

The accumulation of spilled petroleum hydrocarbons in the soil at enormous levels is hazardous to human health and the environment. Hydrocarbon contaminants cause immediate or latent effects, such as genetic mutations, immunotoxicity, teratogenicity, neurotoxicity, potent immune toxicity, chromosomal damage, carcinogenesis, high bioaccumulation potential, and deterioration of ecosystem functioning and treatment of animal and plant life (Chaudhary and Kim, 2019). PHC contain toxic components that pollute groundwater and soil, alter the soil microbial community, and affect human health and other living organisms (Chaudhary et al., 2021).