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# Magnetic fields generate by high voltage 400 KV. Electrical Overhead Lines

Mohamed Khalifa A. Alhmodi  
GECOL-communication dep.  
Libya

Mohamed\_alhmodi@yahoo.com,

Sayeh Elhabashi  
Staff member EE dep. University of Tripoli  
Tripoli-Libya

Sayehelhabashi@uot.edu.ly

### ABSTRACT

In this paper the magnetic field around a 400kv. power line had been measured and simulated. The measurement results and simulated results had been compared, and had the same variation. The results agreed with the international standards. Measurements of magnetic field intensity at one meter above the ground level carried out for an existing high voltage 400kv. overhead lines extending between Zawia generating station (step up station) and Tripoli-west substation, show that the emissions of magnetic fields around overhead line within the right of way (ROW) could be high, and a solution should be considered like increasing the right of way (ROW) distance, or lowering the current. One of the main finding is that the transmission corridor (ROW) is not forced and people are living and still building houses under the transmission lines. The health risk due to field generated from high voltage lines are still under consideration from research groups in developed countries. Probable risk of leukemia, breast cancer neuropsychological disorders and reproductive outcomes had been reported due to this exposure. Especially when exposed for a long time.

**Keywords.** Electromagnetic, High voltage lines, fields, health,