g) **Jehan H. Shazly, Magdy. B. Eteiba, and Yasser.M. El-Sayed, "HYBRID ANALYTICAL TECHNIQUE THERMAL MODELING OF GAS INSULATED TRANSMISSION LINE", International journal of Heat and Technology. , (Vol. 32, 1-2, 2014) pp.103-110.**

The gas-insulated transmission line (GIL), which is a replacement of an overhead line in some special environments has been used because of its high capacity, low losses and no electromagnetic interference. A mathematical thermal model for predicting the steady state temperature distribution inside and outside GIL is investigated by merging two techniques to get rid of using sensors inside the GIL cable. The finite element analysis involving formulation and solution of the heat conduction equations has been done. During the solution of the heat conduction equations of the proposed model, a numerical study based on energy conservation equation using MATLAB programming is performed to determine the bulk temperatures of SF6 gas inside the cable. The calculated values are verified with experimentally measured values under the same conditions and both show close agreement with each other.