## **MAS DATA TECHNOLOGIES**

# INDUSTRY READY ENGINEERS (INTERNSHIP FOR EEE/ ECE/ MECHATRONICS/ EIE)

## **Syllabus:**

### **EMBEDDED COURSE-**

- 1. WHAT IS MEANT BY EMBEDDED SYSTEMS?
- 2. BASIC ELECTRONICS AND EXPLANATION
- 3. HOW TO CHOOSE MICROCONTROLLER

#### MICROCONTROLLER INTERFACING -

- 1. LED INTERFACING
- 2. 7 SEGMENT DISPLAY INTERFACING
- 3. LCD INTERFACING
- 4. TIMER/COUNTER
- 5. INTERRRUPT
- 6. PWM
- 7. UART
- 8. ADC INTERFACING
- 9. SPI INTERFACING
- 10. I2C INTERFACING
- 11. CAN MODULE INTERFACING
- 12. COMPARATOR MODULE INTERFACING
- 13. BUTTON (OR) SWITCH INTERFACING
- 14. EEPROM

#### APPLICATION-

- 1. KEYPAD INTERFACING
- 2. BLUTOOTH INTERFACING
- 3. GSM INTERFACING

- 4. ZIGBEE INTERFACING
- 5. SENSOR INTERFACING

#### PCB DESIGNING-

- 1. PCB NEED
- 2. SCHEMATIC DIAGRAM
- **3.** PCB DESIGNING(Single & double side layer)
- 4. HOME MADE PCB ETCHING

## **Short Time Internship in Multiple Software-**

## **Syllabus:**

- **1.** Basics of Electronics and its components
- 2. Designing and Simulating Circuits
- 3. PCB Designing and Hand-made PCB manufacturing
- **4.** Troubleshooting of Components
- 5. C programming
- **6.** Embedded C with basic Concepts
- 7. Designing and simulation of Embedded Controller using Proteus
- 8. MATLAB/LABVIEW software for industrial oriented project.
- 9. Basics of Internet of Things
- 10. Real time mini project
- 11. Main project supporting