

عنوان مقاله:

Transient Analysis of the Single-Conductor Overhead Lines Connected to Grid-Grounded Arrester under Direct Lightning by Means of GA

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خلاصه مقاله:

In this paper, genetic algorithm-based approach for transient analysis of single transmission line connected to arrester is proposed. In this approach, the lightning channel striking the overhead line is first represented by a current source and this source is truncated by a finite set of frequency harmonies in time domain. Norton equivalent circuit viewed across arrester is then computed by method of Fuzzy (MoF), then applying Kirchhoffs current law to this nonlinear circuit and solving it by genetic algorithm, transient voltage across the arrester is easily computed. Comparison of the achieved voltage with accurate one (EMTP software) shows good agreement as well as fast run-time.

کلمات کلیدی:

arrester, Overhead line, genetic algorithm

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