

Electric Field Distribution in point-insulating barrier-Plane System using experimental and Theoretical method

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Abstract : The present paper deals with the influence of insulating barriers on the breakdown and the electric field distribution in the Point –insulating barrier- plane air gap system. An experimental investigation on the influence of different parameters such as gap distance between electrodes and barrier dimensions, under AC voltage, have been studied. The results show that the width and thickness of the insulating barrier effect the electric field variation which increases with increasing applied voltage. The experimental results are compared with a numerical model.

Keywords : Electric field, Finite Element Method, breakdown voltage, insulating barrier, point- plane system