BHILAIINSTITUTEOFTECHNOLOGYRAIPURDEPARTMENTOFCIVILENGINEERING

AAKAAR

Famous Civil Engineers

Thomas Andrews (1873-1912): Thomas Andrews was the principal architect for the infamous RMS Titanic. He was aboard the ship during its maiden—and only—voyage in 1912, and when the ship hit an iceberg, he calculated that it would sink within a few short hours. Survivors' accounts tell of Andrews bravely alerting passengers of the imminent danger, urging women and children to board the severely limited number of lifeboats. Andrews was also said to have suggested more than twice the number of lifeboats the Titanic was given and a double hull and watertight bulkheads during planning and construction, suggestions that were rejected. He perished in the ship's sinking, a harsh lesson in the consequences of industrial hubris, prioritizing profit over safety.

The Sydney Opera House is a multi-venue performing arts centre on Sydney Harbour located in Sydney, New South Wales, Australia. It is one of the 20th century's most famous and distinctive buildings. The building comprises multiple performance venues, which together host well over 1,500 performances annually, attended by more than 1.2 million people. Performances are presented by numerous performing artists, including three resident companies: Opera Australia, the Sydney Theatre Company and the Sydney Symphony Orchestra. As one of the most popular visitor attractions in Australia, the site is visited by more than eight million people annually, and approximately 350,000 visitors take a guided tour of the building each year. The building is managed by the Sydney Opera House Trust, an agency of the New South Wales State Government.

***Location*–on Port Jackson (Sydney Harbour), New South Wales, Australia. Its unique use of a series of gleaming white sail-shaped shells as its roof structure makes it one of the most-photographed buildings in the world.**

***Cost*–The original cost estimate to build Sydney Opera House was $7 million. The final cost was $102 million and it was largely paid for by a State Lottery.**

***Sculptor*– It is a multipurpose performing arts facility whose largest venue, the 2,679-seat Concert Hall, is host to symphony concerts, choir performances, and popular music shows**

***Specialities*- Sydney Opera House is cooled using seawater taken directly from the harbour. The system circulates cold water from the harbour through 35 kilometres of pipes to power both the heating and air conditioning in the building.**

Primavera Software

Primavera is enterprise project portfolio management software. It basically includes project management, scheduling, risk analysis, different opportunity management, collaboration and control of capabilities, and integrated with other enterprise software such as Oracle and SAP's ERP systems.
Primavera was launched in 1983 by Primavera system Inc. which was acquired by Oracle Corporation in 2008.
A software application that was once very fast to use but grounded in shortcut functions moved to a mouse-based application that is quick to learn but once mastered never achieves the same speed of use.

Alumini Section

Civil Engineering
2009-13 Batch

Mr. Abhinandan Mishra of civil engineering 2009-13 batch is an Entrepreneur and working as an owner and Managing Director of PS Club Royale, Raipur, is a venue available for you to host your wedding ceremonies with much grandeur and splendid arrangements. He shared his experience telling us that in BITR we learn the things by good teachers who always want to see their students succeed and are honored to be a mentor.

FacultySection

- Dr. R.K. Mishra published a paper on "Mechanoluminescence: Induced in Rare Earth Activated Cementations Material" in "Advances in Smart Grid & Renewable Energy" Published in ETAEERE:2020 under Springer publication.

StudentsAcheivement

- Ms. Vanshika Sharma, Mr. Trilok Sahu & Mr. Shubham Dhruw Qualified Gate-2020 exam.
- Ms. Vanshika Sharma takes admission in IIT Kharagpur for post graduation.

Software Used in Civil Engineering

ArcGIS(Aeronautical Reconnaissance Coverage Geographic Information System)

ESRI, the Environmental Systems Research Institute, is a supplier of geographic information system (GIS) software that released ArcGIS – a mapping platform that civil engineers can use to create a multitude of exhibits. With data resources such as images, shp files and more, ArcGIS allows you to layer information on top of each other. You are able to take utility, property, and other information, and layer it on top of imagery, street or topographic maps to portray exactly what you need in a neat and orderly exhibit.

Silent-Features
ArcGIS is a geographical information system (GIS) software that allows handling and analyzing geographic information by visualizing geographical statistics through layer building maps like climate data or trade flows.

Non Destructive Testing Using Schmidt Hammer

A Schmidt hammer, also known as a Swiss hammer or a rebound hammer, is a device to measure the elastic properties or strength of concrete or rock, mainly surface hardness and penetration resistance.
Testing the compressive strength of a concrete cube using Schmidt hammer was invented by Ernst Schmidt, a Swiss engineer.
The hammer measures the rebound of a spring-loaded mass impacting against the surface of the sample. The test hammer will hit the concrete at a defined energy. Its rebound is dependent on the hardness of the concrete and is measured by the test equipment. By reference to the conversion chart, the rebound value can be used to determine the compressive strength.
When conducting the test the hammer should be held at right angles to the surface which in turn should be flat and smooth. The rebound reading will be affected by the orientation of the hammer, when used in a vertical position gravity will increase the rebound distance of the mass and vice versa for a test conducted on a floor slab. The Schmidt hammer is an arbitrary scale ranging from 10 to 100.