

Application of computer simulation for the design of a new high voltage transducer, aiming to high voltage measurements at field, for DC measurements and power quality studies

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Abstract: - This paper shows the development of an improved high voltage transducer for field application, for DC measurements and for use in power quality studies. This paper shows the application of computer simulations using PSPICE program Student version [1], where many different approaches and solutions are analyzed, aiming to the damping of voltage oscillations in the capacitive divider output, caused by inductances present in field measurements, besides of the inherent undamped behavior of the capacitive divider, and for reducing the electromagnetic interferences during the measurements.

Key-Words: - capacitive divider, high voltage, PSPICE, switching transients, high voltage measurements, atmospheric impulse voltages