



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL
(An Institute of National Importance)

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M Tech Dissertation- Monthly Progress Report

Student Details

Roll Number	24CSMIR23
Name of the Student	Udit Jain
Program & Specialization	M.Tech. (CSE)
Academic Year	2025-26
Semester	Odd Sem
Supervisor	Prof. Mangubala Bisi
Month	November

Monthly Progress details:

Title	Reliability of Explainable AI on Software Defect Detection (SDD)				
Problem statement/Objectives	The challenge is to design a new parameter to check the reliability of XAI in Software Defect Detection where unstable explainability can be risky.				
Progress Summary	<ul style="list-style-type: none">Completed WSK Testing for all model - dataset combinations.Identified that some features are highly correlated & may be affecting SHAP stability & reliability score.Started brainstorming strategies to boost reliability scores, including feature - correlation pruning & cross-project evaluation.				
Planned work for next month	<ul style="list-style-type: none">To perform correlation based feature elimination & test its impact on reliability scores.To execute cross project reliability analysis for all models.				
Any Publication (Conference paper/ Journal paper/ Book Chapter etc.)	—				
TA duties attended (weekly basis)	—				
Supervisor remarks (please Tick one of the options) about the student's project progress.		Excellent		Satisfactory	
		Very Good		Marginal	
		Good		Poor	
	<u>Comments (if any):</u>				


Signature of the Student

Signature of the Supervisor/Guide