

## **ANFIS Based Technique to Estimate Remnant Life of Power Transformer by Predicting Furan Contents**

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**Abstract :** Condition monitoring and diagnostic is important for testing of power transformer in order to estimate the remnant life. Concentration of furan content in transformer oil can be a promising indirect measurement of the aging of transformer insulation. The oil gets contaminated mainly due to ageing. The present paper introduces adaptive neuro fuzzy technique to correlate furanic compounds obtained by high performance liquid chromatography (HPLC) test and remnant life of the power transformer. The results are obtained by conducting HPLC test at TIFAC-CORE lab, NIT Hamirpur on thirteen power transformer oil samples taken from Himachal State Electricity Board, India.

**Keywords :** adaptive neuro fuzzy technique, furan compounds, remnant life, transformer oil

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