



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

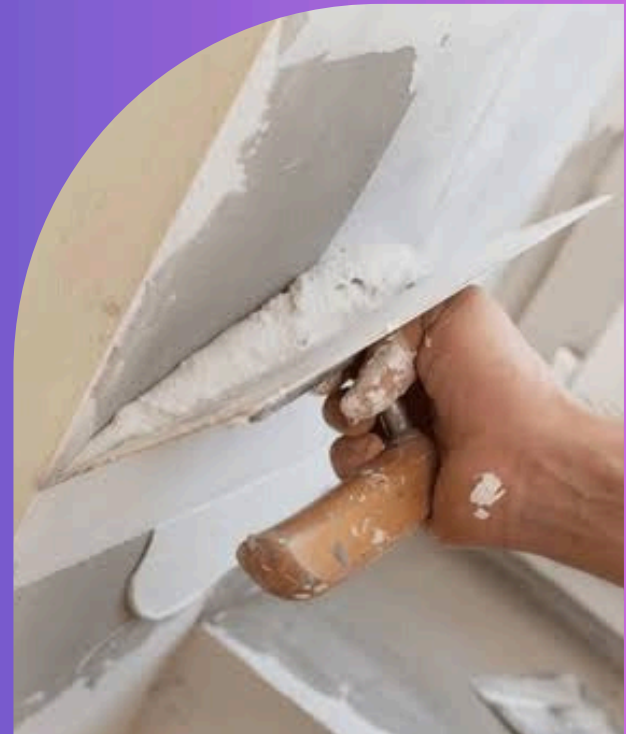


# **CONSTRUMATIX**

# **MAGAZINE**

**JULY-DECEMBER 2022**

**DEPARTMENT**  
**OF**  
**CIVIL ENGINEERING**





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

JULY-DECEMBER 2022

## 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. Alfaj N. Shaikh

Prof. Ajinkya S. Shah

Mr. Tejas D Kulkarni

Miss. Rutuja S Hol

Miss. Dnyaneshwari Vanjari

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## KAILASH MANDIR, ELLORA CAVES



The Kailash Mandir is an exceptional feat of ancient engineering and artistry. Carved out of a single massive rock, the temple is designed to resemble a mountain, symbolizing Mount Kailash, the abode of Lord Shiva. The temple complex is about 33 meters (108 feet) in height, 30 meters (98 feet) in width, and 45 meters (148 feet) in length. The structure is not only a temple but also a vast complex with several shrines, courtyards, halls, and intricately carved pillars. The temple features a large central shrine with a Shiva Lingam and sculptures of Hindu deities, making it both a religious and artistic marvel. The construction of the Kailash Mandir required immense labor, skill, and time, and the carving was done from the top down. This means that the sculptors started from the top of the rock and worked their way downward, a technique that allowed them to reveal intricate details in the temple's architecture and sculpture. The temple's most stunning features include the giant Nandi bull (a mount of Lord Shiva) in front of the temple, detailed carvings of various gods and goddesses, as well as exquisite relief work depicting Hindu mythology and stories. The Kailash Mandir at Ellora is a remarkable example of rock-cut architecture and remains a significant pilgrimage site.

Miss. Rutuja Hol (B Tech Civil)

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## FILLER SLAB



A filler slab is a type of reinforced concrete slab used in construction that incorporates the use of lightweight materials or voids (such as hollow bricks, ceramic tiles, or polystyrene blocks) to reduce the weight of the slab without compromising its strength and functionality. This slab system is commonly used in floor construction, especially in buildings with multiple stories, as it helps to minimize the overall weight of the structure and reduce the quantity of concrete required, thus making the construction more cost-effective and efficient. Advantages of Filler Slabs:

- 1.Reduced Dead Load: filler slabs significantly reduce the dead load (
- 2.Cost-Effective: Since less concrete is used in the slab construction, the material cost is reduced.
- 3.Thermal Insulation: Many filler materials provide good thermal insulation, helping to maintain comfortable indoor temperatures and improve the energy efficiency of buildings.
- 4.Sound Insulation: The voids created by the filler materials can improve the acoustic properties of the floor, providing sound insulation between floors in multi-story buildings.
- 5.Quicker Construction: The use of filler slabs speeds up construction due to the ease of placing lightweight filler materials and reduced concrete usage, making it a popular choice for large-scale residential and commercial projects.

Prof. Ajinkya S Shah

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## SAFETY IN CONSTRUCTION

### What Benefits Does Plastering Offer?

Plastering offers multiple benefits to walls and ceilings. Both external and internal plastering is essential ~~strength~~ ~~the~~ ~~required~~ protective ~~and~~ ~~support~~ on ~~plastered~~ bricks and extends durability to ceilings as well as walls. Plastered walls are also protected against climate damage including rain, heat, and humidity. It is also easier to repair plastered walls in case if they get damaged in any way! Plastering also helps the levelling of the surfaces, and such walls



CEMENT PLASTER	VS	GYPSUM PLASTER
<ul style="list-style-type: none"> <li>Strong, withstands harsh weather conditions</li> <li>Versatile, suitable for various surfaces &amp; structures</li> <li>Longer drying duration compared to gypsum</li> <li>Generally more economical for large-scale projects</li> </ul>		<ul style="list-style-type: none"> <li>Offers a smoother and finer finish</li> <li>Quick setting, shorter drying duration</li> <li>Lighter, reducing structural stress in some cases</li> <li>Less prone to shrinkage cracks than cement</li> </ul>

**Cement Plaster** Cement plaster is made by mixing cement, sand, and water, usually, the ratio of cement and sand is 1:4. The thickness of plaster depends on the surface to be plastered and could be around 12 to 20 millilitres. Sometimes, plasticizers are also mixed in the plaster to protect walls from parasites. Advantages: The best thing about cement plaster is that it can be used both for external as well as internal plastering. Cement plaster is the best bet when it comes to plastering exterior walls because it is moisture-resistant and will protect the wall

against climate changes as well as environmental pollution.

are also finish-friendly different finishes can be applied to it to enhance its look and appeal. Your home could also be less polluted as plastered walls tend to attract and create less dust.

Different materials are used for plastering, but the most commonly used plastering materials are cement and gypsum. The answer to which material is best for your home will depend on an analysis of the advantages and disadvantages of each.

=Prof. Alfaj N Shaikh

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### ACHIEVMENTS

Sr. No	Class	Name of Industry Visited	Date
1	T.Y.B.Tech.& Final Year	Railway Station, Satara	19/12/2022
2	T.Y.B.Tech.& Final Year	RMC Plant & Stone Crusher Nagewadi, Satara	03/12/2022



*Visit to Satara Railway Station, Satara*

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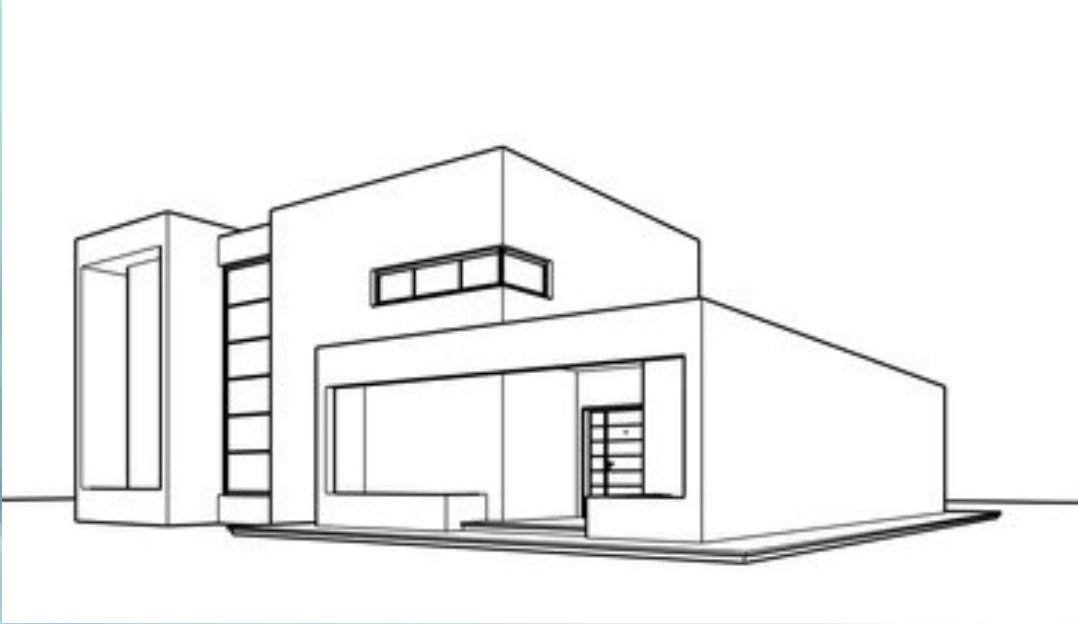
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**ART GALLERY**

चालणारे दोन पाय कती वसंगत  
एक मागे असतो एक पुढे असतो  
पुढे याला अ भमान नसतो  
मागे याला अपमान नसतो  
कारण यांना माहीत असतं  
णात सारं बदलणार असतं  
याचच नाव जीवन असतं  
याचच नाव जीवन असतं...

*Miss. Dnyaneshwari Vanjari  
(B Tech Civil)*



*Tejas D Kulkarni (TY Civil)*

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