

PREFACE

Alhamdu illahi rabbil 'alamin, praise to Allah, the most gracious, the most merciful, with the mercy and guidance, the author has successfully finished this thesis with the title of **"SEMANTIC MAP GENERATION VIA CAMERA AND LIDAR FUSION FOR REAL-TIME OBJECT DETECTION WITH DEEP LEARNING"**. The author compiled this thesis to be filled in the graduation requirements in Program of Master of Electrical-Telecommunication Engineering, School of Electrical Engineering, Telkom University.

Some parts of this thesis also have been submitted to The 1st International Conference on Smart Mechatronics (ICSMech 2024) – "Transformative Innovations in Smart Mechatronics: Bridging AI, Robotics, and IoT for a Sustainable Future".

The suggestions for improving this thesis are highly appreciated. Hopefully, this thesis is expected to be improved and provided contributions for the reader and Indonesia especially for education and research of telecommunication on the future.

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