















Table 1, illustrates the RMSE differences we have achieved and its comparison with the PID controlled model. The RMSE are quite close for both the continuous and discrete systems and shows a satisfactory performance.

Table 1 RMSE values comparison

<b>System</b>	<b>RMSE for PID model</b>	<b>RMSE for Deep Controller</b>
<b>Continuous System</b>	0.0376	0.0425
<b>Discrete System</b>	0.1014	0.0900

## CONCLUSION

In this paper, a deep learning controller based on SAE algorithm is designed to explore the ability of applying the deep learning algorithm to the control problems. A comparison study between the PID controller and the proposed deep learning controller was performed to verify the feasibility of the use of deep learning in control theory. The simulation results demonstrate the effectiveness of the proposed deep learning controller to be used as a control tool.

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