

### **ASHOKRAO MANE POLYTECHNIC**

## DEPARTMENT OF CIVIL ENGINEERING NEWSLETTER: TECHNOZEAL



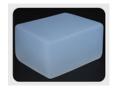
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**MAY 2025** 

#### THEME OF THE ISSUE:

#### ADVANCED CONSTRUCTION MATERIALS













#### **INSIGHTS**

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# EDITOR COMMITTEE CHIEF EDITOR: Mr. A. B. Warke COMMITTEE MEMBERS Mr. J. M. Jadhav Mr. V. S. Surve Ms. K. M. Sapkal

Mr. J. M. Jadhav Mr. V. S. Surve Ms. K. M. Sapkal Mr. Suhas M. Shende Mr. Harshad S. Chougule

#### **ABOUT INSTITUTE**

Shri Balasaheb Mane Shikshan Prasarak Mandal Ambap's, Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon (AMPV) was established in 2008 and is located near Kolhapur. This Institute has AICTE approval for the Seven Diploma courses. Under the visionary leadership and administration, AMPV has emerged as a leading technological institute and is a perfect destination for quality technical The institute has NBAeducation. accredited Programmes, 100% placements in MNCs, the best academic results, well well-established labs. The institute was also honored with notable awards like Best Engineering College in Maharashtra by ABP Maza, National Excellence Award by Indian Society for Technical Education, and State-level Vidyasevak award by Anna Bhau Sathe Prathisthan.

AMP believes in providing students with hands-on training that will further hone their technical skills with soft skills. The institute always encourages students to create innovative projects through which students have developed different scaled, engineering, and architectural models. Apart from the prescribed curriculum by the MSBTE, our college structures customized special programs based on specific requirements of the industry with a focus on priorities.

Today, our alumni stand as a testament to the institute's commitment to quality and integrity, contributing to nation-building across various sectors. We continue to strive towards academic innovation, skill enhancement, and character building to shape the engineers of tomorrow.

#### DEPARTMENT VISION

Strive to develop competent civil engineers, with academic excellence, knowledge, and quality education to make significant contributions to the holistic growth of society.

#### **DEPARTMENT MISSION**

- m1 To impart quality education with strong experimental knowledge.
- m2 To provide our students with the latest learning techniques and modern materials knowledge in all sectors to make them nationally recognizable civil engineers.
- m3 To provide a dynamic learning environment that emphasizes problem-solving skills, team work, and communication and leadership skills.
- m4 To train students with soft skills and other training programs for their future jobs and higher studies.

#### ABOUT DEPARTMENT

The Department of Civil Engineering was established in the academic year 2009-2010 with the goal of promoting high-quality education in the field of civil engineering. The academic activities of the department are emphasized by a deep understanding of fundamental principles, the development of creative ability to handle the challenges of civil engineering, and the analytical ability to solve the problems that are interdisciplinary in nature. The department currently offers a diploma in Civil Engineering, a program following Maharashtra State Board of Technical Education, Mumbai (MSBTE) curriculum. The teaching is assisted by the digitized presentations for better understanding by the students. Industrial visits are arranged for students to gain practical experience. Every year, a technical symposium, REFLEX, is organized for students to explore the knowledge and interact with other college students. The department magazine is published yearly to develop and improve their interpersonal skills. The students are motivated by development programs like CESA (Civil Engineering Students Association). The Civil Engineering Students Association (CESA) is working effectively to share information and to help society.

#### MESSAGE FROM PRINCIPAL'S DESK



newsletter, which focuses on a

truly transformative theme—Advanced Construction Materials.

As we step further into the 21st century, the demands placed on infrastructure and construction have become increasingly complex. The expectations for strength, sustainability, speed, and smart integration are higher than ever. Meeting these challenges requires more than traditional solutions—it requires innovation. It is in this context that advanced construction materials emerge not merely as alternatives, but as game-changers.

I am proud that our Civil Engineering Department is fostering a culture of research and inquiry into such cutting-edge developments. As an academic institution, we must equip future engineers not just with knowledge, but with vision—the ability to foresee challenges and develop smart, sustainable solutions. I urge all our students to remain curious, to explore these emerging materials with passion, and to envision how they can contribute to building a better tomorrow.

Warm wishes,

Dr. Y. R. Gurav
Principal,
Ashokrao Mane Polytechnic,
Vathar Tarf Vadgaon

#### MESSAGE FROM HOD'S DESK



Dear Students, Faculty,
Alumni, and Esteemed Readers,

I am delighted to
address you in this edition of
our Civil Engineering
Departmental Newsletter, where
we spotlight a theme that is

transforming the very fabric of our profession— Advanced Construction Materials. At our department, we are proud to be at the forefront of research and education in this exciting domain. Our faculty and research scholars are exploring novel materials that not only improve performance but also integrate seamlessly with digital technologies such as Building Information Modeling (BIM) and smart sensors. These interdisciplinary approaches are equipping our students to become innovators and problem-solvers in a rapidly evolving industry.

Let us continue to build not just stronger structures, but a more sustainable and intelligent future.

Warm regards,

Mr. A. B. Warke
Head of Civil
Engineering Department

#### MESSAGE FROM EDITOR'S DESK

#### Dear Readers,

It gives me great pleasure to present to you the latest edition of the Civil Engineering Department Newsletter — TECHNOZEAL. This publication reflects the vibrant academic, technical, and cultural life that thrives within our department.

Through this newsletter, we aim to highlight the remarkable achievements of our students and faculty, showcase innovative projects, and report on various departmental initiatives. It also features insightful articles and updates that embody the spirit of learning, growth, and progress.

In this edition, you will find glimpses of industrial visits, expert lectures, hands-on workshops, student accolades, and engaging departmental events such as technical fests and alumni interactions.

We hope this newsletter not only informs but also inspires — reminding us all of the collective passion and purpose that drive our journey forward.

Let us continue to build the future — **brick** by brick, idea by idea.

Happy Reading!

Warm regards,

Mr. J. M. Jadhav, Editor, TECHNOZEAL

#### **EXPERT LECTURE**

#### **REFLEX 2K25**

#### WATERPROOFING OF HOME



The expert lecture on "Waterproofing of Home" was conducted on 17/03/2025 at the Department of Civil Engineering (Room No. 124). The session was organized by the Department of Civil Engineering to educate students about the importance of waterproofing, the latest techniques, materials, and methods used in the industry. The lecture was delivered by Mr. Abhishek Patil of Universal Solutions, Kolhapur, a renowned expert in the field of construction and waterproofing solutions, with extensive experience in handling residential and commercial waterproofing projects.

The main objectives of the expert lecture were: - To understand the significance of waterproofing in residential and commercial structures, to explore various types of waterproofing methods and materials, to identify common problem areas in buildings and preventive techniques, and to discuss the latest advancements and technologies in waterproofing.

Following the presentation, an engaging Q&A session allowed participants to clarify their doubts and gain deeper insights into practical waterproofing challenges. Queries ranged from choosing the right materials to addressing leakage in old structures.

The lecture provided a comprehensive understanding of modern waterproofing techniques, emphasizing the importance of proper design, material selection, and skilled application. The session was highly beneficial for students, engineers, and professionals seeking to upgrade their knowledge in this critical aspect of construction.

#### **BEAM MODEL MAKING COMPETITION**



The Beam Model Making and Testing competition was organized by the civil engineering department so that students could create a fantastic opportunity to showcase creativity, engineering skills, and knowledge of structural principles. It made a memorable and valuable experience for civil engineering students, preparing them for future challenges in the field of structural engineering and beyond.

#### PAPER PRESENTATION COMPETITION



The Civil Engineering Paper Presentation Competition showcased a diverse array of innovative research and cutting-edge developments in the field. Participants from various academic institutions presented their papers on topics ranging from structural engineering and transportation to environmental sustainability and construction management. This event provided a platform for networking among participants and judges

#### INDUSTRIAL VISIT ARRANGED FOR STUDENTS

## VISIT TO CONSTRO INTERNATIONAL CONSTRUCTION EXPO PUNE





Visit to Constro 2025 International Construction Expo, Pune was organized on 01/02/2025 for Third Year Civil Engineering students. The purpose of this visit was to showcase the latest advancements, trends, and technologies in the construction industry to the third-year civil engineering students.

The visit aimed to enhance students' practical knowledge and provide exposure to real-world construction practices. It helped students to know about advanced construction materials and advanced construction equipment. The visit to the International Construction Expo was an insightful and valuable experience for students. It provided an opportunity to bridge the gap between theoretical knowledge and practical industry applications. The exposure to new technologies and trends will significantly benefit students in their academic and professional careers.

## VISIT TO WATER TREATMENT PLANT AND SEWAGE TREATMENT PLANT





As a part of our academic curriculum, an industrial site visit at Water Treatment Plant Puikhadi Kolhapur and Sewage Treatment Plant Kasaba Bawada Kolhapur was arranged on 21/02/2025 for the First Year and Second Year Civil Engineering students.

The purpose of the visit to the Water Treatment Plant and Sewage Treatment Plant was to enhance the students' understanding of the practical aspects of water and wastewater treatment processes. The visit to the water treatment plant and sewage treatment plant was an enriching experience that provided us with practical knowledge and insight into the processes involved in water treatment and sewage treatment. We gained a deeper appreciation for the importance of these processes in maintaining public health and environmental sustainability.

#### TRAINING ARRANGED FOR STUDENTS

## COMMUNICATION SKILLS, GROUP DISCUSSION AND MOCK INTERVIEWS





To enhance the employability and overall personality of the students, a series of Soft Skill Development Sessions was conducted for the third-year diploma engineering students from 13th to 15th January 2025. The sessions were designed to prepare students for campus interviews, higher studies, and real-world professional environments. An interactive workshop was conducted to improve verbal and non-verbal communication. Students were trained in public speaking, effective listening, clarity in expression, and confidence-building techniques.

Personal interview simulations were carried out to mimic real interview settings. Students faced questions related to HR, technical subjects, and situational analysis. Feedback was given individually, focusing on areas such as self-introduction, answering techniques, grooming, and attitude.

These sessions were facilitated by Mrs. Tanushri Ghosh and received positive feedback from the participants. The students found the training extremely beneficial for boosting their self-confidence and preparing for upcoming campus recruitment drives.

#### **ANNUAL SOCIAL FUNCTION 2K25**



The Annual Social Function "YUVA-TARANG 2K25" of Ashokrao Mane Polytechnic was celebrated with great zeal and enthusiasm on 12th & 13th March 2025. The event aimed to showcase the talents of students, celebrate cultural diversity, and provide a platform for creativity and expression beyond academics.

The function was graced by the presence of Mr. Anant Raut (Poet, Writer, and Speaker), who inaugurated the event by lighting the ceremonial lamp, accompanied by the Principal Dr. Y. R. Gurav, faculty members, and student representatives. In the welcome speech, the Principal highlighted the achievements of the college in the academic year and emphasized the importance of co-curricular activities in holistic development.

The program featured a vibrant line-up of cultural performances by students, including:

- Classical and contemporary dance performances
- Singing (solo and group)
- Drama and skits on social themes
- Fashion show

The event also included the Prize Distribution Ceremony, where students were awarded for academic excellence, sports achievements, and participation in extracurricular activities. Certificates and trophies were distributed by the dignitaries. The audience enjoyed the colorful and well-organized function.

#### **ALUMNI MEET 2025**

#### **ANNUAL SPORTS 2024-25**





The Alumni Association of Ashokrao Mane Polytechnic Vathar organized an Alumni Meet on 02/01/2025 with great enthusiasm and nostalgia. The event aimed to reconnect former students with their Alma mater and foster stronger bonds between alumni and current students. The chief guest for this event was Shri. Vijaysingh Mane, President of Shri. Balasaheb Mane Shikshan Prasarak Mandal, Ambap. The event commenced with a warm welcome address by Shri. Vijaysingh Mane, President of Sanstha, emphasized the importance of alumni in the growth and development of the institution. The Principal of the college, Dr. Y. R. Gurav, highlighted recent achievements and developments in the college and encouraged alumni to contribute their experiences and guidance to inspire current students.

The inauguration of the College's Biannual Newsletter and every department's newsletter was also done by the auspicious hands of the chief guest and all dignitaries.

The event concluded with a vote of thanks delivered by Mr. R. B. Mulik, Coordinator of the Alumni Association, who expressed gratitude to all the alumni for attending the meet and supporting the college.





The Annual Sports Meet of Ashokrao Mane Polytechnic Vathar was held on 01/01/2025 with great enthusiasm and energetic participation from students, faculty, and staff. The event aimed to promote physical fitness, team spirit, and sportsmanship among the students.

The program began with the inaugural ceremony, where the Principal, Dr. Y. R. Gurav, delivered the welcome address and declared the Sports Meet open. The chief guest of the sports meet encouraged the students to participate actively in sports along with academics.

The sports meet featured a wide range of track and field events, including:

100m, 200m, and 400m races, Relay race (4x100m) Long jump, Shot put, High jump,

Cricket, Kabaddi,

Kho-Kho and Volleyball

Indoor games such as Chess and Table Tennis were also organized in the college sports room. Students from all departments participated enthusiastically, and the spirit of competition was evident throughout the events.

#### **NSS ACTIVITY**

#### DISTRIBUTION OF SWEATERS





To help the underprivileged people during the winter season and as part of the social responsibility initiative, and on the occasion of the birthday of Sau. Manisha Vijaysingh Mane, Ex-ZP Member, Ashokrao Mane Polytechnic Vathar, organized a Sweater Distribution Drive on 04/12/2024.

On the day of the event, volunteers visited Prathamik & Madhyamik Aashram Shala Peth Vadgaon and personally distributed sweaters to the needy, including children, elderly individuals, and daily wage workers. The recipients expressed heartfelt gratitude, and the smiles on their faces were truly rewarding.

The program was a small but significant step towards building a more compassionate and caring society.

#### **NSS ACTIVITY**

#### **BLOOD DONATION CAMP**





In collaboration with Sanjeevan Blood Bank Kolhapur, the NSS Club of Ashokrao Mane Polytechnic Vathar successfully organized a Blood Donation Camp on 28/01/2025 within the college campus.

The inauguration of the camp was done by Principal, Dr. Y. R. Gurav, along with the NSS Incharge, Mr. V. S. Surve, who addressed the gathering and encouraged students to take part in this noble cause. Doctors and medical staff from Sanjeevan Blood Bank Kolhapur were present to carry out the procedure and ensure safe blood collection.

The camp saw enthusiastic participation from students, faculty members, and non-teaching staff. A total of 33 units of blood were collected during the drive. Donors underwent a basic health check-up before donation, and refreshments were provided post-donation.

#### **FACULTY SPEAK**



Mr. V. S. Surve Lecturer, Civil Engineering Department Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon

## Advanced Building Materials: Shaping the Future of Civil Engineering

The realm of Civil Engineering is undergoing a transformative shift, driven by innovations in advanced building materials. These materials not only enhance structural performance but also promote sustainability, efficiency, and resilience in modern construction.

From self-healing concrete that repairs its own cracks to ultra-high-performance concrete (UHPC) offering exceptional strength and durability, the industry is steadily moving beyond conventional materials. Fiber-reinforced polymers, aerogels, geopolymer concrete, and phase change materials are just a few examples of how technology is redefining our construction toolkit.

These materials address some of the critical challenges we face today—be it reducing the carbon footprint of construction, improving energy efficiency in buildings, or increasing the lifespan of infrastructure. Smart materials capable of sensing stress or strain conditions are also being integrated into structures, laying the foundation for intelligent infrastructure systems.

Our department is actively engaged in research and academic exploration in this area. Through experimental studies, material testing, and industry collaborations, we are preparing our students to work with and innovate using these next-generation materials. This exposure ensures that our graduates are not only familiar with the science behind these materials but are also equipped to apply them in real-world scenarios.

As Civil Engineers, it is our responsibility to build not just for today, but for the future. Advanced building materials are a key enabler in that mission—helping us create structures that are stronger, smarter, and more sustainable.



Miss. K. M. Sapkal Lecturer, Civil Engineering Department Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon

## Recycled Materials: Advancing Sustainable Construction

As the construction industry evolves to meet the demands of sustainability, one of the most promising directions is the integration of recycled materials into modern construction. Far from being merely a cost-saving measure, this approach represents a significant stride toward greener, more responsible engineering practices.

Recycled aggregates from demolished concrete, fly ash from thermal power plants, slag from steel industries, waste plastic composites, and reclaimed asphalt pavement are just a few examples of how waste can be repurposed into high-performance building materials. These alternatives not only reduce the strain on natural resources but also help in minimizing landfill waste and lowering carbon emissions associated with traditional construction methods.

In recent research and practice, recycled materials have demonstrated impressive properties—some even matching or exceeding conventional counterparts in terms of strength, durability, and resistance to environmental factors. For example, recycled plastic in concrete has shown potential for enhanced flexibility and reduced weight, while fly ash-based geopolymer concrete is gaining traction for its low carbon footprint.

The use of recycled materials is more than an environmental necessity—it is a technological opportunity. As civil engineers, adopting and advancing such materials is crucial in our mission to build infrastructure that is not only strong and functional but also sustainable and future-ready.

#### STUDENT SPEAK



Mr. Suhas M. Shende Student Third Year Civil Engineering Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon

#### **Noise Reducing Road Materials**

As civil engineering students, we often focus on strength, durability, and cost-effectiveness when it comes to road construction. But there's another aspect that's becoming increasingly important in urban design — noise reduction. With growing traffic in cities, road traffic noise has become a major source of pollution. It affects not only human health but also the livability of residential and commercial zones near highways and major roads. This is where noise reducing road materials come into play.

One of the most promising materials in this area is porous asphalt. Unlike traditional dense-graded asphalt, porous asphalt has interconnected voids that allow air and water to pass through. These voids help in absorbing sound energy from moving vehicles, thus reducing surface noise. In fact, porous pavements can lower noise levels by 3 to 5 decibels, which is quite significant.

Another solution is rubberized asphalt, made by blending asphalt with ground rubber from recycled tires. It offers multiple advantages — improved elasticity, resistance to cracking, and notably, a reduction in tire-road noise. It's also a sustainable choice, as it recycles waste rubber that would otherwise go to landfills. However, implementation in India and other developing countries faces challenges — primarily cost, lack of awareness, and maintenance issues. But with urban planning increasingly focused on sustainability and livability, these materials may soon become more common.

As civil engineering students and future professionals, it's our role to explore and advocate for such advancements. Noise reducing materials are not just technological upgrades — they represent a step forward in designing smarter and more humane infrastructure.



Mr. Harshad S. Chougule
Student
Third Year Civil Engineering
Ashokrao Mane Polytechnic,
Vathar Tarf Vadgaon

Self-Healing Concrete – The Future of Durable Infrastructure

Concrete is the most widely used construction material in the world — strong, versatile, and relatively economical. But there's one problem we can't ignore: cracking. Over time, all concrete structures develop cracks due to shrinkage, temperature changes, and external loads. These cracks allow water and chemicals to seep in, weakening the structure and accelerating deterioration.

Imagine if concrete could heal itself, just like human skin heals a cut. That's not science fiction it's called Self-Healing Concrete, and it's one of the most exciting innovations in modern construction. Self-healing concrete is designed to repair its own cracks without human intervention. The goal is to extend the life of concrete structures, reduce maintenance costs, and improve safety. Special bacteria like Bacillus subtilis are mixed into the concrete along with nutrients like calcium lactate. When cracks form and water seeps in, the dormant bacteria become active and produce limestone (CaCO<sub>3</sub>), which seals the cracks. Tiny capsules filled with healing agents (like epoxy or glue-like substances) are embedded in the concrete. When cracks occur, the capsules break and release the healing agent, bonding the concrete back together. Some advanced versions use materials that react to temperature changes and "remember" their original shape, helping close cracks mechanically.

Countries like the Netherlands and the UK have already started using self-healing concrete in bridges, tunnels, and roads. As technology improves and becomes more cost-effective, it's likely to be a game-changer in infrastructure development globally—including in India. As future civil engineers, we must stay ahead of the curve. Self-healing concrete is more than just a cool idea—it's a practical solution to one of the industry's biggest challenges.

#### INDUSTRY SPEAK



Mr. Ashish Bhosale, Jr. Engineer, PMGSY Sindhudurg District, Maharashtra.

#### **Recent Developments in Construction Materials**

In recent years, India's construction industry has witnessed a transformation — driven by innovation, sustainability, and the need for smarter infrastructure. Traditional materials like cement, steel, and bricks still form the foundation of construction, but advanced construction materials (ACMs) are gradually changing the way we build. These materials are engineered to offer superior performance — in terms of strength, durability, efficiency, environmental impact. As future civil engineers, it's important for us to understand how India is progressing in this field.

#### 1. Self-Healing Concrete

This futuristic material is now entering research labs and pilot projects across India. Institutions like IIT Delhi and IIT Madras are experimenting with bacterial concrete that can repair its own cracks. It holds promise for bridges, highways, and structures in seismic zones.

#### 2. Geopolymer Concrete

With growing awareness about reducing carbon emissions, geopolymer concrete, which uses industrial waste like fly ash and GGBS instead of cement, is gaining popularity. It offers excellent resistance to chemicals and high temperatures — ideal for industries and marine structures.

#### 3. Engineered Cementitious Composites (ECC)

Also known as "bendable concrete", ECC can undergo large deformations without cracking. Researchers at IIT Kanpur have been working on adapting this technology for India's infrastructure, especially in earthquake-prone areas.

#### 4. Fibre-Reinforced Polymers (FRPs)

FRPs are being used more frequently for retrofit and repair works in India. They're lightweight, corrosion-resistant, and highly durable. Indian companies are now producing carbon and glass fiber sheets for strengthening old bridges and buildings.



Er. Shubham Yadav Owner, SPD Associates, Kolhapur

## The Future of Research and Development in Advanced Building Materials

The future of construction doesn't just lie in taller skyscrapers or smarter cities — it lies in the materials we build with. As we face the challenges of climate change, urbanization, and resource scarcity, the research and development (R&D) of advanced building materials is becoming more important than ever. From self-healing concrete to carbon-negative bricks, the materials of tomorrow are being developed today — in labs, startups, and research institutes around the world, including right here in India.

The Direction of R&D: What's Changing?

#### **Sustainability First**

With global pressure to reduce carbon emissions, future materials will prioritize low environmental impact. Cement alternatives like geopolymer concrete, alkali-activated binders, and carbon-capturing materials are leading this push.

#### **Smart Materials & Embedded Technology**

R&D is moving toward intelligent materials — capable of sensing stress, strain, humidity, or even damage. Think of self-sensing concrete or nanosensor-embedded composites that provide real-time feedback on a building's health.

#### **Biomimicry and Nature-Inspired Materials**

Materials inspired by nature — like self-growing bricks using bacteria, or surfaces that mimic lotus leaves for water repellence — are gaining attention in green architecture.

#### **Customization Through 3D Printing**

The combination of 3D concrete printing and tailored material mixes is making way for customized, on-demand construction, especially useful in remote or disaster-prone areas.

#### **Lightweight & High-Performance Composites**

R&D is focusing on fiber-reinforced polymers, aerogels, and ultra-lightweight panels that can reduce structural loads and enable faster, modular construction.

#### **ACADEMIC TOPPERS WINTER 2025**

#### THIRD YEAR CIVIL ENGINEERING

#### 1st Rank



Mr. Chougule Harshad 88.20% Savakar

## 2nd Rank



Mr. Shende Suhas 84.10% Madhukar

3rd Rank



Mr. Landage Abhijeet 83.50% Annaso

#### STUDENT PLACEMENTS AY 2024-2025



**Harshad Savakar** Chougule Civil Engineering Father's Name: Savakar Yashwant Chougule

#### Address:

A. P. Sawarde Near ST stand, Bhagawa Chowk, Swapnpurti Nivas Tal. Hatakanangale , Dist- Kolhapur.



#### SECOND YEAR CIVIL ENGINEERING

# 1st Rank

Miss. Mahadik 83.77% Samrudhi Sandip

#### 2nd Rank



Miss. Patole Darshani 78.59% Pradeep

#### 3rd Rank



Mr. Mane 76.12% Jyotiraditya Vikasrao

#### **CO-CURRICULAR & EXTRA CURRICULAR ACTIVITIES**



Ms. Samruddhi Mahadik & Ms. Darshani Patole (SY Civil) secured Second place in the Beam Model Competition Organized Ashokrao Mane Polytechnic, Vathar



Civil Engineering students secured Winning place in the Fashion Show Event at YUVATARANG 2K25

TECHNOZEAL SUCCESS STORY

#### STAFF ACHIEVEMENT



We are proud to share that our esteemed faculty member, Mrs. M. A. Chavan, has been granted a patent for her innovative work titled "AI-Based Solar Powered Concrete Mixer Device." This significant milestone stands as a testament to her ingenuity, dedication, and relentless pursuit of innovation in the field of civil engineering. By integrating Artificial Intelligence with sustainable energy solutions, Mrs. Chavan's invention marks a forward-thinking step toward smarter and greener construction practices.

#### **SUCCESS STORY**

Ms. Snehal Patil Civil Engineering Assistant Water Resources Department Gov. of Maharashtra

"BUILDING MY FUTURE, BRICK BY BRICK: HOW AMP SHAPED MY CAREER"

It is a matter of immense pride and gratitude for me to share my journey from being a student in the Civil Engineering Department of Ashokrao Mane Polytechnic, Vathar, to being selected for a government post. My years at this institute laid the foundation not just for my technical skills but also for the discipline and perseverance required to achieve such goals.

Right from the basics of surveying and structural analysis to practical site visits and lab work, the comprehensive curriculum helped me understand the real-world applications of civil engineering. I am particularly thankful to the faculty members whose constant guidance and mentorship helped shape my professional outlook.

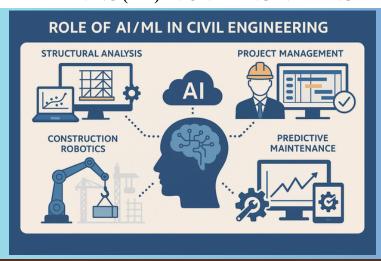
While preparing for competitive exams, I realized how crucial it was to have clarity in core subjects. Our department's focus on fundamentals, combined with opportunities like seminars, workshops, and project work, gave me a strong edge in written exams and interviews.

I am proud to be an alumna of this department and thankful for everything I have learned here. I hope to inspire more students to pursue government roles where we can directly contribute to the nation's infrastructure and development.

Thank you!

#### THEME FOR NEXT ISSUE:

ROLE OF ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML) IN CIVIL ENGINEERING



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