

Abstract

The lecture building is a central of learning and teaching at an institution. There are many activities doing at lecture building. At the lecture building, there is a central room that used to process administration activities and the facilities of the building. For example printing of attendance list, the damage complain, or request of learning facilities.

However, there are problems at the building if the request at the server has to do manually. If the lecturer or the students has been in the each of their class but want to dealing with the central of the building need to do manually, they have to come to the central of the building directly. It was felt less efficient because it could disturb the learning activities.

In this research has been done the design and implementation information data delivery tool based on microcontroller. These systems consist of some slaves, which is connected to the master at the central of building. Each of slave likened each of class that connected to the master. There is a push button at each of slave as the user request giver. The master is connected directly with the PC server that was installed support software, visual basic and SQL Server as an interface and database.

In this final project has been measured the output voltage from microcontroller was 4.6 volt, this result meet requirement with the voltage that used for microcontroller to work. The lengths of cable are 0.5 meter, 1 meter, 1.5 meters, and 2 meters. From the result, data information could be transmitted with different time delay. At 0.5 meter and 1 meter of cable, data could be transmitted less than 0.5 second of delay. Then for 1.5 meter and 2 meters of cable, data could be transmitted less than 1 second of delay. For all the result, the system of this final project has been done successfully.

Keywords: *Microcontroller, master, slave, database*