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| VPKBIET | Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati<br>2025-26 | |
| | Department of Civil Engineering | |
| | Industrial visit report | |

**Report on Industrial / site visit to 'Some Bridges on Palkhi Mahamarg in Baramati' on 04/03/2026**

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| **Name of Site for Visit:** | Industrial / site visit to Some Bridges on Palkhi Mahamarg in Baramati' on 04/03/2026 |
| **Location of Site visit** | Site address: some Bridges on Palkhi Mahmarg in Baramati' - 413133, District-Pune, Maharashtra, India. |
| **Class and Semester** | TY Civil, 2024 Pattern (Sem:VI) |
| **No. of Participants:** | 47 (out of 74) |
| **Date of Visit:** | 04/03/2026 **, Wednesday** |
| **Time & duration** | betn 11**:00 am to 12:30 pm (1.5 hours)** |
| **Course (Subject)** | Airport and Bridge Engineering: Programme Elective course, **CE23312c** |
| **Industrial visit organized under** | Center of excellence 'Town and Country Planning' and in association of IIIC |
| **Industrial visit organized by** | Department of Civil Engineering |
| **Industrial visit coordinated by** | Prof. D. G. Patil, Course Teacher |
| **Link for report** | https://www.vpkbiet.org/dept_Civil.php industrial visits |
| **Objective of Visit** | As a part of syllabus and to have exposure to various components of Bridges like Abutment, piers, substructure, superstructures, bearings etc and for Industrial exposure to make students employable by developing their different skills |

## Content of report:

1. Objective of visit
2. Details of visit
3. Photographs taken during visit
4. Outcomes of visit

## Industrial / site visit to 'Some Bridges on Palkhi Mahmarg in Baramati' on 04/03/2026

### Introduction:

Dept of Civil Engineering of VPKBIET Baramati (https://vpkbiet.org/ ) has organised Industrial visit for better industrial exposure of Civil Engineering students to Some Bridges on Palkhi Mahmarg in Baramati' on 04/03/2026. About 47 students from TY participated in it. Students studied different concept related to Bridges, types of Bridges, components, superstructure, substructure , abutments, girders, bearings etc at Bridge sites.

### Details:

Prof. D. G. Patil from Civil engineering dept coordinated visit on behalf of Civil Engineering Department, in association with Centre of Excellence ‘**Town & Countryside planning'** of Civil Engg dept of VPKBIET Baramati, Industry Institute interaction cell (IIIC) of VPKBIET BARAMATI.

## Objectives of the Visit:

- ✓ To study various components of a Bridge and understand their planning aspects.
- ✓ To understand construction and functional aspects of bridges on Palkhi Mahamarg.
- ✓ To connect theoretical knowledge of Bridge Engineering with field practices.

## Outcome of Visit:

This visit gave students opportunity to learn and correlate different concepts of Bridge Engineering from practical application point of view and as per needs of industry. Students learned from experience, guidance from industry experts. They motivated students and guided for career opportunities.

## Vote of Thanks:

It was a great experience and exposure to students. Thank you Dr. C. B. Nayak sir (HOD, Civil engineering) and Hon. Principal Dr. S. B. Lande sir for their kind support, guidance and motivation to have Industrial Visits and such exposure to students for their learning and enriching practical knowledge.

## Some photographs taken during visit at Bridge sites:

Fig. 1: at Bridge site in MIDC near Airport on Palkhi Mahamarg

Fig. 2: at Railway Bridge site in MIDC near Airport on Palkhi Mahamarg

Fig. 3: at Bridge site at Vanjarwadi (Bhigwan road junction) on Palkhi Mahamarg


Fig. 4, 5: at Bridge site at Vanjarwadi (Bhigwan road junction) on Palkhi Mahamarg

Fig. 6: Flyover on Palkhi Mahamarg near Airport

- **Observations on Palkhi Mahamarg Bridges (Airport–Rui, Baramati)**

On the way from Baramati Airport to Rui, several newly constructed bridges were studied:

### Bridge Components

- Substructure: Abutments, piers, and foundations.
- Superstructure: Deck slab, girders, bearings, wearing coat.
- Approaches: Road alignment, embankments, and transition zones.

### Construction Techniques

- Use of reinforced cement concrete (RCC).
- Bearings and expansion joints for structural flexibility.
- Drainage spouts and crash barriers for safety.

### Quality and Safety Aspects

- Standard engineering practices followed.

- **Learning Outcomes**

Students conducted a detailed study of several newly constructed RCC bridges and flyovers. Key components observed included:

- **Substructure:** Detailed inspection of abutments, piers, and foundation layouts.
- **Superstructure:** Analysis of deck slabs, girders, and the application of wearing coats.
- **Structural Essentials:** Functionality of bearings and expansion joints for structural flexibility.
- **Safety Features:** Installation of drainage spouts and crash barriers.

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## Programme outcomes mapped through this visit:

Industrial visits represent important activities in Civil Engineering programme that contribute to the achievement of various essential learning objectives and programme outcomes.

1. Course Outcomes (CO) Mapping

| Course Outcome (CO) | Justification |
|---|---|
| **CO2:** Design & understand the runway, taxiway, and **drainage systems**. | Students observed drainage spouts on the bridges. |
| **CO5:** Estimate various **components of bridge** and loads on bridges. | Students identified substructure (piers, abutments) and superstructure (girders, bearings). |
| **CO6:** Study and **design of bridge structures**. | The visit reinforced theoretical design concepts through field observation of real-world structures. |

### 2. Program Outcomes (PO) Mapping

The visit contributes to several essential learning objectives for engineering graduates

 **PO1: Engineering Knowledge:** Application of bridge engineering principles to understand the functionality of expansion joints and bearings.

 **PO2: Problem Analysis:** Correlating site conditions (like approach embankments) with design requirements.

 **PO5: Modern Tool Usage:** Understanding how modern RCC construction techniques and standard engineering practices are implemented in large-scale infrastructure.

 **PO12: Life-long Learning:** Developing a motivation for field learning and staying updated with modern infrastructure projects for career growth.

### 3. Program Specific Outcomes (PSO) Mapping

For the Civil Engineering Department at **VPKBIET Baramati**:

- **PSO1: Analyze and Design Structural Systems:** Gaining practical insight into the structural components of bridges, including deck slabs and girders.

- **PSO2: Field Practices and Employability:** Developing technical skills and industry exposure to make students employable in the transportation sector.

4. Sustainable Development Goals (SDG) Mapping

| SDG | Title | Justification |
|---|---|---|
| **SDG 9** | **Industry, Innovation, and Infrastructure** | The visit focuses on studying the construction of "Palkhi Mahamarg," a critical national infrastructure project that enhances regional connectivity. |
| **SDG 4** | **Quality Education** | Bridging the gap between classroom theory and practical industry application through experiential learning. |
| **SDG 11** | **Sustainable Cities and Communities** | Understanding the role of flyovers and bridges in improving urban/rural transport efficiency and safety (crash barriers). |

**Conclusion and Mapping Summary**

The industrial visit to the **Palkhi Mahamarg Bridges** on March 4, 2026, provided a vital bridge between theoretical classroom concepts and real-world civil engineering practices. By observing the structural components and construction techniques of modern flyovers and railway bridges, students achieved a deeper understanding of the complexities involved in large-scale infrastructure projects.

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**NBA and Curriculum Attainment Matrix**

| Category | Reference | Explanation and Justification |
|---|---|---|
| **Course Outcomes (CO)** | **CO5, CO6** | Students identified and studied the function of bridge components like abutments, piers, bearings, and girders in a field environment. |
| | **CO2** | Observations included drainage spouts and pavement surfacing, which are critical for runway and bridge deck design. |
| **Program Outcomes (PO)** | **PO1, PO2** | The visit demonstrated the application of engineering knowledge to solve logistical and structural challenges in highway construction. |
| | **PO12** | This exposure motivated students toward specialized career paths and lifelong learning in infrastructure development. |
| **Program Specific Outcomes (PSO)** | **PSO1, PSO2** | The experience directly enhanced student employability by correlating site-specific data with structural analysis and design standards. |

**Sustainability and Global Impact**

This visit aligns with **SDG 9: Industry, Innovation, and Infrastructure** by exposing students to the planning and execution of the Palkhi Mahamarg, which is essential for regional economic growth and safe transportation. Furthermore, it supports **SDG 4: Quality Education** by fulfilling the need for practical, industry-linked learning experiences that prepare graduates for the professional world.

The insights gained regarding quality control and safety aspects—such as the installation of crash barriers and expansion joints—ensure that students understand the ethical and professional responsibilities inherent in civil engineering.

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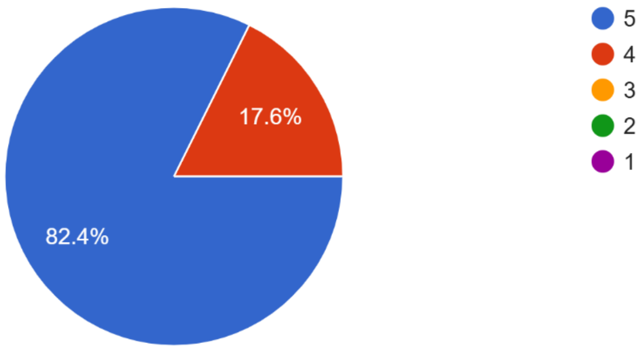
## Feedback of Industrial visit

It was a great experience and exposure to students. They could see components bridges. Students got bigger motivation and knowledge from this small nearby visit. Students wished to visit more such infrastructure projects for practical knowledge and opening doors of entrepreneurship in different areas.

*47 students), 1 staff = 48 Total persons for visit*

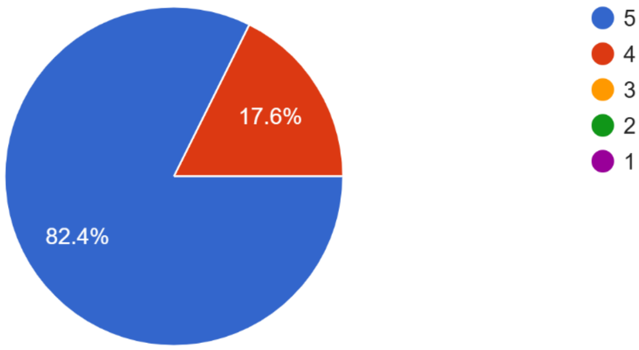
1. The field visit was timely and time available was used appropriately.

17 responses

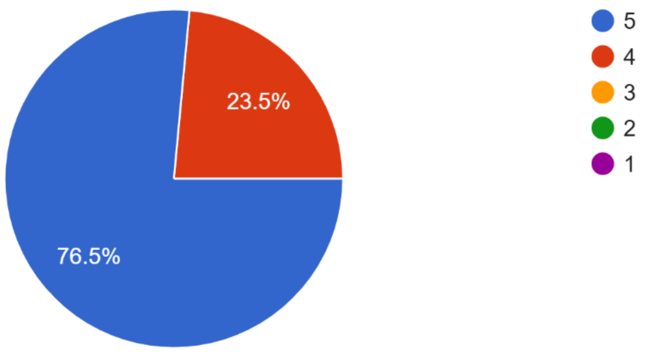



3. The location selected was appropriate to meet the stated objectives and students could see all technical points as per discussions.

17 responses



4. The visit was useful to strengthen knowledge gathered in lectures and considering practical applications, understanding career opportunities.
17 responses




List of Visitors :

| SN | RN | Name | SN | RN | Name |
|---|---|---|---|---|---|
| 1 | EN23105004 | BANDGAR VISHVAJIT MARUTI | 25 | EN23105038 | NARALE TRUPTI TANAJI |
| 2 | EN23105005 | BARGE SRUSHTI JITENDRA | 26 | EN23105043 | PAWAR SHRINIWAS UTTAMRAO |
| 3 | EN23105007 | BHOSALE NUPUR SUNIL | 27 | EN23105046 | POL RAHUL SAMBHAJI |
| 4 | EN23105008 | CHAUGULE SOHAM SANTOSH | 28 | EN23105048 | RASAL PRATIK RAJENDRA |
| 5 | EN23105010 | CHIKHALIKAR KSHITIJA R | 29 | EN23105049 | RAUT MANTHAN VISHNU |
| 6 | EN23105011 | CHOUDHAR HARSHWARDHAN S | 30 | EN23105053 | THAWARE SWARAJ PANDURANG |
| 7 | EN23105012 | DADHE SAMRUDDHI SUJIT | 31 | EN23105056 | WANAVE PRIYANKA VISHNU |
| 8 | EN23105015 | DHEKALE SAKSHI MAHESH | 32 | EN23105057 | YADAV PRANJALI PARSHURAM |
| 9 | EN23105016 | DHEKALE SHRUTI SANTOSH | 33 | EN22105058 | SHINDE ANKITA AJAY |
| 10 | EN23105017 | FULARI AKASH SANDIP | 34 | EN22105081 | SHITOLE SHRAVANI BALASO |
| 11 | EN23105019 | GALINDE JATIN KISHOR | 35 | EN22105082 | SOMASE UTKARASHA M |
| 12 | EN23105022 | JAGTAP PRITAM SANTOSH | 36 | EN24205069 | ANDHALKAR ROHAN JITENDRA |
| 13 | EN23105023 | JAGTAP SARTHAK MANOHAR | 37 | EN24205070 | CHAVAN AMRUTA BALIRAM |
| 14 | EN23105024 | JANKAR SAMARTH SANTOSH | 38 | EN24205072 | DABHADE NIKHIL PRAKASH |
| 15 | EN22105059 | SOMVANSHI PRACHI PRAMOD | 39 | EN24205074 | JAGDALE DNYANESHWAR P |
| 16 | EN23105027 | KALE TUSHAR RAVINDRA | 40 | EN24205075 | GHOLAP PRATHMESH R |
| 17 | EN23105028 | KAMBLE VIJAY SANTOSH | 41 | EN24205078 | KADAM PANKAJ ZUMBAR |
| 18 | EN23105029 | KARE SUHANI JAGAN | 42 | EN24205079 | MASKAR SURAJ SANTOSH |
| 19 | EN23105031 | KHADE ANAND NETAJI | 43 | EN24205082 | NARUTE DIVYA ANANTRAO |
| 20 | EN23105033 | KHUTWAD CHAITANYA B | 44 | EN24205085 | SAKAT SAMEEKSHA SHASHIKANT |
| 21 | EN23105034 | KSHIRSAGAR ABHISHEK NANDU | 45 | EN24205086 | SATHE SANKET SATISH |
| 22 | EN23105035 | MANERI AMAN BASHIR | 46 | EN24205088 | SHINDE ISHWARI MARUTI |
| 23 | EN23105036 | MOHITE PREM PARSHURAM | 47 | EN24205089 | SHINGADE SHUBHAM MAHADEV |
| 24 | EN23105037 | MORE TRUPTI SHARAD | | | |