

Activity Report (news bulletin) of IT Dept. for May 2023

1. Expert Lecture/Seminar/Courses Organized by Department during May2023:

Dept. of Information Technology had organized an session on “How to use technologies in MNC” by Mr.Swapnil Arun Gavande,Consultant, Atos, Pune 10th May.2023.

2. Papers Presented/Published in the Journal by Staff during May2023: **NIL**

3. Papers Presented by Students during May2023:

Title of Paper: Pothole Detection And Area Estimation System Using Mask R-CNN

Name of Journal: International Journal of Creative Research Thoughts (IJCRT-2023)

Volume and Issue : Volume 11, Issue 5 May 2023

ISSN No.: 2320-2882

Names of Authors: Sakshi Aware (BEIT), Tejal Deore (BEIT), Sakshi Khatale (BEIT), Kshitija Malode (BEIT), Prof. S. N. Chaudhari

Abstract: - Transportation has a crucial impact on a country's growth, with roads being a vital component. They play a major role in people's daily lives as many individuals travel from one place to another via roads. Neglect in maintaining the existing road infrastructure, combined with environmental changes and heavy rainfall, can lead to the formation of potholes on roads. The Ministry of Road Transport and Highways reports that potholes have resulted in numerous road accidents and fatalities in recent years. To tackle this problem, our project aims to develop an automated pothole detection and dimension measurement system. Our proposed solution uses Mask Region-based Convolutional Neural Network (M-RCNN) deep learning algorithm to detect dry and wet potholes, and image processing techniques to estimate the size of the potholes. The implementation of this system will enhance road maintenance, reduce road accidents caused by potholes, and support the overall development of the country.

Index Terms - Pothole Detection, Area Estimation, Deep Learning, MRCNN, Road Accident

Title of Paper: Interactive music recommendation system based on text and speech analysis

Name of Journal: International Journal of Creative Research Thoughts (IJCRT-2023)

Issue : Volume 11, Issue 5 May 2023

ISSN No.: 2320-2882

Names of Authors: Isha Moykhede (BEIT), Mosmee Patil (BEIT), Om Mahajan (BEIT), Gaurav Mantri (BEIT), Dr. Preeti Bhamre

Abstract: Music is an integral part of our lives. In this era of technological advances, appropriate music recommendations are much needed as soothing music according to moods helps humans to relieve stress. The objective of this project is to develop a personalized system, where the user's current emotion is analyzed with the help of a bot. The bot will interact with user to identify the mood. By analyzing the tone of the text and speech used by the user, mood can be identified. Once the mood is identified, the application will recommend music based on the user's mood. The project utilizes the Rasa framework for chatbot interaction, allowing the user to have a more natural and interactive experience. The deep speech recognition layers are used for recognition of emotions through speech. The model is going to use a Natural Language Processing (NLP) Algorithm for textual analysis and Convolutional Neural Network (CNN) along with spectrogram analysis to predict the mood based on the tone of the user. To recommend music based on the emotions Last.FM API will be used.

Index Terms - Bot, NLP, Spectrogram, Recommendation System, Speech Emotion Recognition.

Title of Paper: A Literature Review on Phishing Website detection method based on deep learning framework using Recurrent Neural Network –GRU Model

Name of Journal: Journal of Emerging Technologies and Innovative Research (JETIR)

Issue : Volume 10, Issue 5 May 2023

ISSN No.: -2349-5162

Names of Authors: Mahesh Bagal (BEIT), Rutuja Ghaskadbi (BEIT), Komal Londhe (BEIT), Mansi Netke (BEIT)

Abstract: Phishing attacks typically rely on social networking techniques applied to email or other electronic communication methods. Some methods include direct messages sent over social networks and SMS text messages. We have implemented a deep learning-based framework as a browser plug-in capable of determining whether there is a phishing risk in real-time when the user visits a web page and gives a warning message. The real-time prediction service combines multiple strategies to improve accuracy, reduce false alarm rates, and reduce calculation time, including whitelist filtering, blacklist interception, and machine learning (ML) prediction. The browser plug-in receives client information, calls the background prediction service, and shows the prediction results to users. It is a deep learning-based framework for detecting phishing URLs. We trained and tested the models using seven custom datasets generated from four existing data sources, and we achieved the highest accuracy with the RNN-GRU model. It has a prototype implementation of the proposed framework as a Chrome browser extension.

Keywords: Phishing detection, machine learning, deep learning, RNN-GRU, web browser extension.

Title of Paper: News Classification and Recommendation using Naïve Bayes Classifier

Name of Journal: International Journal of Creative Research Thoughts (IJCRT-2023)

Volume and Issue : Volume 11, Issue 5 May 2023

ISSN No.: 2320-2882

Names of Authors: Himanshu B. Chaudhari (BEIT), Mayur G. Kotkar (BEIT), Aditya S. Pardeshi (BEIT), Pratik V. Ukarde (BEIT), Prof. S. N. Chaudhari

Abstract: News publishers have decreased spreading news through conventional newspapers and have migrated to the use of digital media. Therefore, there exists a large amount of information being stored in the electronic format which needs to be classified into different categories because there may be present some sensitive data which is not suitable for specific age group. In this project, machine learning algorithms are used for classifying news by using a dataset. By evaluating the accuracy of Linear regression, Naive Bayes algorithm, Logistic regression and Decision tree algorithm and performing comparative analysis of all mentioned algorithms we are going to select the algorithm which provides the maximum accuracy. Also suggesting news articles to the online news reader based on the similarity of a news article with the news they are reading or proposing news articles based on the interest of news reader subjected from their previous readings and the feedback of the reader. After implementing and comparing the accuracy of all Machine Learning models, Naive Bayes Model gave the highest accuracy and lower error percentage. So, Naive Bayes Model is used for training the model and to get required result.

Index Terms - Naive Bayes algorithm, Comparative analysis, Decision tree algorithm.

The various Project participation by the Final year students in May 2023 are as follows:-

Sr No.	Name of Students	Project Title	Details of the Event	Organized by-
1	Magar Vaibhav Sadashiv	Image Manipulation Detection using CNN	Project Supernova State Level MVP SRUJAN 2K23	MVP Samaj's KBT College of Engineering, Gangapur Road, Nashik
	Pitrubhakt Anuja Nilkanth			
	Shelke Pranav Kailas			
	Shinde Shubham Parashram			

Sr No.	Name of Students	Project Title	Details of the Event	Organized by-
2	Gunjal Omkar Datta	Automatic Number Plates Recognition System for Video Input	State Level Tech fest Electroverse 2K23	Sandip Institute of Technology and Research Centre (SITRC), Mahiravani, Trimbak Road, Nashik, Maharashtra
	Jha Ujjwal Virendra			
	Kothawade Dhiraj			
	Shetty Pratham Prakash			
3	Bhalerao Amit Balu	Student's Attention Monitoring System in Learning Environment baed on Artificial Intelligence	Matoshree ACM Student Chapter and pinaacle club	Matoshree Engineering College, Nashik, Maharashtra
	Kasar Ninad Ranjan			
	Malviya Harshit Hemraj			
	Pahade Viraj Bharat			
4	Raut Sourabh Ashok	Sensorama: Metaverse for Experiential Learning	Project Supernova State Level MVP SRUJAN 2K23	MVP Samaj's KBT College of Engineering, Gangapur Road, Nashik
	Shinde Ghanshyam Jaywant			
	Pal Abhishek Premchand			
	Gatkal Sonali Vijay			
5	Gujar Prajwal Nandkishor	Conversational Agent using AI	IDEATHON(project competition)	Pune Vidyarthi Griha's College of Engineering & S. S Dhamankar Institute of management , Nashik.
	Shaikh Afreen Mehmood			
	Suryawanshi Anuja Sanjay			
6	Bade Hariom Manik	Chronic Kidney Disease Prediction by using Logistic Regression and Random Forest Model	Project Competition IDEATHON 2023	Pune Vidyarthi Griha's College of Engineering & S. S Dhamankar Institute of management , Nashik.
	Bandwal Abhishek Anil			
	Gore Suraj Prakash			
	Harne Yash Pradip			
7	Bari Rupali Rajendra	Human Detection and Counting using Deep Learning	Project Competition - TECHXELLENC 2023	Sandip Institute of Technology and Research Centre, Nashik
	Fulambrikar Rutuja Vivek			
	Pagar Akanksha Sanjay			
	Zanjote Aachal Umesh			
8	Damale Siddhi Ravindra	Cyberbullying Detection and Prevention in Web-chat Application using Support Vector Machine	Project Competition-G-ESTRONICA 2023	Gokhale Education Society's R. H. Sapat College of Engineering, Management Studies and Research, Nashik - 422005
	Hyalij Apurva Dattatray			
	Jadhav Rohini Rajaram			
	Khalkar Pooja Vishnu			
9	Pawar Prajwal Dilip	Prediction of Electricity Consumption based on Geodemographic Factors using LSTM	Project Supernova State Level Competition MVP Srujan 2023	MVP Samaj's KBT College of Engineering
	Shinde Aniket Sudhir			
	Sonawane Vaibhav Rajendra			
	Kushare Vaibhav Vijay			

Sr No.	Name of Students	Project Title	Details of the Event	Organized by-
10	Bankar Sakshi Rajendra	Decentralized E-KYC System using Blockchain	Project Competition-	Sandip Institute of Engineering and Management, Nashik
	Gosavi Ruchita Digambar			
	Shah Risha Rahul			
	Walzade Krutika Shrikant			

4. Industrial Training/Workshop done by Staff during May 2023: **NIL**
5. Industrial Visit organized by department for student during May 2023: **NIL**
6. Training and Placement Cell during May 2023: **NIL**
7. Books Purchased in Central Library during May 2023: **NIL**
8. Forthcoming event in the month June and July 2023:-
9. Achievements:

Final year project titled “Sensorama: Metaverse for Experiential Learning” of the Raut Sourabh, Shinde Ghanshyam, Pal Abhishek, Gatkhal Sonali bagged the First Prize of Rs 2500/- at MVP-SRUJAN 2k23 organized by Dept. of Information Technology, MVP’sKBGTCOE, Nashik. The project was guided by Shilpa Mene.

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