**MECHANICAL PROPERTIES CONCRETE BY USING METAKAOLINE AS CEMENT**

**ABSTRACT**

This paper presents the results of an experimental study carried out to find the effect of fly ash and metakaolin by partial replacement of cement of M-40 grade concrete, in terms of improved performance on compressive, and split tensile strength. The controlled concrete specimen of M-40 grade was prepared using OPC 43 grade cement. The other specimens were prepared by replacing cement metakaolin at 5%, 10%, 15% and 20%. The various strengths were compared with controlled specimens leading to a conclusion that there is an increase in compressive strength up to 48.88%, and split tensile strength up to 54%.

**Key Words:** Cement concrete, Metakaolin, Fly ash, , Compressive Strength, Split tensile strength.