

The control system modeling of winder with hybrid Fuzzy-PID controller

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Abstract

The paper trying to present design a hybrid Fuzzy-PID controller, to increase the performance of the winder for high speed wire drawing machine. The hybrid Fuzzy-PID controller was designed used as a basis fuzzy logic and mathematical model of the PID controller. Data for estimation of the model are taken from a real winder mechanism of wire drawing machine. For hybrid structure of the PID controller parameter estimation are used Fuzzy logic. Through Math Lab modeling we have choose fuzzy rules that are meant to count the parameters of the PID controller. The winder's performance has improved meaningfully, if make a compare with conventional Fuzzy controller.