

Analysis and Design of Feedback Systems:
An Introduction for Scientists and Engineers

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Preface

This book provides an introduction to the basic principles and tools for design and analysis of feedback systems. It is intended to serve a diverse audience of scientists and engineers who are interested in understanding and utilizing feedback in physical, biological, information, and economic systems. To this end, we have chosen to keep the mathematical pre-requisites to a minimum while being careful not to sacrifice rigor in the process.

This book was originally developed for use in an experimental course at Caltech involving undergraduates and graduate students from a wide variety of disciplines. The course included undergraduates at the junior and senior level in traditional engineering disciplines, as well as first and second year graduate students in engineering and science. This included graduate students in biology, computer science, and economics, requiring a broad approach that emphasized basic principles and do not focus on applications in a given area.

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