

Information Science

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We wish you a nice reading of the third version of the annals, and welcome you to submit papers on the last results and advancement of your research in Computer Science and Technology to the fourth edition.

We are pleased to include in this year's annals, the paper "AC motor closed loop performances with different rotor flux observers" by M. Alexandru, R. Bojoi, S. M. Tenconi, G. Ghelardi and F. Profumo. The work discusses robust flux observation of an induction motor using both an analytical observer and an artificial intelligence based one. At the present time, the direct field oriented control (FOC) technique is widespread used in high performance induction motor (IM) drives. It allows, by means a co-ordinate transformation, to separate the electromagnetic torque control from the rotor flux one, and, hence to manage the induction motor as a dc motor. Such control method needs the knowledge of the rotor flux which is not directly measurable. In order to avoid expensive sensors, rotor flux observers are commonly used. The characteristics of the observer, in terms of stability, accuracy and robustness, critically influence those of the drive. The authors focus in this paper on the developed observers based on rotor vector equation.