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

334-339.

Index Terms

Computer Science  Algorithms

Keywords
Hurwitz's Matrix  Routh's Array  Routh's Table  Sign Pair Criterion