

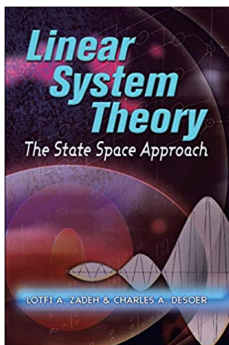
Central Library Book of the month

July 2019



Linear system theory : the state space approach

Zadesh, Lotfi A. Desoer, Charles A.



**PU49724
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The state space approach is widely used in systems ranging from industrial robots to space guidance control. This landmark in the technique's development and applications was written by two pioneers in the field, Lotfi A. Zadeh and Charles A. Desoer, who teach in the Department of Electrical Engineering and Computer Science at the University of California, Berkeley.

Starting with a self-contained introduction to system theory, the authors explain basic concepts, presenting each idea within a carefully integrated framework of numerous illustrative examples. Most of the text concerns the application of the state space approach to systems described by differential equations. Problems of stability and controllability receive particular attention, and connections between the state space approach and classical techniques are highlighted. The properties of transfer functions are covered in separate chapters. Extensive appendixes feature complete and self-contained expositions of delta-functions and distributions, the Laplace and Fourier transform theory, the theory of infinite dimensional linear vector spaces, and functions of a matrix.

<https://www.amazon.com/Linear-System-Theory-Mechanical-Engineering/dp/0486466639>

