SKR ENGINEERING COLLEGE

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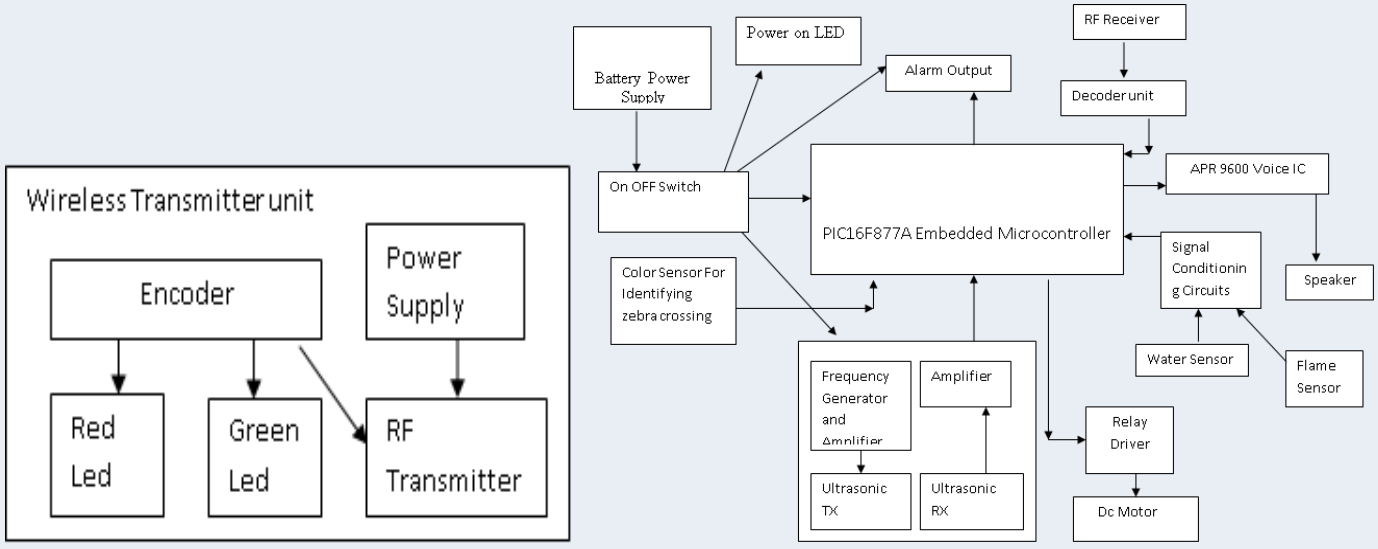
Department of Electronics and communication Engineering

PROJECT TITLE	**SELF GUIDED PEDESTRIAN CROSSING ROBOT FOR BLIND**
STUDTENT NAMES	Vetrivell.E Vignesh.N.S G.SureshKrishna
SUPERVISOR	Mrs.Malligeshwari, Assistant Professor
OBJECTIVE	This model is developed mainly to help blind person to walk on the roads. Features are traffic signal monitoring and voice alert system.
ABSTRACT/IDEA	This Project comprises of a Hardware mechanical model which is controlled by the electronic circuits to assist a blind person. This mechanical model is attached with the walking stick of the blind person. Person will have a switch control on the stick to control the model. The model will move automatically. This model helps the blind person to walk on the roads. The walking stick has built in flame sensor, obstacle sensor and a temperature sensor into it. It will give alarm signal when it finds an obstacle or flame or water. The stick is constructed with the help of stepper motors. The main advantage of this project is, it includes a zebra crossing detection. It also includes a traffic signal monitoring through wireless units and stops the movement automatically when the signal is green. It also alerts the person by generating voice output.
TECHNOLOGY USED	1.MPLab software 2. Embedded C

WORKING STEPS	1. Obstacle detection 2. Navigation 3. MTC bus identification
REQUIREMENTS	1. Pic Embedded Microcontroller PIC 16F877 2. Battery for Power Supply 3. Ultrasonic Range Finder Sensors 4. APR 9600 Voice Recording and Playback IC 5. Color sensor for identifying Zebra crossing 6. Wireless RF Receiver unit 7. Wireless RF Transmitter unit.

SYSTEM ARCHITECTURE



BENIFITS	1. System for the blind people to navigate independently. 2. The blind person can travel freely in specific environment without depending on others. 3. Detecting obstacles this design consist of ultrasonic sensor and vibration sensor.

SCREEN SHOTS

Ultrasonic sensors

APR9600 circuit board