**Abstract**

A new complexes of formula, [M(C6H3NO3)(N2H4)2] where M = Ni, Co &Cd, have been prepared by reacting 2-hydroxynicotinic acid and hydrazine with respective metal nitrates. The complexes were characterized by elemental analyses, IR, UV- visible spectra, TG-DTA , VSM studies and also by SEM with EDAX, AFM and TEM analysis. The acid shows dianionic nature in these complexes. IR data indicates the nature of hydrazine in the complexes. Simultaneous TG-DTA studies shows thermal degradation pattern for these complexes. All the complexes undergo three step decomposition. The SEM image of the complexes implies that the size of the particles is 40- 50nm. Anti microbial studies revealed that the complexes are potential antimicrobial agent