TRANSIENT VOLTAGE DISTRIBUTION IN TRANSFORMER WINDING

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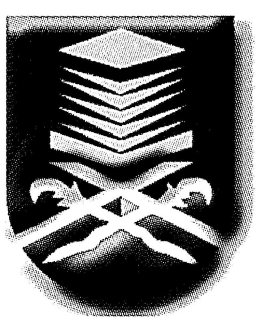

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Thank you,

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ABSTRACT

This paper describes how to obtain parameters of a standard winding using 2D FEMM and Transient Voltage Distribution in Transformer Winding using Pspice. The values of inductance L, capacitor Cs and Cg are obtained by using 2D FEMM software. The Cs and Cg can be calculated by using electrostatic problems which are inter turn and turn to ground calculations while the L can be calculated by using the magnetic problem. The values of inductance are applied in the capacitive distribution along the winding circuit. Therefore, a transient overvoltage has been analyzed by injecting the pulse in the primary voltage by using Pspice. It is use to simulate the transient voltage distribution of that power transformer under lightning over voltage as well as the transformer is switched in the no load circuits. The simulated show that the model can represent transient response of the transformer and simplifies the process of calculation.

Keyword :- 2D FEMM, Pspice, Transient Voltage

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