

# 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



### **CIRCUITS AND SIMULATION INTEGRATED LABORATORY**

Laboratory In-charge: Mr. S. Syed Husain AP/ECE

Technical supporting staff: Mrs. J. Premalatha





Snapshot of Circuits and Simulation Integrated Laboratory Area of the laboratory: 97.61 Sq.m

## FRACE OF

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#### Major equipment:

- Cathode Ray Oscilloscope
- Function Generator
- Single Regulated Power Supply
- Dual Regulated Power Supply
- Decade Resistance, Condenser and Inductance Box
- Digital LCR Meter
- Digital Ammeter, Voltmeter, Multimeter and Orcade Software

#### **List of Experiments:**

- Calculation of Frequency response, Input and output impedance for Series and Shunt feedback amplifiers
- Design and analysis of RC Phase shift oscillator and Wien Bridge Oscillator
- Design and analysis of Hartley Oscillator and Colpitts Oscillator
- Design and analysis of Single Tuned Amplifier
- Design and analysis of RC Integrator and Differentiator circuits
- Design and analysis of Clippers and Clampers
- Design and analysis of Free Running Blocking Oscillators
- Simulation of Tuned Collector, Twin-T, Double and Stagger tuned Oscillator
- Simulation of Bi stable Multivibrator, and Monostable Multivibrator with emitter timing and base timing
- Simulation of Schmitt Trigger circuit with Predictable hysteresis
- Simulation of Voltage and Current Time base circuits

#### **Beyond the syllabus experiments:**

- Free Running Blocking Oscillator
- Voltage and Current time Base circuit

#### **Utilization of the laboratory:**

Circuits And Simulation Integrated Laboratory for ECE II year/IV sem