

## **CEMIG PRACTICAL EXPERIENCE ON PARTIAL DISCHARGES MONITORING**

**Gerson André Braulio (\*)**

**Alexsander G. Silva**

**CEMIG GT**

**CEMIG GT**

Nowadays a lot of companies are still using the basic maintenance method not only to simple system, but also to more complex ones like high voltage rotating machine. With advances in electronics and computing, a new type of maintenance has been proposed and is being increasingly applied in the industry as a whole. It is predictive maintenance or condition based maintenance. The progressive development of partial discharging activities is the major symptom of the deterioration of insulation. Partial discharges also contribute to the thermal aging of the dielectric system of the machine by erosion of the insulation system, characterizing the loss of the ability to perform the task for which it was designed and, consequently, its end of lifetime. This technical report describe the Cemig's experience on using the monitoring method called Partial Discharge to hydrogenerators. It will be possible to verify when and how the couplers installation started on this company, one of the largest governmental utility in Brazil. Some case studies involving partial discharge analysis as well as maintenance team decision making will be demonstrated at this paper.

Key word: Partial Discharges Monitoring - Maintenance History - Fault Diagnosis