



# NARNARAYAN SHASTRI INSTITUTE OF TECHNOLOGY

(Department of Electronics & Communication)

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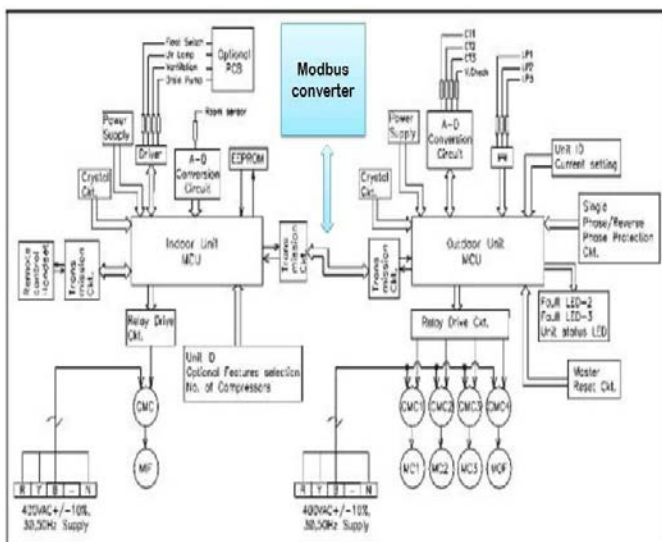
## Project Title:- RS485 PROPRIETARY PROTOCOL TO MODBUS OPEN RTU PROTOCOL CONVERTER

### Abstract:-

A kind of design which is about MODBUS protocol converter has been introduced in this paper. We mainly used PIC18F4520 Microcontroller to realize the data conversion between the main control equipment of MODBUS Net and Remote Terminal Unit (RTU). And eventually, we have used this kind of protocol converter to communicate MODBUS which used to monitor computer system automatically. The whole system is used in 220KV main transformer's air-cooled control of Electric Power system.

This is intelligent converter from proprietary RS485 protocol to Modbus Open RTU over RS232 protocol. This converter should be able to get running parameters data from max. 16 Indoor units & 16 Outdoor units & store the parameters values in memory.

### Block /circuit Diagram:-



### Major Hardware components used:-

LED INTERFACE, EEPROM INTERFACE, ULN AND RELAY INTERFACE, RS232 (USART) INTERFACE, FIRE SENSING INTERFACE, SWITCH INTERFACE.

Software used:- Mtester and MP Lab.

### Project Application:-

- (1) Having developed this converter, it will serve as a bridge between the BMS and the Takumi series.
- (2) Thus the company will be able to deploy their ductable ACs in commercial complexes, Malls ,large buildings ,etc.
- (3) As a result their sales will go high. Consequently, they would give a tough competition to other investors. Thus, their monopoly will be removed from the market.

Approx. Project Cost:- 13000 Rs. (Including all)

### Project Photo:-

