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**LIGHTNING INDUCED VOLTAGES ON DISTRIBUTION LINES
CLOSE TO BUILDINGS**

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Abstract - This paper presents some results of an experimental investigation on the lightning induced voltages on urban overhead distribution lines considering the presence of buildings in their vicinity. The investigation was conducted by means of a 1:50 scale model, and a typical distribution line configuration was represented in the tests. Besides the buildings, laterals and the neutral conductor, equipment such as arresters and transformers were also modelled. Comparisons between induced voltages on transformers placed either at the main feeder or at the end of a lateral, considering different heights for the buildings, are presented. The results show that in some circumstances the presence of structures close to overhead lines may affect the induced voltages significantly.