# Neural Servocontroller For Nonlinear MIMO Plant

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## Summary

A design of a neural servocontroller for a nonlinear MIMO plant has been presented. The control scheme is essentially an error feedback system. However, it also uses the variables representing the plant operating point. Integrators are used in the control loop to ensure low frequency setpoint following and disturbance rejection, and enhance the robustness of the scheme. The neurocontroller may be trained either (a) to minimise a quadratic loss function composed of the filtered setpoint error and the filtered plant input or (b) to induce the closed loop system to follow the output of a reference model. The training is conducted offline for a class of setpoints conforming to the normal operating condition of the plant. Results of simulation studies are also reported