



## **Atmospheric electricity in Hessdalen valley, Norway**

Bjørn Gitle Hauge and Anna-Lena Kjøniksen

Østfold University College, Engineering, Halden, Norway (bjorn.g.hauge@hiof.no)

At fair weather conditions, atmospheric electricity of interesting magnitudes has been observed in Hessdalen, Norway.

In this area, transient luminous phenomena have been observed in the low atmosphere for several decades. Light balls of different shapes and color, with a life time from seconds up to two hours have been reported. Electrical field mills have been utilized to measure the static electrical field in the low atmosphere at two mountain tops, Skarvan at an altitude of 975 m and Finså at 1040 m. These mountains is spaced 5.5 km apart along a north-south axis. Data from September 2017 and October 2018 will be presented. A buildup of static charge of more than 15 kV/m is detected under fair weather conditions while the voltage difference between the two mountain tops exceed 20 kV/m. In this area, NGU, the national institution for the study of bedrock, mineral resources, surficial deposits and groundwater, warns for high levels of Radon. Radioactivity data from both mountain tops will therefore also be presented.