**RED MUD AS PARTIAL REPLACEMENT OF CEMENT IN CONCRETE**

**ABSTRACT**

Red mud derived from alumina refineries through the Bayer process is a waste material with a density of 2187 kg/m3 . The particle size distribution of the red mud is similar to cement. The potential use of the red mud to replace cement in self-compacting concrete (SCC) is assessed by conducting a range of fresh and hardened properties tests (such as slump flow, U box test, L box test, compressive strength, splitting tensile strength, flexural strength). Development of self-compacting concrete (SCC) is a desirable achievement in the construction industry in order to overcome problems associated with cast-in-place concrete. various investigations have been carried out and SCC has been used in practical structures , mainly by large construction companies. . In this study, the cement content was partially replaced with red mud. Red mud improves the flowing and strengthening characteristics of the concrete