











### 13. Scope for Future Work

A future work on this project has been identified and can be summarized as follows:

- 1) The aerostatic spindle designed will operate at speed range of 30-10000 rpm; designing a spindle for still more speed range up to 60000 rpm and still higher values of stiffness and load carrying capacity for high speed machine applications can be taken as future work.
- 2) The effect of number of grooves after 6 numbers on load carrying capacity was found to less, hence designing a bearing with 6 or 8 numbers of grooves and testing the performance and also analyzing the spindle for thermal effect. This part can be considered for optimization of the spindle so that the cost of manufacturing the spindle and accuracy is increased.

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