عنوان مقاله:

Design of Grounding Vertical Rods Buried in Complex Soils using Radial Basis Functions

محل انتشار:

دوفصلنامه مهندسی مخابرات, دوره 7, شماره 2 (سال: 1397)

تعداد صفحات اصل مقاله: 11

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خلاصه مقاله:

In this paper, using neural networks based on radial basis functions (RBF), a comprehensive closed-form solution for effective length of vertical grounding rod is extracted in such a way that the two effects of ionization and dispersion are simultaneously considered. In creating the model, training data are computed from multi-conductor transmission line (MTL). As a results, firstly in the proposed model, in despite of previous models considering either ionization or dispersion, both effects are included. Secondly, the results are in excellent agreement with the MTL. The achieved results for effective length show that considering both effects simultaneously results in a length which is greater than the one in only-dispersive soil, and less than the one in only-ionized soil. It is well known that this is financially of .importance

کلمات کلیدی:

RBF, vertical rod, ionization, Dispersion