

## **RESEARCH NEEDS IN MINERAL BY-PRODUCTS UTILIZATION**

By Tarun Naik, Shiw Singh and Viral Patel

Reference: CBU-1992-12

### **ABSTRACT**

This paper describes research needs related to utilization of fly ash, silica fume and slag.

A great deal of research work has been done to find constructive uses of fly ash. However, for effective use of fly ash in construction materials as well as other uses, much more research work needs to be done, especially in development of structural grade concrete, high-strength concrete, lightweight aggregates, lightweight concrete, roller compacted concrete, bricks, blocks, paving stones, paving concrete, prestressed/precast concrete products, fillers for composite materials, etc.

Numerous studies have been performed about the utilization of silica fume and blast furnace slag in construction materials for more than two decades. However, there are several questions to be answered before extended utilization of silica fume and slags in construction industry can be done. The paper addresses the various research needs for developing concrete and other material utilizing silica fume and slag.