Bharati Vidyapeeth
(Deemed to be University)
College of Engineering, Pune

Enamor'23

e-Newsletter

CIVIL ENGINEERING STUDENT ASSOCIATION

You Dream it, We Build it!

Dr. Patangrao Kadam
Founder of Bharati Vidyapeeth

Bharati Vidyapeeth, the parent body of Bharati Vidyapeeth (Deemed to be University), was established in 1964 by the eminent educationist and visionary Dr. Patangrao Kadam.

He always put a premium on the quality of education imparted to students through the institutions of Bharati Vidyapeeth. He emphasized that students of Bharati Vidyapeeth should receive education in a very hospitable and conducive atmosphere. Since its inception, Bharati Vidyapeeth has been at the forefront of creating educational opportunities for millions of students including those from the rural and tribal regions as well as from the disadvantaged groups.

LEADERSHIP

Hon’ble Prof. Dr. Shivajirao Kadam
Chancellor
Bharati Vidyapeeth
(Deemed to be University)

Hon’ble Prof. Dr. Vivek Saoji
Vice- Chancellor
Bharati Vidyapeeth
(Deemed to be University)

Hon’ble Dr. Vishwajit Kadam
Pro Vice-Chancellor
Bharati Vidyapeeth
(Deemed to be University)

From Principal Desk

Message - It gives me immense pleasure to extend my warmest greetings to the Civil Engineering Department on the release of this year's departmental Newsletter. This publication is not only a reflection of the academic and technical prowess of our students and faculty, but also a platform that showcases creativity, innovation, and the spirit of engineering excellence.

Dr. Vidula Sohoni
Principal
BVDU, CoE, Pune.

Civil Engineering has always been at the core of nation-building, shaping the physical world around us. From sustainable construction practices to smart infrastructure solutions, the role of civil engineers continues to evolve with the demands of the modern world. I am proud of the department's continuous efforts to keep pace with these changes and to provide students with a holistic and forward-thinking education.

I congratulate the editorial team, contributors, and faculty members for their hard work in bringing this newsletter to life. May it inspire readers and ignite new ideas for the future.

From the H.O.D.'s Desk

Message - As the head of this department, I am committed to fostering an environment that encourages intellectual curiosity, innovation, and collaboration.

Our faculty members are esteemed experts in their respective fields, dedicated to imparting knowledge and nurturing the next generation of civil engineers. Likewise, our staff members are here to support and guide students along their academic journey.

Dr. M. R. Gidde
HoD,
Civil Engineering
BVDU, CoE, Pune.

To our returning students, I encourage them to continue pushing their boundaries of their learning and exploring new avenues within civil engineering. To our new students, I extend a special welcome and urge them to embrace the challenges and opportunities that await them.

Together, we can make meaningful contributions to society and leave a lasting impact on future generations. I am confident that by working together, we can achieve great things and uphold the proud legacy of excellence associated with our department.

CIVIL DEPARTMENT

Mr. Rajesh Jadhav
Associate Professor

Dr. Pradeep Kodag
Associate Professor

Mrs. P. D Pawar
Assistant Professor

Mr. S. D Talegaonkar
Assistant Professor

Dr. Milind R Gidde
Professor and HoD

Mr. S. S Thorat
Assistant Professor

Dr. Padmakar T. Nimbalkar
Professor

Prof. Sujit M. Tarte
Assistant Professor

Miss. Jyoti M Sadamate
Assistant Professor

Mrs. Priya P. Hirave
Assistant Professor

About Department

The Department of Civil Engineering offers undergraduate, postgraduate and doctorate degree courses. The Department of Civil Engineering is dedicated to building a better future through innovation and discovery.

Civil engineering is a professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including works like roads, bridges, canals, dams, and buildings. It also enables students to solve complex challenges in areas like sustainability, energy, and the environment.

From the Editorial Desk

Message-With great pleasure and pride, we present to you this edition of our Civil Engineering Department magazine. This publication is more than just a collection of articles - it is a reflection of the passion, talent, and innovative thinking that thrives within our department.

Prof. S. D. Talegaonkar
Assistant Professor

Our aim through this magazine is to create a space where academic achievements, research insights, creative writing, and departmental activities come together in harmony. We believe that engineering is not just about structures and calculations; it's also about ideas, inspiration, and the constant pursuit of progress.

Message - It is with great excitement that we unveil this year's issue of our departmental magazine - a collective voice of the Civil Engineering Department. This edition brings together the vibrant spirit of our students and faculty, featuring technical write-ups, field experiences, and creative pieces that showcase the depth and diversity of thought in our community

Prof. Sujit M. Tarte
Assistant Professor

Each page of this magazine captures our journey - the challenges, the learning, and growth. We have tried to ensure a balanced blend of technical content, innovation highlights, and student expressions that speak to the core of what civil engineering truly represents.

Cleanliness Drive at Taljai Tekdi

On [insert date], the students of Bharati Vidyapeeth College of Engineering, Pune, organized a cleanliness drive at Taljai Tekdi with the goal of preserving the natural beauty of this urban forest and promoting environmental awareness.

The students, driven by a sense of social responsibility, gathered early in the morning and undertook a thorough cleanup of the area. Armed with gloves, biodegradable garbage bags, and a strong community spirit, they collected plastic waste, discarded bottles, wrappers, and other litter strewn around the hill.

This initiative not only contributed to the cleanliness of Taljai Tekdi but also highlighted the importance of sustainable practices and the role of youth in environmental protection. The drive received positive attention from local visitors and inspired many to be more mindful about maintaining public spaces.

Through this effort, the students of Bharati Vidyapeeth College of Engineering have set a powerful example of proactive citizenship and environmental stewardship.

Prof. M. R. Gidde, Prof. P. D. Pawar and Prof. S. D. Talegaonkar briefing the students about the cleanliness drive

Group photo with students after successful completion of the cleanliness drive at Taljai Tekdi, Pune.

Prepared by: Divakar Kumar, Atulya Singh

Paper Presentation Competition

The Civil Engineering Students Association (CESA) of Bharati Vidyapeeth College of Engineering, Pune, organized an engaging Paper Presentation Competition on 28th February 2023. The event focused on two critical and contemporary themes in civil engineering: Construction Project Management and Sustainable Building Design.

Students showcased their research and innovative ideas through well-structured presentations, offering insights into efficient project execution techniques, sustainable construction practices, green building concepts, and modern tools used in construction management.

Construction Project Management (CPM) plays a pivotal role in ensuring that construction projects are executed efficiently, within time, cost, and quality constraints. Participants who chose this theme presented papers focusing on the lifecycle of construction projects—from planning and execution to monitoring and closure. The presentations explored topics such as scheduling techniques, cost optimization methods, resource allocation, and the importance of safety and quality control on-site.

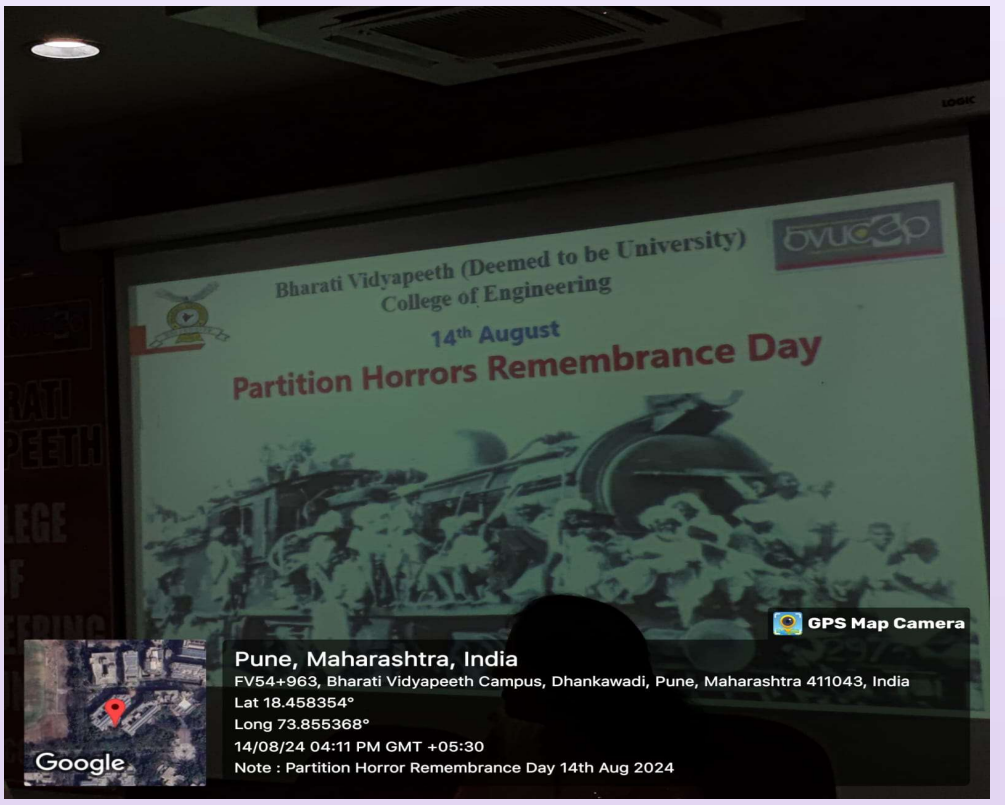
Advanced tools like Primavera, MS Project, and Building Information Modeling (BIM) were discussed as essential elements in modern construction management. Some students also presented case studies on infrastructure projects, highlighting how delays, budget overruns, or mismanagement could be addressed with strategic planning and innovative management techniques.

The second theme, Sustainable Building Design, focused on the need to develop structures that are environmentally responsible and resource-efficient throughout their life cycle. The participants delivered impressive presentations on green construction materials, energy-efficient design strategies, and technologies that reduce the environmental impact of buildings.

The Paper Presentation Competition organized by CESA was a resounding success, reflecting the enthusiasm, knowledge, and creative thinking of the students. By focusing on relevant and forward-thinking themes like Construction Project Management and Sustainable Building Design, the event served as a significant step towards nurturing responsible and innovative engineers. It reminded all attendees that civil engineering is not just about building structures, but about building a better, more sustainable future.

Prepared by: Rohit Jadhav , Vivek Inchure, Prathmesh Chandage

Horrors of Partition



The partition of India in 1947 was a momentous event that marked the end of British colonial rule and the birth of two sovereign nations—India and Pakistan. However, this independence came at an unimaginable human cost. The partition is remembered not just for the political change it brought, but for the unprecedented horrors it unleashed on millions of innocent people.

The seeds of partition were sown in the decades leading up to independence, as communal tensions between Hindus and Muslims grew. The British policy of "divide and rule," coupled with the rise of religious nationalism, contributed to the growing demand for a separate Muslim state. Eventually, under the Mountbatten Plan, British India was divided on religious lines, with Pakistan formed as a homeland for Muslims and India as a secular nation.

The decision to partition was announced with shocking speed and poor planning. As borders were hastily drawn by Sir Cyril Radcliffe, millions of people found themselves on the "wrong" side of the line. An estimated 15 million people were forced to migrate—Hindus and Sikhs moving to India, and Muslims heading to Pakistan. It was one of the largest mass migrations in human history.

Partition unleashed a wave of unimaginable violence. Entire villages were massacred. Mobs armed with swords, guns, and crude weapons roamed the streets, burning homes, looting, and killing indiscriminately. It wasn't just about religion—it became an explosion of rage, fear, and revenge.

Prepared by: Dattaram Rawool, Akash Patil

Key Construction Project
Chenab River Bridge

The Chenab Rail Bridge is a railway bridge over the Chenab River in Reasi district of the Indian territory of Jammu and Kashmir. It is a steel and concrete spanning 1,315 m (4,314 ft) across the river gorge. The structure consists of an approach bridge which is 530 m (1,740 ft) long and a 785 m (2,575 ft) long deck arch bridge. With deck height of 359 m (1,178 ft) from the riverbed, the arch bridge is the highest rail bridge and arch bridge in the world. It is located between Kauri and Bakkal on the Jammu–Baramulla line.
The bridge was constructed at a cost of ₹14.86 billion (US$170 million).

The project was overseen by Konkan Railway Corporation of the Indian Railways. While the project was approved in 2002, the construction work started only in 2017. The base supports were completed in November 2017 with the arch constructed by April 2021. The bridge was fully completed and was inaugurated in August 2022.

In the late 1970s, the Government of India planned to establish a railway line to connect Jammu with the Kashmir valley. The line would connect Kashmir with the rest of the Indian railway network and aid in the economic activity of the region. It would also serve as a strategic link to the Kashmir region all-round the year as the road is often cut off by snowfall during winters. The Jammu–Udhampur section was opened in April 2005. Subsequently, a railway line was established between Baramulla and Banihal in Kashmir in phases from 2008 to 2013, and the planned Jammu-Baramulla line would extend beyond Srinagar to connect to the new line. The section between Udhampur and Katra was opened for traffic in July 2014.

Prepared by: Abhijeet Kumar, Kumar Akshat Singh, and Dhruv Ghai

Mumbai–Ahmedabad High-Speed Rail Corridor (MAHSR)

MAHSR viaduct work and SBS casting yard in Ahmedabad district (Gujarat)

The Mumbai–Ahmedabad High-Speed Rail Corridor (MAHSR) is India's first bullet train project, aimed at revolutionizing rail travel in the country. Spanning a length of approximately 508 kilometers, the corridor will connect Mumbai in Maharashtra to Ahmedabad in Gujarat, drastically reducing travel time between the two cities to around 2–3 hours from the current 7–8 hours by conventional trains. The high-speed train is expected to run at a top speed of 320 km/h, with 12 stations planned along the route, including major cities such as Thane, Surat, Vadodara, and Anand. The project is being implemented by the National High-Speed Rail Corporation Limited (NHSRCL) and is a flagship collaboration between India and Japan.

The bullet train will operate using the E5 Series Shinkansen technology from Japan, known for its safety, efficiency, and comfort. The Japan International Cooperation Agency (JICA) is funding about 81% of the estimated ₹1.1 lakh crore cost through a soft loan with favorable terms. Construction on the project officially began in 2020, with significant progress made in Gujarat, where more than 80% of the land acquisition has been completed. In contrast, progress in Maharashtra has seen delays due to land and environmental clearances, although these issues have been gradually resolving.

As of 2023, major civil engineering milestones have been achieved, including the completion of the first river bridge over the Auranga River, the setup of India's first automated track-slab factory, and the erection of a steel bridge over National Highway 53. Tunnel boring works and pier erections are also underway. The government aims to make the Surat to Bilimora stretch operational by 2026, with full corridor completion expected by 2028.

Prepared by: Abrar Mattoo, Khutwad Ulhas, and Mohit Kerni