



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/departments/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. Mangubala Bisi
Month	January

Monthly Progress details:

Title	Reliability of Explainable AI (XAI) on Software Defect Detection.																
Problem statement/Objectives	The challenge is to design a new parameter to check the reliability of Explainable AI (XAI) results on Software Defect Detection where unstable explainability can be risky.																
Progress Summary	Baseline Svm defect prediction approach was implemented under a cross-project evaluation setting. A total of 12 cross-project dataset pairs and 8-machine/deep learning models were evaluated. Standard performance and reliability metrics were computed across all combinations and the overall Reliability index obtained was 0.87.																
Planned work for next month	Implementation of proposed reliability approach and then WSR testing for comparison.																
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><tr><td>Excellent</td><td><input type="checkbox"/></td><td>Satisfactory</td><td><input type="checkbox"/></td></tr><tr><td>Very Good</td><td><input type="checkbox"/></td><td>Marginal</td><td><input type="checkbox"/></td></tr><tr><td>Good</td><td><input type="checkbox"/></td><td>Poor</td><td><input type="checkbox"/></td></tr></table>				Excellent	<input type="checkbox"/>	Satisfactory	<input type="checkbox"/>	Very Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Good	<input type="checkbox"/>	Poor	<input type="checkbox"/>	<u>Comments (if any):</u> —
	Excellent	<input type="checkbox"/>	Satisfactory	<input type="checkbox"/>													
	Very Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>													
	Good	<input type="checkbox"/>	Poor	<input type="checkbox"/>													


Signature of the Student

Signature of the Supervisor/Guide