



Risk Associated with Upward Unconnected Leader in Human Beings

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Abstract— This study presents the risks caused by Upward Unconnected Leader (UUL) for people close to the lightning strike point. In one of the last steps of a negative cloud-to-ground lightning development, several UUL's can formed. UUL have electrical currents that can trigger data on people. This study presents the simulation of a UUL leaving a person who is in an open area. A human body model for high frequency and the typical UUL available in the literature were applied in the simulations. The EMTP software was used for simulations. Based on the human being model, the present study shows that damage to internal tissues can occur due to the circulation of high electric current, which can cause the death of victims.

Keywords— Lightning, human body model, upward unconnected leader, lightning victims, EMTP software.