

RAJARAJESWARI COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
REPORT ON FDP-EVEN SEM (2015-16)

Circuit simulation Techniques and Research Approaches 7th-9th October

A FDP on “Circuit simulation Techniques and Research approaches” was held at EEE department from 7th – 9th October 2015, organized by Electrical and Electronics Engineering. The occasion was graced by more than 20 faculties.

The program started with invocation followed by lighting of the lamp by the dignitaries, welcome address by Dr.M.Arunachalam, HOD EEE, The following dignitaries were present,

Dr. Balakrishna. R, Principal I/C, RRCE.

Prof. M Prabhakar, Vice Principal RRCE.

Dr. M. Arunachalam, HOD EEE

Dr. Mahesh.B.Patil, Prof , Department of Electrical Engineering, IIT Bombay.

This three days FDP emphasis on Electronics Circuit Simulation which uses the mathematical models to replicate the behavior of an actual Electronic Device or circuit using this simulation software which allows for modeling of circuit operation as an invaluable analysis tool.

In this FDP the SEQUEL software used. It is general purpose circuit simulation package developed by IIT, Bombay. Its GUI includes a schematic editor for entering the circuit diagram and graphing utility for viewing simulation results.

On 7th October the session-1 was started by Dr.Mahesh.B.Patil on “**Fundamentals of Circuit Simulation**”, for analyzing the Non Linear Problems using Newtons Raphson Method, Forward/ Backward Euler Method and verified using the software.

The session-2 was on “**Simulation on RC-RL Circuit**”. In this RC circuits is designed and its charging and discharging transient analysis were done theoretically and verified using sequel software.

The session-3 was on “**Simulation of Diode Circuit**”. In this session Expression for Current and Voltage at which the diode starts conducting (Break Point) is derived theoretically and verified using sequel software.

The session -4 was on “**Simulation on Common Emitter Amplifier**”. In this designing of amplifier and calculating open circuit gain, Input resistance and Output resistance is done theoretically and the bias part and gain verified using sequel software.

On 8th October the first session started with designing of **Op-Amp Circuit** and simulated using the software.

The session -2 was on how to write the **C-Program** to analyze the RC circuit and to obtain the voltage using Backward Euler Method.

The session was continued with **Designing of Synchronous Counter** design theoretically and verified using the simulation.

On 9th October examples on analog and digital circuit was discussed, analyzed, designed and simulated using sequel software.