and read are of same frequencies then there is control on the data flow so, there is no loss of data. But when the write and read frequencies are different there is no control on the data flow due to this there is loss of data. But in the reality, it is difficult to match the read and write frequencies. so, in order to avoid the loss of data when different frequencies used for write and read, implement a FIFO between the two clock domains of write and read. This project is an implementation of First in first out algorithm which overcomes clock domain crossing. Designed module is tested against synchronous clock domains, mesochronous clock domains and proposed mesochronous clock domains. The parameters observed here are memory(461780KBytes), frequency(686.86MHZ) and delay(1.456ns). The delay is reduced by 82% when compared with mesochronous dual-clock FIFO.

KEYWORDS: - FIFO, Clock Domain, mesochronous FIFO.

1. LITERATURE REVIEW

A FIFO is a special type of buffer. The name FIFO stands for first in first out and means that the data written into the buffer first comes out of it first. There are other kinds of buffers like the LIFO (last in first out), often called a stack memory, and the shared memory. The choice of a buffer architecture depends on the application to be solved.

FIFOs can be implemented with software or hardware. The choice between a software and a hardware solution depends on the application and the features desired. When requirements change, a software FIFO easily can be adapted to them by modifying its program, while a hardware FIFO may demand a new board layout. Software is more flexible than hardware. The advantage of the hardware FIFOs shows in their speed.

Clocks having two different frequencies is called clock domain. Transferring data between two different clock domains is called clock domain crossing. Due to this there is a lossof data. In order to prevent that need to design FIFO between the two different clock frequency domains. FIFO stands for First in First Out is an interface between two clock domains. This will prevent the loss of data as it provides memory to store the data.

fw -- write clock frequency, fr -- read clock frequency.

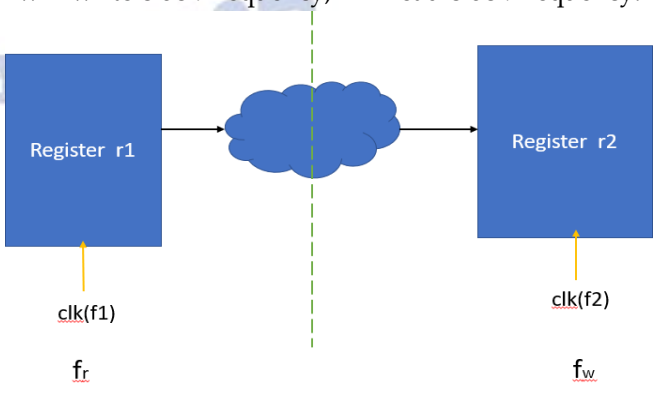

Figure 1: Clock Domain Crossing

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Review JoAIRA

Diagnosing Pneumonia from Chest X-rays Using Deep Learning Algorithms Through Convolutional Neural Network, Transfer Learning and Fine Tuning

Kinjal Goswami[1,*], M. Bhanu Sridhar[2], Syed Suhana[3]

Abstract

Pneumonia is an inflammatory condition of the lungs that induces air sacs which leads to a contagious infection of lungs. Patients who are afflicted with the virus can be saved from death and the virus can be eradicated from spreading further through effective diagnosis. X-rays of the chest are frequently used to diagnose pneumonia. Detecting pneumonia from a Chest X-ray is typically slow and inaccurate. It is essential to identify pneumonia quickly so that patients can receive prompt care, especially in rural areas. This work proposes a system that evaluates chest X-rays and categorizes the images using Deep Convolutional Neural Network Architecture, Transfer Learning and Fine Tuning on different CNN architectures. As part of this project, the implemented algorithms include CNN, VGG16, and Xception. Prior to building a model, Data Augmentation and Data Balancing is performed in order to improve the model's generalization performance and accuracy. Among the above-mentioned algorithms, it has been deduced that VGG16 model has returned best accuracy.

Keywords: Chest X-rays, convolutional neural network, classify, fine tuning, inflammatory, pneumonia, transfer learning, VGG16, Xception

INTRODUCTION

Pneumonia typically arises from an infection in the lungs, often attributed to either a virus or bacteria. The first phase in diagnosing and treating pneumonia is to obtain chest X-ray of the lungs since pneumonia causes the alveoli present in human lungs to be filled with pus [1]. In fact, pneumonia affects 450 million people annually, including 1.6 million fatalities and 155 million children under the age of 5 years. As a result, pneumonia stands as the leading cause of death among children below the age of 5 years. With the help of chest X-ray images of lungs, this project is designed to develop a system that could determine whether a patient has been affected with pneumonia.

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Pneumonia has been documented as the foremost infectious reason for mortality among individuals of all ages across the globe. It accounts for approximately 22% of all deaths in infants and young children. Pneumonia has grown worse due to COVID-19 outbreak and the climatic changes. As

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Prediction of Stock Prices based on Historical Data using Linear Regression Model through LSTM Algorithm

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***Abstract*—In general, the stock market can be considered as a major component of the free market and one of the crucial pillars of the economy of any country. In a globalized world where the stock markets have brought in a revolution, the upgradation of stock prices in the financial sector has witnessed a profound change. The current trade and prediction rate has focused on the challenges and understanding of the financial sector with an emphasis on the growth of the industry. The upliftment of technological demand concerning the financial sector is to underline the importance of the present as well as future prediction(s) in stock prices. Concerning this paper, the LSTM algorithm has been implemented to predict stock prices and enable non-risk investments. To increase the performance and obtain an appropriate result, the efficient model of Linear Regression has also been utilized. The future enhancement of this work is extensively based on sentimental analysis associated with reference to the public opinions being indicated in the form of tweets.**

Keywords*— *Stock market, Financial Sector, Machine Learning, LSTM, Regression, prediction.

I. INTRODUCTION

The ultimate aim of Stock market Prediction is to forecast as well as forecast the future utility of provided financial stocks. The contemporary trend present in stock market forecasting technologies brings out appropriate predictions deployed on the values of prevailing stock price indices by performing required operations on the corresponding generated outputs [2]. Typically, the Stock Price can be considered an essential aspect of the stock market. Stock prices have witnessed a crucial challenge in the financial as well as economic sectors. Specifically, the Analysis of the stock market is a composite effort that requires a vigorous algorithm mechanism to predict the period of long-term prices of the share [9]. To obtain a better performance of the system, Linear Regression is being proposed to be implemented.

Trading stocks as a whole constitutes a method to consider the advantage of the present stock market variations of publicly financed companies to attain a profit [11]. Stock Exchange is one of the main integral parts of the capital market. It is the assortment of stocks wherein structured activities of trading, investigating, and issuing publicly held market shares transpire. Majorly both trade and prediction rates have focused on the provocation of financial sectors with respect to the growth in the industry [8]. In India, the majority of the trade takes place in two specific stock market exchanges – the first one is The Bombay Stock Exchange (BSE) followed by The National Stock Exchange (NSE).

II. RELATED WORK

In accordance with the related work, it has been observed that financial markets have come to a condition where people are interested in investing in stocks and these stock markets have occupied a large place throughout. Generally, stock markets are a chronological collection of various data from various resources, which gives a deep knowledge about a better understanding of the investments [13]. Scores of generated statistical approaches have been analyzed and tested on the Stock market and values provided. Predicting the analysis of Stock markets becomes an easier task using the LSTM algorithm as it comprehends time series forecasting problems and gives a more accurate rate than the other learning algorithms [4].

LSTM in general is termed as a type of (RNN) recurrent neural network that comprises three layers called an input gate, an output gate and a forget gate. Each of these gates has one special technique: forget gate tells how much information is to be removed from the present cell state while the input gate tells how much data can be appended to the present cell state [2].

Stock market data may vary progressively based on factors like companies' aspects, intrinsic values, annual performance, and strategies that affect the investors [1].

Stock market prediction plays a significant role in financial markets as LSTM is efficiently used for large-scale data mining activities. In building a financial forecasting model, historical data, and other parameters are taken into consideration to predict stock prices. The uniqueness and fair competition majorly lie in considering the desired training dataset [5].

Using various algorithms for finding the accurate values that have been considered becomes a major problem for many

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Identifying Phishing URLs from Historical Data through Machine Learning Techniques Using Vectorization and Feature Extraction

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Abstract—Phishing attacks involve the technique of sending spam messages that seem to be from a credible source. Phishing URLs primarily target individuals and/or organizations through social engineering assaults by taking advantage of people's ignorance about information security. Web users lose billions of dollars each year due to phishing. In a pool of unwary Internet users, identity thieves utilize enticing tactics to gather personally identifiable information. Phishers employ counterfeit emails and phishing software to acquire usernames and passwords for financial accounts as well as personal information. The proposed work includes two techniques (i.e. using vectorization and feature extraction) which were carried out on datasets that originally contained few labeled URLs (phishing and legitimate). To gain a better understanding of the structure of URLs that promote phishing, various data mining algorithms were taken into consideration. Concurrently, Natural Language Processing was also put in place. Experiments carried through existing systems produced illegitimate results whereas the proposed system produced legitimate results. The proposed system has several advantages as the model is built without the inclusion of any third party applications and datasets. The proposed system achieved highest accuracy of above 99% using the feature extraction technique.

Keywords—Phishing, URLs, Legitimate, Gaussian Naive Bayes Algorithm, Random Forest, Decision Tree Classifier, XG Boost, K Nearest Neighbor, Term Frequency- Inverse Document Frequency (TF-IDF) Technique, Natural Language Processing, Classification, Feature Extraction.

1. INTRODUCTION

One of the most prevalent online crimes that has an effect on customers and businesses everywhere is phishing. Various forms of cyber threats include: Phishing, Ransom Ware, Malware, Social Engineering, Advanced Persistent Threats (APTs), SQL Injection, Man In The Middle (MITM), Denial of Services (DOS). This project was put in place to identify and recognize legitimate and phishing URL's in order to prevent security issues while taking into account phishing assaults. Some phishing emails ask you to perform things like open an attachment, enable macros in text document, change your password, join to a social media site, or use a new free Wi-Fi hotspot. Phishing assaults come in a variety of forms, including spear phishing and phishing emails, among others. So there are several ways to protect an individual's information from being attacked.

Phishing attacks became profitable and simple to carry out because to advance approaches including the usage of Phishing toolkits and email floods. Phishing is an assault where the attacker tries to deceive people into disclosing sensitive and private information like passwords and credit card numbers. Making a fake website that is a copy of the original website and hosting it on a compromised, free, or paid domain is one such typical attack. Human eyes find it challenging to distinguish between legitimate and phishing web pages since they look similar. Once a user accesses the false website, programmers will start to steal personal data. Phishing communications also trick the user into doing things like downloading harmful software, clicking on malicious links, or disclosing private information like login credentials. Smishing, often known as SMS phishing, is a cyber security attack carried out over mobile text messages. Malware or scam websites might help SMS phishing. It happens across a wide range of mobile text messaging platforms, including some of the platforms that don't use SMS, like data-based mobile messaging apps. Similar techniques are used in each smishing attack; however the presentation might vary greatly. In order to keep these SMS attacks interesting, attackers might utilize a wide range of identities and locations. There are different types of smishing attacks such as: Financial services smishing, Gift smishing, Invoice or Order confirmation smishing, and Customer support smishing. This system is planned to classify Phishing URLs as legitimate or not and also to prevent the smishing attacks. This project can be applied in various areas including social media, finance sectors, hospital management systems, bank's websites and others.

Numerous currently used tactics are discovered to be semi-automated, which limits their use in real-time. Therefore, a technique for automatically identifying phishing websites is the need of the hour. In this research, techniques for phishing site detection from the client side using URL-based properties and feature extraction is proposed. The advantages of the suggested system are as follows:

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An Optic Disc and Optic Cup Segmentation Technique to Diagnose Glaucoma Using CNN and RNN

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Abstract:
Glaucoma, the so-called silent thief of sight, is the leading cause of unpreventable and irreversible blindness throughout the world. It occurs when circulation of an eye fluid is irregular and results in increase of intraocular pressure (IOP) in aqueous humor of the human eye. The increase of IOP leads to the damaging of the optic nerve of an eye and ends up in a situation of partial or complete vision loss. This work concentrates on detecting glaucoma at an early stage using Optical Disc (OD) and Cup Disc Ration (CDR) from the fundus images of the eye through extraction of the above said features. This data is used to calculate the ratio of cup area and disk area. Accordingly, the work also measures the level of glaucoma in patients, its extent, and the chance of being a victim of glaucoma in near future. Using Deep Learning algorithms, the proposed model is trained, the necessary cup and disk images are extracted, and the remaining portion is cropped by applying pre-processing techniques. The aim of this work is to apply the model on real-time patients' data, diagnose their symptoms at an early stage and save their vision.

Keywords: *Glaucoma, Retinal Fundus Images, Deep Learning Algorithms, Convolutional/Recurring Neural Networks, Prediction*

1. INTRODUCTION

Glaucoma is a chronic eye disorder which is the leading cause for irreversible loss of vision worldwide. It is one such eye condition where the optic nerve is progressively damaged. The first operation on glaucoma for human has been done in the year 1856 by Graefe. Patients who are suffering from glaucoma may lose their vision permanently without conventional treatment and proper care. There are mainly three clinical examinations practiced for screening the glaucoma: intraocular pressure (IOP) measurement, function- based visual field test, and optic nerve head (ONH) assessment. As the symptoms are visible only when the diseaseis quite advanced, glaucoma is termed as 'silent thief of sight'. Although glaucoma is not curable, the progression of the ailment can be controlled by treatment. There have been manyworks done in this field for the early detection of glaucoma, but only through the medical angle. A system can be developed for the early detection using the Deep Learning Algorithms. The proposed method makes the usage of recurrent neural network (RNN) technique for classification ofGlaucoma and its levels at an early juncture. The main objective is to help the effected people in retaining the vision.

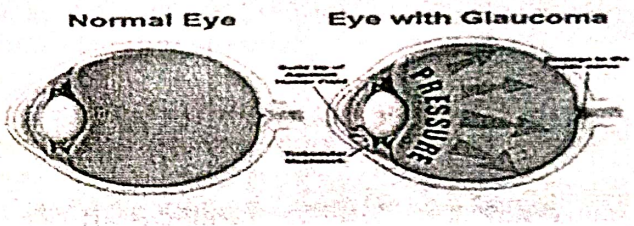

Fig. 1. Images of retina affected and not affected with glaucoma

There are mainly two types of glaucoma:

a. *Open-angle Glaucoma*: It is the most common type of glaucoma, also known as wide-angle glaucoma. This form of glaucoma occurs due to partial blockageof drainage canal which further leads to increase in pressure as fluid does not drain properly. Peripheral loss of vision will be the symptom at the initial stage and may not notice until the central vision is affected. There is no visible abnormality of the trabecular meshwork [8].
b. *Angle-closure Glaucoma*: It is caused due to the sudden and complete blockage of aqueous drainage. It is also known as acute glaucoma. The pressure raises swiftly leading to the loss of vision. This variety of glaucoma is developed due to the narrow drainage angle, thin and droopy iris. The iris (colored part of the eye) is pushed against the trabecular mesh network (drainage channels) within the angle of anterior of the eye, leads to blockage andbulges the iris forward [8].

The figure given below depicts the condition of the eye in both the scenarios:

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Leaf Disease Detection System Through Deep Learning Using CNN Model

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Abstract: Agriculture can be stated as a sector that significantly affects human existence and economic situation. If resources are not used effectively, crop yield might drop significantly. Leaf diseases are harmful to any type of crop since they might attack the leaves and thus, the plant at different stages. Its development and harvest are significantly impacted by this. To ensure a low loss, it is crucial to keep an eye on the crop's development. A subset of deep learning called convolutional neural networks is extensively used for picture segmentation and classification. The primary goal of the proposed model is to build a solution to identify 15 distinct classes of leaf diseases that extracts the region of interest (ROI) through minimum computational resource usage. Rectified Linear Unit (ReLU) is being used as the activation function to classify the input picture into the appropriate disease(s), and neural network models for automating feature extraction. The obtained accuracy is 94.53% through which it can be deduced that the above said technique is applicable under typical and challenging circumstances.

Keywords: Deep Learning, Convolutional Neural Networks (CNN), ReLU, Region of Interest (ROI), feature extraction, Adam optimizer.

I. INTRODUCTION

Food safety and plant health are strongly coupled. The Food and Agricultural Organization of the United Nations (FAO) claims that pests and diseases pose a danger to food security by reducing global food production by 20–40%. (Food and Agriculture Organization of the United Nation, International Plant Protection Convention, 2017). Different issues may contribute to a certain symptom, and these issues may coexist on the same plant. Even pests and dietary shortages can cause symptoms that resemble those illnesses. On vast farms, it is not possible to repeatedly check the status of each plant throughout the growing season. Recognizing plant diseases becomes extremely important in order to prevent any significant reductions in productivity, performance, and the value of agricultural output. Since manual recognition requires a lot of time and is more likely to be inaccurate, improper treatment can result. The "Leaf Disease Detection using CNN model" system that has been proposed focuses on fifteen classes (12 diseased,3 healthy), including pepper bell bacterial spot, pepper bell healthy, potato healthy, potato early blight, potato late blight, tomato target spot, tomato mosaic virus, tomato yellow leaf curl virus, tomato bacterial spot, tomato late blight, tomato early blight, tomato leaf mold, tomato septoria leaf spot, tomato healthy, tomato spider mites. The convolutional neural network (CNN) model with ReLU as an activation function is presented for the development of a model that is operated on the input picture and modifies the input to categorize the output classes. This system is based on the principles of deep learning techniques.

Section 2 describes the literature survey and section 3 contains the methodology of the proposed system along with model architecture and details of the framework for frontend Section 6 contains implementation details of the proposed system and section 7 shows a graph of accuracy of both training and validation datasets. Section 8 contains execution and results followed by conclusion in section 9.

II. LITERATURE SURVEY

A ton of examination has been done somewhat recently on plant illness identification utilizing profound learning and personal computer vision. Traditional personal computer vision calculations such as haar, hoard, filter, surf, picture division, Support Vector Machines (SVM), K-Nearest Neighbors (KNN), K-implies, and Artificial Neural Networks are among the AI techniques (ANN). Plant disease characterization models based on deep learning include the use of a variety of CNN models, such as AlexNet, VGGNet, and others. As a rule, when the dataset size is insufficient, multiclass order with a large number of classes necessitates careful hyper parameter adjustment to avoid the overfitting problem and by using pre-trained models.

A Comparative Analysis of Twitter Data for Stock Market Prediction through Generative Adversarial Networks and NLP Algorithm

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***Abstract*— Finances significantly constitute one of the major necessities to perform any favourable exertion for the upliftment of society. Different financial markets, e.g., stock markets, forex, and mercantile exchanges, etc., pave the opportunity for anyone to invest, apprehend and develop finances. On the contrary, to procure high benefits from the financial markets, constructive decision-making is needed to figure out the trade directions. With reference to stock market prediction, analysis and prediction of financial updates and Twitter APIs plays a symbolic role to predict the consequential behaviour of financial markets, public sentiment analysis, and systematic risk reduction. The proposed system aims to understand the tweets being generated and Yahoo Finance information to predict the immense nature of the stock markets in the respective time frame provided. The proposed Generative Adversarial Networks model underlines the importance of the standard opinion lexicon, Sentiment 'Vader'. The Analysis is performed on the Twitter dataset in order to measure the rate of Accuracy and improve with respect to time.**

Keywords*— *Stock market, Financial Market, Machine Learning, Generative Adversarial Networks, Vader, prediction.

I. INTRODUCTION

Stock price mutation manifests the existing market trends and evolution that can be measured to sell or buy stocks. A stock market appraisal has been considered as one of the major challenging and important tasks due to its statistical and dynamic behavior [1]. Stock prices change drastically every minute due to the change of variations in demand and supply. If a particular group of individuals desire to acquire a specific stock, its price will gradually rise. Stock market prediction using Sentiment Analysis accord with the instinctive [2] performance of the stock market. Twitter can be contemplated as the most obvious platform which can be majorly used to forecast public opinions, so it can be convenient for predicting the nature of the stock market [3]. Nowadays, there is an emerging debate on the effectiveness of the sentiments conveyed through social media in forecasting the difference in the stock market. Various researchers have apprehended that sentiments might make an influence on the stock market movement and play a significant role as potential predictors for trade-off results [4,5]. Furthermore, various methods of sentiment extraction can be initiated specifically in numerous stock challenges [6]. There are a lot of key accountabilities involved in estimating opinions about the characteristic features of stocks. [7,8]. The functioning techniques in general do not suggest an infinite reliance on the number of tweets generated per unit time. The volume of data preprocessed and analyzed during the prediction is adequate, thus causing predictions with high accuracy [9,10].

Though substantial techniques have been divulged by the research association for stock market prediction, these perspectives have various prospective constraints. The present approaches that have been made are not potential to uphold the adaptable essence of stocks. The huge amount of data requires various methods which can implement a better reliable set of characteristic features to better understand the varying nature of stocks over time. Hence, there is a need for performance intensification both for the stock prediction accuracy as well as time complexity.

To deal with the controversy of current approaches, Generative Adversarial Networks have been proposed for stock market prediction. The proposed method comprises three main elements which are data preprocessing, GAN based framework building, model training and optimization, along with performance evaluation.

II. RELATED WORK

Countless studies have been manifested on employing a digital approach to forecast stock trends in the market. Precise prediction of the stock market is a challenging task due to the unpredictable and haphazard nature of the stock markets. With the addition of artificial intelligence and enlarged computational abilities, the scheduled techniques of prediction have been demonstrated to be more reliable and efficient in forecasting stock prices. Generative Adversarial Networks, are an approach to generative modelling using machine learning methods, which include convolutional neural networks.

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Stock Time Series Prediction Using Machine Learning Techniques

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Abstract: ***Stock is a place where buying and selling of shares be for intimately listed companies and stock exchange is the middleman that allows buying and selling of shares. Stock request vaticination is a grueling task due to the largely noisy, complex and chaotic nature of the stock price data. The intraday patterns are linked using the point engineering schemes and several machine literacy techniques. The deep literacy styles are combined with rearmost machine literacy models to rognosticate the direction of the ending price. Accuracy plays an important part in stock request vaticination. Although numerous algorithms are available for this purpose, opting the most accurate one continues to be the abecedarian task in getting the stylish results. In order to achieve this we're combining different models and creating a hybrid model(LSTM with GRU) which provides better accuracy.***

Keywords: LSTM (Long short term memory), GRU (Gated recurrent network)

I. INTRODUCTION

A. Objective

The charm of getting profit by suitably investing the stocks in the stock market attracts thousands of investors. Since every investor wants profit with lower threat, they need realistic models to prognosticate the stock price. As investors are investing further and further plutocrat in the market, they get anxious to know the unborn trends of the colorful stocks available in the market. The major part of the trends in the market is to know when to buy, hold or vend the stocks. Stock market vaticination is observed as a grueling task because of high change and irregularity. therefore, multitudinous models have been depicted to give the investors with more precise prognostications. Stock market has attracted a lot of exploration interests in former literature. With a successful model for stock vaticination, we can gain insight about market behavior over time, spotting trends that would else not have been noticed. With the increasingly computational power of the computer, machine learning will be an effective system to solve this problem. still, the public stock dataset is too limited for numerous machine learning algorithms to work with. We want to introduce a framework in which we integrate user predictions into the current machine learning algorithm using public historical data to improve our results. The motivated idea is that, if we know all information about moment's stock trading(of all specific dealers), the price is predictable. therefore, if we can gain just a partial information, we can expect to improve the current prediction a lot. With the growth of the Internet, social networks, and online social relations, getting daily user predictions is a doable job. therefore, our motivation is to design a hybrid model or a stronger model that will profit everyone.

B. Problem Definition

The rate of investment and business openings and benefit of the investors in the Stock market can increase if an effective algorithm could be used to predict the short term closing price of an individual stock. The predicted results can be used to help the former styles of stock predictions which has an error loss at an normal of 20. The overall ideal of my work will be to predict accurately the ending price of the stock. Attributes considered form the primary base for tests and give accurate results more or less. multitudinous farther input attributes can be taken but our thing is to predict with numerous attributes and faster effectiveness the ending price of stock opinions are constantly made predicated on the knowledge rich data hidden in the data set and databases. We want to produce a model that has stronger capability to predict the ending price of stock..

C. Background

There are existing methodologies which are proposed in the field of stock time series data prediction system. There are existing works using machine learning techniques to provide a solution to the problem. But there are certain drawbacks like limited extent to which data is used, the accuracy is quite unsatisfactory and there is a scope for improvement. Thus, to provide a solution using machine learning techniques is to ensure these problems are taken care of.

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Machine Learning Pipeline Model for Prediction of Stability in Smart Grid

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ABSTRACT: The traditional smart grid has limited capabilities in handling the increasing demand for energy and the integration of renewable energy sources. The smart grid has the ability to monitor, control, and optimize energy distribution in real-time, providing a more reliable and efficient energy supply. Our proposed pipeline model provides a practical solution to improve the stability of the smart grid, enabling reliable and efficient energy distribution. The conventional smart grid uses centralized control and is vulnerable to power outages and blackouts. Conventional machine learning models have been used to predict grid stability, but they have limitations in handling the complexity and variability of smart grid data. In this paper, we propose a pipeline machine learning model, including data pre-processing, feature selection, and classification, to accurately predict grid stability. We compare the performance of our pipeline machine learning models with that of conventional machine learning models using real-world smart grid data. Our results demonstrate that the pipeline model outperform the conventional models in predicting grid stability, with significantly higher accuracy of 98.5 % and lower error rates. Furthermore, we compare our model with conventional machine learning algorithms.

Keywords: Smart Grid, Grid stability, Machine Learning, Classification, Prediction model

I. INTRODUCTION

The emergence of Smart Grid technologies has transformed the conventional power grid into an intelligent and interactive system. Smart Grid technology involves the use of advanced sensing, communication, and control technologies to monitor and optimize the distribution of power across the grid. This has led to an increase in the efficiency, reliability, and sustainability of power systems. One of the key challenges in Smart Grid technology is to ensure power stability, which is critical to maintain the quality of power supplied to customers. Power stability is affected by various factors such as changes in load demand, renewable energy integration, and weather conditions. Therefore, the prediction of power stability is of great importance to power system operators and utilities. Machine learning techniques have shown great potential in predicting power stability in Smart Grids. The use of machine learning algorithms enables the analysis of large amounts of data collected from various sources such as sensors, smart meters, and weather stations. This can help in identifying patterns and trends in the data that are difficult to detect through traditional methods. The proposed model uses a combination of supervised and unsupervised learning techniques to predict power stability. The model includes data pre-processing, feature selection, model training, and model evaluation stages. The model is trained and tested using real-world data from a Smart Grid tested. Accurate prediction of power stability is crucial to maintaining the quality of power supply to customers. The prediction of power stability in Smart Grids is a complex task due to the dynamic nature of the system, with numerous variables affecting the stability of the grid. Machine learning techniques offer a promising solution to this problem, providing a powerful tool for analyzing large volumes of data collected from various sources in the Smart Grid, including smart meters, sensors, and weather stations. The proposed pipeline machine learning model for the prediction of power stability in Smart Grids comprises four main stages: data pre-processing, feature selection, model training, and model evaluation. In the data pre-processing stage, the raw data collected from various sources are processed and prepared for use in the machine learning model. This includes tasks such as data cleaning, normalization, and transformation. The feature selection stage involves identifying the most relevant variables that are most predictive of power stability. This stage can be performed using various techniques, including statistical tests, correlation analysis, and dimensionality reduction techniques. The model training stage involves developing a machine learning algorithm that can predict power stability based on the selected features. The machine learning algorithm used in the model can be either supervised or unsupervised, depending on the availability of labelled data.

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Supply Chain Monitoring and Authentication Using Blockchain

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Abstract: ***The Frozen Food industry produces and supplies packaged food products that are to be delivered at a particular freezing-points, therefore it is important that they are supplied in such an environment where they do not get damaged. To achieve this, continuous tracking of the shipped product must be monitored in a freezing environment where temperature and also humidity are maintained called supply chain management. During transportation of the packaged food, there may be a chance of getting damaged food like fluctuations in the temperature maintenance might cause food to be rotten. And there is a chance of leakage of canned goods or bulge at the ends which indicates the unhealthy and unhygienic condition of the packaged food. Quick Response (QR) codes provide a robust technique to fight the practice of counterfeiting the food products. Counterfeit food products are detected using a QR code scanner, where a QR code of the packaged good is linked to a Blockchain. And this system may be used to store shipped product details and generated unique code of that product as blocks in the database. So, we aim at two important aspects, firstly on continuous monitoring of supply chain and then on fake product detection which is done using Blockchain.***

I. INTRODUCTION

Problem of supply chain of frozen food is that it doesn't monitor at every stage of food production. Now a days there's a huge demand for these frozen foods and semi cooked frozen foods. These are involved in both exports and imports in large scale. But in importing and exporting these frozen foods there is a chance of getting damaged. And when the time it reaches the customer, the food will be in an unhygienic or improper way which leads to the customer unsatisfaction. Also, in different sectors like industries and software employees use these semi-cooked or frozen food in order to save their time. Demand for frozen foods has been growing day by day which leads to increase the rate of marketing. Continuous monitoring frozen food have to be done in every part of the transportation of frozen food products. In the case of continuous monitoring, we can identify whether the food product is in good hygienic condition or not by checking temperature and humidity levels of the product. By this continuous monitoring of frozen food supply chain there is no chance of customer unsatisfaction. Not only in continuous monitoring but also by generating the unique QR code we can track the food order and get the information of the temperature and humidity levels of the food in the time tracking. These problems made us to develop the process of supply chain management and counterfeit product detection to overcome these problems in the transportation of frozen foods.

To implement an IoT sensor-based technology which uses DHT 11 sensor for continuous monitoring of supply chain. Followed by QR generation for all the food products which helps the customer in getting the complete information of the packaged product. We follow a type of Distributed Ledger Technology (DLT) which is used to trace the supply network from procuring of packaged good till delivery. It creates an immutable list so that transparency is maintained at each level and quality guaranteed. In this project, we will implement IoT with Blockchain to track the packaged good. And to develop a platform that will simulate securing frozen food supply chain using blockchain as data entered in a public ledger can be verified by all and modified by none. And to establish an untampered supply chain management of frozen goods and how the supplier supplies the goods to the end user.

II. LITERATURE SURVEY

A. Supply Chain

Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. Supply chain data is not always visible, available or trusted. Blockchain helps supply chain partners share trusted data through permissioned blockchain solutions. The use of IoT and Blockchain to make the Supply chain management process more efficient and secure. IOT sensors and devices can be used to collect important data related to the products and the environment and Blockchain is used to ensure its integrity and availability.

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Fashion Clothes Generation Systemusing Deep Convolutional GAN

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Abstract: ***The fashion industry has evolved into one of the most powerful industries in the world as a result of modernization. Before the middle of the 19th century, almostall types of clothing were made specifically for each person, either at home or on demand from dressmakers or tailors. Technological advancements/such as the development ofartificial fibers, and nylon, as well as new dyeing and fabric cuffing processes, have given designers more creative flexibility. Likewise, the fashion industry has emerged various buying options like e- commerce platforms these days rather than the traditional approach. Where, some websites use automatic pattern generation in place of the conventional method (clothing designs). However, these websites are not likely to make high-end apparels accurately, which is why we propose to generate new fashionable clothes and develop a web application that generates high-end fashion apparels based on the training dataset by taking input from the users (the number of images that need to be generated by the model) using GAN technology, and letting the user choose colors for the generated apparels. GAN, short for Generative AdversarialNetworks, is a type of deep learning model that is used for generating synthetic data that is similar to the original data. It is composed of two neural networks - the generator and the discriminator - that are trained simultaneously to create and evaluate the synthetic data. For the purpose of creating high-quality fashion images, we suggest using Deep Convolutional Generative Adversarial Networks (DC-GANs). A deep learning technique called DC- GANs using convolutional layers in an adversarial network to produce images of a particular type. The "color palette" feature is implemented using a basic Image Processing Technique such as object color translation. Once the object is segmented, its color can be modified using various color transformation techniques such as RGB to HSV conversion or color balance adjustment.***

Keywords: Neural Network, Generative Adversarial Networks (GANs), DC GAN, generator, discriminator, convolutional, deconvolutional, batch normalization, loss function, activation function, color translation techniques.

I. INTRODUCTION

The rise of new technologies has produced new means of livelihood like online shopping, multimedia, entertainment, gaming, and advertising. One of the sectors greatly impactedby the new paradigm is the fashion industry. Every season, new trends enter the fashion world, which is continuously changing. To stay relevant, fashion designers and retailers must be able to generate new and trendy Clothes that appeal to customers. Generating fashionable clothes that cater to different tastes and preferences using cutting-edge technologysuch as virtual reality, 3D printing, and machine learning canhelp retailers and designers stand out in the market. The online applications for fashion alone have been immensely developed. However, the applications that will assist designers in reducing the work of creating new pattern-basedclothes based on users' interests are nonexistent. Even thoughsome applications are there, they won't generate high- resolution patterns.

The aforesaid problems can be resolved by employing GAN (Generative Adversarial Networks) technology. When there is a web application that incorporates the Generation of Fashionable Clothes (with high-resolution photographs) and making it as an E-Boutique (similar to an e-commerce website) that displays various colors for each piece of apparelto satisfy users and allow them to see more shades of apparel. Using image processing techniques, such as the fundamental image translation technique, the color changing of apparels can be accomplished.

A Generative Adversarial Network (GAN) is a class of machine learning systems invented by Ian Good fellow and his colleagues in 2014.GAN's consist of two main components: a generator and a discriminator. The generator creates new, synthetic data that is similar to the real data it istrained on. It does this by taking a random input (called a latentvector) and producing an output that should be similar to thereal data. The generator is typically implemented using a neural network. The discriminator is a model that is trained todistinguish between the synthetic data produced by the generator and real data. It evaluates the output of the generator and assigns a probability that it is real. The discriminator is also implemented using a neural network.

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Interactive System for Gender Classification

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Abstract: ***A study on the detection of gender, based on voice using artificial neural networks. In today's fast-moving world Gender classification through voice plays an important role to enhance performance in Speech recognition systems, Forensic investigation, and Marketing. The dataset has 3,168 recorded voice samples of male and female voices. The samples are produced by using acoustic analysis. The primary goal of the proposed model is to automate the system to identify gender based on the audio signals and to test the voice of a human on the spot. Multilayer Perceptron (MLP) with ReLU activation function as a model has been trained to predict gender. Nadam optimizer is used for the optimization of neural networks, K-Nearest Neighbor and Support Vector Machines are trained on the dataset of 3,168 records. The obtained best accuracy is 97% on the given dataset by MLP algorithm. An Interactive web page has been built to test the voice without interruption and to predict its gender. 125 real time samples are tested out of which model could classify every record into male/female. 19 male records are incorrectly classified.***

Keywords: Artificial Neural Networks, Multilayer Perceptron (MLP), ReLU, Nadam optimizer, acoustic analysis, K-Nearest Neighbor, Support Vector Machines.

I. INTRODUCTION

Acoustic analysis is a method of analyzing acoustic signals.

The frequency range of human voice can be used for gender classification. In general, male voices tend to have a lower frequency range than female voices. The average fundamental frequency of adult male speech is around 85 to 180 Hz, while the average fundamental frequency of female speech is around 165 to 255 Hz. Therefore, in gender classification tasks, a common approach is to extract acoustic features related to fundamental frequency such as mean, standard deviation, and more.

warbleR r package with specan function is designed for getting parameters from acoustic analysis to identify the gender of speaker. Each voice sample format is a .WAV file. The .WAV format files have been preprocesses using specan function in WarbleR r package which measures 22 acoustic parameters on acoustic signals for which the start and end times are provided. The preprocessed .WAV files are saved into a .CSV file for further training of the model.

The dataset consists of 3,168 rows and 21 columns which includes label classification of speaker as male or female.

An Interactive web page has been built using flask framework to test the gender of the speaker on the spot.

Web Pages are developed and designed using Html5, CSS, and JavaScript modules and are integrated with the system which is based on the principles of multilayer perceptron networks.

Section 2 describes the literature survey and section 4 contains the methodology of the proposed system along with model architecture and details of the framework for frontend. It also contains implementation details of the proposed system and Section 5 contains execution and results followed by conclusion in section 6.

II. LITERATURE SURVEY

A ton of examination has been done somewhat recently on voice based gender recognition. Various models are trained using Support Vector Machines (SVM), K-Nearest Neighbor (KNN), Decision Trees(DT), Random Forests, gradient boosting, and Artificial Neural Networks are among the AI techniques (ANN).

[1]In the paper, "Comparative Study of Machine Learning Algorithms for Voice based Gender Identification", the authors used 6 different machine learning algorithms. The algorithms include K-Nearest Neighbor(KNN), Decision Trees(DT), Random Forest(RF), and types of support vector machines. It is observed the support vector machine gains higher accuracy 98.48% on the test data for the classification of gender.

[2]In the paper "Voice Gender Recognizer Recognition of Gender from Voice using Deep Neural Networks" by L.Jasuja, A. Rasool and G.Hajela. The authors proposed a multilayer perceptron which in tested on 3,168 records dataset and obtains accuracy of 96 percent.

Short Term Load Forecasting using Artificial Neural Network and Fuzzy Logic

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PS35: This paper defines a perspective for short term electrical load forecasting using artificial neural network and fuzzy logic. To make these possible, various factors and environmental aspects are considered owing to have an electrical and economic forecast. Back Propagation algorithm have been proposed in Artificial Neural Network to obtain an efficient result for nonlinear data and also to minimize the error which is based on actual load and forecasted load. Fuzzy Logic Approach is proposed to predict the load using fuzzy inference system, fuzzy decision rules, defuzzification methods. Above mentioned approaches are applied to estimate the large load data using its own past experiences. The short-term load forecast is done for different load profiles. The load has prominent patterns. It includes Working days pattern from Monday-Friday load data, Weekends pattern Saturday and Sunday load data, Holiday pattern contains Public holiday load data, Peak Load data, Average Load data, Low load data. The data considered on hourly basis. The data is collected from the city called Panama from Panama district. The data contains date, hour of the day, Temperature of that hour, Relative Humidity of that hour, Precipitation of that hour, Load of that hour. The prediction accuracy is calculated using Mean Absolute Percentage Error (MAPE), Mean Absolute Deviation (MAD), Mean Square Error (MSE).

Keywords-Artificial Neural Network(ANN), Back Propagation Algorithm(BP),Fuzzy Logic(FL), Fuzzy Inference System(FIS), Short term Load forecasting(STLF),Mean Absolute Percentage Error(MAPE),Mean Absolute Deviation(MAD),Mean Square Error(MSE).

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