CAREER DEVELOPMENT CENTRE

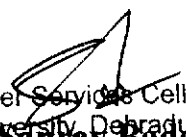**DIT UNIVERSITY**
IMAGINE ASPIRE ACHIEVE

Date: 10ᵗʰ February 2023.

Subject: Schedule for Technical Training – Proteus

Attention: Students of B.Tech 4ᵗʰSemester (ECE & EE Students)

The students are hereby informed that the Technical Training – Proteus will be held from 14ᵗʰ **February 2023 to 25ᵗʰ February 2023** for the students of B.Tech 4ᵗʰ Semester (ECE & EE).

Note: It is mandatory for above mentioned students to attend the training.

Career Services Cell
DIT University, Dehradun
Mr. Saurav Badoni

Incharge- CDC

To:

- All Deans / Directors
- HoDs
- Head CDC

With the request to bring the above to the notice of the students

Copy to:

- Chairman
- Chancellor
- Vice Chancellor
- Pro Vice Chancellor
- ICT Manager – to upload on website

For information please

Technical Training-Proteus for B.Tech-ECE & EE Students

Course:-B.Tech- ECE & EE 2nd & 3rd Year

Organized By- Department of ECE

Duration:-30 Hours

Venue:- Computer Lab (Chanakya)

Date:-14th February -25th February 2023

Timings:-4:00 PM to 6:00 PM

Introduction to Proteus:

- **Proteus Design Suite** is a software tool set, mainly used for creating schematics, simulating Electronics & Embedded Circuits and designing PCB Layouts.

- Proteus ISIS is used by Engineering students & professionals to create schematics & simulations of different electronic circuits.

- Proteus ARES is used for designing PCB Layouts of electronic circuits.

- It's available in four languages i.e. English, Chinese, Spanish & French.

Why use Proteus:

- Proteus is quite lenient in circuit designing and it works on ideal conditions i.e. if you don't add pull up resistors in Proteus simulation, then it won't give garbage value.

- Proteus is also used for PCB designing, we use **Proteus ARES** for that. (We will discuss it in upcoming lectures)

- Proteus is also used for designing/testing programming codes for different Microcontrollers i.e. Arduino, PIC Microcontroller, 8051 etc.

In Embedded projects, we need to design a programming code for Microcontrollers and for designing such codes you have to perform a lot of testing, which involves uploading code to Microcontroller. So, in such projects, Proteus is a great relief. Let's say, you have to print some strings on 20×4 LCD, then its quite annoying to burn the Microcontroller several times for typographical errors. Instead, design a circuit in Proteus and test your code in the simulation and once you are sure that you are getting perfect output then burn your PIC Microcontroller and test it on real hardware. Quite easy and handy.

Requisite:

The program is designed for students or professionals who are:

- Having a Diploma, BE / B.Tech or equivalent in domains such as Automotive, Mechanical, EEE, ECE, Instrumentation, Mechatronics, and Aeronautics.
- Designing enthusiasts (No academic qualification mandatory)

- Working in industries such as Automotive, Auto component, Design, Manufacturing, etc.

Training Outcome:

Students benefited from exposure to professional grade tools with an intuitive user interface and a quick **learning** curve. From China and India, through South America and the USA, and across the UK and Europe, the **Proteus** Design Suite is trusted as the tool of choice for embedded engineering and electronics learning.

Syllabus:

First Step with Proteus
- Creating a new project
- User interface & Navigation
- Edit the Tittle Block
- Select and place components
- Components with simulator model
- Set keyboard Shortcuts.
- Manage Components.

Schematic Design
- Schematic Circuit
- Create a Schematic Library
- Creating the Connector
- Creating the Resistors
- Creating the Potentiometer
- Creating the 555 Timer
- Connecting the Schematic
- Adding Tags Terminal Modes
- Finishing the Schematic

PCB Layout
- Switching from Schematic to PCB Layout
- Basic PCB Layout Terminology
- Create a Footprint Library
- Creating the resistors footprints
- Creating the Potentiometer Footprints
- Creating the Diode Led Footprint
- Creating the Connector Footprint
- Creating the 555 Timer Footprint
- Placing the footprints
- Creating the PCB Border
- Design Rule Managers
- Autorouting

- Manual Routing – Tracks
- Manual Routing- Vias
- Teardrop
- Power plane Generator
- Adding text and Logo
- Placing Holes

3D Visualization
- 3D navigation
- Adding the 3D Components
- Setting the 3D PCB
- Where to find 3D components
- Downloading 3D model

Output Files
- Exporting PDF Schematic
- Exporting PDF Layers
- Custom PDF for Printing
- Generate Gerber Files
- Bill of Materials – BOM
- Proteus Gerber Viewer
- Free Gerber Viewer – Gerbv

- Project based learning LPKF E44 PCB prototyping machine.
- Group Project work.

Value added course Details (Academic Year: 2022-23)

VAT Course Name: Proteus Training

VAT Code: VAT 87

Duration in Hours: 30

Number of Students Enrolled: 23

Number of Students Completed: 22

Grades:	G= GOOD ; S = Satifactory ; P = Poor ; W = Withdraw		
Student ID	Student Name	Program/Course	Passing Grade
210104006	KUSHAGRA SRIVASTAVA	Bachelor of Technology in Electrical Engineering	G
210103001	ARYAN GUPTA	Bachelor of Technology in Electronics and Communication Engineering	S
210103004	PRAGATI SHARMA	Bachelor of Technology in Electronics and Communication Engineering	S
210104002	DHEERAJ KAITH	Bachelor of Technology in Electrical Engineering	S
210103005	PIYUSH DOBHAL	Bachelor of Technology in Electronics and Communication Engineering	G
210103003	ANMOL BAHUGUNA	Bachelor of Technology in Electronics and Communication Engineering	S
210103011	PRAJJWAL GURUNG	Bachelor of Technology in Electronics and Communication Engineering	G
210104005	ARNAV AGARWAL	Bachelor of Technology in Electrical Engineering	S
210103008	SHISHANT BUTOLA	Bachelor of Technology in Electronics and Communication Engineering	S
210103006	HARSHITA PANDEY	Bachelor of Technology in Electronics and Communication Engineering	S
210103010	JAY PRATAP SINGH	Bachelor of Technology in Electronics and Communication Engineering	G
210104004	AKASH SINGH	Bachelor of Technology in Electrical Engineering	S
210103009	MOHD KAIF	Bachelor of Technology in Electronics and Communication Engineering	G
210104008	KARTAVAYA SRIVASTAVA	Bachelor of Technology in Electrical Engineering	S
210103007	PARAMJEET BIND	Bachelor of Technology in Electronics and Communication Engineering	S
210104007	RAHUL KUMAR PANDIT	Bachelor of Technology in Electrical Engineering	P
210103012	AMAN GUPTA	Bachelor of Technology in Electronics and Communication Engineering	G
210103014	SAHIL CHAUHAN	Bachelor of Technology in Electronics and Communication Engineering	S
210103013	ROHIT PANWAR	Bachelor of Technology in Electronics and Communication Engineering	G
210103015	DEVANSH LOHAN .	Bachelor of Technology in Electronics and Communication Engineering	S
220103001	SUDHANSHI RAWAT	Bachelor of Technology in Electronics and Communication Engineering	S
220103006	RAHUL SINGH MEHTA	Bachelor of Technology in Electronics and Communication Engineering	S
220103016	RAJAT CHAUHAN	Bachelor of Technology in Electronics and Communication Engineering	G

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