

Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada

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| **BLOCK :**  | E BLOCK |
| **FLOOR :**  | SECOND FLOOR |
| **ROOM NO:**  | 202 |
| **ROOM SIZE (in Sq. mtrs):** | 66.6 |
| **LAB NAME:** | COMMUNICATIONS LAB |
| **FANS :**  | 6 |
| **TUBE LIGHTS :**  | 3 |
| **CHAIRS :**  | 4 |
| **STAFF TABLES :**  | 4 |
| **EXPERIMENT TABLES :**  | 10 |
| **CLOSED IRON RACKS :**  | 1 |
| **WOODEN CLOSED RACKS :** | 0 |
| **Others:** | OPEN RACK:1, BERUVA:1, DUSTBIN:1, WALLCLOCK:1, WHITE BOARD:1, NOTICE BOARD:1, VISION MISSION BOARDS:1, CABINS:1,CAMERA: 0,WINDOW CURTONS: 8, STABILIZER:1, STOOLS: 49 |

**EQUIPMENT DETAILS**

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| **S.NO** | **EQUIPMENT PARTICULARS** | **QUANTITY** | **VENDOR** |
|
| 1 | ANALOG CRO'S | 12 | PROFESSIONAL ADVANCED ELECTRONICS |
| 2 | DIGITAL CRO'S (DSO'S)(50MHZ) | 10 | MICRO TECHNOLOGY |
| 3 | RPS | 7 | PHYSITECH ELECTRONICS |
| 4 | FUNCTION GENERATORS | 4 | PHYSITECH ELECTRONICS |
| 5 | STABILIZER(5KVA) | 1 | PROFESSIONAL ADVANCED ELECTRONICS |
| 6 | AM MODULATION AND DEMODULATION | 2 | SS LAB EQUIPMENTS |
| 7 | FM MODULATION AND DEMODULATION | 2 | SS LAB EQUIPMENTS |
| 8 | BALANCED MODULATOR | 2 | SS LAB EQUIPMENTS |
| 9 | PRE EMPHASIS AND DE EMPHASIS | 2 | SS LAB EQUIPMENTS |
| 10 | MIXER CHARACTERISTICS | 2 | SS LAB EQUIPMENTS |
| 11 | PHASE LOCKED LOOP | 2 | SS LAB EQUIPMENTS |
| 12 | BALANCED MODULATOR AND SYNCHRONOUS DETECTOR | 2 | SS LAB EQUIPMENTS |
| 13 | SINGLE SIDE BAND SYSTEM | 2 | SS LAB EQUIPMENTS |
| 14 | AGC CHARACTERISTICS | 2 | SS LAB EQUIPMENTS |
| 15 | FREQUENCY SYNTHESIZER | 2 | SS LAB EQUIPMENTS |
| 16 | SQUELCH CIRCUIT | 2 | SS LAB EQUIPMENTS |
| 17 | DIGITAL PHASE DETECTOR | 2 | SS LAB EQUIPMENTS |
| 18 | DIODE DETECTOR CHARACTERISTICS | 2 | SS LAB EQUIPMENTS |
| 19 | PULSE AMPLITUDE MODULATION | 2 | PHYSITECH ELECTRONICS |
| 20 | PUSLE WIDTH MODULATION | 2 | PHYSITECH ELECTRONICS |
| 21 | PULSE POSITION MODULATION | 2 | PHYSITECH ELECTRONICS |
| 22 | SAMPLING THEOREM | 2 | PHYSITECH ELECTRONICS |
| 23 | TIME DIVISION MULTIPLEXING | 2 | PHYSITECH ELECTRONICS |
| 24 | PULSE CODE MODULATION | 2 | PHYSITECH ELECTRONICS |
| 25 | DIFFERENTIAL PULSE CODE MODULATION | 2 | PHYSITECH ELECTRONICS |
| 26 | DELTA MODULATION | 2 | PHYSITECH ELECTRONICS |
| 27 | FREQUENCY SHIFT KEYING | 2 | PHYSITECH ELECTRONICS |
| 28 | PHASE SHIFT KEYING | 2 | PHYSITECH ELECTRONICS |
| 29 | DIFFERENTIAL PHASE SHIFT KEYING | 2 | PHYSITECH ELECTRONICS |
| 30 | COMPANDING | 1 | HI-Q TEST EQUIPMENT PVT LTD |
| 31 | SOURCE ENCODER AND DECODER | 1 | HI-Q TEST EQUIPMENT PVT LTD |
| 32 | LINEAR BLOCK CODES ENCODER AND DECODER | 1 | HI-Q TEST EQUIPMENT PVT LTD |
| 33 | BINARY CODES ENCODER AND DECODER | 1 | HI-Q TEST EQUIPMENT PVT LTD |
| 34 | CONVOLUTION CODES ENCODER AND DECODER | 1 | HI-Q TEST EQUIPMENT PVT LTD |
| 35 | BREAD BOARD TRAINER KITS | 10 | PHYSITECH ELECTRONICS |

**LAB SPECIFICATIONS**

**ANALOG COMMUNICATIONS LAB (SEM 2)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE / NOT AVAILABLE** |
| 1 | Amplitude Modulation - Mod. & Demod | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| PROBES | AVAILABLE |
| 2 | AM - DSB SC - Mod. & Demod | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| PROBES | AVAILABLE |
| 3 | Spectrum Analysis of Modulated signal using Spectrum Analyser | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 4 | Diode Detector | TRAINER KIT | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 5 | Pre-emphasis & De-emphasis | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 6 | Frequency Modulation - Mod. & Demod | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 7 | AGC | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 8 | Sampling Theorem | TRAINER KIT | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 9 | Pulse Amplitude Modulation - Mod. & Demod | TRAINER KIT | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 10 | PWM , PPM - Mod. & Demod | TRAINER KIT | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 11 | PLL | TRAINER KIT | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 12 | Radio receiver characteristics | TRAINER KIT | AVAILABLE |
| MATLAB SOFTWARE | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |

**DIGITAL COMMUNICATIONS LAB (SEM – 2)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | Time division multiplexing | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 2 | Pulse code modulation | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 3 | Differential pulse code modulation | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 4 | Delta modulation | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 5 | Frequency shift keying | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 6 | Phase shift keying | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 7 | Differential phase shift keying | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 8 | Companding | TRAINER KIT | AVAILABLE |
| MULTIMETER | AVAILABLE |
| 9 | Source encoder and decoder | TRAINER KIT | AVAILABLE |
| 10 | Linear block code-encoder and decoder | TRAINER KIT | AVAILABLE |
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| 11 | Binary cyclic code-encoder and decoder | TRAINER KIT | AVAILABLE |
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| 12 | convolution code-encoder and decoder | TRAINER KIT | AVAILABLE |
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