

**Realizing 180 kW PWM Rectifier with Minimum Voltage  
And Current Ripple For Battery-Connected Hybrid Train**

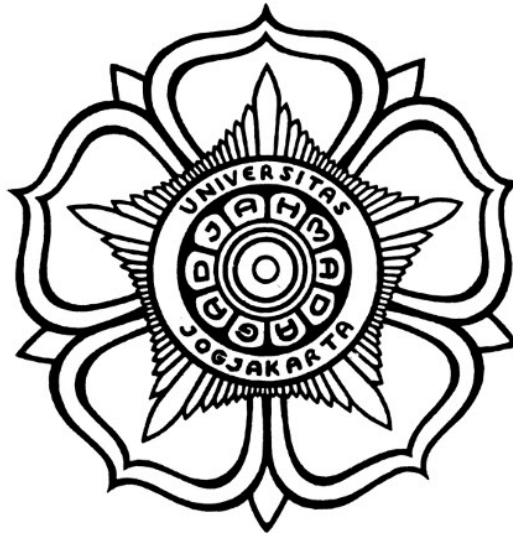
**Thesis**

submitted in partial fulfillment of the requirements  
for the degree of master

Electrical Engineering Program

Electric Power System Concentration

Department of Electrical Engineering and Information Technology



proposed by

**Musyaffa' Ahmad**  
**21/489153/PTK/14243**

To

**GRADUATE PROGRAM**  
**FACULTY OF ENGINEERING**  
**UNIVERSITAS GADJAH MADA**  
**YOGYAKARTA**  
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## THESIS

### REALIZING 180 KW PWM RECTIFIER WITH MINIMUM VOLTAGE AND CURRENT RIPPLE FOR BATTERY-CONNECTED HYBRID TRAIN

Written by

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Has been defended in front of the Boad Examiners

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