

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The important observations made during the studies are:

- The solution time for proposed PID approach is only a fraction of time taken by conventional algorithm.
- A proportional controller K_p will have the effect of reducing the rise time and reduce but never eliminate the steady state error.
- An internal controller K_i will have the effect of eliminate the steady state error but it may make the transient response worse.
- A derivative controller K_d will have the effect of increasing the stability of the system and reducing the overshoot and improve the transient response.
- The output performance obtained by normalized value in PID is very close and near to accuracy.
- MATLAB used for simulation of this project is sophisticated and user friendly software.
- It must be mentioned that the efficiency of the speed algorithm can be improved by using more efficient learning techniques and dynamic weight selection algorithm.

5.2 Recommendations

I recommended that further studies should be done in:

1. Speed control of DC motor with variable load.
2. Speed control of DC motor using an application like neural network and compare results with PID, FLC and neuro-fuzzy controller.

References

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