

CHAPTER SIX – FUTURE SCOPE

6. Future scope of this study:

The coatings can be used for the different type applications such marine applications, scratch resistance, fretting resistance and corrosion resistance applications etc. For its applications many tests on coating has to be performed. The coating can be subjected to 3-point bent test to check the bending strength. The optimization of the coatings techniques such as air plasma arc spray coatings & Ion plating can be done by using the process parameter of the coating machine. We can also perform coating characterization and study the effect of different type of constituent in the coating powder such as effect of the Molybdenum on the coating characteristic. The effects of the particle size on the coatings characteristics can also be studied using different type of analytical techniques. The Similarly, a cladding of carbon fiber can be applied on the coating so that it becomes stiffer as compared to the coating alone. It is expected that the cladding of carbon fiber would increase the tensile strength and stiffness of the coating. The tensile strength of cladded coating can be test over the universal testing machine. The application of carbon cladding also increases the fatigue strength of the coating. Carbon fiber cladded coating can be used for less weight and high strength applications such as car bonnet, bumper etc. Likewise, the coating can be subjected to fretting wear test to check the fatigue strength of the coating. The effects of the temperature on the wear rate can also be determined. The coatings can be further subjected to scratch test so that it can be used as scratch resistance coating on vehicles bonnet and bumper. Erosion test of the coating can be performed to find erosion properties, for potential marine applications.