

## OBJECTIVES OF THE SCHEME

Sl.No	Title	Objective of the Project
1	Modernisation & upgradation of training facilities for cement, concrete and construction industries at NCB Units	Upgradation and Development of training facilities and related infrastructure at NCCBM Units
2	Information technology for improving communication	Upgradation of IT facilities and related infrastructure at NCCBM Units for better communication
3	Modernisation and Upgradation of Laboratories and Infrastructural Facilities at NCB Units	Modernisation and upgradation of Laboratories and related infrastructure at NCCBM Units
4	Studies on evaluation of technologies for co-generation of power utilizing waste heat in cement manufacture	Identifying and evaluating various available cogeneration technologies in India and abroad and evaluation of cogeneration potential in cement plants and the industry as a whole. Working out techno-economics and identifying barriers.
5	Investigations on fly ash based geopolymers	Investigations on composition, hydration chemistry, microstructural characteristics, mineralogy and engineering properties of geopolymers based on alkaline activation of fly ash. Identifying the application of optimized geopolymer compositions.
6	Investigations on Nanoparticle Blended Cements and Cement Based Nano-Composites	Investigations on impact of nanoparticles on properties & performance of cement & concrete, nanoparticle synthesis and composition and properties of cement-polymer and cement-CNT nano-composites. Working out applications of nanoparticles in cement, concrete and composite materials.
7	Development of Composite Cement Based on OPC	Design, preparation and evaluation of composite cement blends using OPC, granulated blast furnace slag, fly ash, limestone and silica fume and thus to generate data on composite cements prepared from indigenous materials to enable their standardization.
8	Development of Methods for Service Life Design of Concrete Structures	Laboratory and field studies to obtain data on deterioration mechanism of concrete and formulation of guidelines for service life based design of concrete structures.
9	Development of design parameters for high strength concrete	Laboratory investigations to work out design parameters for incorporation in standards for design of structural members using high strength concrete.