



**KALYANI CHARITABLE TRUST'S**  
**LATE G. N. SAPKAL COLLEGE OF ENGINEERING**

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**Date: Nov. 13, 2022**

**Industrial Visit Report**

**BE-Civil**

**A VISIT REPORT ON AIRPORT AND BRIDGE ENGINEERING**

**Department of Civil Engineering**

**Late G. N. Sapkal College of Engineering, Nashik.**



**D. B. Patil International Airport Site Visit Report**

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**Venue:** D. B. Patil International Airport, Navi Mumbai

**Date:** Nov. 13, 2022

**Class:** BE

**Number of Students:** 52

**No. of Teachers:** 02

**Mode of Transportation:** Bus

**Travelling Distance:** 220 km (One Side)



**Figure 1:** While departing from Nashik New CBS towards D. B. Patil Airport

## **Introduction**

The Department of Civil Engineering of Late G. N. Sapkal College of Engineering, Nashik organized one day visit to D. B. Patil International Airport Navi Mumbai on 13th Nov. 2022 for the last year student of Civil Engineering (BE) program.

The visit was organized with the prior permission and guidance of Respected Principal Prof. Dr. S. B. Bagal and HOD of Civil Department Prof. R. M. Jadhav. Along with the staff members, students of BE. Prof. Kiran Deore have taken hard efforts and initiative for the visit.

Faculty member Prof. Kiran Deore and Dr. D. P. Joshi sir of our college accompanied the 50 student of BE civil program for industrial visit.

The area of the D. B. Patil International Airport is about 1162 hector and it is situated at west side of the city.



The Total Cost on this project is about 16,700 crores.

## **Objectives of the Airport Site Visit**

1. Understand the fundamental of airport.
2. Understand and design the runway and taxiway and drainage systems.
3. Introduce the aspect of airport system.
4. Study plans, specifications for planning and design of Airport.
5. Involve in the planning and design of new runways and terminal buildings
6. Understand the BIM, AR and VR in airport planning and pavement design.
7. Plan the lighting and marking of airport and heliport.
8. While visiting the airport site the concerned engineers first gave guidance on safety.
9. The students were briefed about the ongoing works at the airport site.
10. The students were informed about ongoing work on the runway.
11. The students were introduced in details about the materials required for the airport work like Blasting equipment's, Geopolythin.
12. Information was received on how blasting was done on the mountain for the runway.

## Permission for the Visit

The college wrote a permission letter to Hon. MP Hemant Godse (MP- Nashik Lok Sabha Constituency). Hon'ble MP obtained permission from Chairman of Airport Authority of India. This process took about 7-8 days.

	<p>Variable Trust's <b>S. N. SAPKAL COLLEGE OF ENGINEERING</b> Approved with Grade 'B' by NAAC</p> <p>Sapkal Knowledge Hub, Kalyani Hills, Anjaneri, Trimbakeshwar Road, Nashik - 422 213. (India) Tel.: + 91 - 2594 - 220168/69/70, Fax: + 91 - 2594 - 220174 E-mail : gns_engineering@sapkalknowledgehub.org   www.sapkalknowledgehub.org</p>	
<p><b>Dr. Sahebrao B. Bagal</b> M.E. (E &amp; TC), Ph.D. (E &amp; TC) Principal</p>	<p><b>Affiliated to</b> : Savitribai Phule Pune University (U. No.PUN/A/Engg/152/2009 Ref.No.-CA/6501 Dated- 18/11/2009) <b>Approved by</b> : A.I.C.T.E., New Delhi (FN: 06/07/MS-Engg/2008/O-17, Dated- 11<sup>th</sup> June 2009) Govt. of Maharashtra (No. GEC-2009/67/09/TE.-4, Dated- 15<sup>th</sup> June 2009) D.T.E., M.S., Mumbai (No.2/NGC/Engg./Approval/2009/535, Dated - 23<sup>rd</sup> July 2009) AISHE CODE : C-42196</p>	

**Ref: KCT's/LGNSCOE/Civil/Visit/2021-22/** **Date: Nov. 07, 2022**

**To,**  
**Hon. Hemant Godase,**  
**Member of Parliament,**  
**(Nashik Lok Sabha constituency)**

**Subject: Help for academic site visit.**

Respected Sir,  
Namaskar,

People of Nashik are very proud of you for fearlessly raising our issues in Parliament. As a result, many remarkable works have been done in Nashik Lok Sabha Constituency during your tenure as an MP. This shows your sense of duty and loyalty towards society. It is expected that the political ambition will become stronger. As a social part of the same I am writing this letter to request you to help with the airport visit for our students.

In the final year of Civil Engineering of Savitribai Phule Pune University, there is an elective subject Airport and Bridge Engineering. This subject has been newly included in the Civil Engineering syllabus of Pune University. For that we need to visit some industrial sites, and for that students will get all this at **D. B. Patil International Airport, Navi Mumbai**.

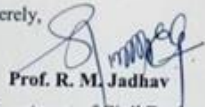
So, we humbly request you to give us an opportunity to study at the airport.

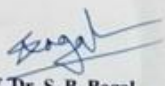
Kindly allow us on one of the **9<sup>th</sup> to 12<sup>th</sup> of November 2022** for the airport visit. A total of **45 students** will come for the visit and **3 professors** will accompany the students to maintain discipline and safety.


We hope that you will give us full cooperation and guidance to the interested and aspiring civil engineering students.

**Details of Visit Coordinators:**  
Prof. Dr. D. P. Joshi, 7038487647  
Prof. K. M. Deore, 7249739924

Thanking You.  
Yours Sincerely,

  
**Prof. R. M. Jadhav**  
HoD, Department of Civil Engineering

  
**Prof. Dr. S. B. Bagal**  
Principal, LGNSCOE, Nashik



**CORPORATE OFFICE :** Sapkal Knowledge Hub 'Parag' 46, Ashwin Sector, Opp. Hotel Sai Palace, Mumbai-Agra Highway, Nashik - 422 009. Tel.: +91 - 253 - 2392450 / 51 Fax: +91 - 253 - 2375557.  
**MUMBAI OFFICE :** Sapkal Knowledge Hub, Unit No. 22, 1<sup>st</sup> Floor, Shubhada Tower, Shopping Centre, Sir Pochkhanwala Road, Near R.T.O. Office, Worli, Mumbai - 400 030. Tel.: + 91 -22 - 24938914 / 24938915; Fax: + 91 -22-24938919.

Figure 2: Wrote requesting letter to Hon. MP Hemant Godse for visit permission




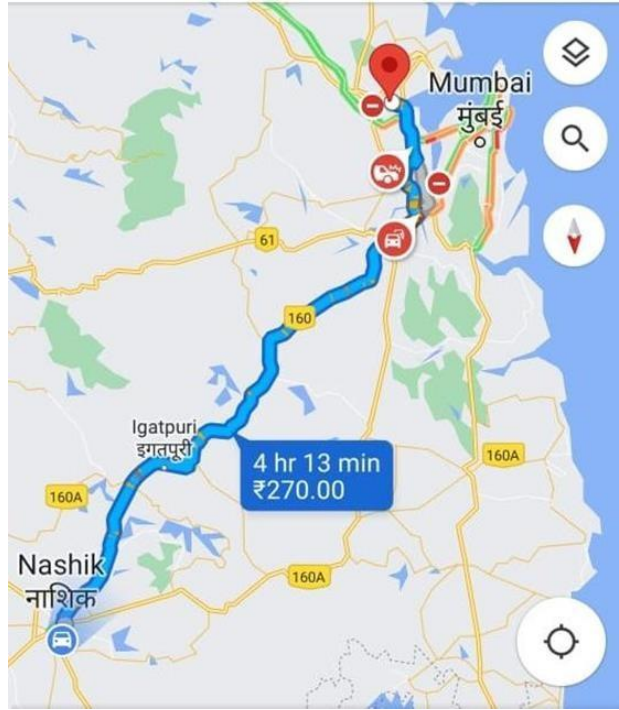
 <b>हेमंत तुकाराम गोडसे</b> खासदार लोकसभा		<b>25497</b> B-601, Gomati, M.S. Flats, B.K.S. Marg, Opp. RML Hospital, New Delhi- 110 001 Tel.: 011-23723607 Email : nashikmphg@gmail.com	
<b>Member : Parliamentary Standing Committee on Railways, Commerce &amp; Industries</b> <b>Member : Parliamentary Consultative Committee on Consumer Affair, Food, Public Distribution, Govt. Of India</b>			
Date : 11.11.2022			
To, <b>The Chairman,</b> <b>Airport Authority of India,</b> <b>New Delhi.</b>			
Sub. : <u>Help for academic site visit.</u>			
Respected Sir,			
This has ref. to the above subject, in the final year of Civil Engineering of Savitribai Phule Pune University, there is an elective subject Airport and Bridge Engineering. This subject has been newly included in the Civil Engineering syllabus of Pune University. For that the students of the last year of Civil Engineering need to visit some industrial sites, and for that students will get all this at D. B. Patil International Airport, Navi Mumbai.			
In view of above, The Principal and HOD, Civil Engg. Dept of Late G. N. Sakpal College of Engineering, Anjaneri, Trimbakeshwar Road, Nashik belonging to my Nashik Lok Sabha Constituency has requested me to recommend their students of Civil Engineering and their professors for the above academic visit at D. B. Patil International Airport, Navi Mumbai.			
So, I humbly request you to give an opportunity to study at the airport.			
Kindly allow them on 13th of November 2022 or any alternate date as their AAI convenience for the airport visit. A total of 45 students will come for the visit and 3 professors will accompany the students to maintain discipline and safety. I hope that you will give them full cooperation and guidance to the interested and aspiring civil engineering students.			
<b>Details of Visit Coordinators:</b>			
Prof. Dr. D. P. Joshi	7038487647	Prof. K. M. Deore	7249739924
Mast. Abhishek Khairnar	7767074160		
Thanking you,			
Sincerely yours			
			
<b>HEMANT GODSE</b> <b>MEMBER OF PARLIAMENT</b> <b>IC-252</b>			
Laxmi Niwas, Sansari Gaon, Post Devlali Camp, Tal. Dist. Nashik - 422 401. Maharashtra			
Shop No. 8/9, Renuka Building, Kismat Bag, Trimbak Road, Nashik-422001. Mobile : +91 9822090707   Tel.: 0253-2507707			

Figure 3: Wrote permission letter to The Chairman of Airport Authority of India.



**Figure 4: College to Airport Site Bus Route**



**Figure 5: Satellite View of D. B. Patil Airport Site**



**Figure 6: Students are learning about safety and precautions at Airport Site**

1. Guided the student on where to ensure the location of taxiway transmission tower or hanger.
2. The actual Area of the Airport site is about 1162 hectares
3. There will be 2 Runway and 4 Taxiway construct in this airport site
4. The target of 1 runway and 2 Taxiway may be constructed till 2025 as per central government
5. The actual length of runway will be 3.9 KM because this is an international airport and big size planes and cargo planes may be landed over here in future
6. The drainage system is provided for all the runway and taxiway at the scolders
7. To fix the rock bitumen and all kind of material use to construct the runway is done by Geopolythin method
8. The runway has about to 10 to 12 m deep inside layers for strong support and can carry the weight of aircraft
9. The width of runway at the D.B. Patil airport is about 75 m
10. There is a terminal building and control tower near the taxiway which is in construction process
11. The rock file is about 500mm for runway
12. There is 3 layers of the runway
  - i. runway type A below 300mm
  - ii. 900mm type B material 125mm below
  - iii. Flexible pavement
13. The RL of runways is 9.5m and thickness is 925mm



**Figure 7: Students are taking information of materials used for the construction of Runway**



**Figure 8: Students are studying the different layers of runway**





**Figure 9: Runway Site before clearing the ground**



**Figure 10: Runway site after clearing the ground**



**Figure 11: Students are learning and studying the construction process of Runway**



**Figure 12: Local material used in construction of runway**



**Figure 13: Students are felicitating to the Engineers at Site**

### **What students learnt?**

1. Students got the information about how the worked done at the airport
2. The objective was to get information about what equipment is used for ongoing operation at the airport
3. According to the engineers plan it is necessary for the students to get detailed information about where runway tower or parking should be
4. The agenda of this field trip is to get a maximum information about the construction phase airport and major part of the airport (Runways, Taxiways, Terminal building areas control towers etc)
5. Which kind of safety we should takes while doing construction as airport site we get to known by this visit



**Figure 14: Students are felicitating to the Chairman of the Construction Company**

## **Conclusion of the visit**

1. The agenda of this field trip is to get a maximum information about the construction methods of airport and their major type and parts like runways, taxiways, control tower.
2. By doing this field trip successfully, we get known and close to the problem appearing while doing constructing the airport.
3. Also, we get an information and knowledge about the material and transport used for construction of airport.
4. What kind of safety is needed and also what precautions we need to take while constructing is known to us by this field trip.
5. Overall, this trip gives us the major information of airport construction aspects. And also gives an opportunity to see the construction and civil projects by a different eye.



***Figure 15: Along with the educational trip, the students also spent some time at the sea shore and enjoyed some moments at Uran Beach***