



MEEG 311 – Lecture 20

Vibration and Control

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6 November 2018

Goals:

- Routh's stability criterion:
 - Construction of Routh's array
 - Special cases: (i) a zero encountered as a first element of a row in Routh's array and (ii) an entire row of Routh's array is zero
- Example: Applying Routh's criterion in PI controller design (selecting gains to ensure stability)
- Steady-state response and system type:
 - Type 0, 1, and 2 systems
 - Static position error, static velocity error, and static acceleration error constants