



1 The procedure to practice

1. You have been given a set of spoken tutorials and files.
2. You will typically do one tutorial at a time.
3. You may listen to a spoken tutorial and reproduce all the commands shown in the video.
4. If you find it difficult to do the above, you may consider listening to the whole tutorial once and then practice during the second hearing.

2 Basic Module

1. Right-click on the file named `index.html`, and choose **Open with Firefox** to open this file in the Firefox web browser.
2. Read the instructions given.
3. In the left hand side panel you will see **Basic Level**.
4. Please click on the module **Basic Level**.
5. In this module, there are a few tutorials.
6. **Introduction to Oscad** teaches how to install Oscad and test run Oscad using an example in Linux OS.
7. For Windows installation, kindly follow the instructions given in `Oscad-Installation-Windows.pdf`.
8. Now you will have Oscad installed and working on your computer.
9. To launch Oscad, go to **Start Menu**, click on **All Programs** and choose **OSCAD** and again click on **OSCAD**.
10. After launching Oscad, try out the example shown in the tutorial **Introduction to Oscad** from 6:18 mins.

3 Schematic creation and Simulation

1. Locate the next topic **Schematic creation and Simulation**.
2. Click on it. You will see the video in the centre.

3. Click on the play button on the player to play the tutorial.
4. To view the tutorial in a bigger player, right-click on the video and choose **View Video** option.
5. Adjust the size of the player in such a way that you are able to practice in parallel.
6. Follow the tutorial and reproduce all the activities as shown in the tutorial.
7. Please save your project files that you will create while you practice this tutorial.
8. Guidelines for saving your work are as follows-

3.1 Instructions for Practice

- (a) Create a folder on the **Desktop** with your Name-RollNo-Component (Eg. `vin-04-Oscad`).
- (b) Give a unique name to the files you save, so as to recognize it next time. (Eg. `Practice-1-Oscad`).
- (c) Remember to save all your work in your folder.
- (d) This will ensure that your files don't get over-written by someone else.
- (e) Remember to save your work from time to time instead of saving it at the end of the task.

3.2 Instructions for Assignments

- (a) Attempt all the given assignments.
 - (b) Save your work by creating a folder called **Oscad-Assignment** in your main folder.
9. At 09:37 the video says that you have to watch KiCad tutorial - **Designing Circuit schematic in KiCad**.
 10. Locate this tutorial on the left hand panel and watch it.
 11. Reproduce the astable multivibrator circuit schematic shown in it using Oscad.
 12. After you finish this tutorial, locate the next tutorial **Designing Printed Circuit Board**.

4 Designing Printed Circuit Board

1. Click on the next topic **Designing Printed Circuit Board**.
2. You will need to use the practice files created in the previous tutorial.
3. Follow this tutorial and reproduce all the activities as shown.
4. At 08:50 the video says that you have to watch KiCad tutorials -
 - (a) Electric rule checking and netlist generation.
 - (b) Mapping components in KiCad.
 - (c) Designing printed circuit board in KiCad.
5. Locate these tutorials on the left hand panel and watch it.
6. Reproduce the layout of astable multivibrator shown in it using OScad.