



R&D Fund Project

Enhancing Technical Competencies In HV Engineering And Diagnostics



Partial discharge testing conducted by



TNBR researchers attending training at IISc,
Bangalore,

Project Overview

Diagnostics testing and condition monitoring (DTCM) of high voltage equipment are important activities in TNBR, in line with TNB T7 initiative, to ensure high reliability of the power supply. To meet the growing expectation of TNB for effective solutions to equipment reliability issues, TNBR has carried out a project to improve the technical competencies of its High Voltage Diagnostics (HVD) Group. This is

achieved through a specialized, core area- and project-/task- oriented training, coaching and mentoring by an expert. Professor Dr. T.S. Ramu of the Indian Institute of Science (IISc), Bangalore was selected trainer-mentor for his credentials in these areas.

Researchers in the Power Transformer Section, Cable Section and Switchgear Section were involved in this project. The training covered both the theoretical and practical aspects of electrical insulation, high voltage equipment diagnostics testing and condition monitoring (DTCM), prognosis and life extension. The researchers were given specific assignments related to the research projects and proposals that they were working on and were provided with the necessary guidance, supervision, coaching and mentoring. Close, personalized discussions, deliberations and consultation on technical matters pertinent to their research were carried out on a daily basis. A series of technical lectures were delivered by Professor Dr. T.S. Ramu for TNB. The researchers also had the opportunity to visit IISc for exposure.

Deliverables

- a) Two technical seminars on high voltage equipment DTCM for TNB and manufacturers
- b) Enhanced TNBR's competency in HV diagnostics of power transformers, cables, and switchgears
- c) Guidelines for Setting Up DTCM Center for TNB
- d) Technical paper for submission to the IEEE Conference

Benefits

- a) Exposure to the myriads of aspects on high voltage equipment DTCM, prognosis and life extension
- b) Improved technical knowledge, skills and competencies on DTCM and the related aspects