Abstract

Modeling of real time system posses a large number of problems. It is a challenging task to model accurately a large real time system. Modeling of large real time systems results in large number of differential or difference equations that lead to state variable or transfer function models that represents a higher order system. It is very difficult to handle such a higher order
system model for the analysis and design purposes. This paper presents an overview of time
domain techniques that can be used to reduce the higher order model to a lower order one. The
requirement of model order reduction is that the reduced order model so obtained should retain
the important and key qualitative and quantitative properties such as stability, transient and
steady state response etc. of the original system.

Reference

- R. Prasad, ‘Analysis and design of control system using reduced order models’, PhD.
- A. Gruca and P. Bertrand, ‘Approximation of higher order systems by low order models

Index Terms

Computer Science

Information

Technology

Key words

Model Order Reduction
Modal Analysis Approach