



Pradnya Niketan Education Society, Pune.

# **NAGESH KARAJAGI *ORCHID* COLLEGE OF ENGINEERING & TECHNOLOGY, SOLAPUR**

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## **Electronics & Telecommunication Engineering Department**

### **A Brief Report on**

### **Faculty Development Program on PCB Design using Autodesk Fusion 360.**

**Event Details:** Faculty Development Program on PCB Design using Autodesk Fusion 360.

**Duration:** 8th February - 12th February 2021

**Venue:** Online through ZOOM Platform

**Participants:** Faculties, Students and Researchers from Different Engineering & Polytechnics Colleges.

➤ **Objectives:**

Participants will be able to

- 1) Learn fundamentals of PCB design
- 2) Use Autodesk Fusion 360 to design and manufacture PCB

➤ **Staff Involved:**

1. Dr. J.B. Dafedar – Principal
2. Prof. Sudhirkumar S. Dhotre – FDP Coordinator
3. Prof. V. P. Kulkarni – SPOC, Autodesk

➤ **Experts from Autodesk**

- 1) Mr. Anand Pujari – Education Account Manager, India
- 2) Mr. Rajesh Yadav- Resource Person
- 3) Mr. Belal Quamar –Resource Person

➤ **Description:**

Faculty Development Program on PCB Design using Autodesk Fusion 360 was organized by the Department in association with Autodesk, India. The FDP was conducted from 8th February - 12th February 2021 in online mode through ZOOM Platform.

The FDP started with inauguration function on 8<sup>th</sup> February 2021. Welcome address for Inauguration function was given by Prof. Sudhirkumar Dhotre, HOD, Department of E&TC Engineering. Inauguration function was also addressed by Dr J.B.Dafedar, Principal, NKOCET and Mr. Deepankar Bhattacharya, Head, India Education Experience Autodesk, India. Mr. Anand Pujari Education Account Manager, India, also addressed the participants. He briefed about different Autodesk initiatives for education sector

Resource person for the FDP was Mr. Belal Kumar. He is freelancer, expert in PCB Design & working on different hardware projects. He explained in detail about creating Schematics, validating Schematics, Creating PCB layout, Gerber files etc.

Nearly 225 participants had registered for FDP from all over India and one participant from abroad, out of this 95 participants attended and successfully completed the FDP.

The Valedictory function was organized on 12 February 2021. Prof. Roshan Pushpan presented the summary of the FDP. Chief guest for the valedictory function was Mr. Ravi Shidore, CEO, Shidore Mycosys , Pune . Mr. Ravi Shidore talked about Importance of PCB design and the initiatives taken by Government of India for PCB manufacturing under Atmanirbhar Bharat. The FDP concluded with vote of thanks by Prof. Sudhirkumar Dhotre, HOD, Department of E&TC Engineering and Coordinator of the FDP.

The day wise contents of FDP are as follows.

Day1:- Getting Started with Fusion 360 Electronics

- Understanding the User Interface
- Creating Schematics
  - o Parts
    - Placement, mirroring and rotation
    - Moving and deleting
  - o Connecting components
    - Junctions
  - o Adding power terminals
  - o Assigning values to components
  - o Validating schematics

Day2:- Creating PCB layout:

- Switching to PCB document
  - o Moving and rotating parts on the PCB
  - o Routing wires
    - Auto Router
    - Manual Routing
    - Moving through layers(via)
    - Why not 90-degree routes
    - Choosing the best autoroute
    - Creating various size routes for power and data
- Understanding the connections between various documents

Day3:- • CAM processor

- o Gerber files
- o Custom files
- Using schematics from other programs
- Using commands
- Script files (introduction only)

- Information panels
- Printing files for chemical etching

Day4:- Designing our own PCB

From idea to manufacturing

Day5:- • Library Manager

o Component Libraries

o Creating a new part

o Team Libraries

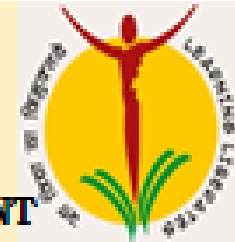
o SPICE

• Discussions



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TECHNOLOGY, SOLAPUR**

**ELECTRONICS & TELECOMMUNICATION ENGINEERING DEPARTMENT**



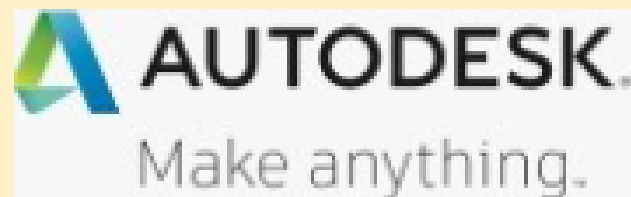
**WELCOME**

For Five Days FDP on

**PCB Design**

**Using Autodesk® Fusion 360™**

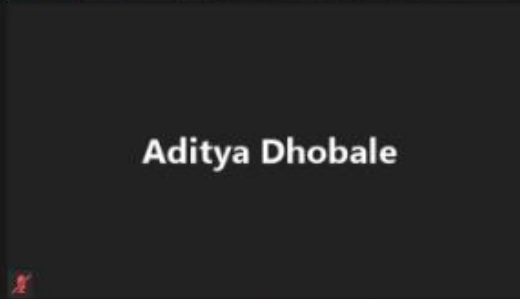
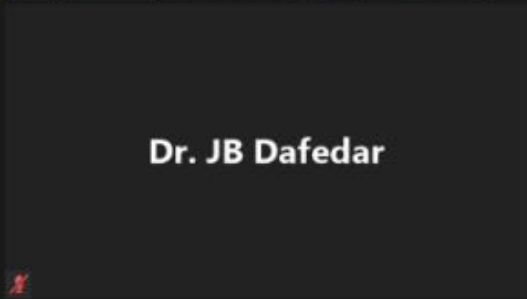
In Association with



**8<sup>th</sup> February to 12<sup>th</sup> February, 2021**



Prasad Kulkarni



Unmute

Start Video

Participants 92

Q&A 1

Chat 1

Share Screen

Record

Leave

Recording

View

Unmute Start Video Participants 72 Q&A Chat Share Screen Record Leave

Chat

session

From f9dff373 to All panelists:  
ok sir

From Kartik Suru to All panelists:  
Thank you sir the whole FDP was a great success I've learnt many things and the explanation was very well elaborated and specific.

From Geeta Mamani to All panelists:  
session was very informative and practical thank you sir

From Roshan ... to All panelists and attendees:  
u can raise hand and speak

From Dr. Jignesh Patoliya to All panelists:  
Overall program is excellent. I appreciate knowledge of expert. Software is very handy. Congratulate to entire team

Top: Rajesh Yadav

Activate Windows  
Type message here to activate Windows.



Recording



Sudhirkumar Dh...



Student

Prof bakare

Activate Windows  
Go to Settings to activate Windows.

Type here to search



System tray icons: volume, network, and time/date (17:02 12/02/2021)