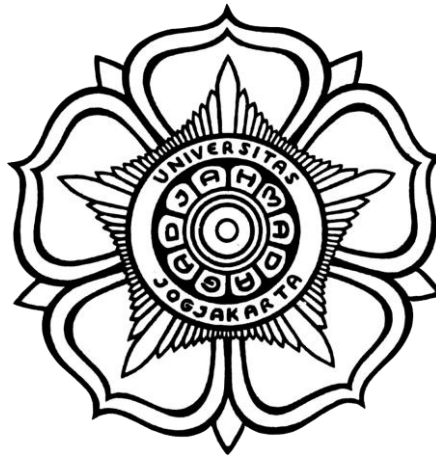


THESIS

**ANALYSIS OF RAIL BUCKLING PREVENTIONS STRATEGIES
IN THE CONTEXT OF CLIMATE CHANGE IN THE UNITED KINGDOM**

Thesis is submitted in partial fulfilment of the requirements
for the Master of Science (M.Sc.) degree
in the Master's Programme in Transport System and Engineering



JOKO SANTOSO
22/499538/PTK/14550

**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING
UNIVERSITAS GADJAH MADA
YOGYAKARTA**

2025

APPROVAL SHEET

The Supervisory Team approves this thesis

ANALYSIS OF RAIL BUCKLING PREVENTION STRATEGIES IN THE CONTEXT OF CLIMATE CHANGE IN THE UNITED KINGDOM

Written by:


Joko Santoso

22/499538/PTK/14550

Supervisor:

Ir. Latif Budi Suparma, M.Sc., Ph.D.

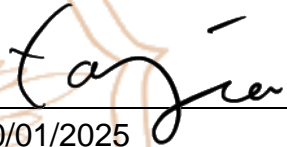
NIP. 19650509 199103 1 001

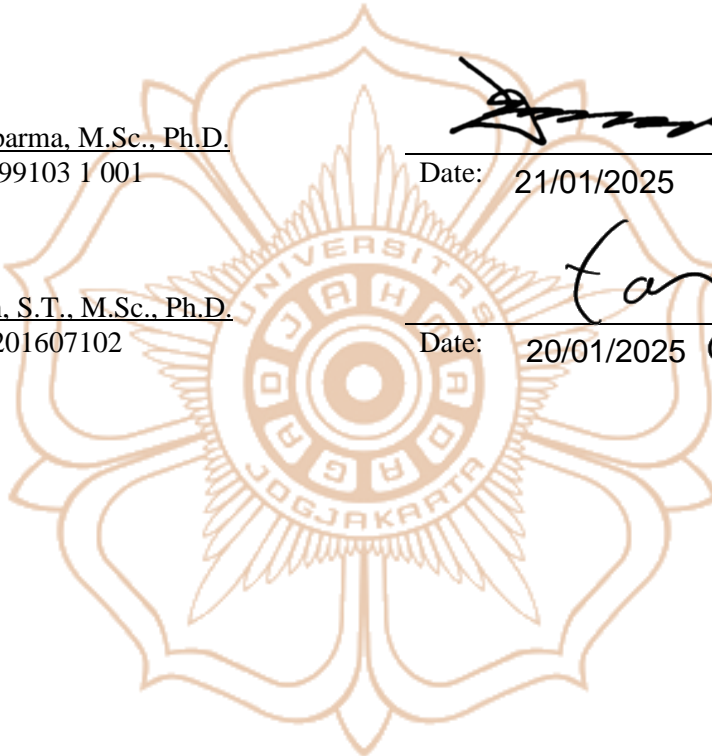

Date: 21/01/2025

Co-Supervisor:

Ir. Taqia Rahman, S.T., M.Sc., Ph.D.

NIP. 111199007201607102


Date: 20/01/2025



ACKNOWLEDGMENT SHEET

THESIS

ANALYSIS OF RAIL BUCKLING PREVENTION STRATEGIES IN THE CONTEXT OF CLIMATE CHANGE IN THE UNITED KINGDOM

prepared and written by:


Joko Santoso
22/499538/PTK/14550

This thesis has been defended before the Examiners Committee
on 17 January 2025

Supervisor:

Ir. Latif Budi Suparma, M.Sc., Ph.D.

NIP. 196505091991031001


Date: 21/01/2025

Co-Supervisor:

Ir. Taqia Rahman, S.T., M.Sc., Ph.D.

NIP. 111199007201607102


Date: 20/01/2025

Examiner:

Ir. Suprpto Siswosukarto, Ph.D., IPM.

NIP. 196504071992031003


Date: 20.01.2025

This thesis is submitted in accordance with the requirements for
the degree of Master of Science on
Date January 2025

Approved by,
Head of Civil and Environmental Engineering Department


Prof. Ir. Teuku Faisal Fathani, Ph.D., IPU.
NIP. 197505261999031002