



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

Address: NIT Campus, Warangal, Telangana State, India, Pin Code – 506004.
 website: www.nitw.ac.in/department/cse/, e-mail: cse_hod@nitw.ac.in, Phone:+91 870 246 2700/2701

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. Manjubala 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 WSR 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.	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Excellent</td> <td>Satisfactory</td> <td></td> </tr> <tr> <td>Very Good</td> <td>Marginal</td> <td></td> </tr> <tr> <td>Good</td> <td>Poor</td> <td></td> </tr> </table> <p><u>Comments (if any):</u></p>				Excellent	Satisfactory		Very Good	Marginal		Good	Poor	
Excellent	Satisfactory												
Very Good	Marginal												
Good	Poor												


Signature of the Student


Signature of the Supervisor/Guide