

## **Research Proposal**

In recent year's heavy metal pollution being a huge problem may occur in soil and water which has harmful effects in plants, animals and humans. Sources are industrial, agricultural and domestic effluents. Excessive release of heavy metals into environment due to industrialization and urbanization has posed a great problem worldwide. These metals do not degrade into harmless end products. Heavy use of sewage sludge, compost, mining waste, chemical fertilizers and industrial development without control outputs, resulting accumulation of heavy metals in agricultural lands remain in the soil for many years. The increasing usage of heavy metals in industries and agricultural activities has caused serious problems of environmental degradation. Heavy metals such as Cadmium (Cd), Zinc (Zn), Chromium (Cr), Lead (Pb) and Copper (Cu) are the examples of the toxic heavy metals which have been recognized for its negative effects on the ecosystem, where they can accumulate throughout the food chain posing serious threat to human health. Heavy metal causes some diseases as a permanent effect towards biological systems, which can accumulate in human body. The pollution of theses metals affect the ecosystem and leads to global warming. This enforces measures to prevent the metal pollution. The use of appropriate treatment technology is needed to solve the problem of water pollution.

My future aim is to prevent the metal pollution on eco system by using Phytoremediation technology which is a low cost, solar energy driven cleanup technique and saving the natural resources and reduce the environmental impacts.