

# 5<sup>TH</sup> WORLD BIOENERGY CONGRESS

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## Singularly perturbed induction motor model based flux and torque robust control with estimation

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Linear parameter varying (LPV) torque controller where the rotor flux is considered to be a time-varying parameter and an LPV rotor flux observer using polytopics models are designed for the induction motor. To improve the performances singularly perturbed systems theory is used. The main feature of that proposition is to improve robustness when flux varies and to guaranty the stability of the system for all operating range. Simulations results illustrate the efficiency of the method.

### Biography

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