School Of Computer Science
University Of Petroleum and Energy Studies
P.O. Bidholi, Via-Prem Nagar DEHRADUN-248007

Bachelors of Technology in Computer Science & Engineering

Issue Date: March 26, 2023

Minor ☐ Major ✓

UPES
UNIVERSITY WITH A PURPOSE

Project Title	Solar Panel Maintenance System	Mentor Name	Project Number
			Sugandha Sharma

S. No.	Roll Number	Branch	Name	Role	Signature
1	R177219194	B. Tech. CSE AI & ML B-6 Sem-VIII	Utkarsh Gupta	Developer & Team Leader	
2	R177219206	B. Tech. CSE AI & ML B-6 Sem-VIII	Aradhya Singh	Developer & Version Control	
3	R177219207	B. Tech. CSE AI & ML B-6 Sem-VIII	Tanu Sharma	Developer & Documentation	

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Project Mentor   **Head Of Department**

Date		Title Approval	Synopsis	Mid-Term	End-Term	Progress Report	Total Marks	Project Status	
R.No		Timly Submission	Marks	MARKS	MARKS	MARKS	MARKS	Authenticity	Yes/ No
								Satisfactory	Yes/ No
								Activity Coordinator	

Synopsis Evaluation

		30 Marks						30 Marks							40 Marks	
Rollnumber	VIVA	Reviewer1	Reviewer2	Reviewer3	Reviewer4	Reviewer5	FEEDBACK	Body Language	Dress Code	Communication Skill	Presentation Skill	Analytical Skill	Team Spirit	Documents	PPT	Report
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			

Panel Remark

Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5

Mid- Term Evaluation

		30 Marks						30 Marks							40 Marks	
Rollnumber	VIVA	Reviewer1	Reviewer2	Reviewer3	Reviewer4	Reviewer5	FEEDBACK	Body Language	Dress Code	Communication Skill	Presentation Skill	Analytical Skill	Team Spirit	Documents	PPT	Report
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			

Panel Remark

Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5

End-Term Evaluation

		30 Marks						30 Marks							40 Marks	
Rollnumber	VIVA	Reviewer1	Reviewer2	Reviewer3	Reviewer4	Reviewer5	FEEDBACK	Body Language	Dress Code	Communication Skill	Presentation Skill	Analytical Skill	Team Spirit	Documents	PPT	Report
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			
								1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5	1|2|3|4|5			

Panel Remark

Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5

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Project Title	Solar Panel Maintenance System	Mentor Name	Sugandha Sharma

Abstract

Cost efficient solution for cleaning solar panels automatically without any human interference. The system will be trained to detect whenever a solar panel is generating considerably less solar energy, making the cleaning system active. The system will consist of variety of sensors to get the real time weather information and figure out whether the panel is working efficiently or not. The system will also include a water jet and an air blower to wash and dry out the solar panel.

Objective

The objective is to develop a cost efficient and automatic solar panel maintenance system. Thereafter, develop a working prototype hardware of the project to simulate the working in real time environment.

Methodology

First the AI model for predicting the solar output will be developed and then the prototype of the hardware will be developed.

Progress 1

- The data has been collected through the sensor array via an Arduino UNO board.
- Data analysis has been don.
- The prototype of hardware is in final stage of development.

Mentor Remark

Marks	10	10	10	10	10	10	10	10	10	10
Rollno/Marks(10)	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Synopsis	Mid-term	End-Term
Date/Mentor Signature										

Progress 2

Mentor Remark

Marks	10	10	10	10	10	10	10	10	10	10
Rollno	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Synopsis	Mid-term	End-Term
Date/Mentor Signature										

Guideline: 1) A project group can be of maximum 4 members and no alteration in the group member will be entertained later.
Guideline: 2) Methodology should have following steps Step1: Literature Review; Step2: Identification of Requirement (Type of Data source, Amount of Data, & Format of Data); Step3: Identification of Algorithm; Step 4: Comparative study; Step5: Design and Development of System/Architecture; Step 6: Implementation; Step7: Results **Guideline:3)** Student should upload softcopies of all the documents (reports and power point presentations) in "Project Directory", 24 hrs prior to evaluation. **Guideline:4)** Panel member will give feedback to individual on the scale of 1 to 5 and this scale will change for defaulter i.e., 1 to 3 scale.
1: Poor   2: Average   3: Good   4: Excellent   5: Outstanding