11. FUTURE SCOPE OF WORK

- The effect of austenite grain size and nodule count on the incubation time of ferrite and development of ausferrite microstructure should be studied.
- The present work has established the kinetics of ausferritic transformation of ADIs. The thermodynamic of this phase transformation should be studied to augment the understanding of wear applications of ADI.
- The effect of nodule count on the properties of ADI has not yet been systematically addressed and a study should be devised by developing ADIs in ductile irons of same base composition but different nodule counts.
- Mathematical modeling of austempering incorporating both Stage I and Stage II may be undertaken, and model may be developed relating nickel addition and wear performance of commercial ductile irons.
- The present work studied machinability by milling under a given set of conditions. A study should be devised so as to study the effect of the heat treatments and nickel composition on other machining processes like drilling, boring and turning.