



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(An Autonomous Institution Since 2010)

Approved by AICTE, New Delhi and Permanently Affiliated to JNTUK, Kakinada
Accredited by NAAC with Grade 'A' & ISO: 21001:2018, 50001:2018, 14001:2015 certified

Department of Electrical and Electronics Engineering

Accredited by NBA under Tier-I

Basic Microprocessor & Microcontroller LAB

DESCRIPTION OF LAB:

Microprocessors and Microcontrollers laboratory course helps the students to develop their knowledge on processor architecture and the programming skills. The aim of the lab is to provide hands-on training to interface I/O devices, perform A/D and D/A conversions, design traffic light etc. The skills acquired through the experiments help the students to do their projects and enhance their knowledge on the latest trends and technologies. This laboratory provides facilities for the use of 16 bit microprocessors/microcontrollers and their interfacing for different applications, using hardware and software concepts to meet industry standards.



MAJOR EQUIPMENT AVAILABLE IN LAB:

S.No	Name of the equipment	quantity
1	Writing Data To Parallel Port By Using 8051 Micro Controller Kit	1
2	8086 Micro processor Trainer Kit , Traffic Light Interface,	6
3	Traffic Light Interface	1
4	Stepper Motor Interface	1
5	8279 Interface	1
6	8255 Interface	1
7	8251/53 Interface	1
8	8259 Interface	1
9	Multi Output Supplying	5
10	Pic Micro Controller	1
11	Writing Data To Parallel Port By Using 8051 Micro Controller Kit	1
12	To Perform Arithmetic Operation By Using 8051	2
13	Dual Dac Interface For 8086 Micro Processor Kit Inculding Power Supply	1
14	8086/8088 based low cost micro controller	3
15	Power supply +5V	3
16	8051 Micro controller trainer with on board	3
17	PIC Development board with on board application	2
18	Dual Dac Interface For 8086 Micro Processor Kit	01
19	Stepper Motor Interface	01

List of experiments

B.Tech.(VI Sem) 20EE61-BASIC MICO PROCESSORS AND MICROCONTROLLERS LAB
LIST OF EXPERIMENTS
Part-1: 8086 programs:
1. Program to demonstrate data transfer operation
2. Program to demonstrate arithmetic operation
3. Program to demonstrate logical operation
4. Program to demonstrate shift operation
5. Program to demonstrate string operation
6. Program to demonstrate looping operation
7. Program to demonstrate decision making operations
PART-2: 8051 PROGRAMS:
1. Program to demonstrate data transfer and arithmetic operations
2. Program to demonstrate logical and shift operations
3. Program to demonstrate looping operations

4. Programming timer / counter.
5. Programming Serial communication application.
6. Programs to demonstrate bit-manipulation operations
PART-3: INTERFACING PROGRAMS (using 8086 & 8051 Kits)
1. Interfacing ADC
2. Interfacing DAC.
3. Interfacing stepper motor.
4. Interfacing 7-segment display.
5. Interfacing Traffic light controller.
6. Waveform generation

LAB INCHARGE

Dr.A.V.G.A.MARTHANDA

LAB TECHNICIAN

Mr.DHANUNJAYANAİK

HOD/EEE