



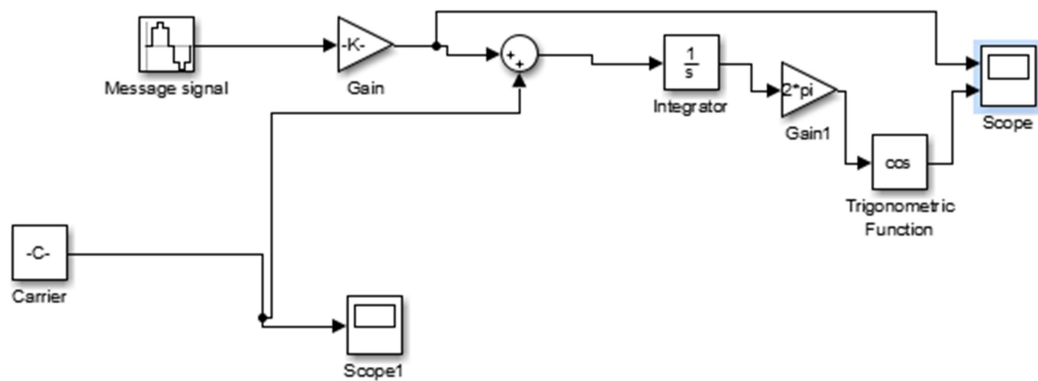
**American International University- Bangladesh**  
**Department of Computer Science**

**Lab Report Cover Sheet**

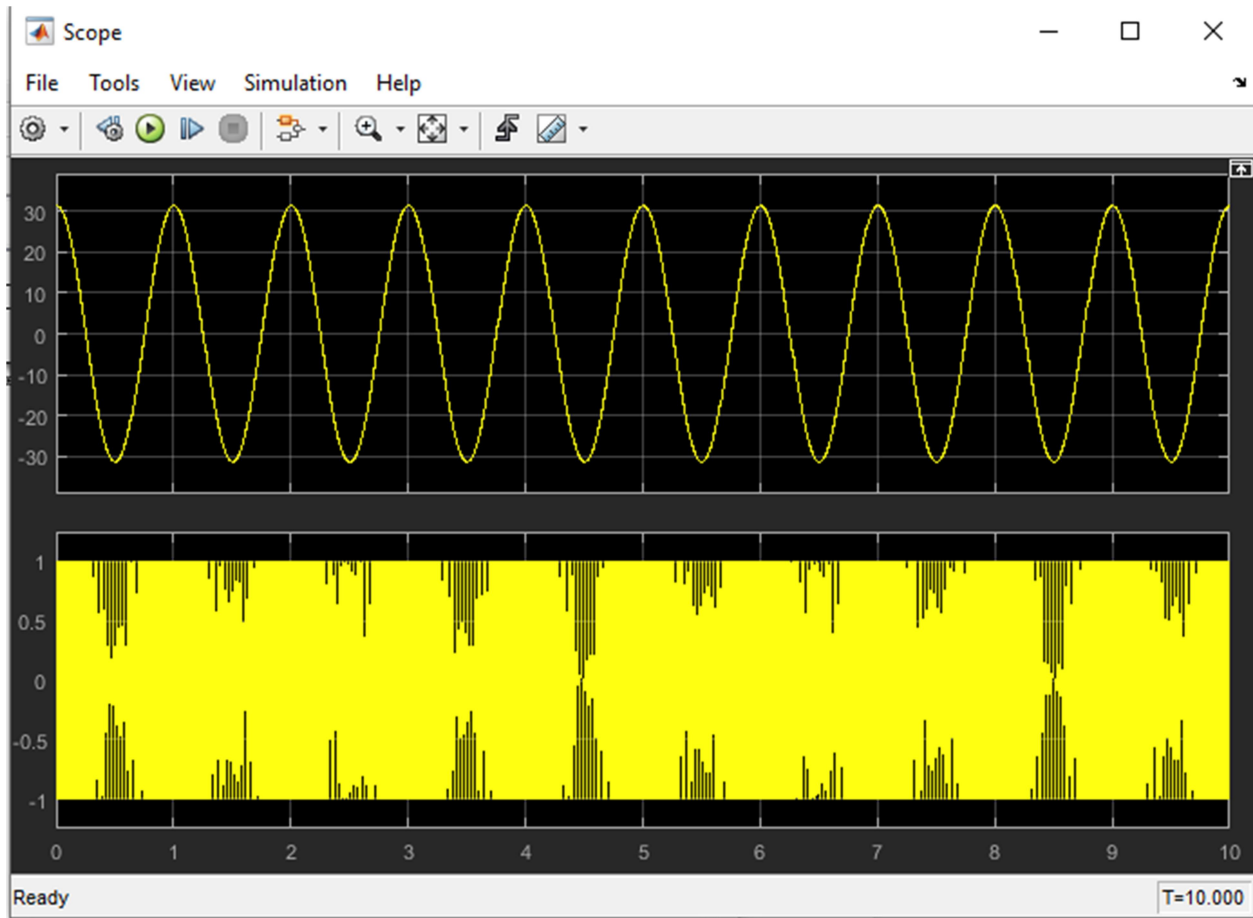
<b>Course Name</b>	Data Communication
<b>Lab Report No.</b>	07
<b>Lecturer Name</b>	Md. Navid Bin Anwar
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<b>Section</b>	B
<b>Group No.</b>	10

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<b>Lecturer Remarks</b> (Only for teacher)		

## The Block diagram of Modulation :



## The message signal and modulated signal:



Block Parameters: Message signal

Sine type determines the computational technique used. The parameters in the two types are related through:

Samples per period =  $2\pi / (\text{Frequency} * \text{Sample time})$

Number of offset samples =  $\text{Phase} * \text{Samples per period} / (2\pi)$

Use the sample-based sine type if numerical problems due to running for large times (e.g. overflow in absolute time) occur.

Parameters

Sine type: Time based

Time (t): Use external signal

Amplitude: 1

Bias: 0

Frequency (rad/sec):  $2\pi$

Phase (rad):  $\pi/2$

OK Cancel Help Apply

Block Parameters: Carrier

Constant

Output the constant specified by the 'Constant value' parameter. If 'Constant value' is a vector and 'Interpret vector parameters as 1-D' is on, treat the constant value as a 1-D array. Otherwise, output a matrix with the same dimensions as the constant value.

Main Signal Attributes

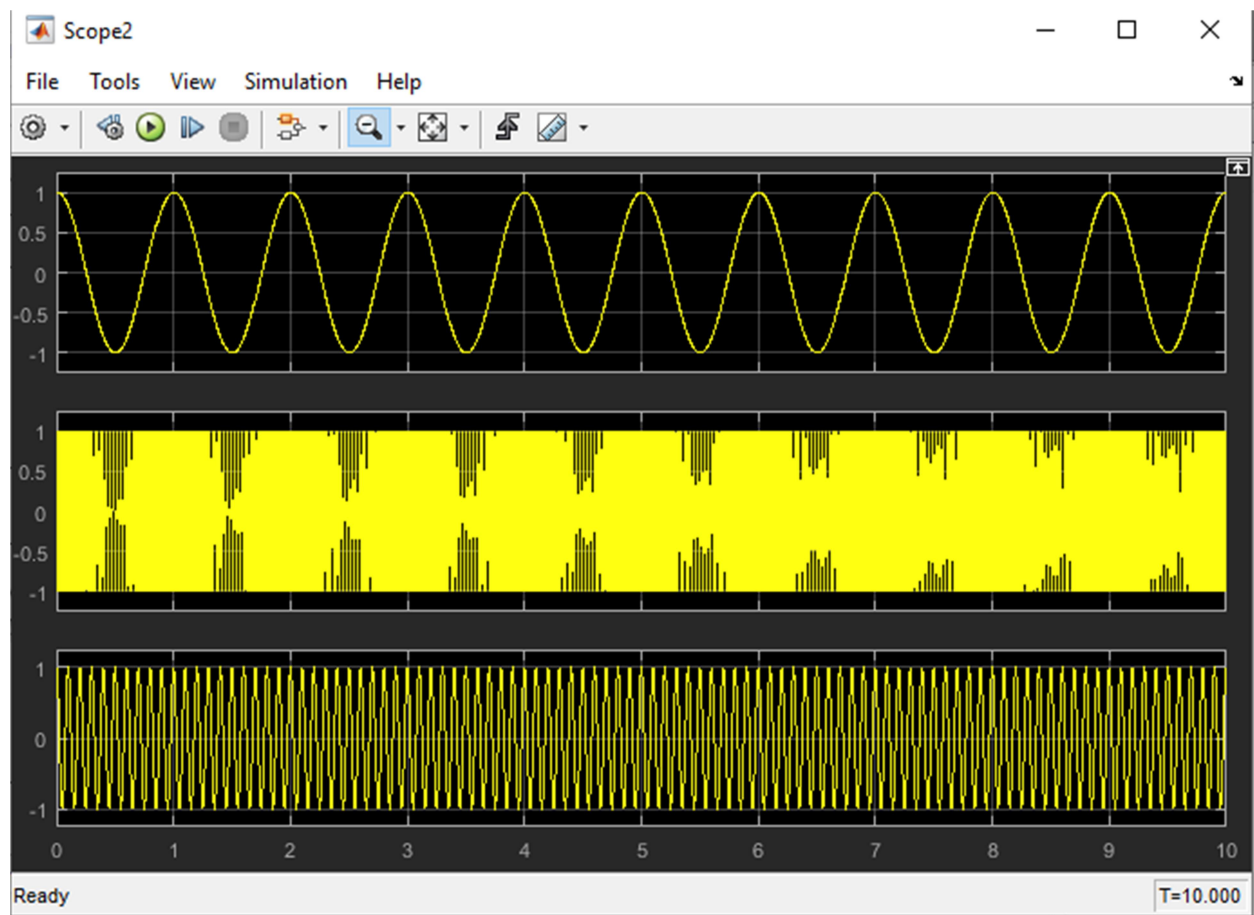
Constant value:  $2\pi * 10$

☒ Interpret vector parameters as 1-D

Sample time: inf

OK Cancel Help Apply





Block Parameters: Analog Filter Design

Analog Filter Design (mask) (link)

Design one of several standard analog filters, implemented in state-space form.

Parameters


Design method: Butterworth

Filter type: Lowpass

Filter order: 10

Passband edge frequency (rad/s):  $2\pi \cdot 10$

OK Cancel Help Apply

 Block Parameters: Continuous-Time VCO ✕

Continuous-Time VCO (mask) (link)

Generate a continuous-time output signal whose frequency changes in response to the amplitude variations of the input signal. The input signal must be a sample-based scalar.

Parameters

Output amplitude (V):

Quiescent frequency (Hz):

Input sensitivity (Hz/V):

Initial phase (rad):

