

- b) **Magdy B. Eteiba, Mohamed Mamdouh Abdel Aziz, and Jehan Hassan Shazly, "Heat Conduction Problems in SF₆ Gas Cooled-Insulated Power Transformers Solved by the Finite Element Method", IEEE, Trans. On Power Delivery, Vol. 23, No. 28, pp. 1457-1463, July 2008.**

In this paper, the finite-element method is used to perform heat transfer analysis to obtain the steady state and the transient temperature distribution of SF₆ gas cooled-insulated power transformers. All significant parameters that influence transformer operation have been included. Also, the analysis results, which are obtained from the thermal analysis, could be reviewed at any specified location within the transformer as a function of time. The predicted temperature values are compared with experimental results reported in the literature.