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RFID BASED TRACKING SYSTEM FOR INDICISIVENESS AREA (MINING SECURITY)

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Abstract: This paper depicts the design of a radio frequency identification system for mining security that named as the mining RFID Tracking System (MRTS). It is designed to track the miner's in indecisiveness area. The MRTS consists of RFID active tags and RF module, the active tag made up of a single electronic chip with the intention of provider and unique identity for each miner's. Then RF module which having both characteristics of transmission and reception. This is known as the transceiver also called as a reader. The reader continuously reads the tag simultaneously and transmits that data to next RF module and so on. Finally the readied data from the tag that would be accessible through the readers to visual basic software, it analyzes and process the received data. The database that saved all the readings and user interface and enables access to the data on the server side of the system. Communication between the active tags and the server done through the RF Transmitter & RF Receiver.

KEYWORD – RFID Transmitter and Receiver module (TX/Rx), Arduino UNO, Active Tag, Visual Basic.

1. INTRODUCTION

In the modern world, Radio Frequency Identification Systems (RFID) have gained a great interest in industry and the academic world. This interest has lead to the use of RFID technology in a variety of applications such as industry automations, smart parking, object tracking information systems, library management systems and airline baggage identification. An RFID term for technologies that are used for auto -identification of people or object using radio waves. A Mining security system is proposed by radio frequency identification active tag, it's known as MRTS. This system would enable the identification of each miner and track the real-time location of the miners in the uncovering age area. This method used three essential parts, radio transceiver module (reader), RFID active tag and data monitoring station. Each mining labors are provided to the unique identity of active tag that has made up of a single electronic integrated chip. The electronic chip internally bringing together to a power supply. The radio transmitter/receiver module unyielding to the particular orbit. The reader has sensible to the miners with the help of active tags. The reader transmits its sensed data's to the another reader. Due to this, the reader doing both transmitting and receiving operations. The catch information is