**MINI-PROJECT LOGBOOK**

GROUP MEMBERS

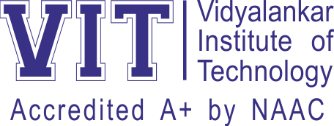
1. Rohini Malladi

2.Anushree Dandekar

3. Sanika Chavan

Supervisor/Guide

Prof. Vinita Bhandiwad



# Department of Information Technology

**Vidyalankar Institute of Technology, Wadala, Mumbai -400037**



**University of Mumbai**

(Academic Year 2022-23)

## INSTITUTE VISION & MISSION

**VISION:**

To be a globally recognized institute where learners are nurtured in a scholarly environment to evolve into competent professionals and researchers to benefit society.

**MISSION:**

* Evolve a curriculum which emphasizes on strong fundamentals with the flexibility to choose advanced courses of interest and gain exposure to tools and techniques in contemporary subjects.
* Encourage a teaching-learning process in which highly competent faculty share a symbiotic association with institutes of repute.
* Facilitate creation and dissemination of knowledge through a digitally-enabled learning environment.
* Develop academic and infrastructural facilities with modern equipment and other learning resources and encourage reciprocal sharing with other institutes through networking.
* Establish a Center of Excellence to enhance academia-industry partnership and work on collaborative projects.

## INFORMATION TECHNOLOGY DEPARTMENT

**VISION:**

To be recognized as a center of excellence in the field of Information Technology where learners are nurtured in a scholarly environment to evolve into competent professionals to benefit society.

**MISSION:**

* Evolve a curriculum which emphasizes on strong engineering fundamentals with the flexibility to choose advanced courses of interest and gain exposure to tools and techniques in Information Technology.
* Encourage a teaching learning process in which highly competent faculty share a symbiotic association with the institutes of repute.
* Facilitate creation and dissemination of knowledge through a digitally enabled learning environment.
* Develop academic and infrastructural facilities with modern equipment and other learning resources and encourage reciprocal sharing with other institutes through networking.
* Establish a center of excellence to enhance academia – industry partnership and work on collaborative projects

## PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

**PEO I:** To enable the pursuit of knowledge in the field of Information Technology and contribute to the profession and employability of the students.

**PEO II:** To Engage in research, generate the employment through entrepreneurship and work effectively in multidisciplinary environment.

**PEO III:** To understand the human, social, ethical and environmental context of their profession and contribute positively to the needs of individuals and society at large.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

|  |  |
| --- | --- |
| PSO1 | Explain and apply appropriate information technologies and employ appropriate methodologies to help an individual or organization achieve its goals and objectives |
| PSO2 | Manage the information technology resources of an individual or organization |
| PSO3 | Anticipate the changing direction of information technology and evaluate and communicate the likely utility of new technologies to an individual or organization |
| PSO4 | Develop IT systems that would perform tasks related to E-governance and/or Health Care Management |

### PROGRAM OUTCOMES (POs)

|  |  |
| --- | --- |
| **PO's** | **OUTCOMES** |
| PO1 | Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. |
| PO2 | Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. |
| PO3 | 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 | 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 | Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. |
| PO6 | 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 | Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. |
| PO8 | Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. |
| PO9 | Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. |
| PO10 | 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 | 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 | 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. |

**STUDENT INFORMATION**

**Project Title:** Smart Shopping Cart using RFID and NodeMCU

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Student 1** | **Student 2** | **Student 3** |
| **Student ID** | 19101A0049 | 19010A0048 | 19101A0053 |
| **Name** | Rohini Malladi | Anushree Dandekar | Sanika Chavan |
| **Class with Division** | INFT A | INFT A | INFT A |
| **Contact No.** | 8369568740 | 9167272455 | 7738319764 |
| **E-mail** | rohini.malladi@vit.edu.in | [anushree.dandekar@vit.edu.in](mailto:anushree.dandekar@vit.edu.in) | sanika.chavan@vit.edu.in |
| **Address** | Parel | Mahim | Panvel |

**INSTRUCTIONS TO STUDENTS:**

1. The logbook must be submitted to the Guide or Co-Guide for verification and evaluation of project activities at least once in a week.

1. Logbook 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 be cause for disciplinary action by the Institute.

Yours Faithfully,

1. Rohini Malladi
2. Anushree Dandekar
3. Sanika Chavan

(Date & Signature of Students**)**

### Letter of Acceptance

I undersigned, Prof.Vinita Bhandiwad working in Information Technology Department, willing to guide the project titled **Smart Shopping Cart using RFID and NodeMCU** for the IOE Mini-Project (Div A) Semester VII respectively for the Academic Year 2022-23.

The names of the students are:

1. Rohini Malladi
2. Anushree Dandekar
3. Sanika Chavan

Prof. Vinita Bhandiwad Dr. Vipul Dalal

**(Project Guide) (HOD-Information Technology Department )**

**COURSE OUTCOMES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CO**  **No.** | **COURSE OUTCOME /LAB OUTCOME** | **POs covered** | **PSOs covered** | **BL level** |
| CO1 | Identify the requirement for the real world problems. | PO2,PO12 | PSO1 | L1,L2 |
| CO2 | Conduct a survey of several available literatures in the preferred field of study. | PO4 | PSO2 | L1,L2 |
| CO3 | Study and enhance software/ hardware skills. | PO5 | PSO4 | L1,L2 |
| CO4 | Demonstrate and build the project successfully by hardware/sensor requirements, coding, emulating and testing. | PO11 | PSO3 | L1,L2,L3 |
| CO5 | To report and present the findings of the study conducted in the preferred domain. | PO6 | PSO3 | L1,L2,L3,L4 |
| CO6 | Demonstrate an ability to work in teams and manage the conduct of the research study. | PO11 | PSO3 | L1,L2,L3,L4 |

**CO-PO-PSO MAPPING**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 | PSO4 |
| CO1 | M | M | - | - | - | - | - | - | - | - | - | - | S | M | - | S |
| CO2 | M | S | - | - | - | - | - | - | - | - | - | - | M | M | M | M |
| CO3 | M | S | - | - | - | - | - | - | - | - | - | - | S | M | - | S |
| CO4 | M | - | - | S | - | - | - | - | - | - | - | - | M | M | W | W |
| CO5 | M | M | - | - | - | - | - | - | - | - | - | - | S | M | - | S |
| CO6 |  | S | - | - | - | - | - | - | - | - | - | - |  |  |  |  |

**SCHEDULE FOR MINI PROJECT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Week** | **Contents** | **Remark** | **Guide Sign** |
| 21/07/2022 | 1 | Creating group for mini project Explanation of mini project and presenting different type of project |  |  |
| 18/08/2022 | 2 | Finalization of topic |  |  |
| 25/08/2022 | 3 | Purchase of required component |  |  |
| 22/09/2022 | 4 | Circuit design |  |  |
| 29/09/2022 | 5 | Integration of components |  |  |
| 06/10/2022 | 6 | Review 1 |  |  |
| 13/10/2022 | 7 | Revised software |  |  |
| 20/10/2022 | 8 | Resolved errors |  |  |
| 27/10/2022 | 9 | Started working on report |  |  |
| 03/11/2022 | 10 | Submission |  |  |
|  | 11 |  |  |  |
|  | 12 |  |  |  |
|  | 13 |  |  |  |

**PROGRESS/ATTENDANCE REPORT**

|  |  |
| --- | --- |
| Title of the Project: Smart Shopping Cart using RFID and NodeMCU | |
| Group No. | Name of Student 1: Rohini Malladi |
| Name of Student 2: Anushree Dandekar |
| Name of Student 3:Sanika Chavan |
|  |
| Name of the Guide: Prof. Vinita Bhandiwad | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr.**  **No** | **Date** | **Attendance** | | | | **Progress/Suggestion** | |  | | **Mapping** | | | |
|  |  | 1 | 2 | 3 | 4 |  | | CO | | PO | | PSO | |
| 1 |  |  |  |  |  |  | |  | |  | |  | |
| 2 |  |  |  |  |  |  | |  | |  | |  | |
| 3 |  |  |  |  |  |  | |  | |  | |  | |
| 4 |  |  |  |  |  |  | |  | |  | |  | |
| 5 |  |  |  |  |  |  | |  | |  | |  | |
| 6 |  |  |  |  | Presentation1 | |  | |  | |  | |
| 7 |  |  |  |  |  | |  | |  | |  | |
| 8 |  |  |  |  |  | |  | |  | |  | |
| 9 |  |  |  |  |  | |  | |  | |  | |
| 10 |  |  |  |  |  | |  | |  | |  | |
| 11 |  |  |  |  |  | |  | |  | |  | |
| 12 |  |  |  |  |  | |  | |  | |  | |
| 13 |  |  |  |  |  | |  | |  | |  | |

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

### REVIEW-I FORM

Title of Mini-Project: Smart Shopping Cart using RFID and NodeMCU

Date of Review-I: 3-10-2022

No. of students in project team: 3

#### 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. Vinita Bhandiwad

**Name, Date & Signature Name, Date & Signature**

**Project Guide HOD-Information Technology**

### REVIEW-II FORM

Title of Mini-Project: Smart Shopping Cart using RFID and NodeMCU

Date of Review-II:

No. of students in project team: 3

#### 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 Vinita Bhandiwad

**Name, Date & Signature Name, Date & Signature**

**Project Guide HOD-Information Technology**

### 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: 3

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 |  |  |  |

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

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| **Name, Date & Signature** | **Name, Date & Signature** |
| **External Examiner** | **Internal Examiner** |

**Name, Date & Signature**

#### HOD-Information Technology