YASHODA SHIKSHAN PRASARAK MANDAL'S

YASHODA TECHNICAL CAMPUS, SATARA

FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

CONSTROMATIX

JANUARY - JUNE 2023

DEPARTMENT OF
CIVIL ENGINEERING

(Approved by AICTE,Delhi/Approved by Govt of Maharastra DTE)
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Yashoda Shikshan Prasarak Mandal's
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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: Demonstrate technical expertise, leadership and ethical qualities to design & execute Civil Engineering Projects.
PEO2: Exhibit qualities of teamwork with effective communication, life long learning to address real world civil engineering problems.
PEO3: Develop sensitivity towards environment and society for sustainable development including disaster management.

Program Specific Outcomes (PSOs)

PSO-1 : The graduates will analyse and mitigate the natural disasters for the effective disaster management.
PSO-2 : The graduates will be able to acquire sound technical knowledge to analyse and work on critical civil engineering issues.
PSO-3 : The graduates will be enhancing professional abilities to meet industrial need.

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JANUARY - JUNE 2023

INSIDE

CONTRIBUTORS

Prof. Vijaya P Pawar

Prof. Ajinkya S. Shah

Mr. Ketan S. Borate

Mr. Kishor H. Phalke

Mr. Kunal A, Pawar

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DIAGRID STRUCTURE

Diagrid structures are an innovative type of architectural and structural design that use a grid of diagonal members (called "diagrids") to provide support and stability to a building or structure. The diagrid framework is typically made of steel, but it can also be constructed from other materials such as reinforced concrete. Unlike traditional vertical framing systems, where columns and beams are arranged in a rectangular grid, diagrid structures rely on the intersecting diagonal members that form a triangular grid pattern, creating a more efficient and robust system for bearing loads. This design helps distribute the building's weight more evenly, reducing the number of vertical columns needed and allowing for more open, flexible spaces within the structure. One of the key advantages of diagrid structures is their structural efficiency. The diagonal bracing system provides a higher level of stability and load resistance compared to conventional systems. The arrangement of the grid helps to transfer both vertical and lateral loads more effectively, such as those caused by wind or seismic forces. This system can result in significant reductions in material usage, as the structure can bear greater loads with less material, which is particularly advantageous in tall buildings or skyscrapers. Additionally, the diagonal design allows for larger, uninterrupted interior spaces and more freedom in the architectural layout, which is often a highly desired feature in modern building design. Diagrid systems also offer significant aesthetic and functional benefits. The exposed grid pattern not only serves as a distinctive visual element but also adds to the architectural beauty of a building. Structures like the Hearst Tower in New York City and the Shanghai Tower in China are prime examples of diagrid architecture, where the design enhances the building's iconic look while providing structural benefits. Beyond aesthetics, the use of a diagrid can lead to a reduction in the overall environmental impact of the building. The use of fewer materials and more efficient load distribution can lower the building's carbon footprint and make construction more sustainable. Furthermore, the design allows for innovative approaches to energy efficiency, as the form can be optimized to reduce heat gain or loss, contributing to more sustainable building practices.

Mr. Ketan S. Borate **(T. Y. Civil)**

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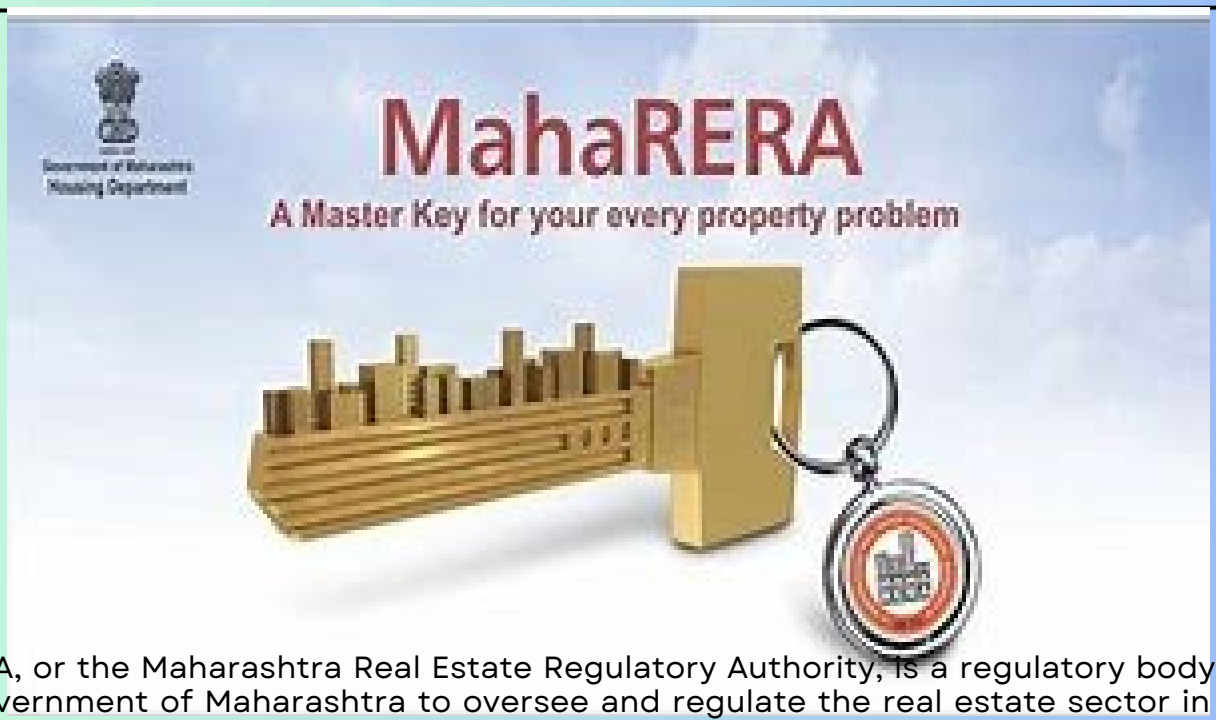
MAHARASHTRA REAL ESTATE REGULATORY AUTHORITY



MAHARERA, or the Maharashtra Real Estate Regulatory Authority, is a regulatory body established by the government of Maharashtra to oversee and regulate the real estate sector in the state. It was formed in compliance with the Real Estate (Regulation and Development) Act, 2016 (RERA), which was passed by the Indian Parliament to bring transparency, accountability, and efficiency to the real estate market across the country. The establishment of MAHARERA aims to protect the interests of homebuyers, reduce delays in project delivery, and ensure better quality of construction. One of the primary functions of MAHARERA is to register real estate projects and agents operating within the state. Developers are required to register their projects with MAHARERA before advertising, selling, or offering units for sale. The registration process involves submitting detailed project information, including approvals, timelines, financial details, and the status of land title, ensuring that potential buyers are fully informed about the project.

MAHARERA is also tasked with addressing grievances and disputes between developers and homebuyers. If a homebuyer faces issues such as project delays, poor construction quality, or breach of contract, they can file complaints with MAHARERA for resolution. The authority has been empowered to impose penalties and take action against developers who violate RERA regulations, such as failing to deliver projects on time, misleading buyers, or failing to meet the promised quality standards. Additionally, MAHARERA promotes transparency and accountability in the real estate industry by enforcing strict guidelines on project documentation, financial disclosures, and construction timelines. Furthermore, developers are required to provide a guarantee for project completion within the stipulated time frame, offering homebuyers greater assurance that their investments will be safeguarded. Through these efforts, MAHARERA has played a crucial role in bringing about significant reforms in the Maharashtra real estate market.

Prof. Ajinkya S Shah

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AUTOMATIC ROAD CLEANING SYSTEMS

Automatic road cleaning systems are innovative technologies designed to automate the process of cleaning roads, making it more efficient, effective, and sustainable. These systems typically involve the use of specialized machines or vehicles that are equipped with advanced sensors, brushes, vacuums, and water jets to remove debris, dirt, dust, and litter from the road surface. Some automatic road cleaning machines operate on predefined routes and schedules, using GPS navigation and automated systems to detect areas that require cleaning. These machines are particularly useful in urban environments, where manual road cleaning can be labor-intensive, time-consuming, and costly. The benefits of automatic road cleaning extend beyond just convenience. These systems help improve road safety by removing hazardous materials such as oil spills, loose gravel, and other debris that could cause accidents. Additionally, by efficiently clearing dirt and dust, they contribute to better air quality by reducing particulate matter in the atmosphere. Automatic cleaning also plays a role in maintaining the aesthetics of public spaces by ensuring that roads are consistently clean and free from litter. In addition to their practical advantages, automatic road cleaning technologies are becoming more environmentally friendly and energy-efficient. Many modern systems are designed to reduce water and energy usage, making them more sustainable than traditional cleaning methods. As these technologies continue to evolve, automatic road cleaning systems are expected to play a key role in smart city infrastructure, combining automation with sustainability to create cleaner, safer, and more efficient urban environments.

Prof. Vijaya P Pawar

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ACHIEVMENTS

Sr. No	Class	Name of Industry Visited	Date
1	T.Y.B.Tech Civil	Under construction Bunglow, Rautwadi, Pachwad	05/04/2023
2	T.Y.B.Tech Civil	Constrrotrait Lab, Wai	05/04/2023

Visit to Under construction Bunglow, Rautwadi, Pachwad

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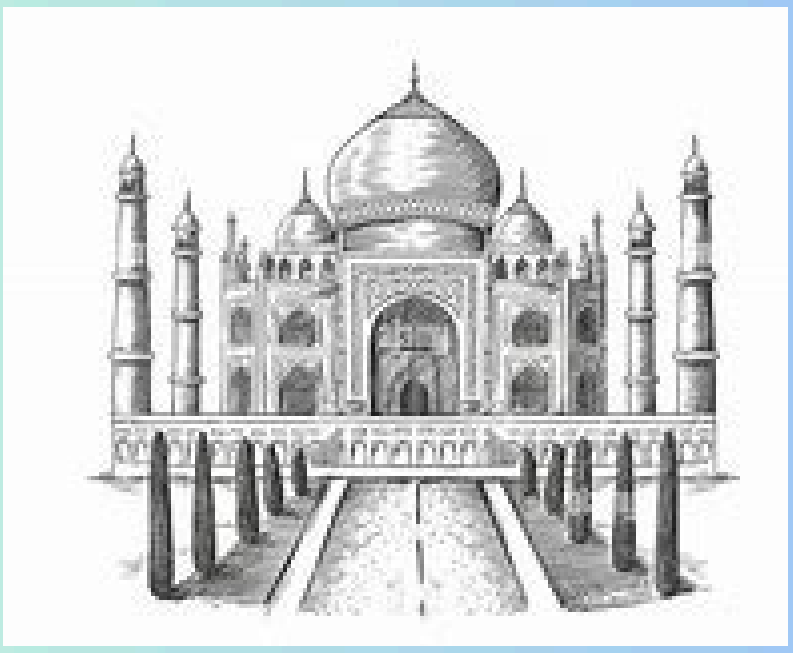
ART GALLERY



Mr. Kishor H. Phalke (B Tech Civil)

सुख हे फुलपाखरांसारखं ◌ंअसतं ◌ं
पाठलाग कराल तर उडून जात
बळजबरीने पकडाल तर म न जात
निरपे काम करत रहाल तर ते
अलगद येवून तुम या हातावर विसावंत

लाटांचा विचार करणारी नाव
कधी किनारा गाठणार नाही
यशासाठी य न करणारी माणसे
कधी अपयशाला भणार नाहीत

Mr. Kunal A Pawar (B Tech Civil)

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