



**GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY**

**( AUTONOMOUS )**

Gangavaram (V), Kovur (M), S.P.S.R. Nellore – 524137

Accredited with NAAC 'A' Grade & NBA (B. Tech - ECE, EEE & MECH)

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**TECHNICAL MAGAZINE**

# TECH SPARK



**ACADEMIC YEAR : 2021-22**

**VOLUME 2 / ISSUE 2  
( JUL-DEC )**



## **HALF YEARLY COMPUTER SCIENCE ENGINEERING MAGAZINE**

**AY: 2021-22**

**VOLUME: 2**

**ISSUE: JUL-DEC**



**GEETHANJALI INSTITUTE OF SCIENCE AND TECHNOLOGY**

**3<sup>rd</sup> Mile, Bombay Highway, Gangavaram (V), Kovur (Md), S.P.S.RNellore (Dt)**

**[www.gist.edu.in](http://www.gist.edu.in)**

## **Editorial Message**

Well-written technical articles contribute to the total body of knowledge for the engineering community and will potentially help many engineers. Articles do not need to be detailed “academic-level” work. In fact, some of the most popular articles are “down to earth” practical applications of existing or new technology.

## **Editorial Board**

### *Patron*

Mr. N. Sudhakar Reddy, Secretary & Correspondent

### *Chief Editor*

Dr. G. Subba Rao, Professor & Principal

### *Editor*

**Dr. V. Sireesha, Professor & HoD., CSE**

### *Faculty Coordinators*

Ms. M. Kumar, Asst.Prof., CSE

Mr. Y. V. Ramesh, Asst.Prof., CSE

### *Student Coordinators*

D. Sandhya(192U1A0517) III CSE,

A. Dillep Kumar(192U1A0504) III CSE,

SK. Fazil(202U1A0590) II CSE,

CH. Sai Swetha(202U1A0512) II CSE

# VISION-MISSION

## VISION

To evolve as a leading computer science and engineering centre producing competent technocrats to meet the demands of ever-changing industry and society.

## MISSION

**DM1:** Imparting quality education through innovative teaching learning processes

**DM2:** Motivating students to upgrade their technical expertise by promoting learner centric activities.

**DM3:** Inculcating ethical values and interpersonal skills in the learners.

**DM4:** upgrading knowledge in cutting edge technologies keeping pace with industrial standards.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Graduates of B. Tech in Computer Science and Engineering program shall able to

**PEO1:** Outperform in professional career or higher learning by upgrading skills in Computer Science and Engineering stream.

**PEO2:** Competent Provide computing solutions for complex problems to meet industry demands and societal needs.

**PEO3:** Offer ethical, socially sensitive solutions as professionals and as entrepreneurs in Computer Science and other engineering disciplines.

**PEO4:** Leverage new computing technologies by engaging themselves in perpetual learning.

**Customer Relationship Management (CRM)** is a system for managing a company's interactions with current and future customers. It often involves using technology to organize, automate and synchronize sales, marketing, customer service, and technical support.

Base CRM is the sales tracking app you always wanted. By streamlining your contacts and sales into a simple, mobile workflow, Base CRM makes growing your business easy.

Manage your contacts, track sales, log calls or create tasks all from your Android phone or tablet. Then watch as all of your changes are instantly synced with the Base CRM web app at [getbase.com](http://getbase.com). The next generation CRM allows you to easily capture information during or after meetings and

carry your sales data with you everywhere you go.

### Modules and their Description

1. Marketing Employee Login
2. Contact
3. Lead

#### **Description:**

**Marketing Employee Login:** This is an android application for marketing persons to maintain and manage their leads through an android application. They may add edit contacts in their application. It consists of three stages to mark a conversion.

**Contact:** When a new contact is added he is added as contact.

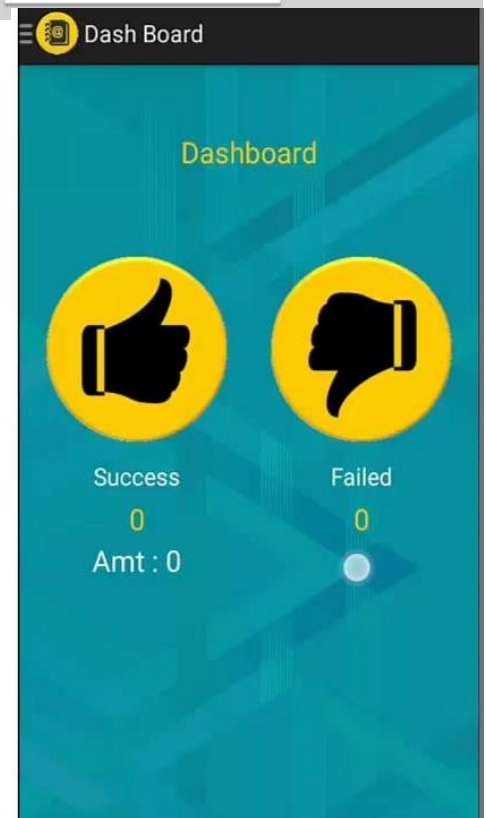
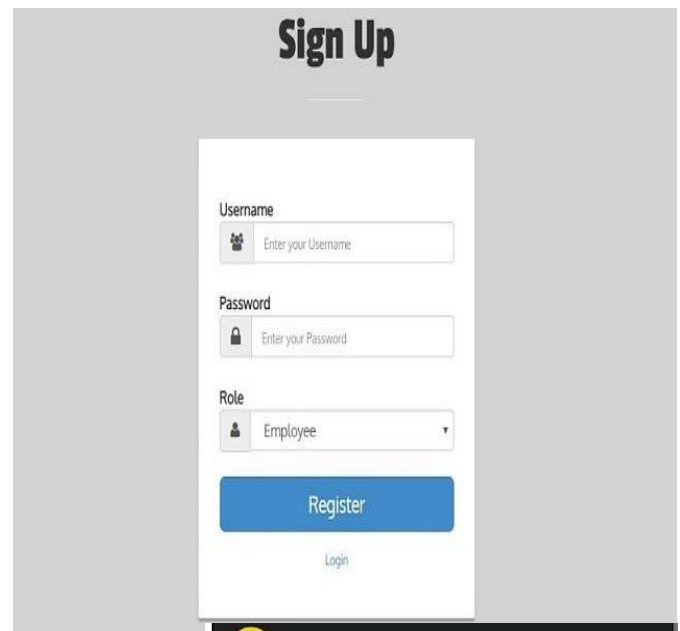
**Lead:** When a contact takes interest the product/service he is marked as a lead since there is a chance to selling to that customer.

#### **Advantages**

- Better Customer Service
- More Customers and Revenue
- Simplified Marketing/Sales

#### **Disadvantages:**

- May get inaccurate results if data is not inserted in correct manner.



Chenthati Meghana(182U1A0515)

**MULTIPLE DISEASE PREDICTION SYSTEM USING MACHINE LEARNING**

When anyone is currently afflicted with an illness, they must see a doctor, which is both time-consuming and expensive. It can also be difficult for the user if they are out of reach of doctors and hospitals because the illness cannot be detected. So, if the above procedure can be done using automated software that saves time and money, it could be better for the patient, making the process go more smoothly.

By keeping this in mind, we have developed our Multiple Disease Prediction System using Machine Learning. It is a web-based program that predicts a user's disease based on the symptoms they have. It will enable end users to predict chronic diseases without having to visit a physician or doctor for a diagnosis. The aim is to identify various diseases by observing the symptoms of patients and applying various Machine Learning Models techniques.

The system comprises 2 major modules namely Admin and User.

The admin can log in directly using their credentials. They can manage the hospitals. They can view all the registered users and feedback provided by them.

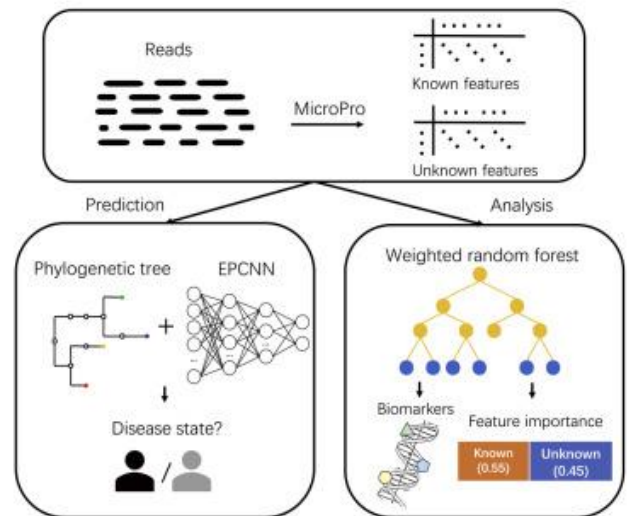
The user would require to register first and then log in using their credentials. They can check the risk for Heart Disease, Liver Disease and Diabetes. The user can also inquire about their queries related to the inputs through the chatbot. If the system predicts any of the diseases, it will recommend hospitals accordingly to the users.

For this system, the front end involves HTML, CSS and JavaScript and the back end involves the MSSQL database. The back-end language used is Python and the framework is Django. The dataset is from Kaggle.

The algorithms used to develop this system includes Random Forest, KNN and XGBoost. Random forests are ensemble classifiers that randomly learn multiple decision trees. The random forest method consists of a training step that constructs several decision trees, and a test step that classifies or predicts an outcome variable based on an input vector. The KNN, a supervised algorithm, predicts the classification of unlabeled data by taking into account the features and labels of the training data. Xgboost is an efficient implementation of ensemble learning, whose main idea is boosting and introducing regular terms in the objective function to prevent over fitting.

### Advantages

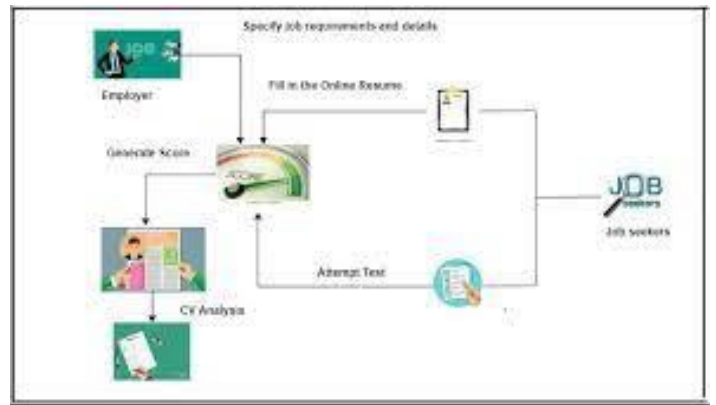
- The system can efficiently predict the risk of Heart and Liver Diseases, including Diabetes.
- The user can also view the hospitals nearby their location.
- The user can provide feedback as well.
- The system integrated a chatbot that can help users resolve queries.



Perla Saketh(182U1A0570)

**PERSONALITY PREDICTION SYSTEM**

This will enable a more effective way to short list submitted candidate CVs from a large number of applicants providing a consistent and fair CV ranking policy, which can be legally justified. System will rank the experience and key skills required for particular job position. Then system will rank the CV's based on the experience and other key skills which are required for particular job profile. This system will help the HR



department to easily shortlist the candidate based on the CV ranking policy. This system will focus not only in qualification and in experience but also focuses on other important aspects, which are required for particular job position. This system will help the human resource department to select right candidate for particular job profile, which in turn provide expert workforce for the organization.

Candidate here will register him/herself with all its details and will upload their own CV into the system, which will be further used by the system to shortlist their CV. Candidate can also give an online test, which will be conducted on personality questions as well as aptitude questions. After completing the online test, candidate can view their own test results in graphical representation with marks. This system can be used in many business sectors that may require expert candidate. This system will reduce workload of the human resource department. This system will help the human resource department to select right candidate for particular job profile, which in turn provide expert workforce for the organization.

### Features:

1. This system will automatically determine the key skill characteristic by defining each expert's preferences and ranking decisions.
2. The presented system automates the processes of requirements specification and applicant's ranking.
3. The proposed system produces ranking decisions that were relatively highly consistent with those of the human experts.
4. This system will enable a more effective way to short list submitted candidate CVs from a large number of applicants providing a consistent and fair CV ranking policy.

**Punamalli Divya Sri(182U1A0581)**

**COVID GEOFENCING APP**

To slow the spread of Covid 19 and curb the pandemic, it is absolutely necessary to isolate infected individuals. While the need for enforcing quarantine can't be understated, this is easier said than done as we see and hear about a lot of people exhibit a cavalier attitude and casually violate protocol. While it isn't practically possible to monitor and supervise every single quarantined individual, this task becomes all the more difficult as the number of infected individuals rises. Developed to assist authorities with enforcing quarantine regulations, this Android based Covid geofencing app makes sure that an individual does not violate quarantine. Using Geofencing, this system alerts the authorities if any patient violates the quarantine regulations.



Covid Geofencing App is a revolutionary app in this pandemic, as there were a lot of news people running/hiding due to fear will be able to track and neutralize them. There are 2 users Involved Admin & Patient. Admin will be the sole body who will manage and monitor Covid Centres.

Add and update centre's data and boundary. Boundary or fence has to be added in meters, this boundary indicates the user cannot go out when his status is Positive and will be altered to Admin.

Admin will be managing all the data of the User. He will be able to see the current location of the user or a list of movements depending on date. Admin can also check the fence logs i.e., how many times the patient has hopped in or out. User's phone is just used for location updates.

And the User can logout or close the updates only if he knows the password. So, the User's Login & logout is also indirectly controlled by the Centre.

### Advantages

- User can use Google Sign IN.
- User can freeze his account any time.
- All the events & membership programs are added by the Admin alone.

### Limitation/Disadvantages

- Wrong inputs will affect the project outputs.
- Internet Connection is mandatory.

**Chinthakrindha Balaji(192U1A0522)**

## **SPY CAMERA ANDROID APP**

Spy Camera is an Android based project that allows





the user to program their mobile phone camera to discreetly click photos or record videos. A user simply needs to first specify whether they wish to use the front camera or the back camera along with the number of photos to be clicked and the buffer time between the photos. Similarly, the users can also use this system to discreetly record videos as well. This application works seamlessly even in the background of your locked phone and does not require the camera application to be open. The user can also stop the app from taking pictures and recording videos manually without having to open the application.

As the name goes, we spy clicking photos or filming without anyone knowing, the app won't show any kind of preview. The Main Goal of This App is to Click Picture or Record the Video from The Back/Front Camera Even If the App Is Closed without anyone knowing. In this app, the user has a setting screen where he/she can select if he/she wants to click photo on duration or photo counts also he/she can decide on a buffer time so that the app will wait the time mentioned by the user before clicking another photo. He/she can also select where to click the photo from the back camera or the front camera. There is also a setting where the user can adjust the duration for the video recording and also that the video that will be recorded should be from the front camera or the back camera. Once the photo or video is captured or filmed the user can view the photo/video in the app, they can share or delete the same. once the process is started app will be closed automatically and a notification will be displayed on the phone if the user wants to stop the process manually, he/she can click the notification and stop the process or wait until the process automatically ends as per the conditions selected on the settings page. The Photos or Videos Captured cannot be seen anywhere i.e., in any other apps but this.

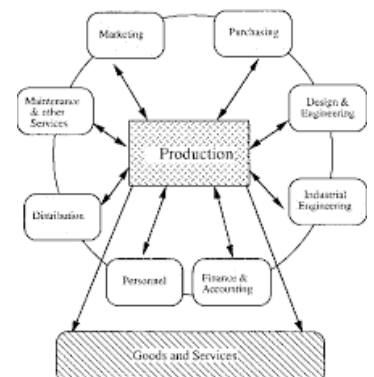
### Advantages

- User can use Google Sign IN.
- User can freeze his account any time.
- All the events & membership programs are added by the Admin alone.

**Gadamsetty Snehavalli(192U1A0531)**

## **INCREASE PRODUCTIVITY USING QUALITY MANAGEMENT SYSTEM**

This is Total Quality Management Project Report. Success of organization depends upon its resource so human resource plays an important role in any organization. If human resource of organization is not happy with the organization. It will adversely affect the organization. The higher degree of commitment toward work will improve productivity and will decrease rejection cause due to human factor. So, to make the people happy is the responsibility of the organization. The objective is to utilize the



human resource in a better way and also to increase the productivity of agents. Scope is to provide a best solution on every assigned task and improve the working skills.

**Features :** The system comprises of 3 major modules with their sub-modules as follows:

**1. Auditor:**

**Upload Task Sheet:** Auditor can upload an excel sheet which contains task id, task type and agent id.

- **View Resolved Task:** Auditor reviews resolved tasks then provide a score to agent. Each task will have set of 5 questions and auditor will review task per those questions and select yes/no.

- **View Solved Task:** He can have a list of all the solved task with details of agent and his score for that task.

- **View Agent:** Auditor can have a look on the basic details of agents and an average score.

**2. Agent:**

- **Login:** Agents can login into the system using the login id and password provided by admin.

- **View Task:** Agent can view task assigned with his score for each task id. He/she can search task between specific dates.

**3. Admin:**

- **Add Auditors:** admin can add auditors with their basic details, and login id and password will be sent on mail.

- **Add Agents:** admin can add agent with their basic details, and login id and password will be sent on mail.

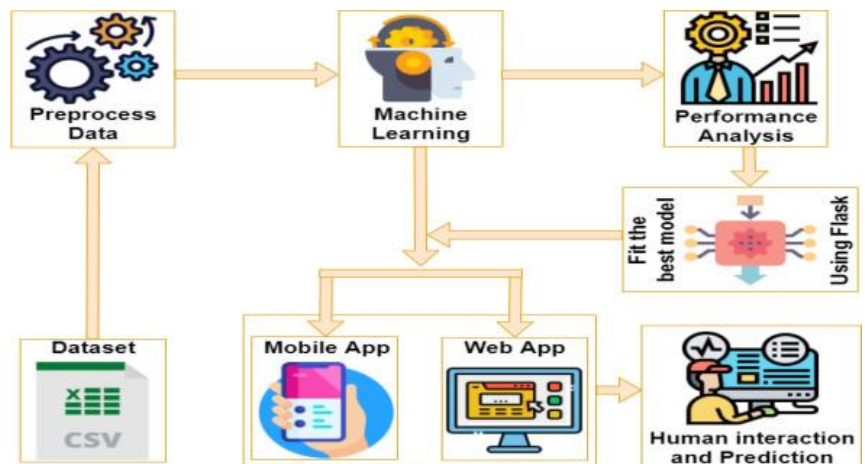
**Advantages of Project**

- This System is very easy to understand.
- No active internet connection required.
- This system is user friendly and easy.

**P Haneesh Reddy(192U1A0576)**

**STROKE PREDICTION SYSTEM USING LINEAR REGRESSION**

A stroke is defined as an acute neurological disorder of the blood vessels in the brain that occurs when the blood supply to an area of the brain stops and the brain cells are deprived of the necessary oxygen. According to the World Stroke Organization, 13 million people get a stroke each year, and approximately 5.5 million people will die as a result. It is the leading cause of death and disability worldwide, and that is why its imprint is serious in all



aspects of life. Stroke not only affects the patient but also affects the patient's social environment, family and

workplace. In addition, contrary to popular belief, it can happen to anyone, at any age, regardless of gender or physical condition.

To help save a life who might have a probability of stroke, we have designed a Stroke Prediction System using Linear Regression. The objective of implementing the system on a web platform is to reach as many individuals as possible. The development of this ML model could aid in the early detection of stroke and the subsequent mitigation of its severe consequences.

The system comprises 1 module namely user. The user would require to register first to access the system. After registering successfully, the user can log in using their credentials. In order for the system to predict if there is a risk of stroke, the user would require to enter certain inputs. If there is a risk of stroke, the system will redirect to a page where the user can view the nearby hospitals and the stroke details along with its causes, symptoms and treatment.

The technologies used to develop this system involve HTML, CSS and JavaScript in the front end and Python in the backend. The database used is MySQL and the framework used is Django. The dataset is used from Kaggle. The algorithm used to design the working of this system is Logistic Regression. It is used to characterize the data and illustrate the association between one dependent binary variable and one or more conditional, ordinal, period, or ratio-level independent variables.

#### Advantages

The system can be used to accurately predict stroke risk.

The user will be able to find hospitals nearby using the system.

The system will show the type of stroke along with its symptoms and treatment.

**Balireddy Sadhika(202U1A0507)**

# Gratuity Savvy

“Nirmaan Kala”



-R

-SD.Roshan(IV CSE-B) E-B)

## Night Sky

In the hues of black, I perceive you as it is  
From dawn to night I see you change  
The moon comes, the stars shine  
Everything only upon you

Different constellations, I figure you out in my mind  
Patterns of stars that dazzle the sky  
The lonely vulnerable beauty that spellbinds  
every heart  
etched in my mind still precise and clear and  
better than one could ever imagine

Constant as it always is, the northern star is where  
it is  
In this huge maze one navigates through,  
you are the sailor's best friend

people keep staring at you  
Burying their profound memories within you  
Find a foe and companion within you  
Throughout the night, think only about you

I watch you, lying on the beach  
Imitate patterns of stars on the sand  
within reach

Name different things that don't change  
But then all salvation is temporary

Every night you cheer up in my dreams  
Remind me of mysteries and lost battles  
Recap all the myths and memories  
And then I fall asleep watching you  
into dreams

~ Ch. SriLakshmi  
CH.SriLakshmi(II CSE-A)



**A.Prabhas Reddy(II CSE-A)**



**-A.V.N.Sai Akshay(IV CSE-A)**

**PROGRAM OUTCOMES (POs)**

Engineering Graduates will be able to:

- PO1. Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2. Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## PROGRAM SPECIFIC OUTCOMES

- PSO1:** Apply the expertise in adaptive algorithms to develop quality software applications..
- PSO2:** Get employed or become an entrepreneur through their capabilities in basic and advanced technologies.