

## **Studies on some specific features of vertical electric potential gradient measured from the earth surface at Kolkata**

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### **Abstract**

The results of measurement of vertical electric potential gradient of the atmosphere from the ground surface at Kolkata (lat: 22.56° N, long: 88.5° E) by a Field-mill will be reported in this paper. The relative changes in the values of some of the features have been measured. A comparison is made with the variation of some specific parameters of previous observations made from this laboratory during 2004 – 05. The present result depicts the reduction of the magnitude of electric field variation. The average value for 80 days over a period from January 2007 to February 2009 is 160 Vm<sup>-1</sup>. Maximum and minimum values are 1.1 times and 0.79 times of the mean value respectively. Atmospheric electric field during severe meteorological disturbances has also been investigated during the stated period. These results are discussed in terms of global thunderstorm activities along with some local factors.

The magnitudes of the atmospheric pollutions over Kolkata have been decreased than its earlier situation. This may be a probable reason for the proportional reduction of vertical electric potential gradient.