

## **Abstract**

In this research, we have synthesized CuO NPs by using turmeric ethanolic extract having Curcumin-I as the major component which is responsible for the yellow color of turmeric, it is considered as safe and ecofriendly, resultantly completing the main purpose of green synthesis. CuO NPs then doped with Chitosan, a medicinal polymer having antifungal and anticancer abilities, is derived from chitin, most abundant compound of Earth, present in plant cells and insects. And Copper also, capped with PEG, non-toxic polymer declared by FDA, used in plasticizer, cosmetics and in medicine. These nanocomposites were then added in ointment for wound healing on mice, antibacterial activity was performed before applying on wounds. These Nanocomposites were characterized by UV/Vis Spectroscopy, Photoluminescence, FTIR and Zeta Potential for their optical and structural properties