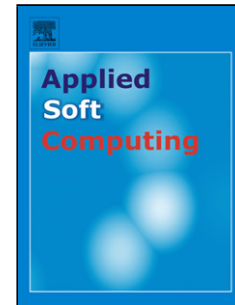


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Title: Metaheuristics Optimization Applied to PI Controllers
Tuning of a DTC-SVM Drive for Three-Phase Induction
Motors

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Highlights:

- Two optimization metaheuristics are applied in tuning of PI controllers of the Direct Torque Control with Space Vector Modulation (DTC-SVM) drive of a Three-phase Induction Motor (TIM), which is a case of nonlinear system;
- These two optimization techniques improve the performance of the DTC-SVM control loops;
- The optimization procedures are performed by computer simulations for each metaheuristic. Once the optimized gains were obtained, they are applied directly to the practical system developed;
- Simulations and experimental results were conducted in order to validate the proposed approach.

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