

## FOSSEE Signal Processing / DSP Toolbox Evaluation

Thank you for your interest in FOSSEE Toolbox project. You have expressed interest in the Signal Processing / DSP Toolbox. Before you start working on the toolbox, we would like to assess your coding and testing skills. Please read the details mentioned below.

**There is one section in this test.**

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### SECTION-I

Choose any three Matlab functions from the list given below and develop equivalent Scilab functions-

**dpss**  
**pmtm**  
**iirnotch**  
**firband**  
**iircomb**

The steps you would follow are-

1. Install Scilab 5.5.2.

2. Learn to write Scilab functions

[http://spoken-tutorial.org/tutorial-search/?search\\_foss=Scilab&search\\_language=English](http://spoken-tutorial.org/tutorial-search/?search_foss=Scilab&search_language=English)

2. Understand what the Matlab function does

<https://in.mathworks.com/help/dsp/functionlist.html>

<http://in.mathworks.com/help/signal/functionlist.html>

3. Implement the same in Scilab. You may use any existing Scilab functions.

4. Add appropriate comments throughout the code. Place header comments that include your name, function, input arguments, output arguments details. Include an example in the comment section. Cite any sources you may have used. This step is compulsory. **Plagiarism of any sort will not be tolerated and your code will be summarily rejected.**

You cannot use any other tool/library besides Scilab.

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### Code submission

1. Create a **private Bitbucket** repo. The name of the repo should be- (your) **First name Last name-Signal Processing Toolbox**. Add **fosseeToolbox** as a collaborator to your private repo. **Any repo with public access will be rejected.**

2. Create one folder in your repo with the name- **SectionI**.

3. Push section I code to the folder SectionI. Add a readme file. The readme file should explain how to execute the code with examples for all the functions. The readme file should be exhaustive.

4. Submit your Bitbucket repo details here- <https://goo.gl/forms/7s1POtsYInYC6tLj2>

Code submitted through email will be rejected. Please look at online resources to learn how to use Bitbucket. If you have any doubts, please email [toolbox@scilab.in](mailto:toolbox@scilab.in). Email sent to any other email address will not be answered. **The deadline to submit the Google form is 5 PM, 7 May, 2017.** This deadline will be strictly enforced. Emails asking for extensions will be ignored.