Abstract

This paper presents the methodology for the selection of optimal conductors, in radial distribution systems by comparative study of the results obtained by conventional or analytical
method and Genetic algorithm method (GA). The objective is to minimize the real and reactive power losses in the system and to maximize the total saving in cost of conducting material while maintaining the acceptable voltage levels. The conductor, which is determined by conventional method will satisfy not only the maximum current carrying capacity and maintain acceptable voltage limits. It is observed that the number of computations is more in conventional method than Genetic Algorithm. The proposed method is tested on 13 bus of Andhra Pradesh southern power Distribution Company limited.

Reference


Index Terms

Computer Science  
Power Systems

Key words

Genetic algorithm  
real power loss
reactive power loss  
distributed load flow