COMPARATIVE ANALYSIS OF MULTI-CLASS SEMANTIC SEGMENTATION MODELS FOR PIPELINE CORROSION DETECTION

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UNDERGRADUATE THESIS

Submitted to
Universitas Pendidikan Ganesha
To fulfill one of the requirements in completing
Bachelor of Computer Science Program

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DECLARATION

I hereby declare that the written work titled "**Comparative Analysis of Multi-Class Semantic Segmentation Models for Pipeline Corrosion Detection**" and its entirety are genuinely my original work, created without engaging in plagiarism or improper citation practices that violate the ethical standards of the scientific community. By making this declaration, I accept full responsibility for any sanctions that may be imposed if any violations of scientific ethics or challenges to the authenticity of my work are later discovered.

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The one that makes a statement

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MOTTO

"Weather the storm, grow through the process, reap the harvest"

FOREWORD

The author conveys appreciation to God Almighty for His bounties, attributing the completion of the undergraduate thesis titled "Comparative Analysis of Multi-Class Semantic Segmentation Models for Pipeline Corrosion Detection" to His favor. The purpose of this undergraduate thesis is to complete the criteria for Universitas Pendidikan Ganesha's Bachelor of Computer Science degree.

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The author understands that this undergraduate thesis is imperfect and may contain defects and errors due to the author's limited talents and experience. Thus, constructive opinions and recommendations from diverse parties are much appreciated. It is anticipated that this undergraduate thesis may help those who require it.

Singaraja, March 24, 2025

Author

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