K. RAMAKRISHNAN COLLEGE OF ENGINEERING

(Approved by AICTE & Affiliated to Anna University)Tiruchirappalli – 621 112
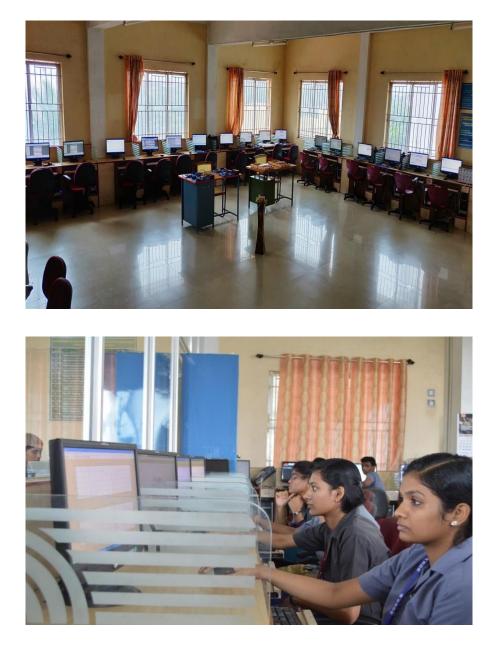**Accredited by NAAC with 'A' Grade- ISO 9001: 2015 Certified Institution**

EMBEDDED LABORATORY

Laboratory In- charge: Mr. R. Balamurugan AP/ECE

Technical supporting staff: Ms. A. Ramya Krishnan

Snapshot of Embedded Laboratory

Area of the laboratory: 97.36 Sq.m

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Major Equipment:

- IAR Embedded Workbench for 8051

- Zigbee Learning Kit-I

- Z-Debugger,USB Dongle, Sensor Modules

- ARM Cortex – M3 Board

- 16Channel 8-bit ADC Interface and Dual DAC Interface

- Calculator type keyboard interface

- I2C(Inter Integrated Circuit) Interface and Real Time Clock Interface

- Stepper Motor Interface with Stepper Motor & Power Adapter

- TXTR Interface using PT100 with ADC

- Wireless Interface and Zigbee

- Debugger cum Programmer

- QUANTA Battery and Fixed Power Supply

List of Experiments:

- Study of ARM evaluation system

- Interfacing ADC and DAC, LED and PWM

- Interfacing real time clock and serial port.

- Interfacing keyboard and LCD

- Interfacing EPROM and interrupt

- Study of Mailbox and Interrupt performance characteristics of ARM and FPGA

- Flashing of LEDS

- Interfacing stepper motor and temperature sensor.

- Implementing zigbee protocol with ARM

Beyond the syllabus experiments:

- Signal Generation using Arduino

- Sensors Activation using Arduino

Utilization of the laboratory:

- Embedded Laboratory for IV year ECE/VIII sem