Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology, Baramati
2023-24

Department of Civil Engineering

Industrial visit report

Report on Industrial / site visit to 'Baramati Airport and some Bridges, Culvert sites on Palkhi Mahamarg, near to Baramati' on 11/10/2023

(Industrial visit coordinated by: Prof. D. G. Patil)

Name of Site Visit:	Industrial / site visit to 'Baramati Airport and some Bridges, Culvert sites on Palkhi Mahamarg near to Baramati' on 11/10/2023
Location of Site visit	Baramati Airport and some Bridges, Culvert sites on Palkhi Mahamarg near to Baramati
Class and Semester	BE Civil, 2019 Pattern (Sem:VII)
No. of Participants:	46 (out of 69)
Date of Visit:	**11th October. 2023, Wednesday**
Time & duration	betn 10**:30 am to 2:00 pm (3.5 hours)**
Course (Subject)	Airport and Bridge Engineering (Elective -IV) **401004 d**

Industrial visit organized under	Center of excellence 'Town and Country Planning'
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
Objective of Visit	As a part of syllabus and for Industrial exposure to make students employable by developing their different skills
Link for the feedback on the visit conducted	https://forms.gle/fgJYBMEvaS3Sfhwm7

Content of report:

1. Objective of visit
2. Details of visit
3. Photographs taken during visit
4. Feedback
5. List of participants
6. Outcomes of visit
7. Details of organisations and Industries we interacted

Industrial / site visit to 'Baramati Airport and some Bridges, Culvert sites on Palkhi Mahamarg in Baramati' on 11/10/2023

Introduction:

Dept of Civil Engineering of VPKBIET Baramati (Vpkbiet.org) has organised Industrial visit for better industrial exposure of Civil Engineering students to Baramati Airport and some Bridge, Culvert sites on Palkhi Mahamarg near to Baramati on 11.10.2013. About 45 students from BE participated in it. Students studied different concept related to planning of Airports, runway configuration, location of terminal buildings, aprons and hangers, air traffic control (ATC), Aircraft characteristics, runway and taxi way width, runway profile and runway length, runway orientation, Airport capacity, Airport pavements, Airport Marking and lighting, Heliports, selection of bridge site, linear waterway, economic span, bridge slabs, substructure: abutment, piers, and wing walls, culvert and types, Fixed span bridges, materials for super structure & Bearings etc.

Details:

Prof. D. G. Patil from Civil engineering dept coordinated visit on behalf of Civil Engineering Department, in association with Centre of Excellence **'Architecture and Town planning'** of Civil Engg dept of VPKBIET Baramati, Carver aviation and 'Shelke Construction Private Limited'.

Objective of the visit: As a part of syllabus and for Industrial exposure to make students employable by developing their different skills

Outcome of Visit:

This visit gave students opportunity to learn n correlate different concepts of Airport & 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:

Thank you to 'Carver Aviation officials and team members' for kindly permitting us to learn and understand all the aspects of Airport planning and operating especially for explaining all the details of Airport and Aircrafts patiently with enthusiasm and sparing much time with students. Er. Akshay Auti sir from 'Shelke Construction Private Limited' accompanied us during visit to Bridge sites on Palkhi Mahamarg and explained all the components, construction techniques of Bridge construction minutely with help of their team. Thank you for their kind support, guidance and sharing valuable time for our students.

It was a great experience and exposure to students. Thank you Dr. C. B. Nayak sir (HOD, Civil engineering) and Hon. Principal Dr. R. S. Bichkar 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:

Fig. 1: View of Palkahi Mahamarg near Rui in Baramati

Fig. 2: Vehicle over pass (Bridge) on Sawal-Nirgude road in Rui on Palkhi Mahamarg

Fig. 3, 4: Er. Akshay Auti sir from 'Shelke Construction Private Limited' explaining construction and components of Bridge under Vehicle over pass (Bridge) for Sawal-Nirgude Road in Rui on Palkhi Mahamarg

Fig. 5: Vehicle under pass (Bridge) is under construction for Baramati -Bhigwan Road in Vanjarwadi on Palkhi Mahamarg

Fig. 6, 7, 8: students at the Culvert locations to understand requirements of site and size, type of culvert to be provided considering discharge

Fig. 9, 10: Reinforced Earth (RE) Wall construction was in progress for Bridges near Airport and Vanjarwadi

Fig. 11, 12: Near to proposed Road over Bridge-ROB (over Railway line) and at flyover under construction site near Baramati Airport in Baramati MIDC on Palkhi Mahamarg

Fig. 13, 14: Baramati Airport Terminal area and Apron, Hanger for Aircrafts

Following photos are taken during the demonstration, guidance session conducted by Carver aviation team to know about Airport and Aircrafts.

Fig. 15 to 22: Carver aviation team guiding to students about airport and aircraft operations

Fig. 23: students got busy in asking different technical questions about Aircrafts and their working and planning of Airports (many questions are there in everyone's mind about aeroplane from childhood). Students were much happier to receive this opportunity to see aircrafts closely up to Cockpit and driving seat.

Fig. 24, 25: Students curiously going the different gazettes in the cockpit and control system, operation of Aircraft. Students returned from airports with lot of dreams and ambitions to become successful in life to have such Aircrafts facilities for them and learning skills as Pilot in future.

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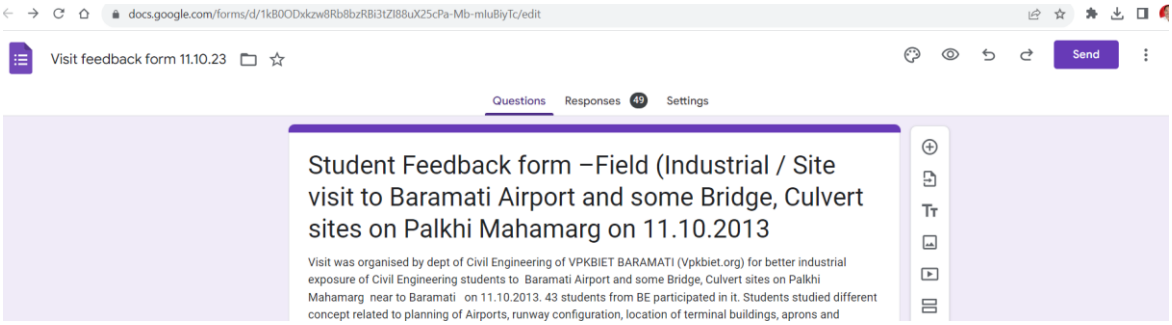
Feedback of Industrial visit

It was a great experience and exposure to students. They could see components of Airports, Aircrafts and their mechanism closely. Students got opportunity see ongoing construction of Bridges and also learned a lot from planning of such big infrastructure projects from career opportunities point of view. 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.

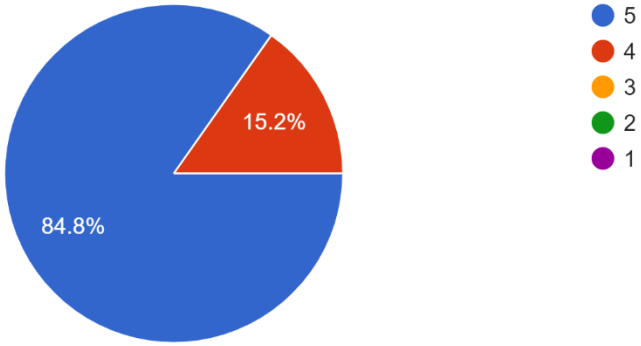
Feedback of visit from students:

Feedback about this industrial visit was collected from students through google form. Results are as below.



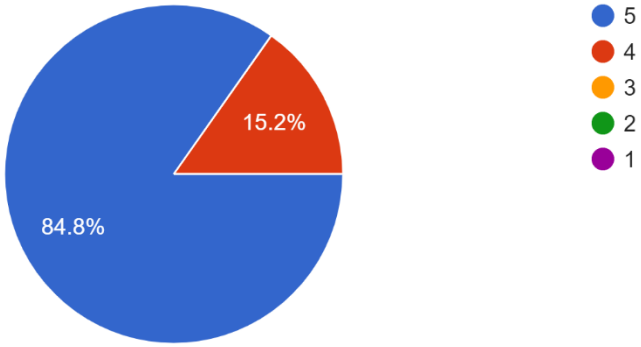
1. The field visit was timely and time available was used appropriately.

46 responses



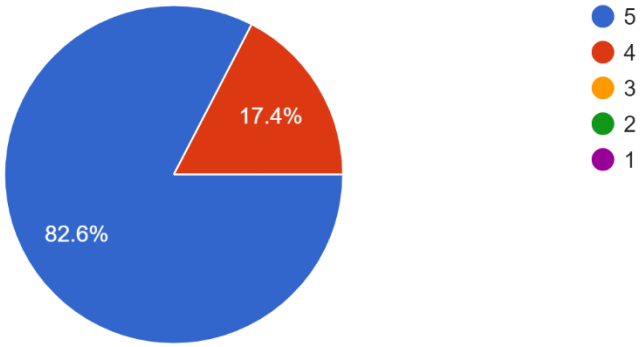
2. The visit was well organized and planned with all requirements and permissions.

46 responses



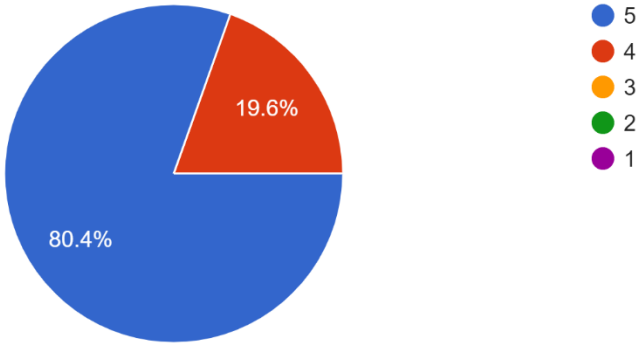
3. The location selected was appropriate to meet the stated objectives and students could see all technical points as per discussions.

46 responses



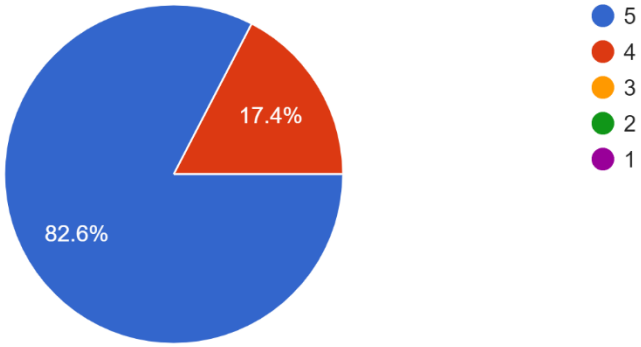
4. The visit was useful to strengthen knowledge gathered in lectures and considering practical applications, understanding career opportunities.

46 responses



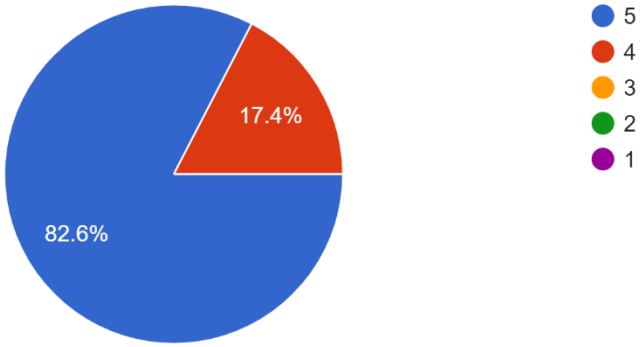
5. Aims and objectives, instructions for the visit were explained at the beginning and proper care was taken during visit considering safety of students at site

46 responses



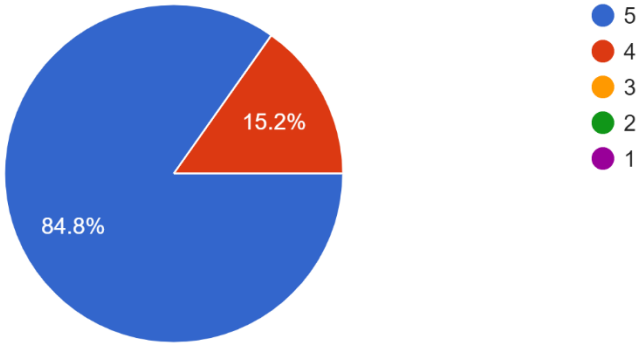
6. A teacher accompanied the students during the visit and guided students at all locations with care.

46 responses



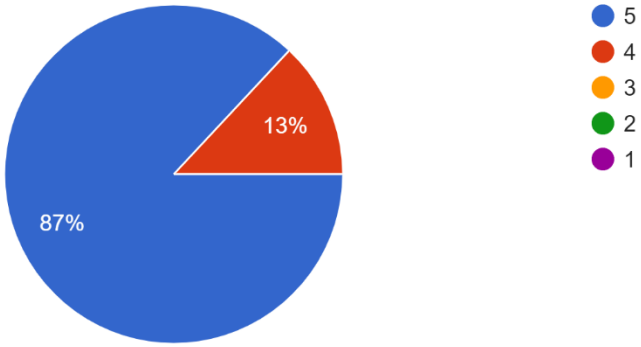
7. The Teacher and officers on site explained working , operations of plant by giving sufficient time.

46 responses



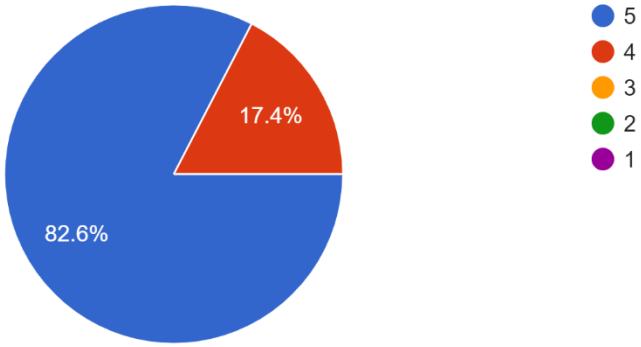
8. The Teacher/Resource Person at site were responsive to student's questions during the visit and they clearled doubts related to subject.

46 responses



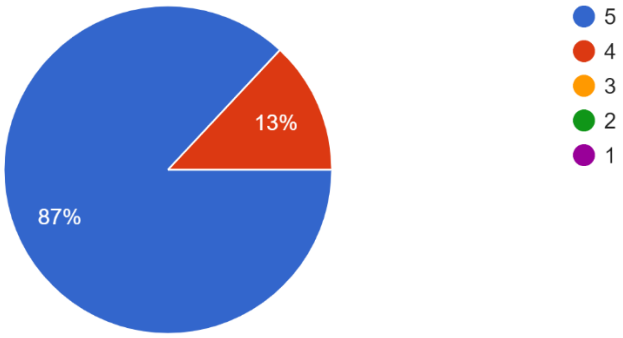
9. The Teacher/officers at site encouraged student participation and understanding of operations at site.

46 responses



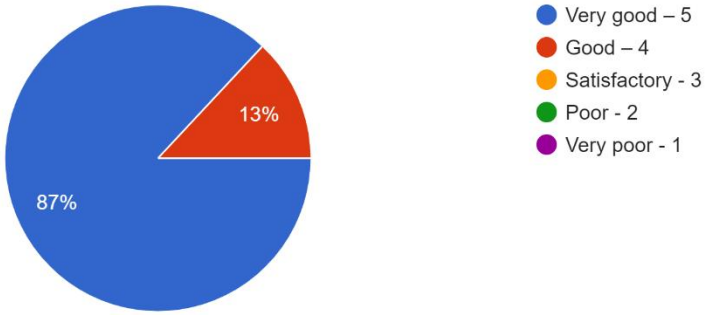
10. I recommend such field visits to be continued further for better industrial exposure.

46 responses



11. The overall grading of the Visit: Very good – 5 Good – 4 Satisfactory - 3 Poor - 2 Very poor - 1

46 responses



12. What you learned in this visit related to Civil Engineering (text)

46 responses

About airport and bridge.

About bridges and Airport

Good

Airport Runway Design and bridge design

We are civil engineers and we are responsible for people's lives, So we should do our job well.

Nice

Culverts, bridge and airport

Many things

Knowledge about bridges, culverts and airport taxiway, runway

12. What you learned in this visit related to Civil Engineering (text)

46 responses

I learned components of bridge, culvert, runway of airport,,apron ion airport etc..

construction of briges and little bit types of aerodynamic

New technology

Bridge information like how suspension bridge is made

Site selection and working in proper manner

Components of bridge,airport planning

Vehicle under pass , Vehicle over pass

Highway policies for vehicular underpass and overpass bridges, some short about aircraft, and its mechanism.

The visit is informative and the places we have visited are really interesting.

12. What you learned in this visit related to Civil Engineering (text)

46 responses

Brige, road construction and airport

Technical points

Different components of airport such as apron, hanger, taxiway etc

About vehicle over passed

Yes

Technical points about bridge& airpot

Knowledge abouts airports and bridges

The culvert of bridge and the airport design

Layout of airport

List of Visitors:

SN	RN	Class/ Staff	Name	Gender	Age in years
1	2345001	BE Civil	SHINDE PRITI BALU	F	21
2	2345004	BE Civil	KALE ISHWARI GINYANDEV	F	20
3	2345005	BE Civil	JADHAV DHANASHRI DASHARATH	F	21
4	2345007	BE Civil	GAJAKAS BHARATI NAVNATH	F	20
5	2345008	BE Civil	JADHAV SAKSHI RAVINDRA	F	21
6	2345010	BE Civil	MOKASHE ARATI BABAN	F	21
7	2345011	BE Civil	KSHIRSAGAR NEHA ANIL	F	21
8	2345012	BE Civil	PAWAR MRUDULA SAMBHAJI	F	20
9	2345015	BE Civil	GHOLAP SURAJ SANJAY	M	21
10	2345016	BE Civil	JADHAV OMKAR TANAJI	M	22
11	2345017	BE Civil	RAKSHE ADITYA GANESH	M	20
12	2345018	BE Civil	WAKADE ROHIT KASHINATH	M	22
13	2345023	BE Civil	BAGWAN NIDA FIROJ	F	21
14	2345024	BE Civil	JAGTAP SANJIVANI DATTATRAY	F	21
15	2345025	BE Civil	KHANVILKAR AVANTI SHANKAR	F	21
16	2345026	BE Civil	PATEL AIMAN RIYAZODDIN	F	20
17	2345027	BE Civil	THOMBARE SHRADDHA DEEPAK	F	21
18	2345028	BE Civil	KAPSE SHIVANI BALAJI	F	21
19	2345030	BE Civil	SHINDE BHUSHAN VIJAY	M	21
20	2345031	BE Civil	MANE SHREYASH SANJAYKUMAR	M	21
21	2345032	BE Civil	FUTANE VINAY SURYABHAN	M	21
22	2345033	BE Civil	JADHAV ADARSH SANJAY	M	22
23	2345036	BE Civil	PATIL ADITYA DATTATRAY	M	21
24	2345038	BE Civil	BARATE GANESH DATTATRAY	M	20
25	2345039	BE Civil	SOMNATH CHAVAN	M	21
26	2345041	BE Civil	GHULE GANRAJ MALHARI	M	21
27	2345042	BE Civil	CHOUDHAR SANKALP SOMNATH	M	21
28	2345043	BE Civil	SHINDE AMIT AJINATH	M	21
29	2345046	BE Civil	KHATAKE DINESH RAGHUNATH	M	21
30	2345047	BE Civil	SATKAR ABHIJEET DHANANJAY	M	20

SN	RN	Class/ Staff	Name	Gender	Age in years
31	2345048	BE Civil	JADHAV MAYUR GOPAL	M	21
32	2345049	BE Civil	GOSAVI PRATIK SANJAY	M	21
33	2345050	BE Civil	NANAWARE RAJWARDHAN ASHOK	M	21
34	2345051	BE Civil	PONDKULE TEJAS PRAVIN	M	21
35	2345053	BE Civil	PAWAR SUMIT SHAHAJI	M	21
36	2345055	BE Civil	CHAVAN ATHARVA UDAYSINH	M	21
37	2345059	BE Civil	KALE RUTURAJ VIKAS	M	21
38	2345060	BE Civil	PANAGE PRATHMESH SURESH	M	21
39	2345061	BE Civil	PATIL VISHVJEET HIMMAT	M	20
40	2345062	BE Civil	ANDHALKAR SHUBHAM VINOD	M	23
41	2345063	BE Civil	ATOLE SAHIL SANJAY	M	21
42	2345064	BE Civil	KUSMUDE ONKAR MADHUKAR	M	21
43	2345066	BE Civil	CHELEKAR OM SANJAY	M	22
44	2345067	BE Civil	KASHID DNYANESHWAR SURESH	M	21
45	2345068	BE Civil	NIMBALKAR ABHIRAJ ARVIND	M	22
46	2345069	BE Civil	JADHAV SUNIL BABURAO	M	21
47	Coordinator	**Faculty**	Mr. Patil Dilip Gulabrao	M	43

14 Girls, 32 Boys (Total 46 students), 1 staff = 47 Total persons for visit

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. Engineering knowledge: students learned many things from theory and its applications on Airport and Bridge site
2. Problem analysis: students analysed different problems like selection of site for Bridge, Airport, design of culvert, alignment of highways with scientific approach.
3. Design/development of solutions: students understood design Flyovers, bridges, culverts and planning of Airports
4. Conduct investigations of complex problems: practical exposure motivated students to gain more knowledge in this area of Transportation planning and Airport, Bridge Engineering
5. Modern tool usage: students could see latest technology used in the Airports for communication (ATC) and advanced gadgets in the Aircraft to control and operate. Students got exposure about different tests carried out on Civil Engineering construction Materials.
6. The engineer and society: students could learn about various social issues related to alignment of roads for speedy development of area, land acquisition process and scope for future.
7. Environment and sustainability: students learned how construction of highways is useful in many ways for economic development with reduction in traffic jams and air pollution. Students came to know about different practices used at Airport for sustainability and conserving the environment.

8. Ethics: students get exposure of professional working at Bridge site and Airport through discussions and experience.
9. Individual and team work: students coordinated well for successful achieving the objectives of visit and learned to work in team for throughout the visit by following instructions from staff.
10. Communication: students are motivated for proper documentation of visit details. Students enquired many doubts which were in their minds @ aircrafts, cost, fuel, pilot training course and components of bridges etc
11. Project management and finance: students learned financial aspects in planning and execution of such large Highway and Bridge, Airport projects and benefits received as compared to costs
12. Life-long learning: everyone recognized the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change for planning of such huge infrastructural facilities for the development of nation.

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Visit permissions and Industries / Organisations contacted / interacted:

1. We had applied to Carver Aviation for permission to Visit. So, they permitted us so and guided well during visit through their team. https://carveraviation.com/
2. We had contacted 'Shelke Construction Private Limited' for Visit to Bridges on Palkhi Mahamarg. They guided us very well.

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Part of Sant Tukaram Palkhi (Dehu to Pandharpur) Mahamarg Project work is going near Baramati:

Rehabilitation & up-gradation to four laning configuration of the highway starting from junction with NH-65 near Patas, Vasunde phata, Undewadi kade pathar NH-965G and partly Baramati bypass in the state of Maharashtra on EPC mode. (from km 0/000 to km 41/369, total length = 41.369 km)

Client: National Highways Authority of India
G-5 & 6, Sector 10, Dwarka, New Delhi.

EPC Contractor:
Shelke Construction Private Limited
JV With
Kalyan Infrastructure Ltd.

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