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PID Tuning for any Plant Model using Adaptive Neuro Fuzzy

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Abstract –The aim of this paper is to develop the PID tuning of a plant model using Adaptive Neuro Fuzzy Controller. In order to solve this problem a PID controller under Adaptive Neuro Fuzzy Controller with self-tuning is applied, which will perform high efficiency position control. The efficiency of Control Algorithm is presented through a simulation and compared with the quality of PID controller and it was found that the proposed PID parameters adjustment by the Adaptive Neuro Fuzzy Controller gives better performance. This method could be applied to the higher order system also.

Keywords –Adaptive Neuro Fuzzy Controller, Neuro Fuzzy Controller, PID controller, PID tuning.