EMBEDDED SYSTEMS 4.0

A Unique Curricullum Designed for the engineering aspirants of ENTC, ETC, EEE freshers & relevant experienced professionals
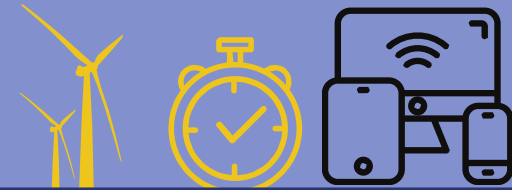
🌐 WWW.WLAI.IN

✉ INFO@WLAI.IN

🟢 +91 7028777511

AN ISO 9001 : 2015 CERTIFIED COMPANY

BASIC ELECTRICAL & ELECTRONICS

- AC AND DC
- VOLTAGE CURRENT
- POWER
- OHMS LAW
- ACTIVE AND PASSIVE COMPONENTS
- VOLTAGE DIVIDER
- CURRENT DIVIDER
- 555 TIMER
- LOGIC GATES
- SENSORS AND TRANSDUCERS

INTRODUCTION TO EMBEDDED SYSTEMS

- ARCHITECTURES
- COMMUNICATIONS
- BUSES
- SYNCHRONOUS AND ASYNCHRONOUS
- RISC AND CISC
- ENDIANS
- TYPES OF MEMORIES
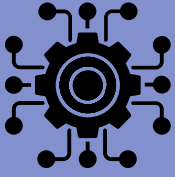- APPLICATIONS OF EMBEDDED SYSTEMS
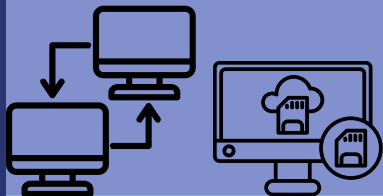
INTRODUCATION TO C LANGUAGE

- INTRO TO C PROGRAMMING
- OPERATORS AND EXPRESSIONS
- CONTROL STATEMENTS
- LOOP STATEMENTS
- FUNCTIONS
- ARRAYS
- POINTERS
- STRUCTURE AND UNION
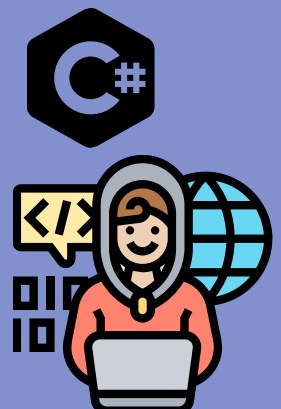
8051 MICROCONTROLLERS

- ARCHITECTURE
- PIN FUNCTIONS
- PROGRAMMING USING KEIL IDE
- UPLOADING FLASH USING USBASP
- INTERFACINGS : LED, SWITCHES, LCD DISPLAY,
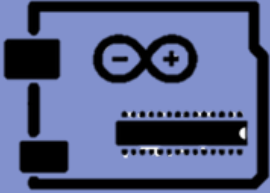 7 SEGMENT DISPLAY, STEPPER MOTOR, DC MOTOR
 - TIMER
  - INTERRUPT

PIC 18F4580

- ARCHITECTURE
- PIN FUNCTIONS
- INTRO TO MPLAB XIDE
- UPLOADING FLASH USING PICKIT 3
- INTERFACINGS : LEDS,SWITCHES,
  7 SEGMENT DISPLAY , LCD DISPLAY, DC MOTOR ,
  STEPPER MOTOR.
- ANALOG TO DIGITAL CONVERSION (ADC)
- TIMER
- INTURRUPT
- CAPTURE / COMPARE / PWM (CCP MODULES)
- SERIAL COMMUNICATION: UART, I2C, SPI
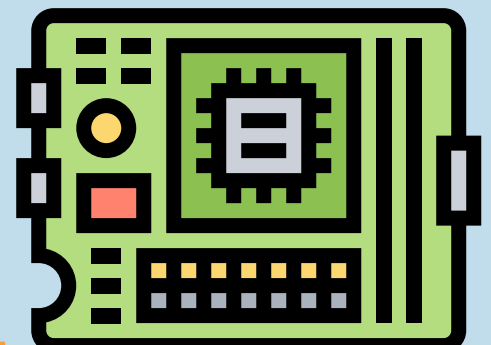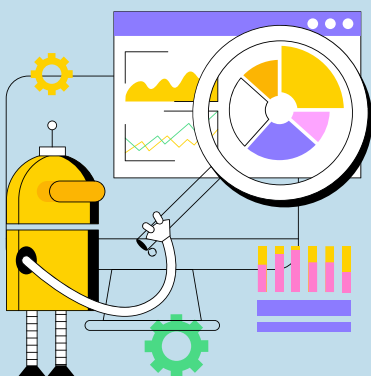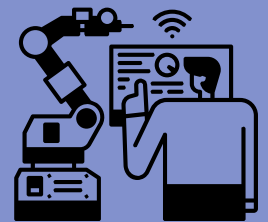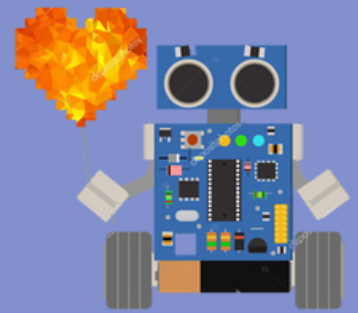
ARDUINO UNO

- FEATURES
- PIN FUNCTIONS
- PROGRAMMING USING ARDUINO IDE
- INTERFACINGS : LED, SENSORS INTERFACING, ANALOG INPUT AND OUTPUT, LCD DIAPLAY, SERIALCOMMUNICATIONS, DC MOTOR, 7 SEGMENT DISPLAY, STEPPER MOTOR, SERVO MOTOR
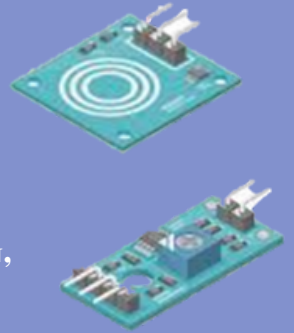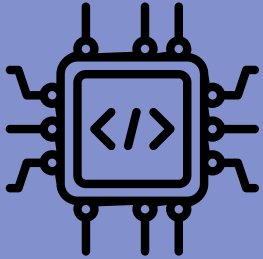
INTERNET OF THINGS (IOT)

- BASICS OF IOT
- INTRODUCTION TO ESP 8266
- PIN FUNCTIONS
- PROGRAMMING USING ARDUINO IDE
- INTERFACINGS : LED, SENSORS, LED DISPLAY, LCD DISPLAY, DC MOTOR, SERVO MOTOR.
- SERIAL COMMUNICATIONS
- HINGSPEAK
- ADAFRUIT IO
- BLYNK

Smart Home
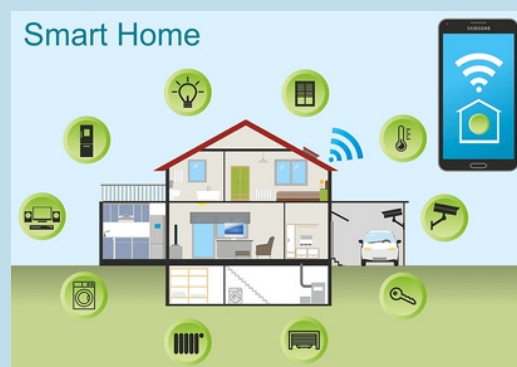
ARM CONTROLLER

- INTRODUCTION TO ARM
- TYPES OF ARM CONTROLLERS
- FEATURES
- PIN FUNCTIONS
- INTRODUCTION TO STMCUBEIDE
- INTERFACINGS : LED, SENSORS , LCD DISPLAY, 7 SEGMENT DISPLAY, DC MOTOR , STEPPER MOTOR, SFRS, ADC TIMER, INTURRUPT, SERIAL COMMUNICATIONS.
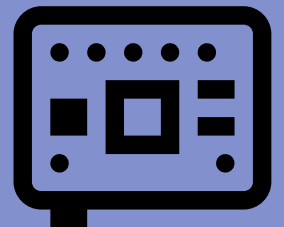
PYTHON PROGRAMMING

- INTRO TO PYTHON
- PYTHON OPERADORS AND EXPRESSIONS
- CONTROL STATEMENTS
- LOOP STATEMENTS
- ARRAYS
- TUPLE
- FUNCTIONS
- THONNY IDE
- IDLE PYTHON
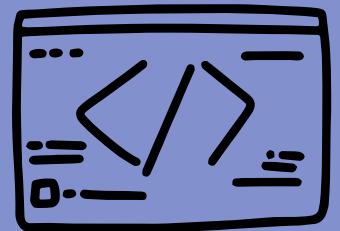
RASPBERRY PI

- INTRODUCTION TO RASPBERRY PI
- FEATURES
- PIN FUCTIONS
- ACCESSING GPIO PINS
- DOWNLOADING AND INSTALLING RASPBERRY PI OS
- INTERFACINGS : LED, SENSORS, DC MOTOR, SERVO MOTO STEPPER MOTOR.
- CAMERA

PCB DESIGNING (SOFTWARES)

- ALTIUM
- OrCAD
- EAGLE
- PROTEUS
  -
    - INTRODUCTION TO PCB
    - TYPES OF PCB
    - MATERIALS OF PCB
    - SELECTION OF MATERIALS
    - TYPES OF ELECTRONIC COMPONENTS
    - PACKAGES OF COMPONENTS
    - LAYERS OF PCB
    - THROUGH HOLE AND SMD COMPONENTS
    - EMI AND EMC
    - COUPLING
    - POWER PLANES
    - EARTHING AND GROUNDING
    - IPC STANDARD
    - DIY PCB AND MASS PRODUCTION
    - METHODS OF EMC
    - KEEPOUT REGIONS
    - GERBER FILES
    - PCB TERMINOLOGIES
    - DRC AND ERC
    - PART IDENTIFICATION
    - REQUIREMENTS FOR COMPONENTS
    - DATA SHEET UNDERSTANDING
    - PRIMARY AND SECONDARY IDENTIFICATION
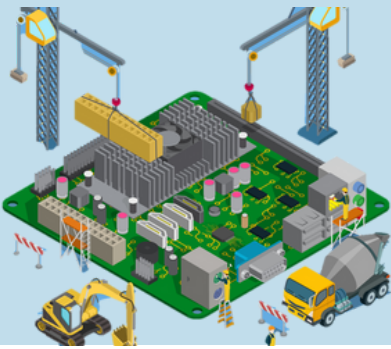
TRAINING PROGRAMS IN EMBEDDED SYSTEMS

CERTIFIED IN EMBEDDED SYSTEMS	1 MONTH
ADVANCE TRAINING	2 MONTHS
POST GRADUATE DIPLOMA IN EMBEDDED SYSTEMS	3 MONTHS

GREATEST SKILL, WE ARE HERE

Address : No 106, First Floor, Finswell, Sakore Nagar, Viman Nagar, Pune, Maharashtra - 411014

Website : www.wlai.in
Email : info@wlai.in
Call :+91 7028777511

A RESEARCH & DEVELOPMENT DIVISION OF WHITELINES GROUP OF COMPANIES