MINI-PROJECT LOGBOOK

GROUP MEMBERS

1. *Devadatta Mahesh Pokharanakar (R-21-0078), TE(CSE)*
2. *Vansh Anil Gandhi (R-21-0086), TE(CSE)*
3. *Suyog Avinash Joshi (R-21-0132), TE(CSE)*
4. *Sumit Ratnakar Rajam (R-21-0294), TE(CSE)*

Guide

Prof. Mahesh A. Jadhav

Assistant Professor,

CSE (AI&ML) Department, FAMT, Ratnagiri



Department of Computer Science and Engineering (AI&ML)

**Finolex Academy of Management & Technology, Ratnagiri – 415 639**



**University of Mumbai**

(Academic Year 2023-24)

# INSTITUTE VISION & MISSION

## VISION:

The academy aspires to nurture students as leaders who are in tune with global trends, equipped with engineering knowledge and practical skills, to excel in creativity and innovation in order to play their part in technological advancement of the nation.

## MISSION:

1. To become foremost seat of advanced technical learning as a center of excellence in the region.
2. To offer state of the art facilities and quality education at affordable cost.
3. To inculcate in students the culture of ‘Play Hard and Play Fair’.
4. To advance sustainable development in the region through opportunities for entrepreneurship and industry-institute interaction.
5. To create a generation of young professionals who appreciate in all its aspects the necessity of balance between technological advances and traditional values.

# COMPUTER SCIENCE AND ENGINEERING (AI&ML) DEPARTMENT

## VISION:

The academy aspires to nurture students as leaders who are in tune with global trends, equipped with engineering knowledge and practical skills, to excel in creativity and innovation in order to play their part in technological advancement of the nation.

## MISSION:

1. Lead the advancement of computer science, computer engineering, information technology, and cybersecurity through internationally recognized research and education, as well as technology transfer.
2. Provide quality learning experiences through effective classroom practices, active learning styles of teaching, and opportunities for meaningful interactions between students and faculty.
3. To imbibe skills in students to address the need industry.
4. To inculcate professional behavior, strong ethical values, innovative research capabilities and leadership abilities.

# PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

|  |  |
| --- | --- |
| PEO1 | Students should be able to have successful careers or pursue higher studies to meet future challenges of technological development. |
| PEO2 | Students should be able to pursue analytical and logical skills that will enable them to analyze and design Electrical Systems and its Controls. |
| PEO3 | Students should be able to undertake research and development activities in emerging multidisciplinary fields. |
| PEO4 | Students should be able to achieve professional and interpersonal skills by giving an opportunity as an individual as well as a team. |

# PROGRAM OUTCOMES (POs)

|  |  |
| --- | --- |
| **PO's** | **OUTCOMES** |
| PO1 | An ability to apply knowledge of mathematics, science and engineering fundamentals in the field of computing. |
| PO2 | Critically identify, formulate and evaluate emerging topics and the recent development in the field and Provide solution to futuristic engineering problems. |
| PO3 | The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context. |
| PO4 | Ability in requirement gathering, design and implementation of software with computer systems to analyze and interpret the data. |
| PO5 | An ability to use the techniques, logical and analytical skills and modern engineering tools necessary for engineering practice. |
| PO6 | An ability to design a system component or process to meet desired needs within realistic constraints such as economic, environmental, social, cultural and safety issues. |
| PO7 | An ability to understand an impact of engineering knowledge towards society and environment with need to sustainable solutions. |
| PO8 | To inculcate professional ethics. |
| PO9 | An ability to function effectively, individually and in teams to accomplish a common goal. |
| PO10 | An ability to communicate solutions of complex computing problems effectively using reports and presentations to wide range of audiences. |
| PO11 | To instill leadership and managerial skills in multidisciplinary environment. |
| PO12 | Recognition of the need for and an ability to engage in life-long learning. |

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

|  |  |
| --- | --- |
| PSO1 | Design an algorithm, component, or process to meet desired needs, within realistic constraints through analytical, logical and problem-solving skills with AIML. |
| PSO2 | Effectively integrate AIML-based solutions into the user environment and Adapt themselves easily to emerging trends in Machine Learning. |

**STUDENT INFORMATION**

## Project Title: AquaSense – Water Supply Network Monitoring System

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Student 1** | **Student 2** | **Student 3** | **Student 4** |
| **Student ID** | R-21-0078 | R-21-0086 | R-21-0132 | R-21-0294 |
| **Name** | Devadatta Mahesh Pokharanakar | Vansh Anil Gandhi | Suyog Avinash Joshi | Sumit Ratnakar Rajam |
| **Contact No.** | 7262044394 | 9157678399 | 9322612228 | 9130407064 |
| **E-mail** | dmpokharanakar@gmail.com | vanshgandhi3006@gmail.com | joshisuyog89@gmail.com | rajamsumit2003@gmail.com |
| **Address** | A-401  Vinayak Apartment  Tilak Lane  Ratnagiri-415612 | 10  Swami Samarth Apt.  Shivaji Nagar  Ratnagiri-415612 | A-105  Laxmi-Narayan Apt.  Bandar Road  Ratnagiri-415612 | B-7  Soham Sankalpa Apt.  Bandar Road  Ratnagiri-415612 |

**INSTRUCTIONS TO STUDENTS:**

1. The logbook must be submitted to the Guide for verification and evaluation of project activities at least once in a week.
2. Log book duly signed by guide must be submitted with project report for evaluation at the end of semester to the department.

**DECLARATION**

I declare that this project represents my ideas in my own words without plagiarism and wherever others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my project work. I promise to maintain minimum 75% attendance, as per the University of Mumbai norms. I understand that any violation of the above will cause for disciplinary action by the Institute.

Yours Faithfully

* 1. Devadatta Mahesh Pokharanakar
  2. Vansh Anil Gandhi
  3. Suyog Avinash Joshi
  4. Sumit Ratnakar Rajam

## (Name, Date & Signature of Students)

**Letter of Acceptance**

I undersigned, Asst. Prof. Mahesh A. Jadhav working in Computer Science and Engineering (AI & ML) Department, willing to guide the project titled -

**“AquaSense – Water Supply Network Monitoring System”**

for the Mini-Project- 2 B of Semester VI for the Academic Year 2023-24.

The names of the students are:

1. Devadatta Mahesh Pokharanakar

2. Vansh Anil Gandhi

3. Suyog Avinash Joshi

4. Sumit Ratnakar Rajam

**(Project Guide) (Mini-Project Coordinator) (HOD-CSE)**

# COURSE OUTCOMES

|  |  |  |  |
| --- | --- | --- | --- |
| **CO**  **No.** | **COURSE OUTCOME** | **POs covered** | **PSOs**  **covered** |
| CO1 | Identify problems based on societal /research needs. | PO1, PO2, PO3 | PSO1 |
| CO2 | Apply Knowledge and skill to solve societal problems in a group. | PO1,PO3 | PSO1 |
| CO3 | Develop interpersonal skills to work as member of a group or leader. | PO9,PO11 | - |
| CO4 | Draw the proper inferences from available results through theoretical/ experimental/simulations. | PO10 | PSO1 |
| CO5 | Analyze the impact of solutions in societal and environmental context for sustainable development. | PO3, PO7 | PSO2 |
| CO6 | Use standard norms of engineering practices. | PO5, PO8 | PSO2 |
| CO7 | Excel in written and oral communication. | PO10 | - |
| CO8 | Demonstrate capabilities of self-learning in a group, which leads to lifelong learning. | PO12 | - |
| CO9 | Demonstrate project management principles during project work. | PO6 | - |

**CO-PO-PSO MAPPING**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| CO2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| CO3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 |
| CO4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 2 |
| CO5 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| CO6 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| CO7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| CO8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| CO9 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**SCHEDULE FOR MINI PROJECT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Week** | **Contents** | **Remark** | **Guide Sign** |
| 30/12/2023 | 1 | Deciding project topic and name |  |  |
| 06/01/2024 | 2 | Literature Review |  |  |
| 30/01/2024 | 3 | Deciding features to implement |  |  |
| 06/02/2024 | 4 | Exploring libraries |  |  |
| 20/02/2024 | 5 | Creating prototype |  |  |
| 27/02/2024 | 6 | Implementing features |  |  |
| 11/03/2024 | 7 | Integrating UI |  |  |
| 29/03/2024 | 8 | Testing, debugging and Finalizing web app |  |  |
| 02/04/2024 | 9 | Preparing report and ppt |  |  |

**PROGRESS/ATTENDANCE REPORT**

|  |  |
| --- | --- |
| Title of the Project:- AquaSense – Water Supply Network Monitoring System | |
| Group No. | Name of Student 1: Devadatta Mahesh Pokharanakar |
| Name of Student 2: Vansh Anil Gandhi |
| Name of Student 3: Suyog Avinash Joshi |
| Name of Student 4: Sumit Ratnakar Rajam |
| Name of the Guide: Prof. Mahesh A. Jadhav | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No** | **Date** | **Attendance** | | | | **Progress/Suggestion** | **Mapping** | | |
|  |  | 1 | 2 | 3 | 4 |  | CO | PO | PSO |
| 1 | 30/12/2023 |  |  |  |  | Project topic and name decided. | NA | NA | NA |
| 2 | 06/01/2024 |  |  |  |  | Literature review performed. | CO1, CO2 | PO1, PO2, PO3 | PSO1 |
| 3 | 30/01/2024 |  |  |  |  | Decided features to be implemented | CO1 | PO2 | PSO1 |
| 4 | 06/02/2024 |  |  |  |  | Explored different libraries to be used. | NA | NA | NA |
| 5 | 20/02/2024 |  |  |  |  | Designed prototype/ outline for the project. | CO4 | PO4 | PSO1 |
| 6 | 27/02/2024 |  |  |  |  | Implemented all the features. | CO2, CO5 | PO1, PO3, PO7 | PSO2 |
| 7 | 11/03/2024 |  |  |  |  | Developed and Integrated User Interface with the backend. | CO3, CO6 | PO9, PO11 | PSO2 |
| 8 | 29/03/2024 |  |  |  |  | Tested application and removed errors. | CO5, CO7 | PO3, PO10 | PSO2 |
| 9 | 02/04/2024 |  |  |  |  | Preparing for final presentation and submission | CO8, CO9 | PO12 | NA |

**Name, Date & Sign of the Guide**

# REVIEW-I FORM

Group No: 1

Title of Mini-Project: AquaSense – Water Supply Network Monitoring System

Date of Review-I: 17/02/2024

No. of students in project team: 4

**Student Mini-Project Performance Analysis** (Put Tick as per your Observation)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Excellent (3) Very Good (2) Good (1) | | | | |
| **Sr. No.** | **Observation** | **(3)** | **(2)** | **(1)** |
| 1 | Quality of problem and Clarity |  |  |  |
| 2 | Literature Survey |  |  |  |
| 3 | Innovativeness in solutions |  |  |  |
| 4 | Feasibility Of the Project |  |  |  |
| 5 | Usage of technology |  |  |  |
| 6 | Cost effectiveness and Societal impact |  |  |  |
| 7 | Overall Presentation & Performance |  |  |  |
| **Comments:** |  | | | |

**Project Guide & Panel Members Signature:** 1) Prof. Mahesh A. Jadhav

2) Prof. Akshay N. Shetye

3) Prof. Sprooha S. Aathlye

## Name, Date & Signature Name, Date & Signature

**Project Coordinator HOD-Computer Science and Engineering**

**REVIEW-II FORM**

Group No: 1

Title of Mini-Project:- AquaSense – Water Supply Network Monitoring System

Date of Review-II: 23/04/2024

No. of students in project team: 4

**Student Mini-Project Performance Analysis** (Put Tick as per your Observation)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Excellent (3) Very Good (2) Good (1) | | | | |
| **Sr. No.** | **Observation** | **(3)** | **(2)** | **(1)** |
| 1 | Usage of effective skill sets |  |  |  |
| 2 | Design and Implementation |  |  |  |
| 3 | Testing and Analysis |  |  |  |
| 4 | Use of standard engineering norms |  |  |  |
| 5 | Cost effectiveness and Societal impact |  |  |  |
| 6 | Contribution of an individual member in team |  |  |  |
| 7 | Overall Presentation & Performance |  |  |  |
| **Comments:** |  | | | |

**Project Guide & Panel Members Signature:** 1) Prof. Mahesh A. Jadhav

2) Prof. Akshay N. Shetye

3) Prof. Sprooha S. Aathlye

## Name, Date & Signature Name, Date & Signature

**Project Coordinator HOD-Computer Science and Engineering**

**EXAMINER'S FEEDBACK FORM**

Name of External examiner: College of External examiner: Name of Internal examiner:

Date of Examination: / / No. of students in project team: Availability of separate lab for the project: Yes / No

**Student Performance Analysis** (Put Tick as per your Observation)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Excellent (3) Very Good (2) Good (1) | | | | |
| **Sr. No.** | **Observation** | **(3)** | **(2)** | **(1)** |
| 1 | Quality of problem and Clarity |  |  |  |
| 2 | Innovativeness in solutions |  |  |  |
| 3 | Cost effectiveness and Societal impact |  |  |  |
| 4 | Full functioning of working model as per stated requirements |  |  |  |
| 5 | Effective use of skill sets |  |  |  |
| 6 | Effective use of standard engineering norms |  |  |  |
| 7 | Contribution of an individual’s as member or leader |  |  |  |
| 8 | Clarity in written and oral communication |  |  |  |
| 9 | Overall performance |  |  |  |

* Can the same mini project extend to next semester by adding new objectives/ideas? (Yes/ No)
* If yes, suggest new Innovative Technique/Idea/ objectives related to this project.

|  |  |  |
| --- | --- | --- |
| **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **External Examiner** | **Internal Examiner** | **HOD(CSE-AIML)** |