

Potential Distribution and Electric Field Analysis around a Polluted Outdoor Polymeric Insulator with Broken Sheds

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Abstract : This paper presents a study of electric field distribution along of 72 kV polymeric outdoor insulators with broken sheds. Different cases of damaged insulators are modeled and both of clean and polluted cases. By 3D finite element analysis using the software package COMSOL Multiphysics 4.3b. The obtained results of potential and the electrical field distribution around insulators by 3D simulation proved that finite element computations is useful tool for studying insulation electrical field distribution.

Keywords : electric field distributions, insulator, broken sheds, potential distributions

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