9. SCOPE FOR FUTURE WORK

The work presented in the thesis leads to several interesting results. The enhanced magnetic properties along with the semiconducting nature of ZnO indicate the significant application of these materials to spintronics application.

It is proposed to study the optical properties for the thin films of same thickness. Also, for particular doped ZnO thin films, it is proposed to study the optical properties for various thickness. Also, effect of heat treatment on the properties of doped ZnO thin films will be investigated.

The alkali metals doped ZnO thin films will be used to design the optical device in medical instrument.

These materials will be used in biomedical related applications.

The dual doped ZnO thin films will be used to fabricate the optoelectronics devices.

Further work in this direction will lead to new materials for spintronics application. Hence, it is envisaged to investigate the effect of doping of other transition metals (TM$s$) and alkali metals to ZnO.