

**ANALYSIS OF THE HARMONIC IMPACT GENERATED BY  
VARIABEL FREQUENCY DRIVE ON POWER QUALITY AND  
LOSSES AT COAL MILL AREA SUBSTATION 448 INDARUNG 5  
PT. SEMEN PADANG**

**THESIS**

*Submitted to Fulfill the Requirements to  
Bachelor Degree (S-1) in the Department of Electrical Engineering  
Faculty of Industrial Technology  
Bung Hatta University*

**By :**

**REISA AURELLIA FRASARI**

**NPM : 1610017111016**



**ELECTRICAL ENGINEERING DEPARTMENT  
INDUSTRIAL TECHNOLOGY FACULTY  
BUNG HATTA UNIVERSITY**

**PADANG**

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