

# **Pspice Double Void Partial Discharge Simulation And Detection Using Wavelet**

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## **Summary**

Partial Discharges (PD) on insulation in general is among the most vulnerable processes in the AC system that can cause a failure. Therefore, an effective early detection of insulation failure will significantly reduce chances of catastrophic failure in power system apparatus avoiding costly repair and power outage impact. The capacitive network representation of insulation has long been used for the study of impulse voltage distribution along the windings and, for PD detection and location. A Partial discharge (PD) model using Pspice as to generate void signals is used in this paper. The model includes the equivalent electrical circuit of solid inhomogeneous dielectrics with voids. This signal is then detected by a digital signal processing tool, which is the wavelet, under different noise intensities.

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