



## 1 Online / Offline content

1. The online content of Spoken Tutorials can be accessed from :  
<http://spoken-tutorial.org/tutorial-search/>
2. You can also download the Spoken Tutorials for offline learning from :  
<http://spoken-tutorial.org/cdcontent/>
3. From this link download the FOSS categories in the language you wish to learn.
4. The Spoken Tutorial content will be downloaded as a zip file on your machine.
5. Extract the contents of the zip file & access them.

## 2 The procedure to practise

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 steps 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 practise during the second hearing.

## 3 NGSpice

1. Click on "Select FOSS" or "All FOSS Categories" drop-down and choose "NGSpice".
2. Click on "Select Language" or "All Languages" drop-down and choose the language (English, Hindi, Marathi ...) in which you wish to learn.
3. Click on "Submit" button.
4. You will see a list of tutorials based on your selection.
5. Start with the first tutorial in the displayed list.

## 4 First tutorial: Operating point analysis in NGspice

1. Locate the topic "Operating point analysis in ngspice" and click on it.

2. To view the tutorial, click on the Play icon which is located in the player.
3. The **Pre-requisite** will be visible below the player (only for Online contents).
4. **Outline, Assignments, Code Files and Slides** are available below the player.
5. Adjust the size of the browser in such a way that you are able to practice in parallel.

### 4.1 Instructions to practise on Linux OS

- (a) The tutorials are explained on the Linux OS.
- (b) It will be easy for the Linux users to follow, as instructed in the tutorial.

### 4.2 Instructions to practise on Windows OS

- (a) To launch `ngspice` on Windows, locate `spice/bin` (Please see the installation sheet).
- (b) Double click on `ngspice.exe` file.
- (c) The `ngspice` terminal opens up, where you can write your command.

### 4.3 Instructions to practise

- (a) Create a folder on the "Desktop" with your "Name-RollNo-Component".  
(Eg. "vin-04-ngspice").
- (b) Give a unique name to the files you save, so as to recognize it next time.  
(Eg. "Practice-1-vin").
- (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) Save your work from time to time, instead of saving it at the end of the task.

### 4.4 Common instructions for Assignments

- (a) Attempt the **Assignments** as instructed in the tutorial.
- (b) Save your work in your folder.

#### 4.5 Common instructions to use Code files

- (a) Click on the link "Code files" located below the player and save it in your folder.
  - (b) Extract the downloaded zip file.
  - (c) You will see all the code/source files used in the particular tutorial.
  - (d) Use these files as per the instructions
6. Play-pause-practise the whole tutorial.
  7. Once the tutorial is complete, choose the next tutorial from the playlist which is located on the right side or below the player.
  8. Follow all the above instructions, till you complete all the tutorials in the series.

given in the particular tutorial.