

**THE DESIGN OF THE PLC CP1E AND HMI NB7W-TW00B
TRAINER KIT ELECTRICAL ENGINEERING MAJORING
BENGKALIS STATE POLYTECHNIC**

Name : Arif Budiman
Student ID Number : 3103171138
Advisor : Khairudin Syah, ST., MT

ABSTRACT

Trainer kit PLC CP1E and HMI NB7W-TW00B is a practicum module designed for students majoring in electrical engineering PLC practicum courses, in this module using PLC CP1E which has 30 I/O, between 18 inputs and 12 outputs, this PLC can only use inputs whose values are digital and cannot use inputs whose values are analog. The trainer kit module is also equipped by HMI as a controller and visualization of a status that is characteristic real time. In this final project the trainer kit module performs the first test by running a four-junction traffic light using 3 inputs and 12 outputs and the success rate of the test results is 100%. The testing of these two modules runs an intelligent program carefully using 3 inputs and 4 outputs and the success rate of the test results is 100%. The third test runs the conveyor program using 5 inputs and 5 outputs and the success rate of the test results is 100%.

Keyword : *Trainer kit, PLC, HMI.*