



Yashoda Shikshan Prasarak Mandal's  
**Yashoda Technical Campus, Satara**  
Faculty of Engineering



# CONSTRUCTION MAGAZINE

JULY-DECEMBER 2021

DEPARTMENT  
OF  
CIVIL ENGINEERING





Yashoda Shikshan Prasarak Mandal's  
**Yashoda Technical Campus, Satara**  
**Faculty of Engineering**  
**Department of Civil Engineering**  
**CONSTRUMATIX**

JULY-DECEMBER 2021

## OVERVIEW OF DEPARTMENT

Welcome to the Department of Civil Engineering at YSPM's Yashoda Technical Campus, Satara. The department has been immensely successfully working from 2011 in the field of Professional Knowledge and advanced technical world. The department offers 4 years Bachelor of Technology in Civil Engineering.. The department undergoes several curricular and extra-curricular activities throughout the year. The department is having mixture of well experienced and young, enthusiastic faculty members who are involved in industry institute interaction besides their day to day teaching activities. The Department of Civil Engineering at Yashoda Technical Campus (YTC) delivers latest knowledge in Civil Engineering . It prepares students for careers in industry, academia, and also create young entrepreneurs.

### STRENGTH OF DEPARTMENT

- Well Qualified, Experienced staff.
- Good infrastructure.
- Well-equipped laboratories.
- Excellent academic performance.
- Departmental Library facility for students.

### Vision of the Department

To become a center of excellence by producing Civil engineers having research and development activity, sound technical knowledge, professional skills and social awareness to serve society.

### Mission of the Department

- M1: To impart quality technical education through interactive teaching learning methods.
- M2: To promote research and development activity by encouraging creativity and exposure to real world problems.
- M3: To mentor students for innovative thinking with relevance to entrepreneurship.
- M4: To develop social awareness in graduates to serve society.

### Program Educational Objectives (PEOs)

- PEO1. Prepare students to become successful in Civil engineering by applying knowledge of mathematics, science and engineering fundamentals.
- PEO2. Produce graduate who can analyze and design civil engineering system to the real life problem & develop attitude of lifelong learning for becoming successful civil engineers.
- PEO3 Motivate students for professional level employment in public or private organizations

### Program Specific Outcomes (PSOs)

- PSO1: Make the students employable in engineering industries.
- PSO2: Motivate the students for higher studies and research..
- PSO3: Motivate the students for various competitive examinations.

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## OVERVIEW OF DEPARTMENT

# INSIDE

1. STUDENT ARTICLES
2. FACULTY ARTICLES
3. FACULTY STUDENT CORNER
4. Art Gallery

### Editor-in-Chief

Prof Sayali S. Jadhav

### Academic co-ordinator

Prof. Sunil S. Lembhe

### Head of the Department

Prof. Prashant G. Borate

### Principal

Prof. Dr. D. S. Badkar

## CONTRIBUTORS

Prof. Sunil S. Lembhe

Prof. Prashant G. Borate

Mr. Adarsh V. Jagtap

Miss. Rutuja V. Kejale

Miss. Shweta A. Nikam

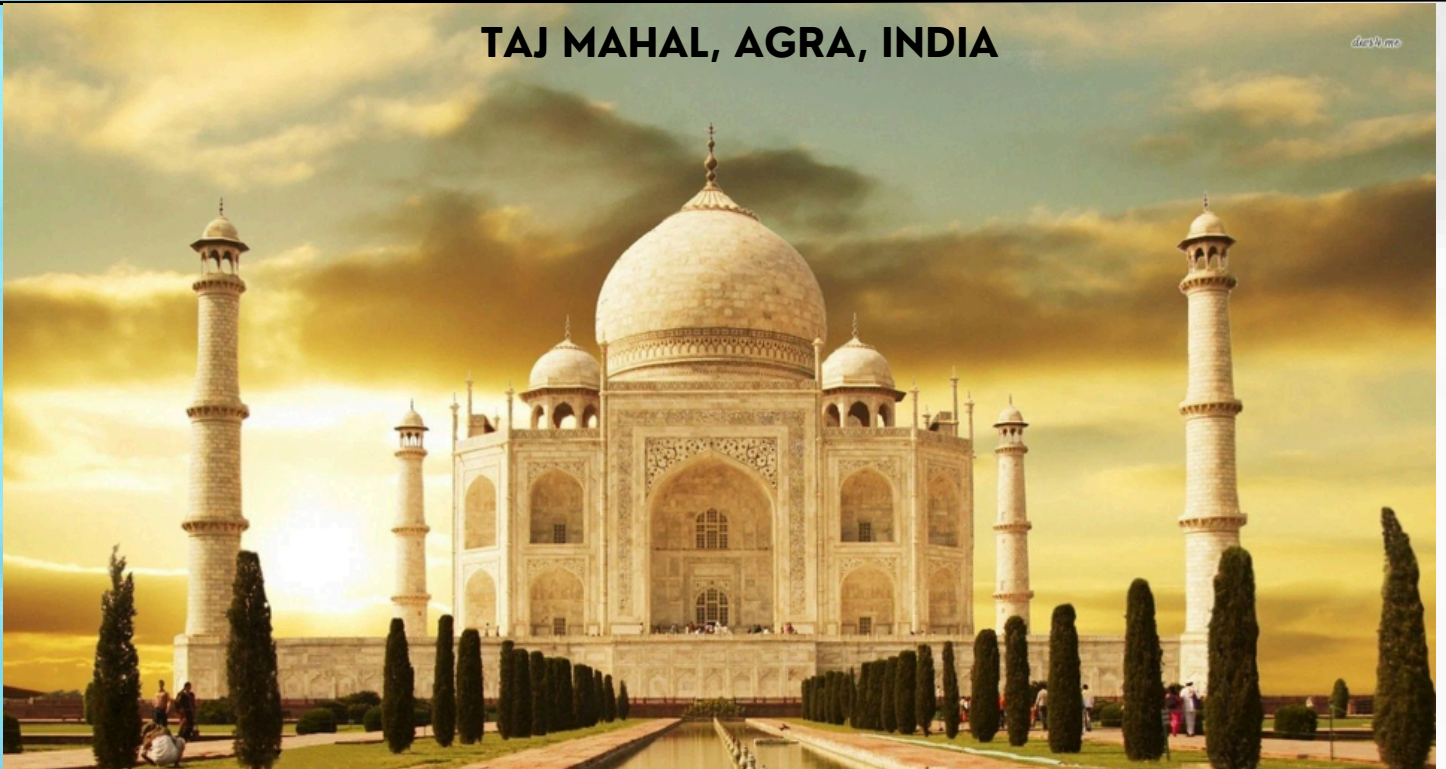
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## TAJ MAHAL, AGRA, INDIA



The construction of the Taj Mahal is a remarkable achievement in architecture and engineering, known for its grandeur, intricate craftsmanship, and the immense labor involved. Commissioned by the Mughal Emperor Shah Jahan in 1631 to honor his late wife, Mumtaz Mahal, the mausoleum stands as a symbol of eternal love. Construction began in 1632 and was completed in 1653, though some finishing touches continued for a few more years. The Taj Mahal's construction required a large workforce, vast resources, and coordination among various skilled artisans from different regions.

The Taj Mahal's design is a synthesis of various architectural styles, including Persian, Ottoman, Turkish, Indian, and Mughal influences. The primary building material used is white marble, sourced from the Makrana quarries in Rajasthan, India. This marble is known for its high quality and sheen. To enhance the marble's beauty, the monument's surfaces were polished to a mirror-like finish. The Taj Mahal is an example of symmetry in architecture, with a central dome, four minarets, and a symmetrical layout in both the garden and surrounding areas. The dome stands at about 35 meters (115 feet) in height and has a distinctive bulbous shape. The four minarets are tall, slender towers positioned at the corners of the main platform, with their purpose being both decorative and functional—serving as watchtowers and architectural features to balance the structure's proportions.

The Taj Mahal's construction process not only displayed the ingenuity and craftsmanship of the time but also served as a lasting tribute to Shah Jahan's love for his wife, Mumtaz Mahal. It remains one of the most iconic and visited monuments in the world and continues to inspire awe with its architectural beauty and historical significance.

Miss. Rutuja V Kenjale (B Tech Civil)

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## **AERIAL PASSENGER ROPEWAY**



An aerial passenger ropeway (cable car, gondola lift, or aerial tramway) is a transportation system in which passengers are carried in cabins or cars suspended from cables. These systems are typically used in mountainous regions or over difficult terrain, providing an efficient and scenic way to travel from one point to another, such as from the base to the summit of a hill or mountain. Aerial ropeways are often used in tourist destinations, ski resorts, and urban environments where conventional transportation methods like roads are not feasible or too expensive to construct.

The basic components of an aerial ropeway include cables, towers, stations, and cars. The cables are usually made of strong steel, with one or more cables used to support the cars, depending on the design. The towers are tall structures spaced along the route that support the cables and help guide the movement of the cabins. The stations are the loading and unloading points located at the starting and ending points of the system. Passengers board the cabins, which are usually equipped with large windows to provide scenic views during the ride. Some systems use a continuous loop of cable, while others operate with a single cable that is powered by a motorized winch at one end.

Aerial passenger ropeways are praised for their ability to overcome geographic challenges such as steep inclines, deep valleys, or dense forests, where conventional road or rail systems would be difficult or impractical. They are environmentally friendly, as they typically require less land clearance compared to other forms of infrastructure like highways or railways. Furthermore, they offer spectacular views and are often designed to be a tourist attraction in themselves. Aerial ropeways are used worldwide, from the Swiss Alps to the mountains in Asia and South America, providing both practical transportation and an unforgettable experience.

**Mr. Adarsh V Jagtap (TY Civil)**

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### **Mission of the Department**

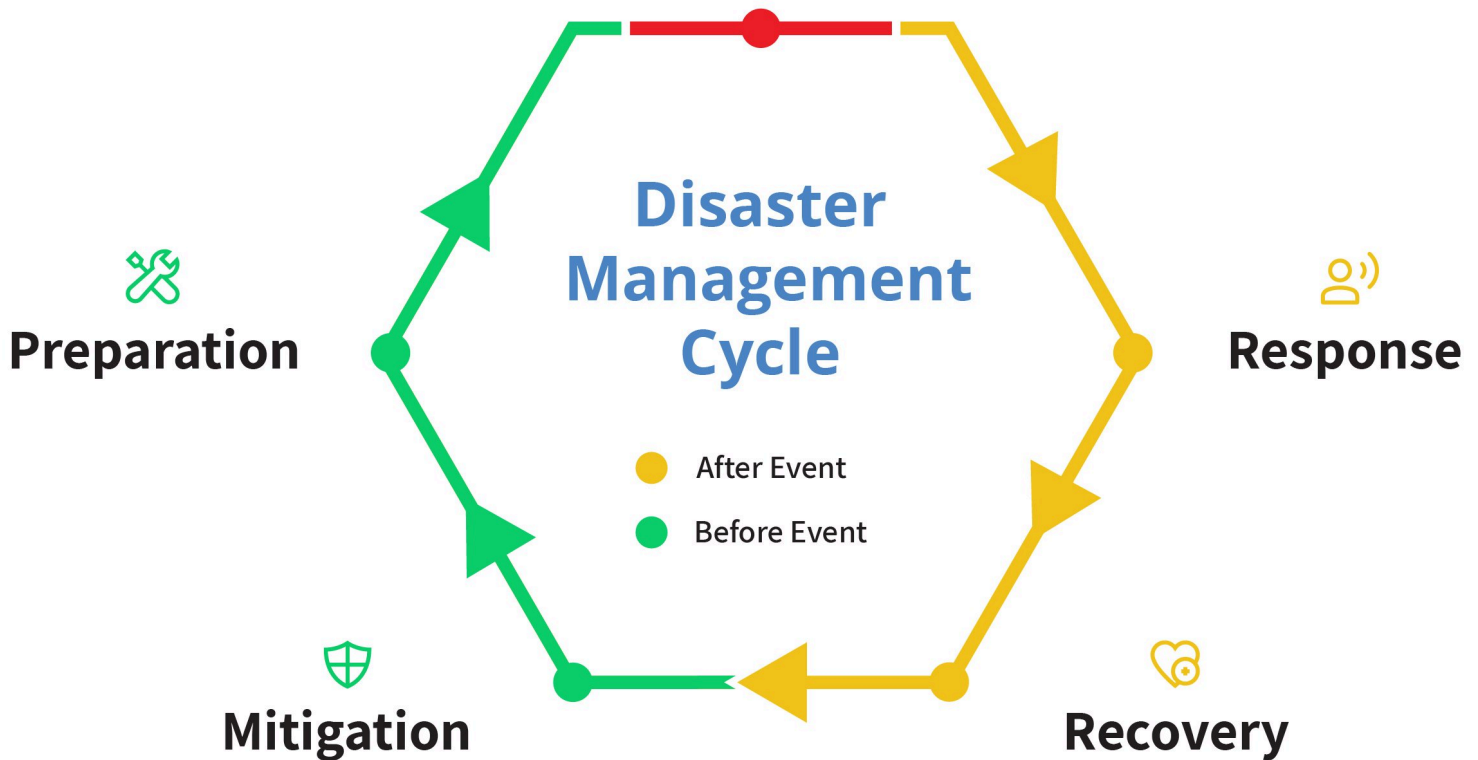
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**DISASTER MANAGEMENT**  
**DISASTER**



Disaster management in civil engineering refers to the role of civil engineering in reducing, responding to, and recovering from natural or man-made disasters that affect built environments, infrastructure, and human settlements. Civil engineers play a crucial role in designing, constructing, and maintaining infrastructure that can withstand disasters such as earthquakes, floods, landslides, hurricanes, and fires. Additionally, they are involved in emergency response and recovery efforts, helping to rebuild and restore essential services after a disaster. Effective disaster management in civil engineering is critical to minimizing loss of life, reducing economic impacts, and ensuring the resilience of communities.

In the pre-disaster phase, civil engineering focuses on mitigation and preparedness. This involves incorporating disaster-resistant design and construction techniques into infrastructure projects. In coastal areas, structures may be designed to withstand hurricanes and storm surges, using materials and techniques that reduce the risk of damage. Civil engineers also assess the vulnerabilities of existing infrastructure, recommending improvements and upgrades, such as strengthening bridges, roads, and dams, to enhance their disaster resilience. Additionally, during the preparedness phase, civil engineers may work on creating emergency evacuation routes, shelters, and contingency plans to ensure that communities are ready to respond when a disaster occurs.

Prof. Sunil S Lembhe

**Vision of the Department**

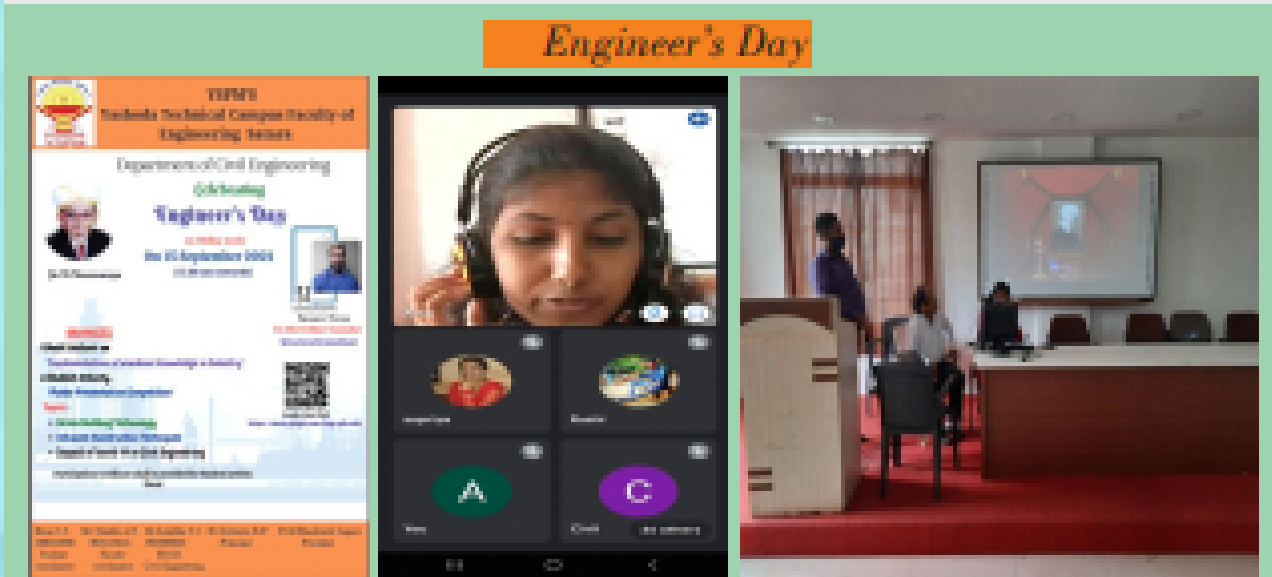
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**DEPARTMENT ACTIVITY**



**ENGINEERS'S DAY CELEBRATION**



**SWACHATA ABIYAN**

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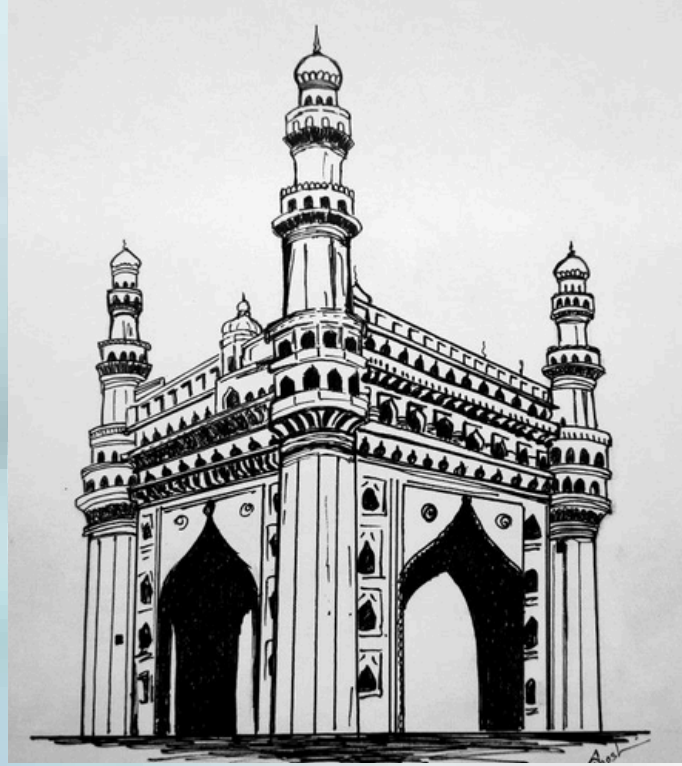
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## ART GALLERY

मैत्रीचं नातं हे  
सगळ्या नात्यात श्रेष्ठ  
हे नातं टिकवण्यासाठी  
नको खूप सारे कष्ट,  
मैत्रीचे बंध सारे  
कधीच नसतात तुटणारे  
जुन्या आठवणींना उजाळा देऊन  
गालातल्या गालात हसणारे

Shweta A Nikam (B Tech Civil)



Rushikesh R Waghmare (TY Civil)

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