In the present study, nanoparticles have shown promising antimicrobial potential of nanoparticles especially doped, therefore they can be developed into a drug development candidate/lead after detailed follow up studies. Also if considerable activity on multi drug resistant (MDR) pathogens is obtained it will be a valuable alternative to the current armentarium of drugs in the arena of drug resistance. Good photocatalytic activity obtained can be used for water sanitization and converting organic perilous into non hazardous materials. Combined activity of nanoparticles with antibiotics gave good results. They can be employed along with antibiotics to be used as an adjunct therapy and thereby decrease the risk of side effects caused by them. Further due to their large surface area, versatile chemistry and phototoxic effect they can be used for drug delivery as well as cancer therapy due to their selective killing of leukemia cells. The results of the present study may be applicable to medical devices that are coated with nanoparticles against microbes. Detailed follow up studies regarding mechanism of action of nanoparticles at genetic level are although needed as very little information is available regarding this. Also thorough knowledge of toxic effect of nanoparticles on human health and environment is required.