

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 Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Electrical and Information Engineering

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