Suddhananda Engineering and Research Centre,Bhubaneswar, organized a one day Faculty Development Programme on "**Advance Technology on Indian Cement Industry**"under the aegis of Dr. Chhitaranjan Panda, Prof. Debasish Priyadarshi , Prof. Deepanwita Sahoo, Prof. Swagatika Behera, of Civil Engineering on 12th March 2021.

Prof. Debasish Priyadarshi welcomed the dignitaries and participants present. In their address on "**Advance Technology on Indian Cement Industry**" and they explained various aspects on Soil cement is frequently used as a construction material for pipe, bedding, slope protection, and road construction as sub base layer reinforcing and protecting the sub grade. It has good compressive and shear strength, buts brittle and has low tensile strength, so it is prone to forming cracks. Soil cements mixtures differ from Portland cement concrete in the amount of paste (cement-water mixture). While in Portland cement concretes the paste coats all aggregate particles and binds them together, in soil cements the amount of cement is lower and there for ether are voids left and the results a cement matrix of uncommented material. Soil cement is a construction material, a mix of pulverized natural soil with small amount of Portland cement and water, usually processed in a tumble, compacted to high density. Hard, semi-rigid durable material is formed by hydration of the cement particles. Failing

granular-base pavements, with or without their old bituminous mats, can be salvaged, strengthened, and reclaimed as soil-cement pavements. This is an efficient, economical way of rebuilding pavements. Since approximately 90 percent of the material used is already in place, handling and hauling costs are cut to a minimum. Many granular and waste materials from quarries and gravel pits can also be used to make soil-cement; thus high-grade materials are conserved for other purposes. Highway and city engineers praise soil-cement's performance, its low first cost, long life and high strength. Soil-cement is constructed quickly and easily– affect appreciated by owners and users alike. Before construction begins, simple laboratory tests establish the cement content, compaction, and water requirements of the soil material to be used. During construction, tests are made to see that the requirements are being met. Testing ensures that the mixture will have strength and long-term durability. No guesswork is involved. Soil-cement can be mixed in place or in a central mixing plant. Central mixing plants can be used where borrow material is involved. Friable granular materials are selected for their low cement requirements and ease of handling and mixing. Normally pug mill-type mixers are used. The mixed soil-cement is then hauled to the jobsite and spread on the prepared sub grade. Compaction and curing procedures are the same for central-plant and mixed-in-place procedures. There are four steps in mixed-in-places oil-cement construction; spreading cement, mixing, compaction, and curing. The proper quantity of cement is spread on the in-place soil material.Then the cement, the soil material, and the necessary amount of water are mixed thoroughly by any of several types of mixing machines. Next the mixture is tightly compacted to obtain maximum benefit from the cement. No special compaction equipment is needed; rollers of various kinds, depending on soil type, can be used. The mixture is cemented permanently at a high density and the hardened soil-cement will not deform or consolidate further under traffic. Curing, the final stepper events evaporation of water to ensure maximum strength Development through cement hydration. A light coat of bituminous material is commonly used to prevent moisture loss; it also forms part of the bituminous surface. A common type of wearing surface for light traffic is a surface treatment Soil-cement does not rut or consolidate.