



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	24CSM1R23
Name of the Student	Udit Jain
Program & Specialization	M.Tech. (CSE)
Academic Year	2025-26
Semester	Odd Sem
Supervisor	Prof. Marjubala 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 Slew defect prediction approach was implemented under a cross-project evaluation setting. A total of 12 cross-project dataset pairs and 8-machine 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 team 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 border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Excellent</td> <td>Satisfactory</td> <td style="text-align: center;">✓</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> Satisfactory</p>			Excellent	Satisfactory	✓	Very Good	Marginal		Good	Poor	
Excellent	Satisfactory	✓										
Very Good	Marginal											
Good	Poor											

Signature of the Student

Signature of the Supervisor/Guide