COURSE DETAIL

CONTROL
Country Australia
Host Institution University of Sydney
Program(s) University of Sydney
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Electrical Engineering
UCEAP Course Number 129
UCEAP Course Suffix
UCEAP Official Title CONTROL
UCEAP Transcript Title CONTROL
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines the application of feedback control to continuous-time, linear time-invariant systems. It covers modelling of physical systems using state space, differential equations, and transfer functions, dynamic response of linear time invariant systems and the role of system poles and zeros on it, simplification of complex systems, stability of feedback systems and their steady state performance, Routh-Hurwitz stability criterion, sketching of root locus and controller design using the root locus, Proportional, integral and derivative control, lead and lag compensators, frequency response techniques, Nyquist stability criterion, gain and phase margins, compensator design in the frequency domain, state space design for single input single-output systems, and pole placement state variable feedback control and observer design.

Language(s) of Instruction
English

Host Institution Course Number
ELEC3304

Host Institution Course Title
CONTROL

Host Institution Course Details
https://www.sydney.edu.au/units/ELEC3304.html

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Electrical and Information Engineering

Course Last Reviewed
2023-2024

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