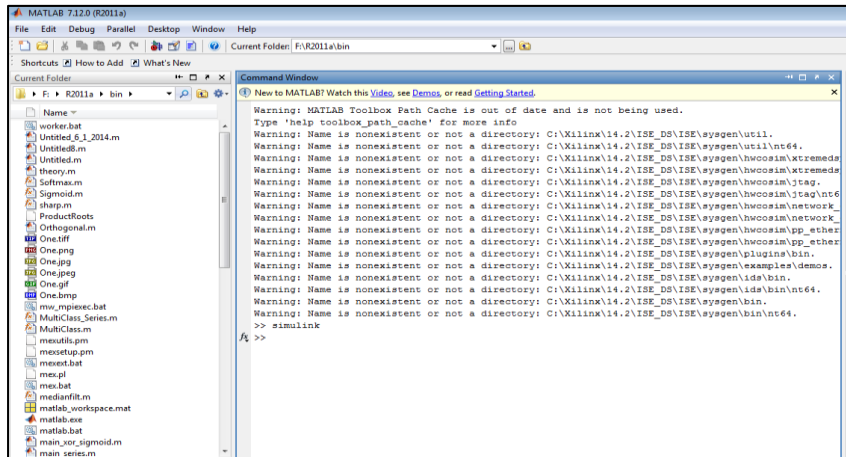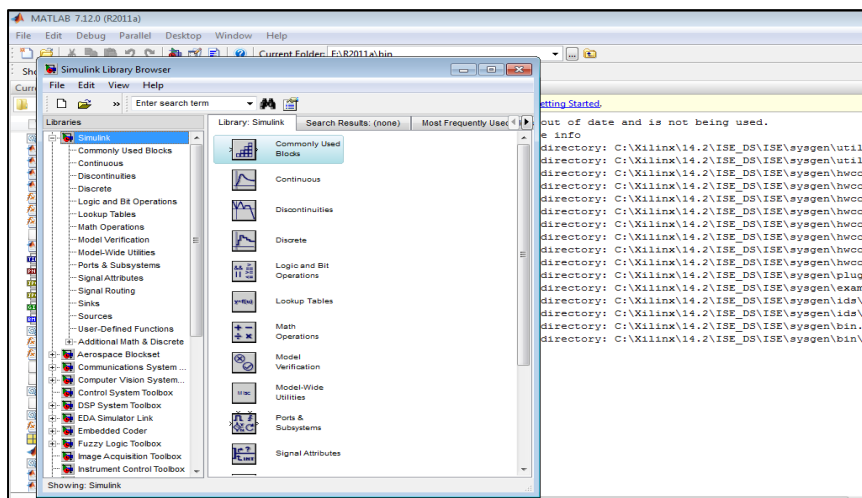# BFSK Modulation Steps in Simulink

Designing steps for BFSK modulator in MATLAB Simulink. Here the basic blocks are :
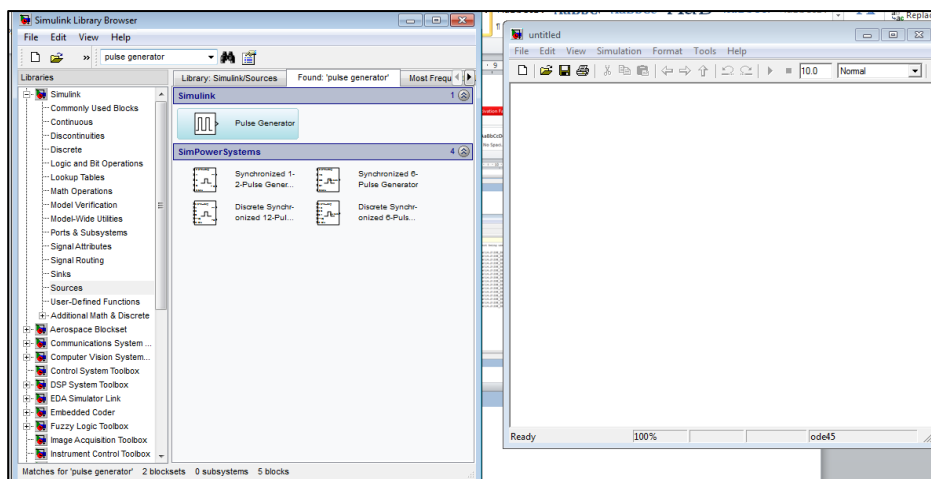(1) Pulse Generator (2) Sine waveform (3) Switch (4) Scope (5) MUX

**Step 1:** Open MATLAB and go in command Window and write **simulink**

**Step-2:** First see the Simulink Library Browser from where get the basic blocks of needed.

Step-3: Click on New model from Simulink Library Browser and a blank new model window is open. Here we design entire block diagram.

Step-4: To search first block of **Pulse Generator** in searching browser. And drag it from Simulink library browser to new blank model.
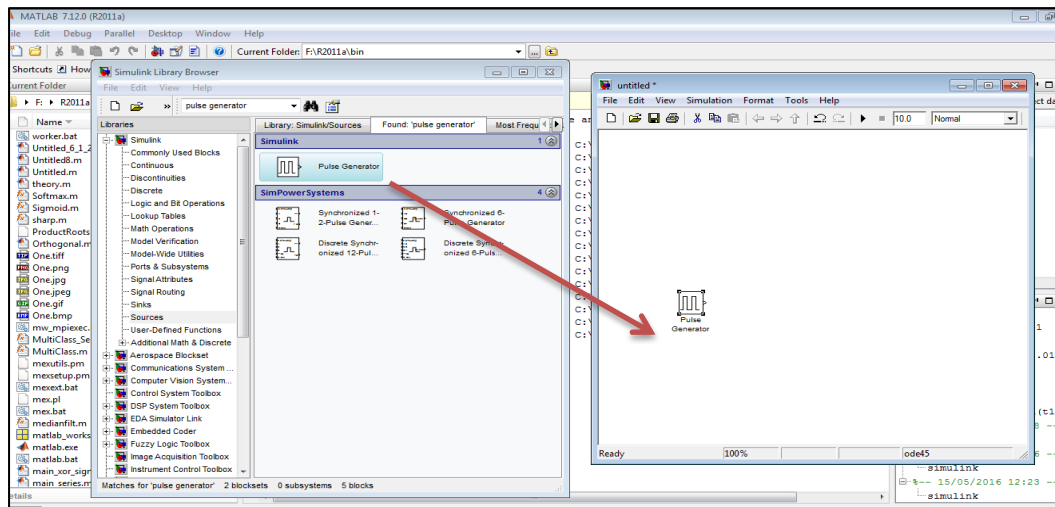

Step-5: Double click on **Pulse Generator** block in new model & change its property; set: Time period=2s, Pulse width = 50%, Amplitude = 1V .
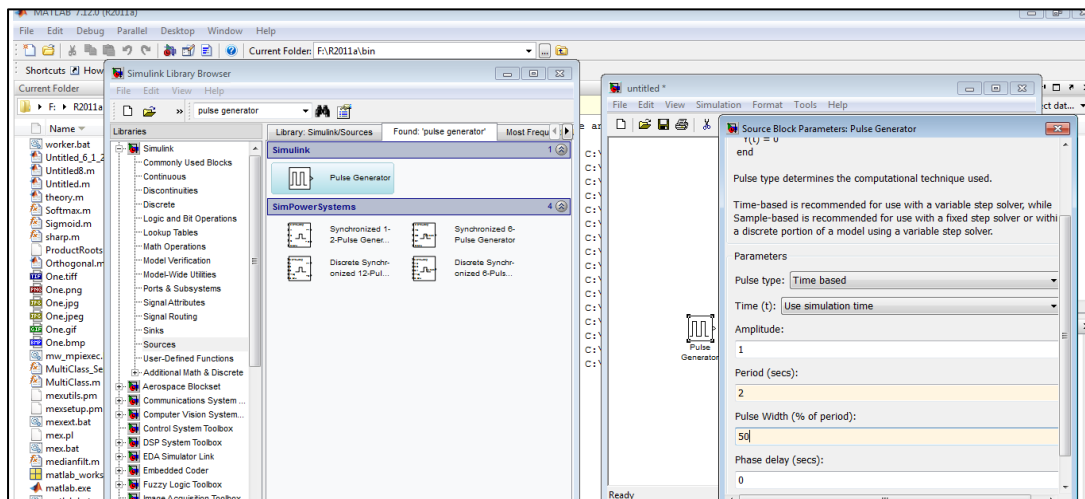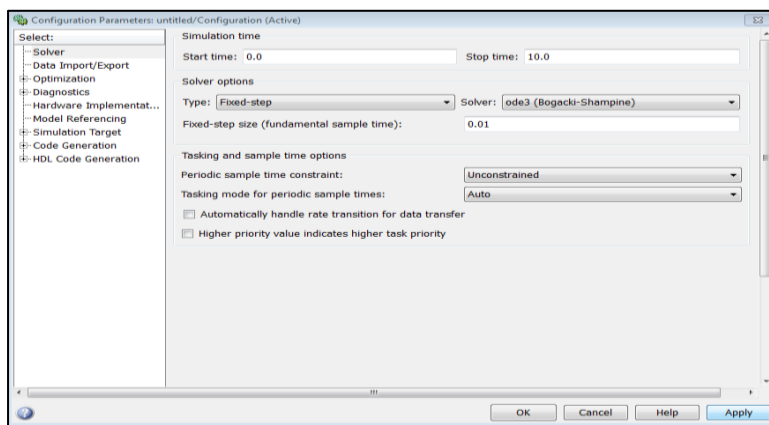

Step-6: Same way take next block **Sine generator** & change its property→ Frequency=2*pi*4 OR can set any frequency like 1000Hz (1K), sampling time=0.01s, (Frequency should be greater than 2nd sine block).
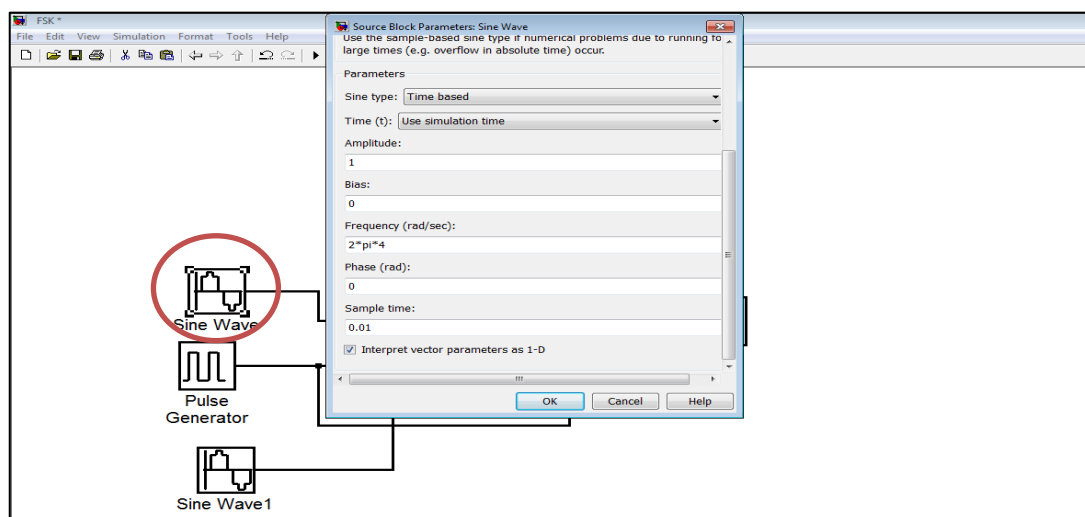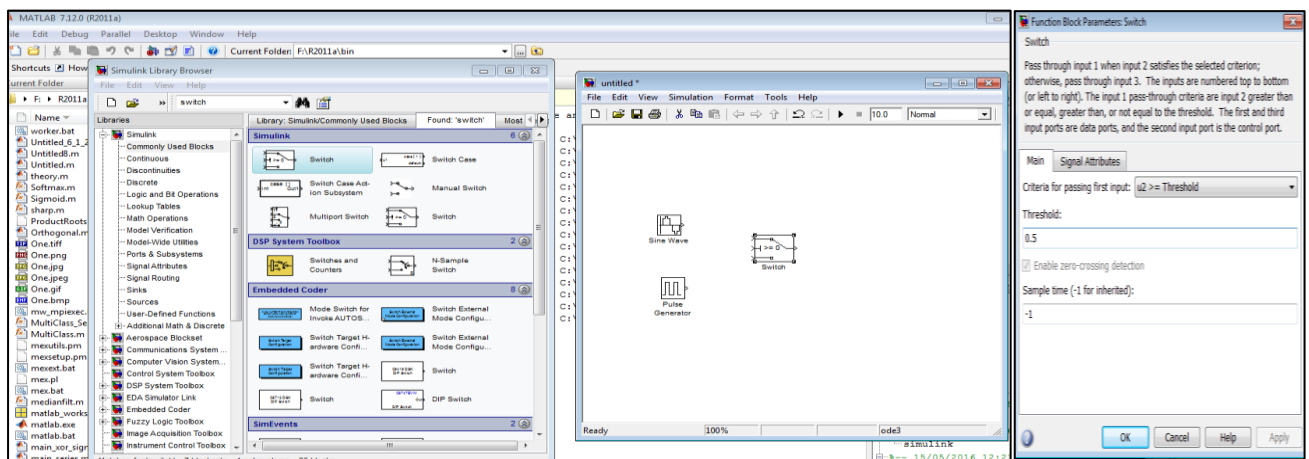
Step-7: Click on **Configuration parameters** from simulation menu.
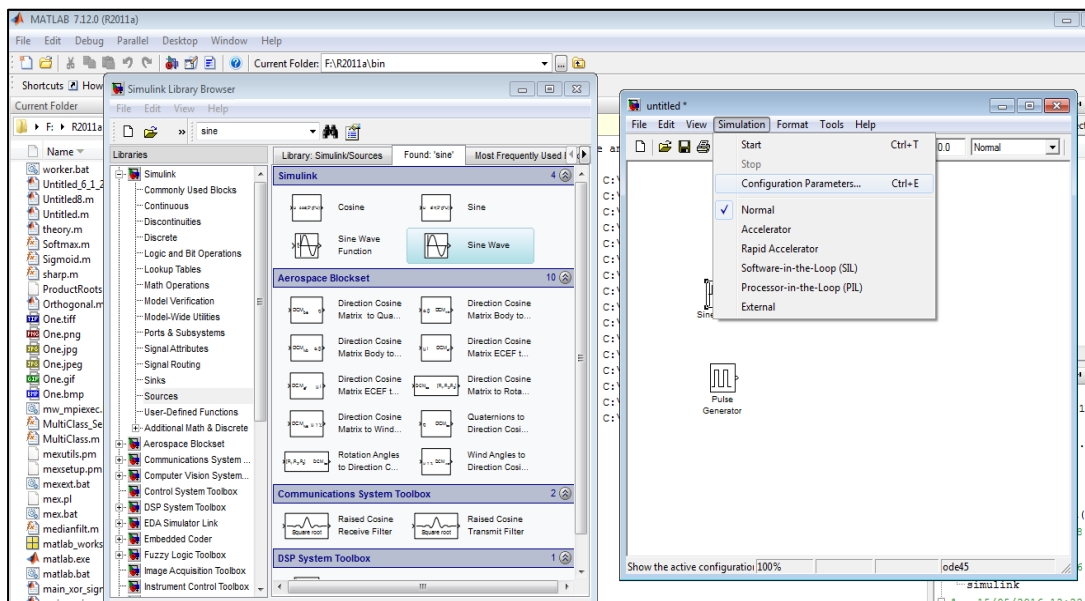
Step-8: When open Configuration window then change value of **Type** is Fixed step and **step size**=0.01. And click on Apply & then OK.
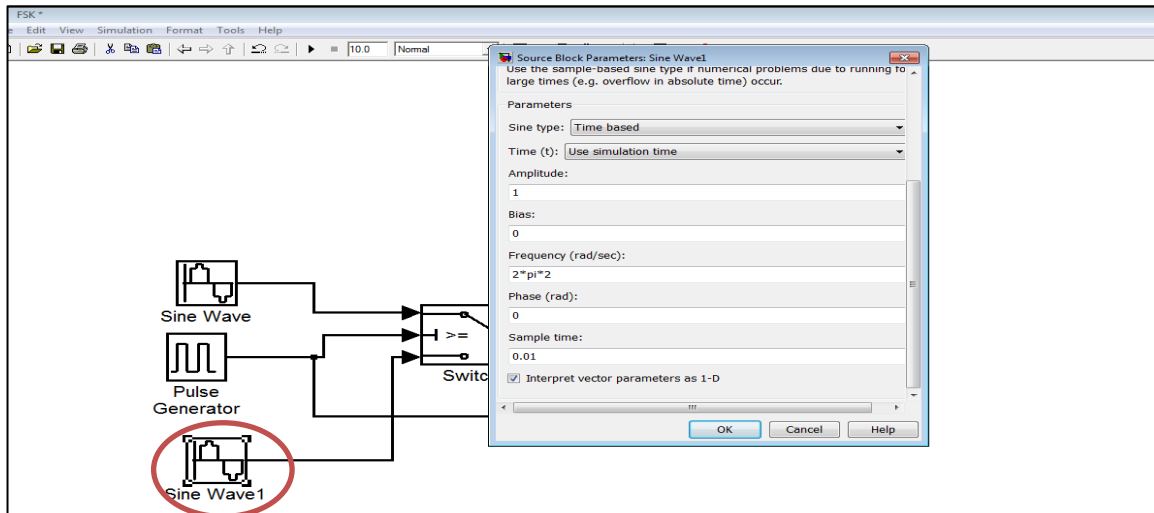

Step-9: Select **Switch** & change its **threshold value=0.5** by double click on it.

Step-10: Same way take next block **Sine generator** & change its property→ Frequency=2*pi*2 OR can set any frequency like 500Hz, sampling time=0.01s, (Frequency should be lesser than 1st sine block).

Step-11: Take **Scope** for watching waveform. Then Take **mux** for watching two waveforms on **Scope,** one is input pulse and second is output of switch. After connecting all the blocks and changing its property, it ready to **RUN**. Click on Run and watch output.
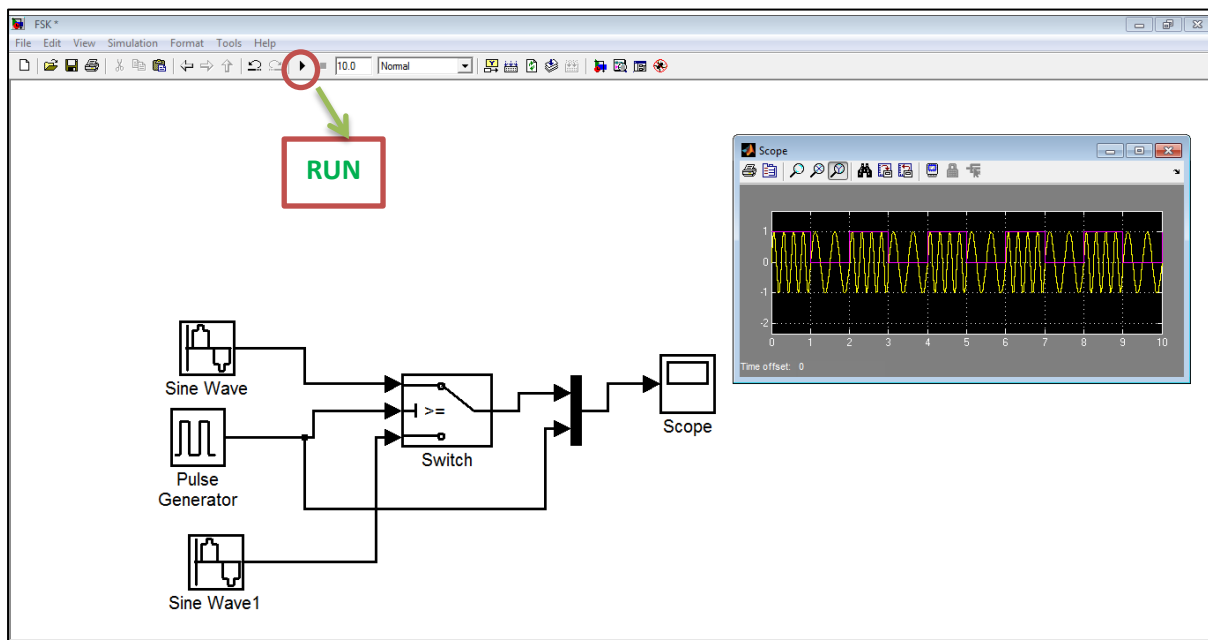
Step-12: Final diagram of BLOCKs and Waveform.