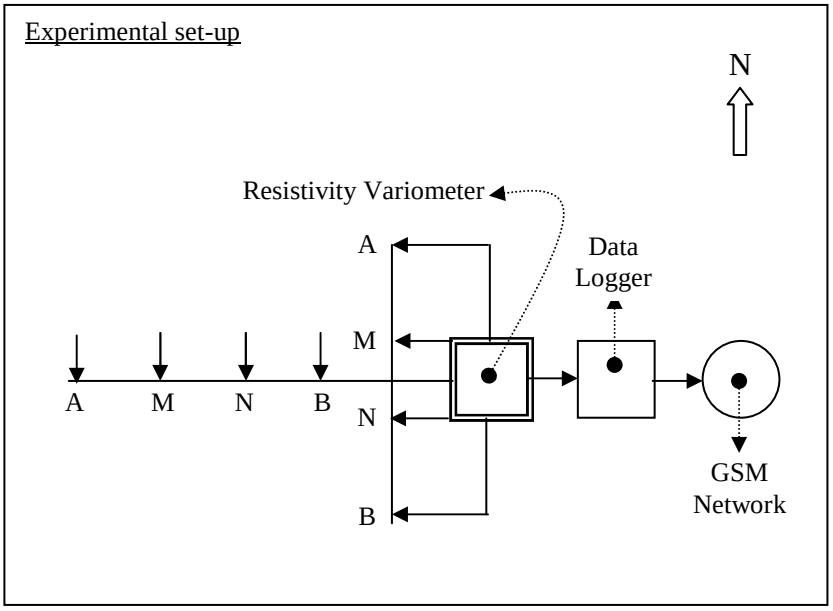
ELECTRICAL RESISTIVITY VARIOMETER

FOR EARTHQUAKE MONITORING STUDIES

It has been well established through a number of studies that seismic activity is associated with subsurface resistivity variations. A systematic study with continuous of monitoring of electrical resistivity and telluric variations along with the seismic stations will be highly useful and lead to the possible application of resistivity and telluric variation as precursor for seismic activity.

In this context IGIS has developed Electrical Resistivity Variometer, which can record electrical resistivity variations and telluric currents at any desired interval.

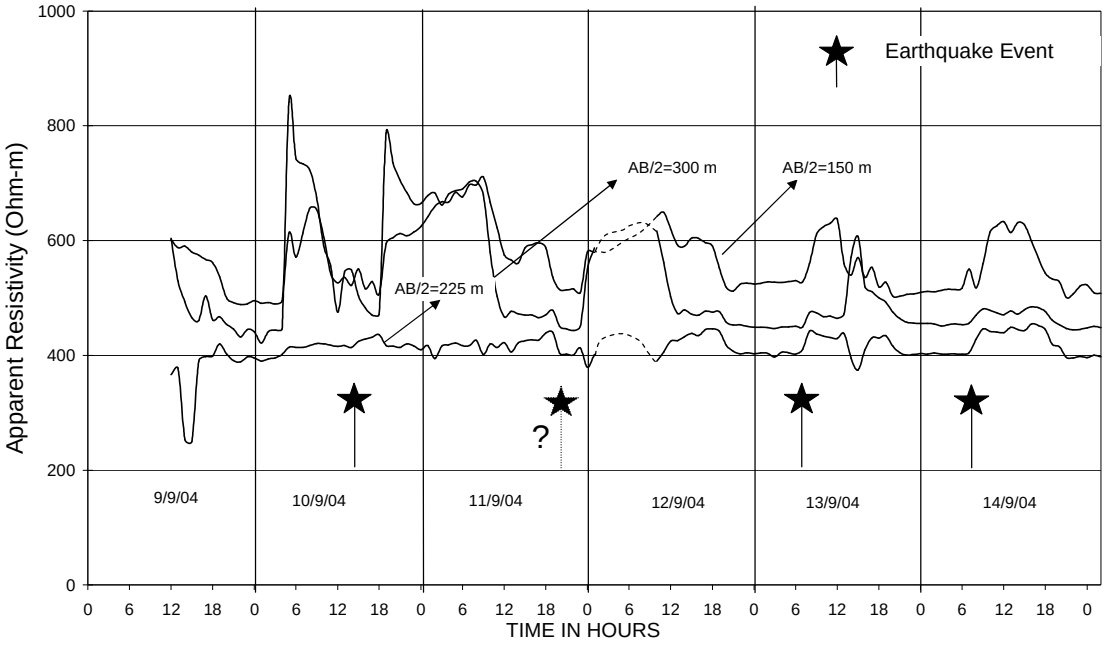
IGIS has installed one such station at Errattupeta, Kerala (N 9^{o} 42’ 30”, E 76^{o} 47’ 20”) about 20km from the Idduki Hydro Electric Project from where frequent tremors are reported.



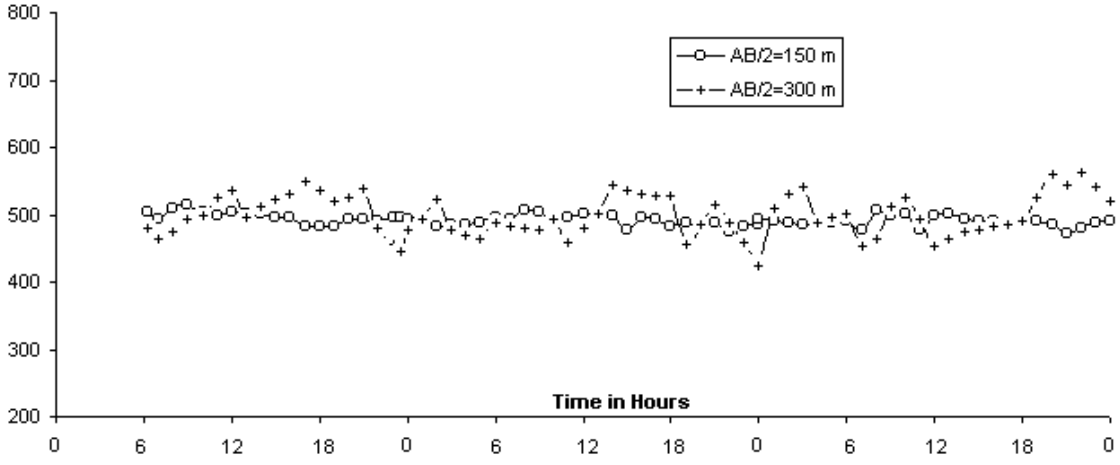
This Station has been established by the Postgraduate Department of Geology & Research Centre, Tuticorin under a DST Project. The equipment developed by IGIS can be utilized to record temporal and spatial variations of apparent resistivity in seismically active zones.

The study of these variations along with the regular seismic monitoring may throw light on the possible applications of using resistivity variations as precursors to seismic activity

Apparent resistivity anomalies showing correlation with seismic events



Apparent resistivity variations devoid of anomalies on a passive day.



IGIS can supply custom-built Resistivity and Telluric Variometer and also offer installation and maintenance services.