



BHILAI INSTITUTE OF TECHNOLOGY RAIPUR DEPARTMENT OF CIVIL ENGINEERING

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Your mind is a powerful thing.
When you fill it with positive thoughts,
your life will start to change.



Famous Civil Engineers

ANOOP KUMAR MITTAL :-was the Chairman and Managing Director (CMD) of NBCC, responsible for overseeing policy and strategic decision making of the company. His career at NBCC spans over 30 years. Prior to his appointment as the CMD in 2013, Mittal was Director of Projects division in NBCC.

In 1978, he attended Thapar Institute of Engineering & Technology, Punjab, to pursue Bachelor's degree in Civil Engineering. In recognition of his work in civil and construction engineering, he was conferred with the title of Doctor of Philosophy (Honoris Causa) by the Chancellor, Singhania University, Rajasthan in 2013.



Great Wall of China

Historically, the Great Wall of China was built to fortify China's northern border. The Great Wall has been the site of multiple battles and skirmishes between the Chinese and various peoples across history, including the Xiongnu during the Qin dynasty, the Khitans during the Song dynasty, and the Mongols during the Ming dynasty.

Cost- Great Wall of China Cost: CNY 635 billion (approximately USD 95 billion).

Sculptor- Historians usually consider the defensive walls built during the Spring and Autumn period (770–476 BCE) and the Warring States period (475–221 BCE) to be the first sections of what would eventually become the structure known as the Great Wall of China, putting the wall at almost 3,000 years old.

Specialities- The total length of all sections of the Great Wall of China ever built adds up to about 21,196 kilometers (13,171 miles), including overlapping sections that were rebuilt. The wall constructed during the Ming dynasty, the most well-preserved section, is about 8,850 kilometers (5,499 miles)

The height of the Great Wall is 5–8 meters (16–26 feet), where intact/restored. It was designed to be at least three times the height of a man. Some of the Wall was built along ridges, which make it look taller.

STAAD.Pro

STAAD.Pro is a widely used structural analysis and design software which is widely used to analyze and design structures for bridges, towers, buildings, Water tank, dams, STP, bridges, transportation, industrial and utility structures.

The STAAD.Pro V8i helps you to analyze and design any engineering structure in very short period of time.



AluminiSection



Civil Engineering
2009-13 Batch

Mr. Raghu Tamrakar of civil engineering 2009-13 batch is an Entrepreneur and working as an Co-founder of CivilEngineering & Architectural Consultant Company named Tamrakar Infra Consultant, Raipur, which deal with Government & Private projects related to construction of Building, bridges, highways & other Infrastructure. He shared his experince telling us that teachers of BTR prepare the road ahead which helps him to achieve his carrier goals.

Faculty Section

- Prof. Vaibhav P. Deshpande published a paper on "Identification of Critical Ground Water Potential Zones using AHP & Geospatial Techniques" in Scopus Index journal of design Engineering.

Students Acheivement

- Mr. Gyanprakash Chandrakar & Mr. Vijay Dawda have started a startup of a LED manufacturing and Plastic molding industry named as Span luminescence.
- They also open a Civil Construction company names as DC CONSTRUCTIONS.

Software Used in Civil Engineering

WaterCAD

WaterCAD is another Bentley program used for utility design – specifically water distribution networks. It is a hydraulic model that helps you design improvements such as the sizing and location of pipes, pumps, and more, using details of the network such as appurtenances and fire flow data.

WaterCAD is a reliable, resource-saving, decision-support application for your water infrastructure. From fire flow and water quality analysis, to energy cost management and pump modeling, WaterCAD helps you analyze, design, and optimize water distribution systems.

Utilities and engineering firms around the world trust Open Flows WaterCAD as a reliable decision-support capability for their infrastructure. Design new water systems and manage existing water networks effectively to reduce disruption risks and energy use.

Silent Features:-

Building a water-distribution network and performing steady state as well as extended period simulations

- Water Quality Analysis
- Network Design
- Model Calibration
- Network Design



Dynamic Response in Structural Engineering

Structural analysis is mainly concerned with finding out the behavior of a physical structure when subjected to force. This action can be in the form of load due to the weight of things such as people, furniture, wind, snow, etc. or some other kind of excitation such as an earthquake, shaking of the ground due to a blast nearby, etc. In essence all these loads are dynamic, including the self-weight of the structure because at some point in time these loads were not there. The distinction is made between the dynamic and the static analysis on the basis of whether the applied action has enough acceleration in comparison to the structure's natural frequency. If a load is applied sufficiently slowly, the inertia forces (Newton's first law of motion) can be ignored and the analysis can be simplified as static analysis.

Structural dynamics, Therefore, type of structural analysis which covers the behavior of structures subjected to dynamic (actions having high acceleration) loading. Dynamic loads include people, wind, waves, traffic, earthquakes, and blasts. Dynamic analysis can be used to find dynamic displacements, time history, and modal analysis.