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UNIVERSITY WITH A PURPOSE

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

Bachelors of Technolgy in Computer Science & Engineering

Issue Date: 21.08.2024

Minor ☐ Major

Project Title	AdaptiPlan: Intelligent Scenario Modeling for Climate Change Mitigation	Mentor Name	Project Number / Dr. Tanupriya Choudhury

S.No	Rollnumber	Branch	Name	Role	Signature
1.	R2142210244	AIML Hons.	Charu Gupta	Design and implementation	
2.	R2142210448	AIML Hons.	Lakshay Agarwal	Design and implementation	

Project Mentor

Cluster Head

Date							Project Status
	Understanding of Project	Project Working	Soft Skills	Report	Mentor Marks	Total Marks	Activity Coordinator
R.No	25 Marks	35 Marks	10 Marks	15 MARKS	85 MARKS	100 MARKS	
	0	0	0	0	0	0	
	0	0	0	0	0	0	
	0	0	0	0	0	0	
	0	0	0	0	0	0	

Synopsis Evaluation

	Theoretical Understanding					
Rollno	Problem(4 Marks)	Algorithm(4 Marks)	Data /Data structure(4 Marks)	SWOT Analysis(4 Marks)	Area of Application(4 Marks)	Total Marks(20)
						0
						0
						0
						0

Panel Remark

Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5

Mid- Term Evaluation

	DESIGN & DEVELOPMENT					
Rollno	Technical Diagram(5 Marks)	Programming Concepts(5 Marks)	IPC(5 Marks)	Libraries(5 Marks)	SRS(10)	Total(20 Marks
						0
						0
						0
						0

Panel Remark

Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5

End-Term Evaluation

	Testing & Implementation						
Rollno	Theoretical Knowledge(5)	Computational Knowledge(5)	Test Case (10)	Soft Skills (10)	Report(5)	Core Computational Skills(15)	Total (50)
							0
							0
							0
							0

Panel Remark

Reviewer 1	Reviewer 2	Reviewer 3	Reviewer 4	Reviewer 5

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Bachelors of Technolgy in Computer Science Engineering

Minor ☐ **Major** ☐

Project Title	AdaptiPlan: Intelligent Scenario Modeling for Climate Change Mitigation	**Mentor Name**	Dr. Tanupriya Choudhury

Abstract

This project aims to develop a comprehensive web application that combines AI-driven scenario planning with a comparative analysis of climate change adaptation strategies. By integrating time series forecasting (ARIMA) and Monte Carlo simulations, the application will simulate various climate change scenarios and evaluate the effectiveness of different adaptation measures.

Objective

1. Develop an interactive web application that allows users to simulate climate change scenarios and analyze the impact of different adaptation strategies.
2. Conduct a comparative analysis of adaptation strategies using ARIMA and Monte Carlo simulations to assess their effectiveness across various scenarios.

Methodology

The methodology involves collecting and preprocessing climate data. ARIMA models will be employed for time series forecasting of future climate conditions, while Monte Carlo simulations will assess risks and adaptation strategies across various scenarios. A comparative analysis will then evaluate the effectiveness of these strategies. Finally, an interactive web application will be developed to allow users to perform scenario analysis and receive tailored insights.

Progress 1

Mentor Remark

	Marks	10	10	10	10	10	10	10	15
	Roll Number	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Step 5**	**Step 6**	**Step 7**	**Internal**
	Date/Mentor Signature								

Progress 2

Mentor Remark

	Marks	10	10	10	10	10	10	10	15
	Roll Number	**Step 1**	**Step 2**	**Step 3**	**Step 4**	**Step 5**	**Step 6**	**Step 7**	**Internal**
	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; Step4 : 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