

# **Categorization of Internal Faults by using Artificial Neural Network (ANN)**

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## **ABSTRACT**

The main objective of this project is to create an intelligent model using image processing techniques in order to categorize the internal fault to four categories, which are low, intermediate, medium and high. Sample of internal fault location are captured using infrared thermography camera where the RGB color image are stored and processed using matlab. Processing involves impixelregion which includes creating a Pixel Region tool associated with the image displayed in the current figure, called the target image. This information is then being used to train a three layer Artificial Neural Network (ANN) using Levenberg Marquardt algorithm. A 168 samples are used as training, whilst another 168 samples are used for testing. The optimized model is evaluated and validated through analysis of performance indicators frequently used in any classification model.

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