



NARNARAYAN SHASTRI INSTITUTE OF TECHNOLOGY

(Department of Electronics & Communication)

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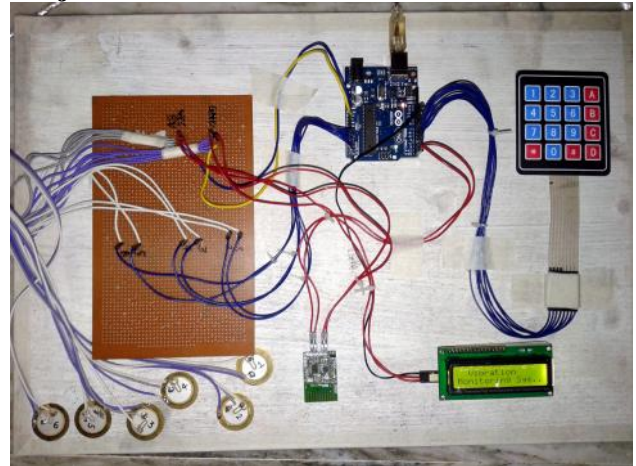
External Guide :-



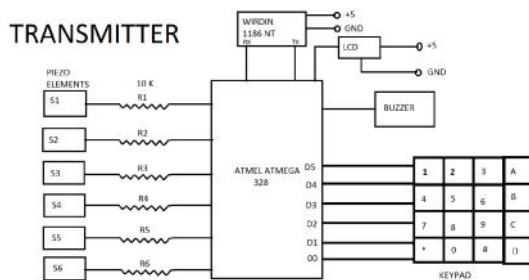
Project Title:- Multichannel Vibration Analyzer Using WIRDIN And MATLAB

Abstract:- Vibration is the biggest enemy for the manufacturing industries, so it becomes necessary to monitor live vibration signatures. Each machine will be having one analyzer, so can have a mesh network of multiple analyzers. In order to make it Wireless, We are going to use WIR-1186 Wireless Module which operates on radio frequency. Some sensors should be attached to the transmitter side, which are going to send some physical quantities serially. Transmitter side ARDUINO UNO is used. Receiver sides WIR-1186 are used. For the data communication we are using LCD interfacing using CP2102.

Project Photo:-



Block /circuit Diagram:-



Major Hardware components used:-Arduino Atmega 2560, 6 Piezoelectric sensors(2 km range), 2 Wirdin 1186,7-12 volts SMPS Battery Serial LCD, 4x4 Keypad, CP 2102, Computer.

Software used:-Matlab.

Project Application:-

- (1) Men power is not required because meshing network is used
- (2) Quality testing and inspection & Product development
- (3) Machinery analysis and troubleshooting
- (4) Building vibration & Easy vibration analysis

Approx. Project Cost:-5000 /-