A REPORT
OF
“PRACTICAL PERFORMANCE WEEK”
BY
FACULTIES OF E.E.E & ELECTRICAL DEPARTMENT

From 1ST JANUARY 2016 to 12TH JANUARY 2016

E.E.E. & ELECTRICAL ENGINEERING DEPARTMENT
GROW MORE FACULTY OF ENGINEERING
Practical knowledge is necessary for a deeper understanding of a concept through the act of doing and personal experience. So to deliver such practical knowledge to students, a faculty should do the lab practical. Without practical knowledge of your field, one can never survive in his/her field in this competitive world.

So like Every Semester, E.E.E & Electrical Department had planned a “Practical Performance Week” from 1st January 2016 to 12th September 2016. In this each faculty of EEE & Electrical Department had done lab practical of their respective subjects in front of all the other faculties of the E.E.E & Electrical department.

**SUBJECT: POWER ELECTRONICS - II (6TH EEE / ELECTRICAL)**

**FACULTY: PROF. MITAL PATEL / PROF. RONAK PATEL**

Pract.1: To perform Simulation of 1-phase Cyclo-converter using MATLAB.

Pract.2: To simulate 1-phase Inverter using MATLAB.

Pract.3: To simulate Unipolar & Bipolar PWM using MATLAB

**FACULTY: PROF. RONAK PATEL**

**SUBJECT: C.E.E (8TH ELECTRICAL) & E.D (6TH ELECTRICAL)**

All Study Practical’s.
SUBJECT: DIGITAL CONTROL SYSTEM (6th EEE)
FACULTY: PROF. VELIYENT D’COSTA

Pract.1: To perform z-transform of the given system using MATLAB.
Pract.2: To perform the construction of the transfer function of the signal.
Pract.3: To perform about root locus and frequency response of the system using MATLAB.

SUBJECT: BASIC ELECTRONICS (2nd CE/IT/EEE/ELECT)
FACULTY: PROF. VELIYENT D’COSTA

Pract.1: Determine behaviour of Various Logic Gates (OR, AND, NOR, NAND, XOR, etc.)
Pract.2: Determine the parameters of three commercial Op-Amps.
Pract.3: To Study about Multiplexer & De-Multiplexer
Pract.4: To Study about Encoder & Decoder.

SUBJECT: ELECTRICAL & ELECTRONICS WORKSHOP (2nd CE/IT/EEE/ELECT)
FACULTY: PROF. ALPESH PATEL

Pract.1: One-Way & Two-Way Control of Lamp (Stair-case wiring)
Pract.2: Measure voltage, current, frequency, phase difference, power for Single and three-phase supply.
Pract.3: Study of MCB & ELCB.
Pract.4: Fabrication of comparator circuit/square wave generator using 555 Timer.
SUBJECT: DIGITAL ELECTRONICS (4th EEE)  
FACULTY: PROF. ALPESH PATEL

Pract.1: To study and perform about Logic Gates.  
Pract.2: To study and perform about Universal Gates.  
Pract.3: To Study about Half Adder & Full Adder.  
Pract.4: To Study and perform about Multiplexer and De-Multiplexer.
SUBJECT: ANALOG ELECTRONICS (4th EEE/ELECT)
FACULTY: PROF. ALPESH PATEL

Pract.1: Study the different parameter of op-amp.
Pract.2: Comparison between different transistor configurations.
Pract.3: Frequency response of inverting amplifier and non-inverting amplifier.
Pract.4: Study of op-amp as inverting amplifier and non-inverting amplifier.

SUBJECT: MODELLING & SIMULATION TECHNIQUES (8TH EEE)
FACULTY: PROF. NIRAV PATEL

Pract.1: To model the equation that converts Celsius temperature to Fahrenheit
Pract.2: To model Series RLC circuit to solving for either the resistor voltage or inductor voltage.
Pract.3: To create any Simulink model that includes electronic or electromechanical components.
Pract.4: Modelling Electronic Components –
   A. Parameterizing a Piecewise Linear Diode Model
   B. Parameterizing an Exponential Diode from aDatasheet
SUBJECT: SIGNALS & SYSTEMS (4th ELECTRICAL)

FACULTY: PROF. NIRA PATEL

Pract.1: Generations & capturing various continuous time signals from sensors using MATLAB.

Pract.2: Generation and capturing of discrete time signals and plot them.

Pract.3: Discretization using different sampling rate and observing aliasing effect.
SUBJECT: VLSI (8th E.E.E)

FACULTY: PROF. MANISH PATEL

Pract.1: Implementation of Basic Logic Gates & its testing using Verilog.
Pract.2: Implementation of Adder Circuits & its testing using Verilog.
Pract.3: Implementation of 4 to 1 Multiplexer & its testing using Verilog.
Pract.4: Implementation of 3 to 8 Decoder & its testing using Verilog.

SUBJECT: S.D.T (4th E.E.E)

FACULTY: PROF. MANISH PATEL

Pract.1: Simulation of one rectifier circuit and one clipper/clamper circuit.
Pract.2: Simulation of any one transistor biasing circuit.
Pract.3: Simulation of decoder/de multiplexer circuit.
SUBJECT: ADVANCED POWER SYSTEM - II (8TH ELECTRICAL)
FACULTY: PROF. MAMTA SOLANKI

Pract.1: Perform Load Flow studies of 4-Bus system using Power World Simulator.
Pract.2: Perform Contingency analysis of 4-Bus system using Power World Simulator.

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Overall, it was an exciting week with a good amount of practical knowledge gaining and sharing within department amongst faculties.