Abstract

In this paper employing Routh’s table, a geometrical stability criterion for the analysis of linear time-invariant system is formulated. The proposed stability criterion is applied for the system, whose characteristic equation having complex coefficients. For this Routh like table is presented with complex terms and the signs pair-wise elements with the first column of the table are observed. The proof for the criterion is also given which is based on the Hurwitz’s matrix and its determinants. It is found that the proposed method is termed as SIGN PAIR CRITERION and is illustrated with suitable examples.

References

An Algebraic Approach for stability Analysis of Linear Systems with Complex Coefficients

334-339.

Index Terms

Computer Science

Algorithms

Keywords

Hurwitz's Matrix  Routh's Table  Sign Pair Criterion