

**IMPROVING RELIABILITY, AVAILABILITY, MAINTAINABILITY,
AND SAFETY (RAMS) IN TRAIN DISPATCHING
TELECOMMUNICATION NETWORKS THROUGH REDUNDANCY
Case Study of PT. Kereta Api Indonesia (persero), Divisi Regional I Sumatera Utara**

THESIS

Thesis is submitted in partial fulfilment of the requirements for the degree of the Master of
Science at Master Programme in Transport System and Engineering



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**MASTER PROGRAMME
STUDY PROGRAMME IN TRANSPORT SYSTEM AND ENGINEERING
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APPROVAL SHEET

The Supervisor Team approves the thesis

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