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Advanced Programmable Logic Controllers an Automation Lab Design and Implementation

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**"ADVANCED PROGRAMMABLE LOGIC CONTROLLERS AN AUTOMATION LAB * DESIGN
AND IMPLEMENTATION"**

BY

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APRIL 25, 2005

**PREPARED FOR
CPET/ECET 491 SENIOR DESIGN PROJECT II
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ABSTRACT

The programmable logic controller (PLC) lab at IPFW was not designed to be very user-friendly and was not prepared for expansion. Because of this a new setup needed to be designed. This setup would allow the PLC equipment to be easily accessed and prepare for future expansion.

The existing equipment was still useable for the current level of classes at IPFW. The problem is that if the PLC classes at IPFW start to increase the level of design for their projects, they will need to purchase new equipment to serve there needs. Therefore the existing equipment needed to be tested and fixed and the new lab had to be able to handle the addition of new equipment.

The old wooden boards that the equipment was attached to have been done away with and been replaced with new metal stands. These stands not only provide room for future expansion but also have wheels. Since there is not a set lab that is used for the PLC class this will allow the equipment to be easily moved around the building.

The existing equipment was repaired, new power supplies were ordered and everything was mounted on the new stands. The PLC lab at IPFW is now very user-friendly and is prepared to move into the future.

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