

# RANCANG BANGUN DAN ANALISA MODUL PRAKTIKUM MEDAN ELETROMAGNETIK

Nama Mahasiswa : Made Novendra

Nim : 3204161113

DosenPembimbing : Wan M. Faisal, ST.MT

## ABSTRACT

*In this research, making a prototype of the magnetic field practicum module was made. The initial stage of the design of this building was to collect data, manufacture transformer modules, relays, electromagnets, and test each practicum module. Based on the results of testing the power plant prototype with the electromagnetic field practicum module, it is designed to test the electromagnetic fields that occur in transformers, relays, and electromagnets with different designs from the modules at the Bengkalis State Polytechnic to distinguish the magnetic field results. Based on the design and analysis of the electromagnetic field practicum module for a transformer module with a voltage source of 220 volts, the number of turns is 880 turns and the output is 21 volts, the number of turns is 90 turns, the calculation results are 21 volts and the measurement results are 22.5 volts. The percentage of errors obtained is 0 %. The electromagnetic module is designed with a voltage of 10 volts. The electromagnet works at a voltage of 10 volts where a magnetic field occurs in the coil. The relay module works at a voltage of 6 volts, a magnetic field occurs that attracts the relay in the normally open (NO) or normally close (NC) position.*

**Keywords:** *Transformer, electromagnetic, relay.*