

Analysis of the Behaviour and Effect of Grounding Filler Materials on Grounding System

Absract

The grounding system plays an important role in the electrical system part as it gives protection during fault or lightning occur. The main purpose of the grounding system is to protect humans, electrical appliances and buildings from electrical shock due to lightning or another form of electricity that hazardous. Thus, to install an excellent electrical system and complete its circuit, a grounding system performance must be taken into account. But, in certain cases, due to the geological condition, the soil resistivity is not good enough. Therefore, enhancement filler material has been used to reduce grounding resistance. In this project, it is aimed to elaborate on the usage of Coconut Husk, Paddy Husk, and Bentonite as grounding filler materials to reduce the soil resistivity and improves the grounding system. The result showed that Bentonite showed better performance compared to Coconut Husk and Paddy Husk.