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**PAPER PRESENTATION ON**

***“SUSTAINABILITY OF CONCRETE THROUGH INNOVATIVE MATERIALS AND TECHNIQUES”***

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**ABSTRACT:**

When we surveyed in our surrounding we observed that use of excess material is more and it increased day-by-day. These materials are very costly and their resources are very less available. The materials like reinforcement can be replaced by fiber reinforce for better strength and economical construction of structures. The waste plastic, when added to hot aggregate will form a fine coat of plastic over the aggregate such aggregate when mixed with the binder is found to give higher strength higher resistance to water and better performance over a period of time Therefore, it proposed that we may use waste plastic in the construction roads more than 1,200 km or 745miles, of roads using 3,500 t. fly ash is used as a mineral admixture in PCC. Fly ash is the finest coal combustion product generated during the burning of pulverized coal for power generation. So, using innovative materials and techniques proves to be economical and helpful to reduce the use of excess natural resources by using some techniques so as to save the naturally available materials for future use.

**INNOVATIVE MATERIALS**

1. Asphalt concrete
2. Fiber-reinforced concrete
3. Polymer concrete
4. Fly ash

**Asphalting concrete**

The engineering definition of asphalt concrete is composite material composed of mineral aggregate mixed together with a binder hence the binder is asphalt.

**Fiber-reinforcement**

Fiber reinforced concrete is concrete containing fibrous material which increases its structural strength. It contains short discrete fibers that are uniformly distributed and randomly oriented.

**POLYMERIZED CONCRETE**

Polymer concrete is a part of group of concretes that use polymers to supplement as a binder.

**FLY ASH**

It is used as a mineral admixture in PCC.Fly ash is the finest coal combustion product generated during the burning of pulverized coal for power generation.It consists of small particles of inorganic materials, with some carbon. It can be used as feed material for producing a Portland cement.

**INNOVATIVE TECHNIQUES**

1. BAMBOO REINFORCED CONCRETE CONSTRUCTION
2. LOW CARBON BUILDINGS
3. USE OF PLASTIC IN ROADS

**BAMBOO REINFORCED CONCRETE CONSTRUCTION**

Use of bamboo in PCC. Mostly used in precast concrete, reinforcement in soil-cement pavement slabs. This is economical and suitable construction

**LOW CARBON BUILDING**

Low carbon buildings are buildings which are specifically engineered with GHG reduction in mind. So, a low carbon building which emits significantly less GHG than regular building.

**PLASTIC USED IN ROADS**

The waste plastic, when added to hot aggregate will form a fine coat of plastic over the aggregate such aggregate when mixed with the binder is found to give higher strength higher resistance to water and better performance over a period of time Therefore, it proposed that we may use waste plastic in the construction roads more than 1,200 km or 745miles, of roads using 3,500 t

***CONCLUSION***

With respect to this I am trying to conclude that using innovative materials and techniques proves to be economical and helpful to reduce the use of excess natural resources by using some techniques so as to save the naturally available materials for future use.

**REFERENCES**

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