



**REGENT
EDUCATION &
RESEARCH FOUNDATION**
Group of Institutions

**3 days High end Workshop on
3rd to 5th November'2022**

on

**Different layered Concrete Structure
work on Environmental Aspects in
Structural Engineering**





**REGENT
EDUCATION &
RESEARCH FOUNDATION**
Group of Institutions

Speaker Details

1. Mr. Noor Mohammad
(M-tech structure IEST Shibpur Project Consultant,
experience in
teaching and academics, expertise to Gammon for
Isckon Mayapur project)
2. Mr. Soumya Kanti Ray
(M-tech Environmental Engineering, IEST Shibpur
in Ph.D. Civil Engineering Expertise in EIA
(environmental impact assessment) of structures)

Convenor Details

ANIBRATA PAL
Ph.D. Pursuing KIIT BBSR
Research Scholar SERB project
ASCE Member
Assistant Professor in CE Department
Seminar committee Member





REGENT EDUCATION & RESEARCH FOUNDATION

Group of Institutions

What is Concrete?

Concrete is the most famous material used for construction purposes. It does not exist as an independent construction material as it is a mixture of several other materials like cement, crushed stones, fine aggregate, and water. This is the reason why ready-mix concrete has become really popular in recent years to speed up the construction process and make it more reliable. Concrete is used to provide strength, durability, and versatility during the construction of a structure. These excellent properties have made concrete a reliable and long-lasting choice of construction companies for both commercial and domestic types of constructions.

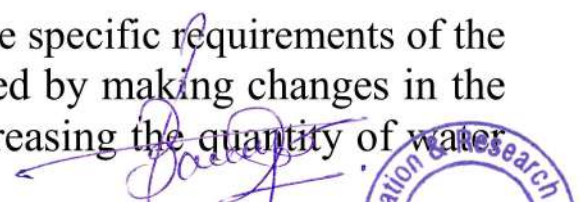
The Importance of Concrete

The various properties in concrete make it a suitable and most popular construction material. Different types and qualities of concrete are available on the market, which can be obtained from concrete suppliers, such as Hanson Malaysia. Some of the properties of concrete that make it extremely important in construction are:-

1. Strength

Strength is the primary reason why concrete has been used by housing developers and construction companies for many decades. Concrete is a solid material that can easily withstand tensile and compressive stresses without getting affected. A well-graded mixture in the concrete makes it much more robust than a poorly graded concrete. Nowadays, the trend of using ready mix concrete has become prevalent in the construction sector because construction companies can now rely on reliable concrete suppliers that provide the best readily available concrete mixes. The strength of concrete has made it essential in the construction of buildings, foundations, water treatment facilities, factors, large industrial sectors, and other many other types of structures.

The strength of the concrete is adaptable to the specific requirements of the construction project. The strength is modified by making changes in the mixture. For example, by increasing or decreasing the quantity of water





**REGENT
EDUCATION &
RESEARCH FOUNDATION
Group of Institutions**

cement and crushed stone ratio. Moreover, concrete can increase strength over time.

2. Durability

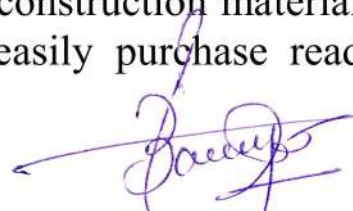

Concrete can last for ages as it can survive harsh weather conditions and natural disasters. It is resistant to extreme weathers, rusting, chemical reactions, fire, erosion, compressive and tensile stress, and abrasion. As a result, the structural integrity of the concrete will not be undermined for an extended period of time which makes it suitable for every other place in the world. The high durability of the concrete means it is a long-lasting construction material. The first concrete dates back to about 500 BC, which serves as a great proof that concrete is highly durable. In fact, we can still observe concrete of ancient times. The longevity of this popular material has made it important for the construction of permanent buildings and strong structures like bridges and dams.

3. Versatility

Concrete has applications in different types of construction materials. Its versatility makes it easy for the construction companies to use it for building roads, highways, sidewalks, garages, and any other structure. Its strength can be modified according to the construction requirements. It can also be cut into different shapes and sizes to create unique designs.

4. Environmental Importance of Concrete

Concrete also has numerous environmental benefits, such as: survive natural disasters like floods being recyclable and reusable, which increases its lifespan even further. Minimal transportation is required for the raw materials of the mixture as it is usually found from the local sources. Other than the reasons discussed above, there are also other factors that make concrete the most important construction material in the world. It is very economical, and you can easily purchase ready mix concrete from reliable concrete suppliers.



**REGENT
EDUCATION &
RESEARCH FOUNDATION
Group of Institutions**

Course Name:- Different layered Concrete structure work on environmental aspects in structural Engineering.

Course Outcome:-

The course investigates how various layered concrete constructions used in structural engineering affect the environment. The environmental effects of building materials, design decisions, and construction methods will be examined by the students. By taking into account variables like carbon footprint, energy efficiency, and environmental preservation to produce eco friendly concrete solutions, they will learn how to optimize structures for sustainability.