

EE 15 Project Requirements

General Requirements:

- Design a **bandpass/bandstop** digital filter using pole-zero placement in Matlab.
- The designed filter must be able to process a signal with **any number of frequency components**.
- **Input Requirements:**
 - Input signal – the user must have the freedom to input **n** number of frequency components (the sampling rate would depend on f_{\max})
- **Output Requirements:**
 - Input signal waveform
 - Input signal frequency components
 - Magnitude spectrum of the designed filter
 - Filtered signal waveform
 - Filtered signal frequency components
- **Documentation:**
 - Full discussion on the program code
 - Limitations (if any)
- **Grading scheme:**
 - Functionality – 85 %
 - Documentation – 15%
- **Submission:**
 - 21 May 2018, 11:59 pm
 - Submit a compressed file of the Matlab file and the documentation with the filename **Surname1_Surname2** through our google classroom.

Consult with me if you have clarifications.