Executive Summary

A speaker timing system has been designed and built to be used at the Western Protective Relay Conference (WPRC) to help the conference run more smoothly and more efficiently. The system consists of two identical units (Unit A and Unit B) with each unit consisting of a master station and a slave station. Each station has a countdown timer and indicator/warning lights. The master station is used for programming timing parameters to control the slave station. The slave station is placed near the speaker where he/she can always see it so they continuously know their remaining time. The speaker timing system will aid the moderators in the task of keeping the dual presentation sessions synchronized and on time.

The main challenge of this project has been completing the development and testing phase and delivering the system to the WSU Center for Distance and Professional Education (who sponsors the WPRC) by the deadline of October 13, 2006. We delivered the system on October 12, 2006.

The allotted budget for the system was $1750; $1000 from the WSU Center for Distance and Professional Education and $750 from the College of Electrical and Computer Engineering at U of I. We have generated a Bill of Materials for the components we have purchased for the system, plus additional items, and the total cost of the project is $1580; each unit (master and slave stations) cost approximately $625.

The main factors considered when choosing system components were minimum cost, optimum performance, development time, and available support. The speaker timing system has been built with high quality components that will perform well. The WPRC will be able to use the system for many years.