

## **Sugarcane Bagasse Ash Based Geopolymer**

Concrete is frequently used composite material, next to the water demand which is increased in day by day. Concrete is essentially consist of binding medium such cement paste (cement+ water) embedded with aggregates usually mixture of fine and coarse aggregates. Due to high demand on concrete the cement manufacturing process will goes up. Because of the cement manufacturing process CO<sub>2</sub> emission and emboided energy is tremendously increases. CO<sub>2</sub> emission leads to a lot of non eco friendly issues. In order to reduce the CO<sub>2</sub> emission and emboided energy consumption we can go for Geopolymer concrete system by using some secondary cementitious materials (SCM's) such as Fly ash, GGBFS, Metakaolin etc. Mostly geopolymer system consists of Fly ash and GGBFS. Instead of Fly ash based we can go for sugarcane bagasse ash based geopolymer system because of silica content present in Fly ash and Bagasse ash are more or less equal. While using sugarcane bagasse ash we can eliminate delayed setting (less early age strength gain) of fly ash based geopolymer concrete due to recession of alkali activated Calcium silicate (Ca-Si) chain formation. Finally we can optimize the utilization of sugarcane bagasse ash in Geopolymer concrete system. Also will conducting Characterization and durability studies on sugarcane bagasse ash based geopolymer concrete system.