

ABOUT A DIAGRAM FOR THE AUTOMATIC ERROR COMPENSATION OF AN INDUCTIVE VOLTAGE DIVIDER

BY

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It is proposed a procedure for the automated compensation of the no-load error of an inductive voltage divider (IVD) utilizing a voltage repeating circuit.

Following derivation of the analytical expression of the such compensated voltage divider error, it results that both a diminution of the no-load component of the IVD's error (with at least 4 orders) and a significant increase of its input impedance are obtained.

IMPLEMENTATION OF A FUZZY CONTROLLER IN A FILED PROGRAMMABLE GATE ARRAY FOR A BOOST CONVERTER CONTROL

BY

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Using Filed-Programmable Gate Arrays (FPGAs) for implementing controllers that require computation represents an advantage mostly when some of them have Digital Signal Processing (DSP) hardware blocks. Performing these studies and many experiments we observed that the hardware multipliers working frequency (DSP engine) is much bigger than the software multipliers working frequency. The software multipliers working frequency is the most critical one and it slows down the entire system.

PARTICULARITIES OF THE SIN-COS RESOLVER OPERATION FOR THE ROTOR POSITION DETECTION OF AN AUTO-PILOTED SYNCHRONOUS MOTOR

BY

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Some particularities of the operation and of the output signal processing for the sin-cos resolver utilized as rotor position transducer of an autopiloted synchronous motor (ASM) with sinusoidal currents are analysed. The errors in the static and in the continuous rotation regimes are emphasized. A stand for experimental test and didactic demonstration of the sin-cos resolver incorporated in an ASM is proposed, as well as some experimental oscillograms are presented.