ECEN Lab Notebook

**Background**

Motor Model

J = moment of inertia of the rotor (kg.m^2)

K­m = electromotive force constant (V/rad/s)

KT = motor torque constant

b = motor viscous friction constant

R = resistance

L = inductance

For this analysis, İ and b are considered negligible. Adjusting for this and applying the Laplace transform yields:

Where , and 1/Km = K

**Results**

**Discussion**