Module 6 - MATLAB Review

ME3060 - Dynamics Modeling and Controls Lab

Mechanical Engineering

Tennessee Technological University

Topic 2 - Using Simulink

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- What is Simulink?
- Create a Model
- Run the Model
- View and Export Results

What is Simulink?

Simulink is a MATLAB-based graphical programming environment for modeling, simulating and analyzing multidomain dynamical systems. Its primary interface is a graphical block diagramming tool and a customizable set of block libraries. It offers tight integration with the rest of the MATLAB environment and can either drive MATLAB or be scripted from it. Simulink is widely used in automatic control and digital signal processing for multidomain simulation and model-based design.[2][3]

Text: Wikipedia

Create a Model

- Upon installing of MATLAB you can choose to install simulink. If you did not can can install it through the *Add-Ons Explorer* in the home tab.
- Open MATLAB and find the command window and start simulink by entering the following.

```
>> simulink
```

- A Simulink is intended for Model Based Design
  $\rightarrow$ a simulink file is called a *model*

Run the Model

View and Export Results