

## **CHAPTER - 7**

### **SCOPE OF FUTURE WORK**

The present study has been conducted for UNS S32205 Duplex Stainless steels, in which nickel content has been increased gradually starting from the standard alloy design of SMAW Electrode.

Increasing the Ni content, leaving all other elements as in the standard composition, has the benefit of leaving the pitting resistance index (PREN) unchanged while the ferrite content is reduced.

Nickel being costly element from economic point of view, effect of Manganese can be studies in the same fashion. Since Mn is also austenite promoter.

This study can be broadened for the UNS S32750 Super Duplex Stainless steels for examining minimum ferrite specification to maintain minimum Yield Strength values and resistance to Stress Corrosion cracking.

The Study can also be conducted with FCAW, SAW Electrodes, Particularly in all Flux based fusion welding processes, where in dissolved Oxygen in weld metal is more than approximately 600 ppm, resulted in low values of impact toughness. So CVN requirement is difficult to maintain.