

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

Chebrolu(V&M), Guntur(Dt), A.P-522212

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| **BLOCK :**  | E BLOCK |
| **FLOOR :**  | THIRD FLOOR |
| **ROOM NO:**  | 303 |
| **ROOM SIZE (in Sq. mtrs):** | 66.6 |
| **LAB NAME:** | DEVICES & CIRCUITS LAB |
| **FANS :**  | 6 |
| **TUBE LIGHTS :**  | 3 |
| **CHAIRS :**  | 6 |
| **STAFF TABLES :**  | 3 |
| **EXPERIMENT TABLES :**  | 11 |
| **CLOSED IRON RACKS :**  | 1 |
| **WOODEN CLOSED RACKS :** | 0 |
| **Others:** | OPEN RACKS:4, CAMERA: 1,DUSTBIN:1, WALLCLOCK:1,STABILIZER:1, VISSION MISSION BOARDS:1, BLACK BOARD:1, NOTICE BOARD:1, STOOLS:37 |

**EQUIPMENT DETAILS**

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| **S.NO** | **EQUIPMENT PARTICULARS** | **QUANTITY** | **VENDOR** |
|
| 1 | CRO'S | 12 | PROFESSIONAL ADVANCED |
| 2 | FUNCTION GENERATORS | 10 | PHYSITECH ELECTRONICS |
| 3 | RPS | 10 | PHYSITECH ELECTRONICS |
| 4 | DRB'S | 7 | PHYSITECH ELECTRONICS |
| 5 | DIB'S | 6 | PHYSITECH ELECTRONICS |
| 6 | DCB'S | 7 | PHYSITECH ELECTRONICS |
| 7 | STABILIZER(5KVA) | 1 | HI-Q TEST EQUIPMENT LTD |
| 8 | 20mA | 16 | PHYSITECH ELECTRONICS |
| 9 | 20V | 16 | PHYSITECH ELECTRONICS |
| 10 | 2mA | 10 | PHYSITECH ELECTRONICS |
| 11 | 2V | 10 | PHYSITECH ELECTRONICS |
| 12 | TRANSISTOR CB CHARACTERISTICS | 3 | PHYSITECH ELECTRONICS |
| 13 | TRANSISTOR CE CHARACTERISTICS | 3 | PHYSITECH ELECTRONICS |
| 14 | RECTIFIERS AND FILTERS | 3 | PHYSITECH ELECTRONICS |
| 15 | FET CHARACTERISTICS | 3 | PHYSITECH ELECTRONICS |
| 16 | H- PARAMETERS | 3 | PHYSITECH ELECTRONICS |
| 17 | CE AMPLIFIERS | 3 | PHYSITECH ELECTRONICS |
| 18 | CC AMPLIFIERS | 3 | PHYSITECH ELECTRONICS |
| 19 | SINGLE STAGE RC COUPLED AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 20 | FET AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 21 | WEIN BRIDGE OSCILLATOR | 3 | PHYSITECH ELECTRONICS |
| 22 | RC PHASE SHIFT OSCILLATOR | 3 | PHYSITECH ELECTRONICS |
| 23 | FEED BACK AMPLIFIER(CURRENT SERIES) | 3 | PHYSITECH ELECTRONICS |
| 24 | FEED BACK AMPLIFIER(VOLTAGE SERIES) | PHYSITECH ELECTRONICS |
| 25 | HARTLEY OSCILLATOR | 3 | PHYSITECH ELECTRONICS |
| 26 | COLPITT'S OSCILLATOR | 3 | PHYSITECH ELECTRONICS |
| 27 | SCR CHARACTERISTICS | 3 | PHYSITECH ELECTRONICS |
| 28 | CE AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 29 | COMMON SOURCE FET AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 30 | TWO STAGE RC COUPLED AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 31 | CURRENT AND VOLTAGE SHUNT FEED BACK AMPLIFIERS | 3 | PHYSITECH ELECTRONICS |
| 32 | CASCADE AMPLIFIERS | 3 | PHYSITECH ELECTRONICS |
| 33 | WEIN BRIDGE OSCILLATOR USING TRANSISTORS | 3 | PHYSITECH ELECTRONICS |
| 34 | RC PHASE SHIFT OSCILLATOR USING TRANSISTORS | 3 | PHYSITECH ELECTRONICS |
| 35 | CLASS A POWER AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 36 | CLASS B COMPLEMENTARY | 3 | PHYSITECH ELECTRONICS |
| 37 | TUNED RF AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 38 | COMMON BASE AMPLIFIER | 3 | PHYSITECH ELECTRONICS |
| 39 | LINEAR WAVE SHAPING CIRCUITS | 2 | S.S. LAB EQUIPMENTS |
| 40 | NON LINEAR WAVE SHAPING CIRCUITS | 2 | S.S. LAB EQUIPMENTS |
| 41 | TRANSISTOR AS A SWITCH | 2 | S.S. LAB EQUIPMENTS |
| 42 | STUDY OF LOGIC GATES TRAINER KIT | 2 | S.S. LAB EQUIPMENTS |
| 43 | STUDY OF FLIP FLOPS | 2 | S.S. LAB EQUIPMENTS |
| 44 | SAMPLING GATES | 2 | S.S. LAB EQUIPMENTS |
| 45 | ASTABLE MULTIVIBRATOR USING TRANSISTORS | 2 | S.S. LAB EQUIPMENTS |
| 46 | MONOSTABLE MULTIVIBRATOR USING TRANSISTORS | 2 | S.S. LAB EQUIPMENTS |
| 47 | BISTABLE MULTIVIBRATOR USING TRANSISTORS | 2 | S.S. LAB EQUIPMENTS |
| 48 | SCHMITT TRIGGER TRAINER KIT | 2 | S.S. LAB EQUIPMENTS |
| 49 | UJT RELAXATION OSCILLATOR | 2 | S.S. LAB EQUIPMENTS |
| 50 | BOOTSTRAP SWEEP CIRCUITS | 2 | S.S. LAB EQUIPMENTS |

**LAB SPECIFICATIONS**

**ELECTRONIC DEVICES & CIRCUITS LAB (SEM 1)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | P-N Junction Diode Characteristics | Rps,voltmeter,ammeter,Bread board | AVAILABLE |
| 2 | Zener Diode Characteristics | Rps,,voltmeter,ammeter,Bread board | AVAILABLE |
| 3 | Rectifiers (without and with c-filter) | CRO,CRO probe,Bread board | AVAILABLE |
| 4 | BJT Characteristics(CE Configuration) | voltmeter,ammeter,RPS,bread board, | AVAILABLE |
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| 5 | FET Characteristics(CS Configuration) | FET,voltmeter,ammeter,bread board,RPS, | AVAILABLE |
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| 6 | UJT Characteristics | UJT,voltmeter,ammeter,bread board, | AVAILABLE |
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| 7 | CRO Operation and its Measurements | function generator,CRO,CRO probe | AVAILABLE |
| 8 | BJT-CE Amplifier | trainer kit,function generator,CRO,CRO probe | AVAILABLE |
| 9 | Emitter Follower-CC Amplifier | trainer kit,function generator,CRO,CRO probe | AVAILABLE |
| 10 | FET-CS Amplifier | trainer kit,function generator,CRO,CRO probe | AVAILABLE |

**PULSE AND DIGITAL CIRCUITS LAB (SEM 1)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | Linear wave shaping | BREAD BOARD | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 2 | Non Linear wave shaping – Clippers | BREAD BOARD | AVAILABLE |
| CRO,RPS | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 3 | Non Linear wave shaping – Clampers | BREAD BOARD | AVAILABLE |
| CRO,RPS | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 4 | Transistor as a switch | BREAD BOARD | AVAILABLE |
| CRO,RPS | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 5 | Study of Logic Gates & Some applications | TRAINER KIT | AVAILABLE |
| 6 | Astable Multivibrator | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| 7 | Bistable Multivibrator | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| 8 | UJT Relaxation Oscillator | BREAD BOARD | AVAILABLE |
| CRO,RPS | AVAILABLE |
| PROBES | AVAILABLE |
| 9 | Bootstrap sweep circuit | TRAINER KIT | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| 10 | Monostable Multivibrator | TRAINER KIT | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |

**ELECTRONIC CIRCUIT ANALYSIS LAB (SEM – 2)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | HARTLEY OSCILLATOR | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| 2 | COLPITS OSCILLATOR | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| 3 | WEIN BRIDGE OSCILLATOR | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| 4 | RC PHASE SHIFT OSCILLLATOR | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| 5 | RC COUPLED AMPLIFIER | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| PROBES | AVAILABLE |
| 6 | TUNED RF AMPLIFIER | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| PROBES | AVAILABLE |
| 7 | CURRENT AND VOLTAGE SHUNT FEEDBACK AMPLIFIER | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| PROBES | AVAILABLE |
| 8 | VOLTAGE AND CURRENT SHUNT FEEDBACK AMPLIFIER | TRAINER KIT | AVAILABLE |
| CRO | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| 9 | CLASS B POWER AMPLIFIER | TRAINER KIT | AVAILABLE |
| MULTIMETER | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |
| 10 | CLASS A POWER AMPLIFIER | TRAINER KIT | AVAILABLE |
|
| TRAINER KIT | AVAILABLE |
| MULTIMETER | AVAILABLE |
| FUNCTION GENERATOR | AVAILABLE |
| CRO | AVAILABLE |
| PROBES | AVAILABLE |
| MULTISIM SOFTWARE | AVAILABLE |

**ELECTRONIC DEVICES & CIRCUITS LAB (SEM – 2)**

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| 9 | Emitter Follower-CC Amplifier | trainer kit,function generator,CRO,CRO probe | AVAILABLE |
| 10 | FET-CS Amplifier | trainer kit,function generator,CRO,CRO probe | AVAILABLE |