

RADIO FREQUENCY IDENTIFICATION (RFID) BASED ATTENDANCE SYSTEM WITH AUTOMATIC DOOR UNIT

Ononiwu G. Chiagozie

Department of Electrical/Electronic Engineering,
Federal University Of Technology, Owerri,
NIGERIA.

Okorafor G. Nwaji.

Department of Electrical/Electronic Engineering,
Federal University Of Technology, Owerri,
NIGERIA.

nwaji2000@yahoo.com

ABSTRACT

Radio-frequency identification (RFID) is a technology that uses radio waves to transfer data from an electronic tag, called RFID tag or label, attached to an object, through a reader for the purpose of identifying and tracking the object. RFID technology which is a matured technology that has been widely deployed by various organizations as part of their automation systems. In this study, an RFID based system has been built in order to produce a time-attendance management system. This system consists of two main parts which include: the hardware and the software. The hardware consists of the motor unit and the RFID reader. The RFID reader, which is a low-frequency reader (125 kHz), is connected to the host computer via a serial to USB converter cable. The Time-Attendance System GUI was developed using visual basic.Net. The Time-Attendance Management System provides the functionalities of the overall system such as displaying live ID tags transactions, registering ID, deleting ID, recording attendance and other minor functions. This interface was installed in the host computer.

Keywords: Radio-frequency identification, RFID technology, radio waves