by cutting the composite surface by silicon carbide abrading indenters. In the case of composite reinforced with fine zircon particle, it is found that zircon blunts the silicon carbide abrading indenters and hence improves abrasive wear resistance of the composites. The dry sliding wear resistance of the Al-4.5wt%Cu alloy reinforced with zircon sand particles is highly influenced by size and amount of the particles and the applied load. Wear volume decreases with a decrease in particle size or an increase in particle amount and increases with an increase in applied load. It is found from the worn surfaces that with an increase in load the wear mechanism of the composites changes. The corrosion rate of the composites also decreases with an increase in amount or a decrease in size of zircon particles. With the help of the microstructure of the corroded surface the corrosion mechanism has been explained. The zircon particles are found to stop pit growth and hence decrease the corrosion rate of the composites. An effort is also made to recycle the aluminum alloy from the composite scraps. For comparison purpose, Al-4.5wt%Cu/silicon carbide and Al-4.5wt%Cu/alumina composites have been prepared by the same route and their settling behaviour, microstructure, hardness, age hardening and abrasive wear behavior have been compared and correlated with Al-4.5wt%Cu/zircon composite. In an effort to stop the settling of the zircon sand, silicon carbide along with zircon sand have been added to the melt and the new composites have been designated as hybrid composites. Microstructural characterization, age hardening studies, and abrasive wear behavior of these hybrid composites have been carried out.