

On the implementation of some methods applied to optimization design problems

Zabotin I.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

It is shown that in optimization problems arising during electronic circuit design constraints often may be represented as a direct product of some sets from different spaces which in general may have different dimensions. Taking into account this form of valid set makes it possible a decomposition of the optimization problem of large dimension. It is also shown that in man-machine decision support systems implemented on parallel computers it is possible to branch the optimization algorithm in order to reduce computing time. The efficiency of the approach is demonstrated by using a modification of gradient and subgradient projection methods for electronic circuit design.
