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MATRIC NO: 17/ENG04/069

DEPARTMENT: ELECTRICAL ELECTRONICS ENGINEERING

EEE 324 ASSIGNMENT

1. Digital filter has characteristic like linear phase response.
2. The performance of the digital filter does not vary with environmental parameters.
3. Digital filters used at very low frequencies, for example in a biomedical application so-called as an adaptive filter because the frequency response can be possible to adjust automatically with an implementation of the programmable processor.
4. The digital filter is highly flexible possible to filter several input sequences without any hardware reapplication.
5. From unit to unit the performance of the digital filter is repeatable.
6. In the case of the analogue filter maintenance is frequently required but for digital filters is not required.
7. It is used where the use of an analogue system is impractical due to its operating level is at low frequency.
8. The digital filters are portable.
9. In the case of the digital filter; since the filtering is done with the help of a digital computer, both filtered and unfiltered data can be saved for further use.
10. The hardware of digital filters can be reduced similarly, thus the power consumption can be reduced.
11. Digital filter is easily designed, tested and implemented on a general-purpose computer or work-station.
12. Digital filters do not suffer from drift and dependent on temperature so they are extremely stable with respect to both time and temperature.

c. cutoff frequency

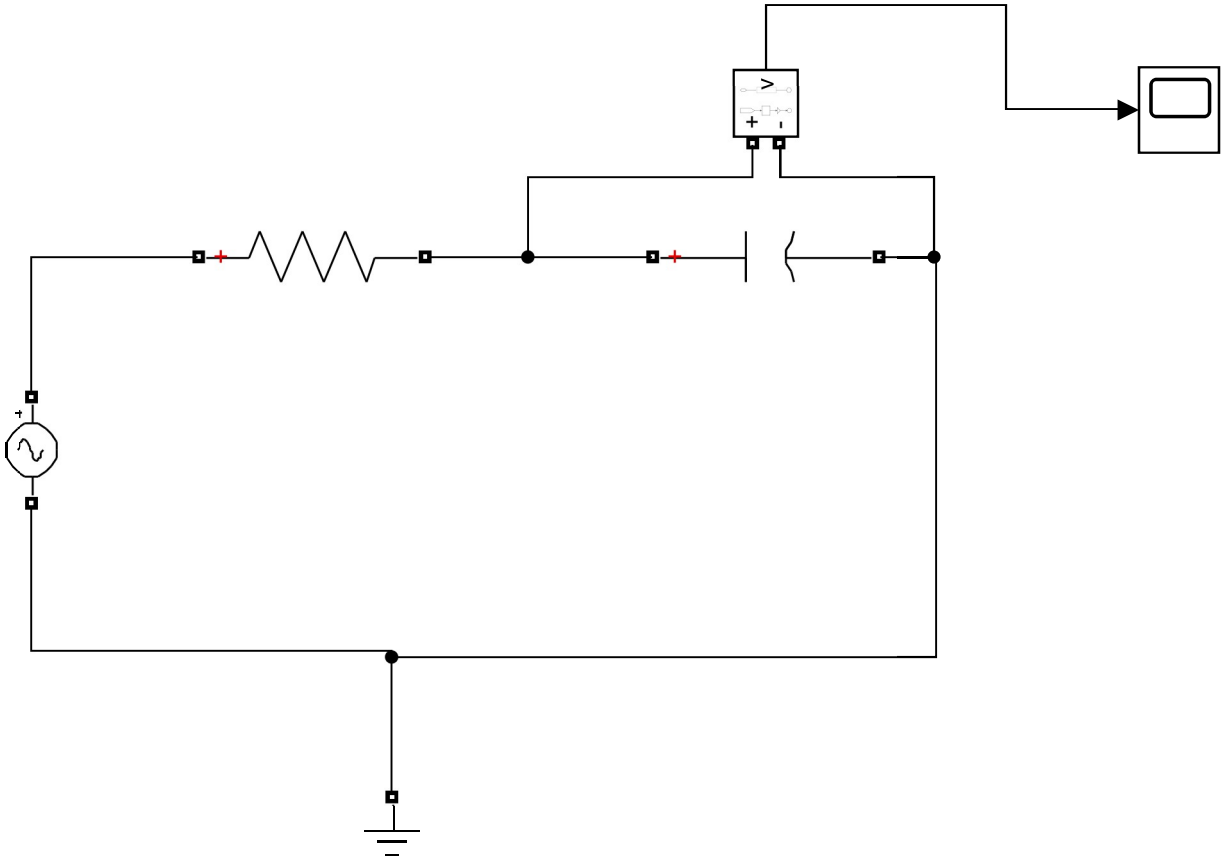
Fc = ½pi*R*C

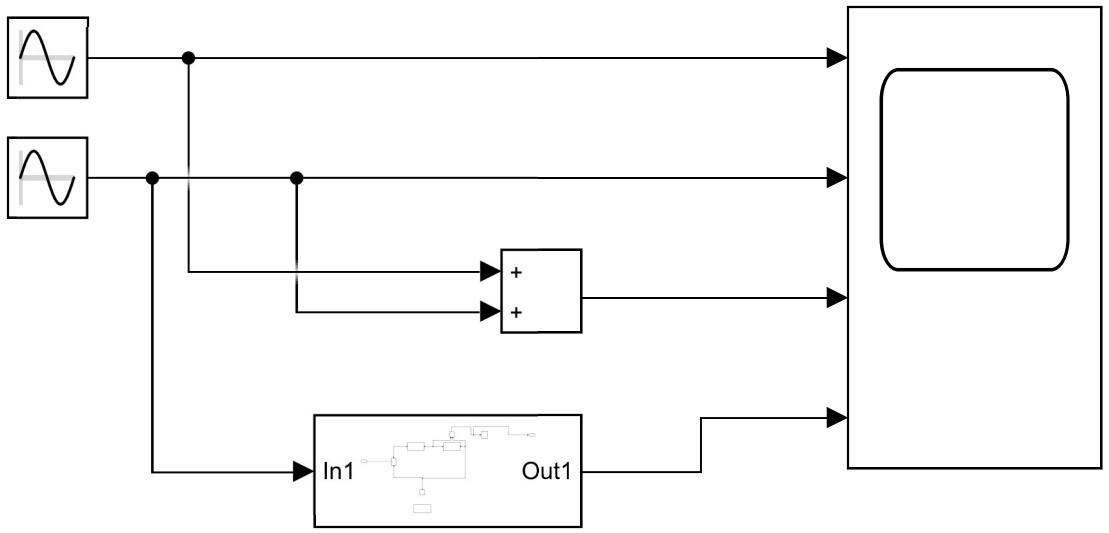
R = 0.005ohms

C = 0.01F

Fc =` 1/2*pi*0.005*0.01

Fc = 3183.098Hz

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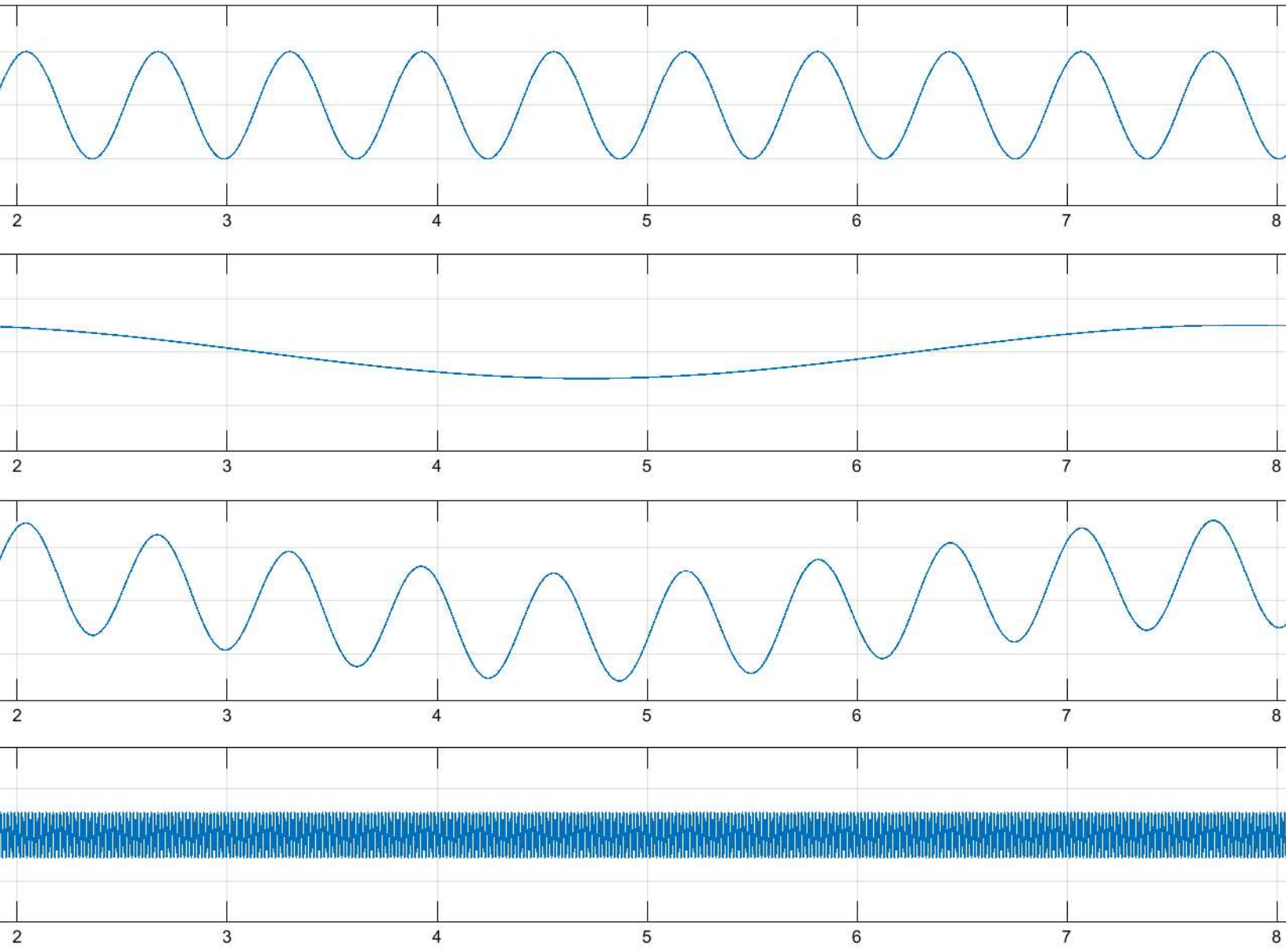
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