# S.S.B.N. DEGREE COLLEGE <br> (AUTONOMOUS) <br> ANANTAPURAMU - 515001 

## DEPARTMENT OF

 INDUSTRIAL ELECTRONICS

# DEPARTMENTAL PROFILE 

## Infrastructure Facilities:

The Department consists of five well established laboratories with advanced equipment with the following dimensions.

- Laboratories : 5 (Each of 30x20 Sq.Ft.)
- Staff Room : 1 (20x12 Sq.Ft.)
- Research Centre : 1 (25x12 Sq.Ft.)


## LABORATORY 1 :

The following images shows the inner and outer view of lab-1. This lab is mainly used for first and second year students. This lab is equipped with Analog devices. In this lab maximum of 25 students can perform practicals at a time.


EQUIPMENT AVAILABLE IN THE LABORATORY-1

| S.No. | Name of the Equipment | Quantity available | Cost in Rupees |
| :---: | :--- | :---: | :--- |
| 1 | Dual trace Oscilloscopes <br> (CRO) 25 MHz | 4 | $17,000=00$ (each) |
| 2 | Function Generators | 6 | $4000=00$ (each) |
| 3 | Dual power supplies | 10 | $1,250=00$ (each) |
| 4 | Regulated Power supplies | 6 | $850=00$ (each) |
| 5 | Digital Multimeters | 8 | $1,850=00$ (each) |
| 6 | Resistance Boxes | 15 | $700=00$ (each) |
| 7 | Capacitance Boxes | 10 | $1,000=00$ (each) |
| 8 | Transistorized Power Supply | 5 | $3,400=00$ (each) |
| 9 | Personal Computer (Dual <br> Core) | 1 | $25,000=00$ |
| 10 | Printer | 1 | $17,000=00$ |

## LABORATORY - 2:

The following images shows the inner and outer view of lab-2. This lab is mainly used for first and second year students. This lab is equipped with Basic electronic devices. In this lab maximum of 25 students can perform practicals at a time.


EQUIPMENT AVAILABLE IN THE LABORATORY-2:

| S.No. | Name of the Equipment | Quantity available | Cost in Rupees |
| :---: | :--- | :---: | :--- |
| 1 | Dual trace Oscilloscopes <br> (CRO) 25 MHz | 4 | $17,000=00$ (each) |
| 2 | Function Generators | 6 | $4000=00$ (each) |
| 3 | Dual power supplies | 6 | $1,250=00$ (each) |
| 4 | Regulated Power supply | 8 | $850=00$ (each) |
| 5 | Digital Multimeters | 6 | $1,850=00$ (each) |
| 6 | Resistance Boxes | 10 | $700=00$ (each) |
| 7 | Capacitance Boxes | 8 | $1,000=00$ (each) |
| 8 | Desktop Computer | 1 | $30,000=00$ (each) |
| 9 | Printer | 4 | $1,800-00($ each) |
| 10 | SCR Characteristics | 4 | $1,800-00$ (each) |
| 11 | UJT Characteristics Kits | 4 | $6,200=00$ (Each) |
| 12 | BJT Characteristics | 4 | $5,600=00$ (Each) |
| 13 | FET Characteristics | 4 | $4,500-00($ each) |
| 14 | Bread Board trainers | 1 | $8,000-00$ (Each) |
| 15 | LCR Meter | 4 |  |

## LABORATORY - 3:

The following images shows the inner and outer view of lab-3 and which is a Computer aided electronics lab. This lab is mainly used for final year students. This lab is equipped with VLSI and EMBEDDED trainer kits with the interfacing of PCs. In this lab maximum of 30 students can perform practicals at a time.


## EQUIPMENT AVAILABLE IN THE LABORATORY - 3:

| S.No. | Name of the Equipment | Quantity available | Cost in Rupees |
| :---: | :---: | :---: | :---: |
| 1 | Dual trace Oscilloscopes (CRO) 25 MHz | 2 | 21,000=00 (each) |
| 2 | Desktop Computers | 30 | 30,000=00 (each) |
| 3 | DSP(TI-TMS320C54XX) <br> Processor Development Kits | 6 | 12,300=00 (each) |
| 4 | VLSI Trainers (FPGA) | 6 | 17,500=00 (each) |
| 5 | Embedded Trainers | 6 | 16,500=00(each) |
| 6 | ARM 7 Trainer(Development Kits) | 6 | $15000=00$ |
| 7 | Parallel port Programmers | 4 | $2,000=00$ |
| 8 | Philips Flash Microcontrollers | 4 | 10,200=00 |
| 9 | PIC Microcontrollers | 1 | $7,400=00$ |
| 10 | Printer | 1 | 15,000=00 |
| 11 | LPC2378 Development Kits | 4 | 21,000-00 |
| 12 | FPGA Trainer Kits | 4 | 20,200-00 |
| 13 | ARM 7 Development board (ALS-SDA-ARM-03-2148plus) | 2 | 14,500-00 (each) |
| 14 | ARM 7 Development board (ALS-SDA-ARM-7-05) | 4 | 9,100-00 (each) |
| 15 | DSP Trainers <br> (TMS320VC5416 based) | 4 | 21,530-00 (each) |
| 16 | Field Programmable Gate Array Trainers | 6 | 8760-00 (each) |
| 17 | MATLAB Software (Licensed) | 1 | 95,000-00 |

## LABORATORY - 4:

The following images shows the inner and outer view of lab-4, which contains LCD projector so there is a provision of taking digital classes by the teachers. This lab is mainly used for final year students. This lab is equipped with DSP and FOC trainer kits. In this lab maximum of 30 students can perform practicals at a time.


## EQUIPMENT AVAILABLE IN THE LABORATORY - 4:

| S.No. | Name of the Equipment | Quantity available | Cost in Rupees |
| :---: | :---: | :---: | :---: |
| 1 | Dual trace Oscilloscopes (CRO) 25 MHz | 4 | 14,000=00 (each) |
| 2 | Function Generators | 4 | 4000=00 (each) |
| 3 | Regulated Power supply | 6 | 850=00 (each) |
| 4 | Digital Multimeters | 4 | 1,500=00 (each) |
| 5 | Resistance Boxes | 6 | 700=00 (each) |
| 6 | Capacitance Boxes | 6 | 1,000=00 (each) |
| 7 | Desktop Computer | 1 | 30,000=00 (each) |
| 8 | FOC Trainer kits (Analog \& Digital Links) | 6 | 7,200=00 (each) |
| 9 | Delta modulation Kits | 4 | 2,200=00 (each) |
| 10 | TDM Demultiplexer | 4 | 1,800=00 (each) |
| 11 | Fiber optic digital link | 2 | 14,500-00 (each) |
| 12 | Fiber optic analog link | 2 | 14,500-00 (each) |
| 13 | Function Generators (HiQ)Digital | 6 | 7,500-00 (each) |
| 14 | AM Modulator and Demodulators | 4 | 1,200-00(each) |
| 15 | FM Modulator and Demodulators | 4 | 1,200-00(each) |
| 16 | Phased lock loop trainer | 4 | 1,200-00(each) |
| 17 | (RPS )Power supply (0-12V) | 6 | 950-00(each) |
| 18 | Digital function generators | 4 | 12,500-00 (each) |
| 19 | Digital CROs | 4 | 18,000-00 (each) |
| 20 | Digital Multimeters | 12 | 2,100-00 (each) |

## LABORATORY - 5:

The following images shows the inner and outer view of lab-5. This lab is mainly used for second and final year students. This lab is equipped with Microprocessor and Microcontroller kits. In this lab maximum of 30 students can perform practicals at a time.


EQUIPMENT AVAILABLE IN THE LABORATORY -5 :

| S.No. | Name of the Equipment | Quantity available | Cost in Rupees |
| :---: | :--- | :---: | :--- |
| 1 | Dual trace Oscilloscopes <br> (CRO) 25 MHz | 3 | $16,000=00$ (each) |
| 2 | Microprocessor Kits 8085 <br> (ESA) | 10 | $3,375=00$ (each) |
| 3 | Microcontrollers <br> Development Kits (ALS\& Vi <br> Microsystems | 22 | $7,300=00$ (each) |
| 4 | Digital Multimeters | 6 | $1,400=00$ (each) |
| 5 | 8086 microprocessors (ESA) | 6 | $6,900=00$ (each) |
| 6 | Digital LED kits | 2 | $3,500=00($ Each) |
| 7 | Digital Logic Gates | 2 | $2,500=00(\mathrm{Each})$ |

## FACULTY ROOM :



