Development Of Tele-Monitoring Attendance System Using RFID and Photo-Cell

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ABSTRACT:

This paper presents a tele-monitoring system to recognize the attendees when entering a certain place without a physical contact using RFID, tags and Photo-cells. The RFID is used to recognize the tags when it's holders entered the place area, however the phot-cells will help to determine if there are really persons passed through the system or not. Also the photo cells helps to determine the direction of the attendees either going in or out from the monitored place. Five data sets are collected instantly for each cards namely are student name, ID number, date, time, status and IN/OUT. A small scale prototype has been constructed to test the concept of RFID-Photocell attendance system which is consisting of RFID, two photo-cell, Arduino and PLX-DAQ. The process of taking attendance will start when the attendees with tags pass through the RFID reader range where their tags code are compared with the database. If the database match with the code, the information of the attendee like name, ID number, date and time will be shown in the Excel file. For more accurate attendance system, the photo-cell will be incorporated with RFID to count how many persons pass through the system and detect if there is a cheating during attendance operation such as two tag's cards are located with one person. The photo cell will also detect the direction of the attendees either going in/out to help for tracking continuously the attendees. As a result, this project will assist for taking the attendance more confidentially, automatically and easily.

Keywords: RFID; Photo-cell; Tags; Arduino