

Department of Civil Engineering

List of Industrial Visit

Academic Year	Class	Details of Organization Visited	Date	Ref. File No. of Institute level Criteria file (Original Report)
2018-19	BE	Tapovan Sewage Treatment Plant, Tapovan, link road, Nashik.	25/10/2018	
	BE	Bagad Properties, Gangapur Road, Nashik	27/10/2018	
	TE	Nayantara Building, College Road, Nashik	10/04/2019	
	TE	Nilgiri Bagh Water Treatment Plant, Bidi Kamgar Colony, Nashik, Maharashtra	24/04/2019	
	SE	Penta Concrete Plant, Shinde Palse, Sinnar, Nashik	11/04/2019	
	SE	Gargoti Mineral Museum, Sinnar, Nashik.	19/04/2019	
2019-20	BE	Tapovan Sewage Treatment Plant, Tapovan, link road, Nashik.	05/11/2019	
	BE	Rugantha Group, Mumbai Naka, Nashik	07/11/2019	
	TE	Nilgiri Bagh Water Treatment Plant, Bidi Kamgar Colony, Nashik, Maharashtra	12/03/2020	
	TE	Sarasvati Heights, Makhmalabad, Nashik	16/03/2020	
	SE	Penta Concrete Plant, Shinde Palse, Sinnar, Nashik	12/03/2020	
	SE	Gargoti Mineral Museum, Sinnar, Nashik.	13/03/2020	
2021-22	BE	Viraj Commercial Complex, Canada Corner, Nashik	20/10/2021	
	BE	Darna Dam, Igatpuri Nashik	13/04/2022	
	TE	Nilgiri Bagh Water Treatment Plant, Bidi Kamgar Colony, Nashik, Maharashtra	17/10/2021	
	TE	Tapovan Sewage Treatment Plant, Tapovan, link road, Nashik..	16/04/2022	
	TE	Roy Construction PVT. LTD, Samarth Nagar, Nashik	09/05/2022	
	SE	Gargoti Mineral Museum, Sinnar, Nashik.	20/04/2022	
	SE	Penta Concrete Plant, Shinde Palse, Sinnar, Nashik	21/04/2022	
2022-23	BE	D. B. Patil International Airport, Navi Mumbai	13/11/2022	
	BE	Hydropower Plant, Darna Dam Igatpuri, Nashik	18/05/2023	
	BE	Gangapur Dam, Gangapur, Nashik.	20/05/2023	
	BE	Darna Dam Igatpuri, Nashik	20/05/2023	
	BE	Left bank canal of Godavari river, Near NIT polytechnic, Nashik	20/05/2023	
	TE	Kimaya steel, Dindori road, Nashik.	19/10/2022	
	TE	Unique Industry Handlers Pvt. Ltd, Igatpuri, Nashik.	21/10/2022	
	TE	Nilgiri Bagh Water Treatment Plant, Bidi Kamgar Colony, Nashik, Maharashtra	22/10/2022	
	TE	Tapovan Sewage Treatment Plant, Tapovan, link road, Nashik..	13/05/2023	



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Nashik - 422 213



TE	Durga Enclave, Gangapur Road, Nashik	20/05/2023	
SE	M/S F. C. Rodrigues RMC plant Vilholi	15/03/2023	
SE	Gargoti Mineral Museum , Sinnar , Nashik.	17/03/2023	

Prof. K. A. Salunke  
**Head of Civil Department**







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

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Tel.: +91 - 2594 - 220168/71, Fax: +91 - 2594 - 220174  
Website: www.sapkalknowledgehub.org E-mail: gns\_engineering@sapkalknowledgehub.com



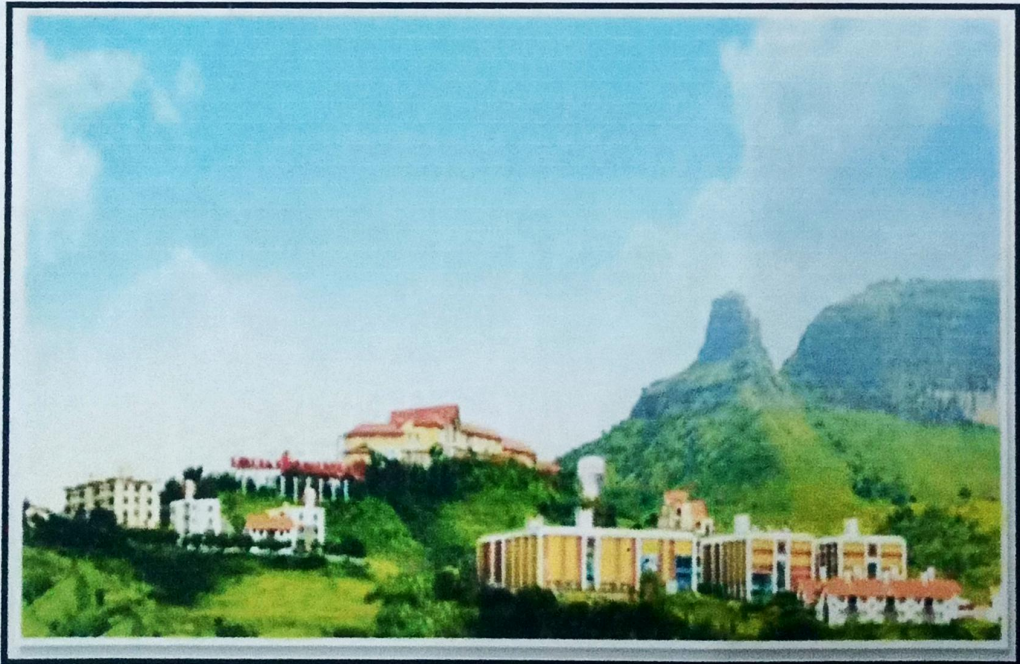
Date: 13<sup>th</sup> May 2023

**Industrial Visit Report**

TE-Civil

A VISIT REPORT ON WASTE WATER ENGINEERING

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





**Waste Water Engineering STP Site Visit Report**

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**Venue:** Tapovan Sewage Treatment Plant, Tapovan, link road, Nashik.

**Date:** 11/05/ 2023, Thursday at 10:00 am.

**Class:** TE

**Faculty coordinator:** Prof. Kiran Deore

**Number of Students:** 40

**No. of Teachers:** 02

**Mode of Transportation:** Bus

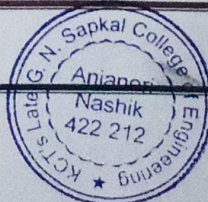
**Travelling Distance:** 25 km from college (One Side)

**Guided by:** Mr. Matkale

Mr. Vispute

**Capacity of plant:** 130 MLD (78 MLD+52 MLD)

**Visit Organized by:** Department of Civil Engineering, Late G. N. Sapkal College of Engineering, Nashik.





**Introduction:**

The Department of Civil Engineering of Late G. N. Sapkal College of Engineering, Nashik organized one-day visit to Sewage Treatment Plant Tapovan, Nashik on 11<sup>th</sup> May 2023 for the third year student of Civil Engineering (BE) program.

The Visit was mandatory to fulfil the curriculum requirement of Savitribai Phule Pune University (SPPU) for TE Civil students under the subject of Waste Water Engineering. The visit was organized with the prior permission and guidance of Respected Principal Prof. Dr. S. B. Bagal and HOD of Civil Department Prof. Dr. C. K. Sridhar. Along with the staff members, students of BE. Prof. Kiran Deore have taken hard efforts and initiative for the visit and guided them throughout the visit.

**Objectives of the Sewage Treatment Plant Site Visit:**

1. To provide students with the practical knowledge of the various unit operations and unit Processes involved in treatment of sewage thereby leading to better understanding of the subject.
2. To learn about handling of sewage storage, capacity and processes.
3. To witness actual methods adopted by the plant at real time.
4. Our main purpose for this visit was to give the practical knowledge about water treatment plant process. By this visit student can be familiar with industrial environment and get knowledge of different units of waste water treatment plant.
5. Also in 6th semester subject like Waste Water Engineering requires knowledge about how components of sewage plant are constructed, so it is very much convenient to see all the practical and components in real time work environment.

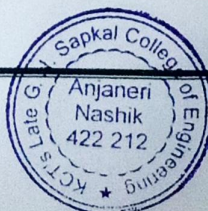
**Sewage treatment plant:**

It is a type of wastewater treatment which aims to remove contaminants from sewage to produce an effluent that is suitable to discharge to the surrounding environment or an intended reuse application, thereby preventing water pollution from raw sewage discharges. Sewage contains wastewater from households and businesses and possibly pre-treated industrial wastewater.

Treated sewage water is purified and maintained as per the Maharashtra pollution control board norms (MPCB).

**Principle of STP:**

The basic principle of a biological treatment plant is decomposition of the raw sewage. This process is done by aerating the sewage chamber with fresh air.



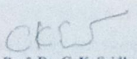

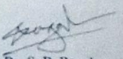


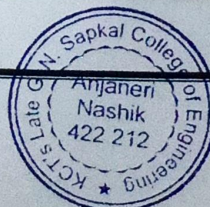


## Waste Water Engineering STP Site Visit Report

### Permission for the Visit:

The college wrote a permission letter to The Executive Engineer of Water Supply and Sewage Department of Nashik Municipal Corporation to obtain permission. This process took about 4-5 days.

	<p>Kalyani Charitable Trust's <b>LATE G. N. SAPKAL COLLEGE OF ENGINEERING</b> Sapkal Knowledge Hub, Kalyani Hills, Anjaneri, Trimbakeshwar Road, Nashik - 422 213. (India) Tel: + 91 - 2594 - 220166/69/70, Fax: + 91 - 2594 - 220174 E-mail: gns_engineering@sapkalknowledgehub.org   www.sapkalknowledgehub.org</p>	
<p><b>Affiliated to</b> Savitribai Phule Pune University (U. No. PU/NA/Engg/152/2009 Ref No. CA/6501 Dated: 18/11/2009) <b>Approved by</b> A.I.C.T.E., New Delhi (F.N. 06/07/MS-Engg/2008/O-17, Dated: 11<sup>th</sup> June 2009) Govt. of Maharashtra (No. GEC-2009/18709/17 E.-4, Dated-15<sup>th</sup> June 2009) D.T.E., M.S., Mumbai (No. 2/NGC/Engg/Approval/2009/35, Dated - 23<sup>rd</sup> July 2009)</p>		
Ref: KCT's/LGNSCOE/Civil/Visit/2022-23/		Date: May 09, 2023
To, The Executive Engineer, Sewage Treatment Plant, Nashik, Nashik Municipal Corporation, Maharashtra		
Subject: Help for academic site visit.		
Respected Sir, Namaskar,		
We would like to introduce ourselves as an emerging organization in Nashik district. We are affiliated to Savitribai Phule Pune University and we offer five engineering courses viz. Bachelors in Civil Engineering, Computer Engineering, Electronics and Telecommunication, Mechanical Engineering and Electrical Engineering.		
Nashik Municipal Corporation has a significant contribution in the field of water supply and STP. We are grateful Municipal Corporation has always been helpful to our students to arrange site visits. In the third year of Civil Engineering of Savitribai Phule Pune University, there is a subject Waste Water Engineering. For that we need to visit Sewage Treatment Plant, and for that students will get all this at Sewage Treatment Plant, Tapovan, Nashik.		
So, we humbly request you to give us an opportunity to study at the STP.		
Kindly allow us on one of the day between 10 <sup>th</sup> to 12 <sup>th</sup> of May 2023 for the STP visit. A total of 65 students will come for the visit and 2 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.		
<b>Details of Visit Coordinators:</b> Prof. K. M. Deore, 7249739924 Prof. Dr. D. P. Joshi, 7038487647		
Thanking You. Yours Sincerely,		
 Prof. Dr. C. K. Sridhar HoD, Department of Civil Engineering		 Prof. Dr. S. B. Bagal Principal, LGNSCOE, Nashik
<p><b>CORPORATE OFFICE :</b> Sapkal Knowledge Hub, Panaji 48, Ashwin Sector, Opp. Hotel Sai Palace, Mumbai-Agra Highway, Nashik - 422 009. Tel: +91 - 253 - 2392450 / 51 Fax: +91 - 253 - 2375557 <b>MUMBAI OFFICE :</b> Sapkal Knowledge Hub, Unit No. 22, 1<sup>st</sup> Floor, Shubhadevi Tower, Shopping Centre, Sir Pochkhavale Road, Near R.T.O. Office, Work, Mumbai - 400 030. Tel: +91 - 22 - 24308914 / 24938915, Fax: +91 - 22 - 24938915.</p>		





**Purpose of visit:**

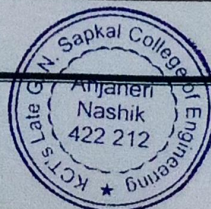
Sewage treatment is the process of removing contaminants from municipal wastewater, containing mainly household sewage plus some industrial wastewater. Physical, chemical, and biological processes are used to remove contaminants and produce treated wastewater that is safe enough for release into the environment. A by-product of sewage treatment is a semi-solid waste or slurry, called sewage sludge. The sludge has to undergo further treatment before being suitable for disposal or application to land. Sewage treatment generally involves three stages, called primary, secondary and tertiary treatment.

- Primary Treatment consists of temporarily holding the sewage in a quiescent basin where heavy solids can settle to the bottom while oil, grease and lighter solids float to the surface. The settled and floating materials are removed and the remaining liquid may be discharged or subjected to secondary treatment. Some sewage treatment plants that are connected to a combined sewer system have a bypass arrangement after the primary treatment unit. This means that during very heavy rainfall events, the secondary and tertiary treatment systems can be bypassed to protect them from hydraulic over loading and the mixture of sewage and storm water only receives primary treatment.
- Secondary Treatment removes dissolved and suspended biological matter. Secondary treatment is typically performed by indigenous, water-borne micro-organisms in a managed habitat. Secondary treatment may require a separation process to remove the micro-organisms from the treated water prior to discharge or tertiary treatment.
- Tertiary Treatment is sometimes defined as anything more than primary and secondary treatment in order to allow ejection into a highly sensitive or fragile ecosystem (estuaries, low-flow Rivers, coral reefs...). Treated water is sometimes disinfected chemically or physically (for example, by lagoons and microfiltration) prior to discharge into a stream, river, bay, lagoon or wetland, or it can be used for the irrigation of a golf course, greenway or park. If it is sufficiently clean, it can also be used for groundwater recharge or agricultural purposes.

**Screening:**

First unit of water treatment plant is screening; this is first step in wastewater treatment process. Screening involves the removal of large objects for example cotton buds, plastics, diapers, rags, sanitary items, face wipes, broken bottles or bottle tops that in one way or another may damage the equipment.

The incoming wastewater passes through screening equipment where objects such as rags, wood fragments, plastics, and grease are removed. The material removed is washed and pressed and disposed of in a landfill. The screened wastewater is then pumped to the next step: grit removal.



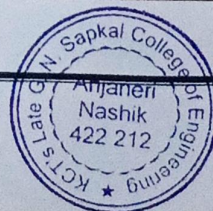


*Waste Water Engineering STP Site Visit Report*

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Types of screens:

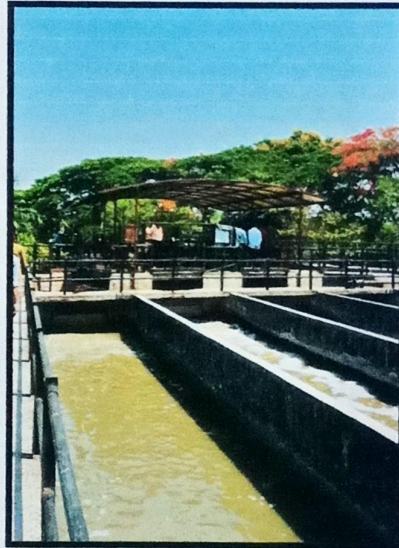
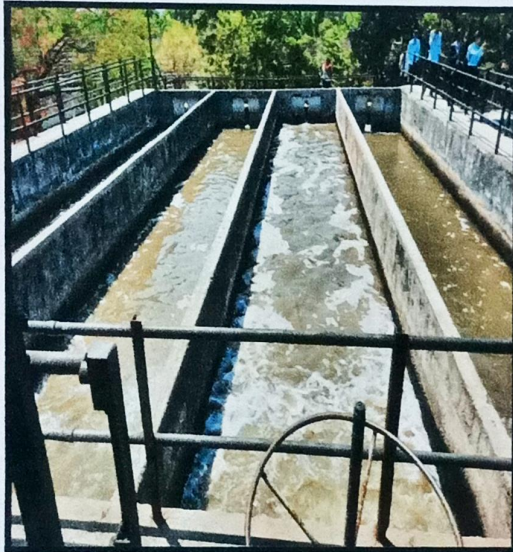
1. Coarse screens
2. Fine screens





**Grit chamber:**

Grit chambers are long narrow tanks that are designed to slow down the flow so that solids such as sand, coffee grounds, and eggshells will settle out of the water. Grit causes excessive wear and tear on pumps and other plant equipment. Its removal is particularly important in cities with combined sewer systems, which carry a good deal of silt, sand, and gravel that wash off streets or land during a storm. Material is also disposed of in a landfill.



**Primary Treatment:**

This process involves the separation of macrobiotic solid matter from the wastewater. Primary treatment is done by pouring the wastewater into big tanks for the solid matter to settle at the surface of the tanks which is removed by large scrapers at the centre of the cylindrical tanks. The remaining water is then pumped for secondary treatment.

**UASB reactor:**

UASB expands to **Up Flow-Anaerobic Sludge Blanket** technology. **Anaerobic treatment** means that it uses no air or oxygen in its process.

It aims to remove organic pollutants from the wastewater, slurries, and sludge. The microorganisms convert the organic pollutants into biogas that contains methane and carbon dioxide. UASB is efficient and able to remove the BOD, COD, and TSS but it is minimal for nutrients in wastewater. It is also able to treat black water and grey water, industry effluent, and agriculture wastewater.

For 78 MLD STP – 6 numbers of reactors are used.

For 52 MLD STP – 4 numbers of reactors are used.





Waste Water Engineering STP Site Visit Report

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After the reactor process, the water is sent to next process of aeration, and the remaining sludge is sent to sludge drying beds of zones which is then used for agricultural purposes.



### **Secondary Treatment:**

The next step of the treatment process is secondary clarifier. The water from the primary tank is transported to the secondary clarifier for adding chemicals such as lime and alum to reduce the PH of water.



### **Aeration Tank:**

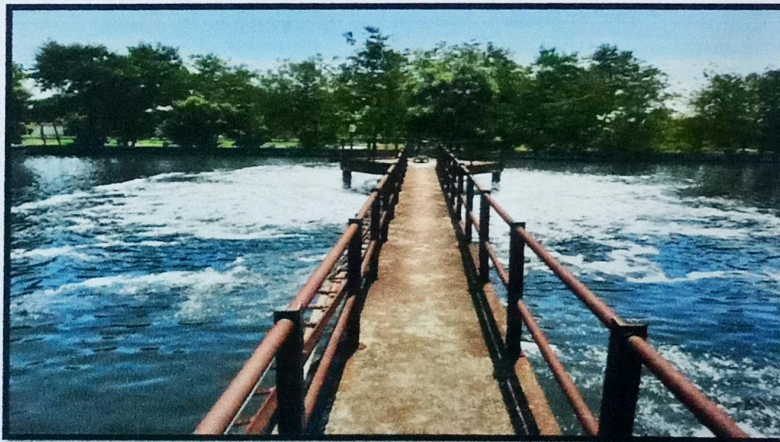
The settled wastewater enters aeration tanks where air is blown into the liquid to provide oxygen for mixing and to promote the growth of micro-organisms. Some of this sludge is recycled to the inlet of the aeration tank to maintain the biomass, hence the name for the process activated sludge. The remainder is pumped to anaerobic digester for further treatment.



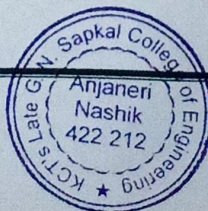




The technique of adding air to **wastewater** to allow aerobic **bio-degradation** of harmful components is known as **aeration**. Biological treatment stabilise toxins in the wastewater stream, using microorganisms that naturally reside in wastewater to decompose wastewater contaminants. Air is combined with, or dissolved in a liquid or substance during aeration. Pumping air into a tank, which promotes microbial growth in the wastewater, is the basis of aeration in an activated sludge process. The microorganisms feed on the organic material and create flocks that are easy to separate. The bacteria that produce the "active sludge" flocks are continually recirculated back to the aeration basin after settling in a separate settling tank to speed up decomposition.



In Tapovan STP, the depth of aeration tank is 50ft. and total 10 HP motors are used in 4 numbers. Detention period is 18 hours with 12 aerators and new processed water is settled down in polishing pond for 6 hours (without aerators).



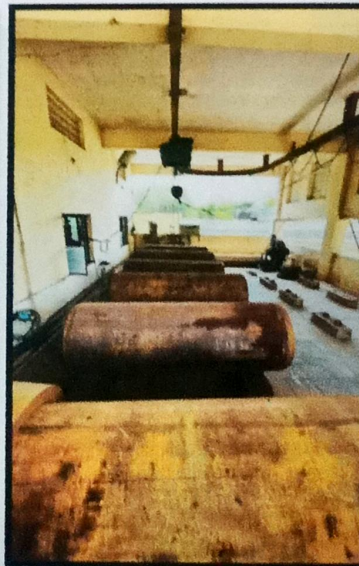
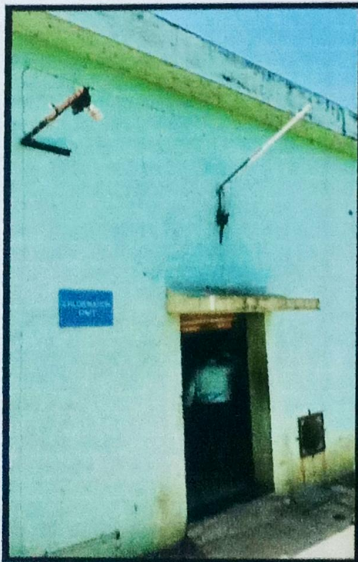




**Secondary Clarifiers:**

During the secondary clarification process the biomass from microorganisms settles to the bottom in the form of activated sludge. After settling over a period of time, the biomass of microorganisms is returned to the aeration tank with the cycle repeating until the effluent is clean before sent for filtration and/or disinfection. Waste sludge is removed and thickened prior to the digestion process. **Disinfection unit**

The next steps for wastewater treatment plants use disinfection for treatment to reduce pathogens, which are micro-organisms which can pose a risk to human health.









## Waste Water Engineering STP Site Visit Report

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### Sludge Digestion

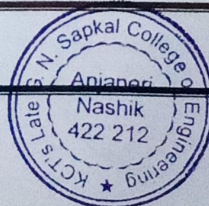
Now again to remove the sludge particles the water is passed through the belt filter press. The purified water is obtained by chemically treating the water coming out of the belt filter press. In which Chlorine is usually dosed into the treated wastewater stream for disinfection.

### Outlet chamber:

At the end of all the treatment processes, the treated waste water is discharged in the natural stream (Godavari river) through outlet chamber.



### National River Action Plan:







78 MLD UASB Sewage Treatment Plant under Godavari Action Plan at Tapovan for Nashik Municipal Corporation, Nashik.

#### Conclusion

From this visit, we get the information and practical knowledge about the treatment of waste water and components used in treatment plant. Students got the knowledge about detailed process of sewage treatment.

The visit was a great opportunity for us to learn about the treatment process and see it in action. During the visit, we were able to observe the different stages of the treatment process, from preliminary treatment to final disinfection. We learned about the important role each stage plays in removing impurities from the sewage water and ensuring that it is safe to be discharged into the environment.

#### Special Thanks

Thanks to Respected Chairman of Sapkal Knowledge Hub for giving us opportunity to do learn new things and providing necessary facilities. Thanks to Respected Principal of Late G N Sapkal College of Engineering Nashik for giving us permission for the visit. Also we are thankful to HoD of Civil Engineering Department and all faculty members for their constant support for us.

This visit covered all the points required for the students to know about how the waste water treatment works. During the visit, we got to know about the unit operations and unit process.

Special thanks to Nashik Municipal Corporation for letting us explore the factory and explaining working of each unit distinctly. Also thanks to our mentors Kiran Deore and Joshi Sir for their guidance which would be extremely valuable for us.



## Waste Water Engineering STP Site Visit Report



### List of Staff Members for visit:

Sr. No.	Name of the Staff
1	<b>Prof. K. M. Deore</b> Assistant Professor Dept. of Civil Engineering Contact No.: 7249739924 Email id: kiran.deore@sapkalknowledgehub.org
2	<b>Prof. Dr. D. P. Joshi</b> Professor Dept. of Civil Engineering Contact No.: 7038487647 Email id: dayanand.joshi@sapkalknowledgehub.org

Prof. K. M. Deore

Visit Coordinator

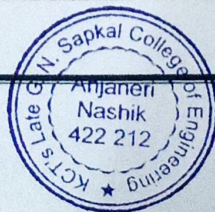
Prof. Dr. C. K. Sridhar

HoD (Civil)

Prof. Dr. S. B. Bagal

Principal, LGNSCOE  
Prof.(Dr.) Sahebrao B. Bagal

KCT's LGNSCOE, Nashik



Principal  
Late G. N. Sapkal College of Engineering  
Anjaneri, Nashik-422 213

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

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Date: Nov. 13, 2022

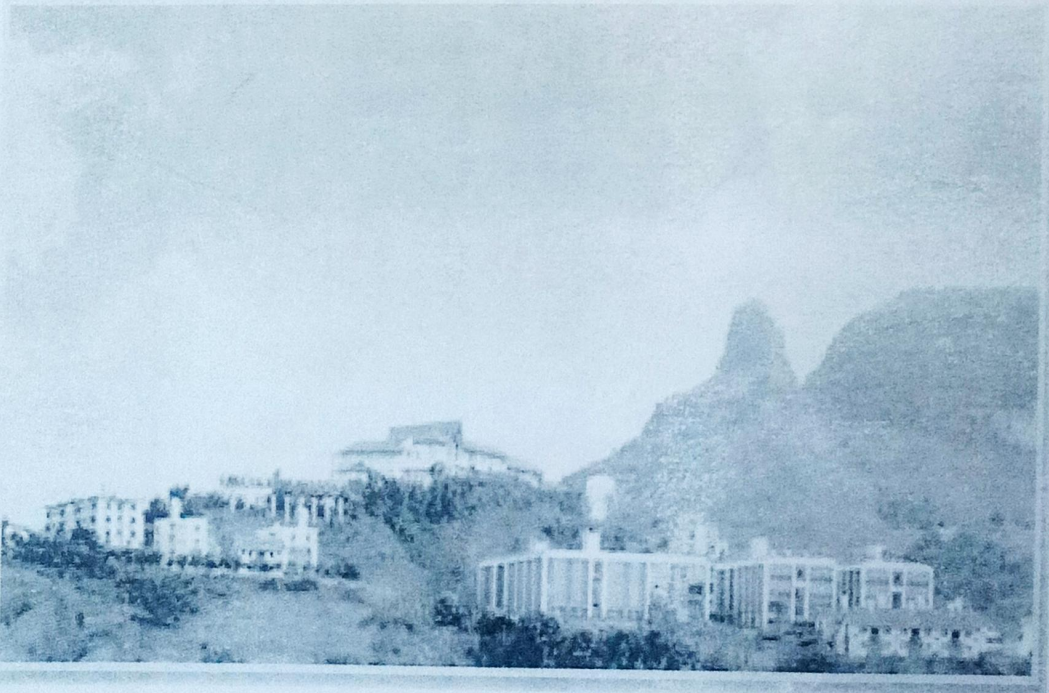
**Industrial Visit Report**

**BE-Civil**

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

**Department of Civil Engineering**

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





**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.

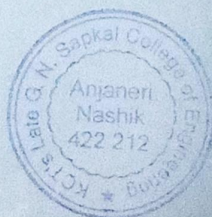
Faculty member Prof. Kiran Deore and Dr. D. P. Joshi sir of our college accompanied the 50 student of BE civil program for industrial visit.

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.

1 of 1

**S. N. SAPKAL COLLEGE OF ENGINEERING**  
with Grade 'B' by NAAC  
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E-mail: gns\_engineering@sapkalcollegehub.org | www.sapkalcollegehub.org

**SAPKAL KNOWLEDGE HUB**

Dr. Sahabirao B. Bagal  
M.E. (E & TC), Ph.D. (E & TC)  
Principal

APPROVED TO: Savitribai Phule Pune University (U. No. PU/NA/Engg/15/2020) Ref No. -24/2021 (Date: 18/10/2021)  
APPROVED BY: A.J.C.T.E., New Delhi (F.N. 66/57MS/Engg/2009/0-17, Dated: 17 June 2020)  
Govt. of Maharashtra (No. GEC-2009/5708/TE - 4, Dated: 15 June 2010)  
D.T.E., M.S., Mumbai (No.2/NUGCE/eng/Approval/2009/535, Dated: 27 July 2009)  
ASPE CODE: C-42186

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**.

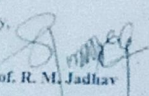
So, we humbly request you to give us an opportunity to study at the airport.

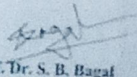
Kindly allow us on one of the **9<sup>th</sup> to 12<sup>th</sup> of November 2022** for the airport visit. A total of **45 students** will come for the visit and **3 professors** will accompany the students to maintain discipline and safety.


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, Pharad 46, Ashwin Sector, Opp. Hillside Sai Palace,  
Mumbai-Agra Highway, Nashik - 422 069; Tel: +91 - 253 - 2362480 / 51 Fax: +91 - 253 - 2375657  
MUMBAI OFFICE : Sapkal Knowledge Hub, Unit No. 22, 1<sup>st</sup> Floor, Shyambhuda Tower, Shipping Centre, Sir Poonchwanagar  
Road, Near R.T.C. Office, Work Mumbai - 400 030; Tel: + 91 - 22 - 24038914 / 24938915; Fax: + 91 - 22 - 24038919

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

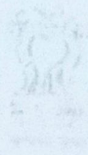


1 of 1 n Godse  
SABHA)

हेमंत तुकाराम गोडसे

खासदार लोकसभा

Member : Parliamentary Standing Committee on Railways, Commerce & Industries  
Member : Parliamentary Consultative Committee on Consumer Affairs, Food, Public Distribution, Govt. Of India



25497

B-601, Gomati, M.S. Flats,  
B.K.S. Marg, Opp. RMI Hospital,  
New Delhi- 110 001  
Tel. 011-23723607  
Email : nashikmphg@gmail.com

Date : 11.11.2022

To,  
The Chairman,  
Airport Authority of India,  
New Delhi.

Sub. : Help for academic site visit.

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 co-operation 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

Mast. Abhishek Khairnar 7767074160

Thanking you.

Sincerely yours

HEMANT GODSE  
MEMBER OF PARLIAMENT  
IC-252

Laxmi Niwas, Sansari Gaon, Post Devlaji Camp, Tal. Dist. Nashik - 422 401, Maharashtra

Shop No. 8/9, Renuka Building, Kismat Bag, Trimbuk Road, Nashik-422001. Mobile : +91 9822090707 | Tel : 0253-2507707

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





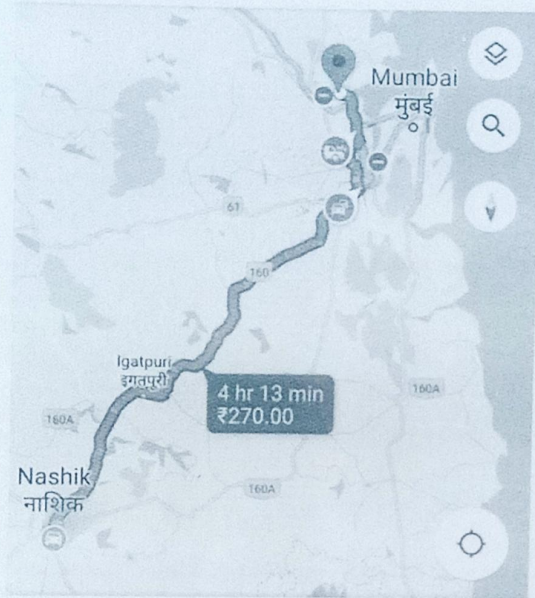


Figure 4: College to Airport Site Bus Route

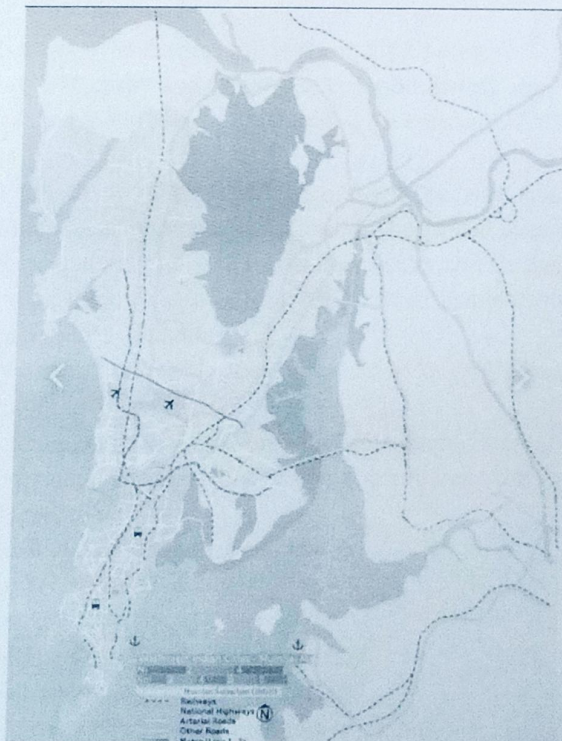
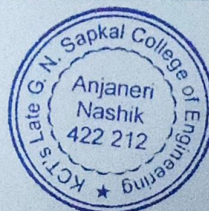


Figure 5: Satellite View of D. B. Patil Airport Site





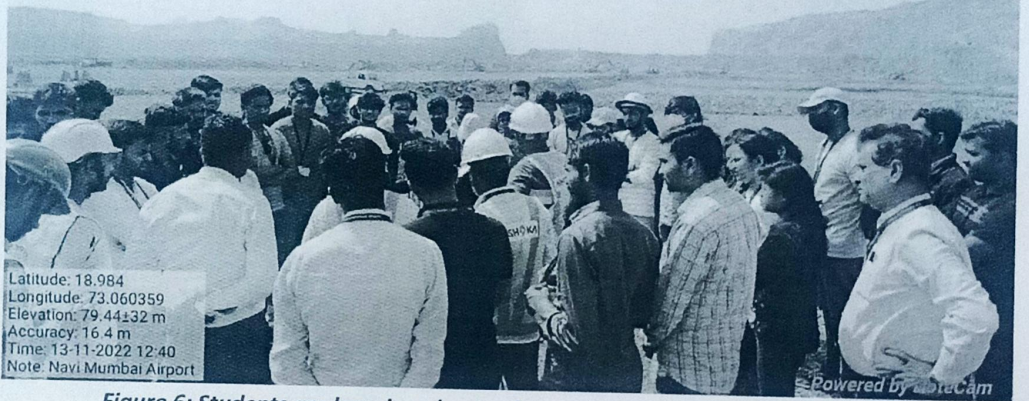


Figure 6: Students are learning about safety and precautions at Airport Site

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 plans and cargo plans maybe 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

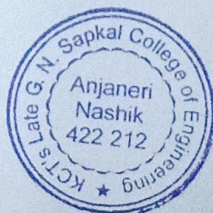






Figure 11: Students are learning and studying the construction process of Runway



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



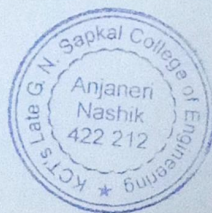




Figure 14: Students are felicitating to the Chairman of the Construction Company

### 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 use for construction of airport
4. What kind of safety 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 different eyes.





## Special Thanks

Thanks to Respected Chairman of Sapkal Knowledge Hub for giving us opportunity to do learn new things and providing necessary facilities. Thanks to Respected Principal of Late G N Sapkal College of Engineering Nashik for giving us permission for the visit. Also we are thankful to HoD of Civil Engineering Department and all faculty members for their constant support for us.

Then special thanks to Respected Kiran Deore sir and Dr. D P Joshi sir for all the arrangements and efforts

All students are also giving thanks to our friends Abhishek, Lalit and Rushikesh for their help for the visit and arranging the visit.

### List of Staff Members for visit:

Sr. No.	Name of the Staff
1	<b>Prof. Dr. D. P. Joshi</b> <b>Professor</b> Dept. of Civil Engineering <b>Contact No.:</b> 7038487647 <b>Email id:</b> dayanand.joshi@sapkalknowledgehub.org
2	<b>Prof. K. M. Deore</b> <b>Assistant Professor</b> Dept. of Civil Engineering <b>Contact No.:</b> 7249739924 <b>Email id:</b> kiran.deore@sapkalknowledgehub.org

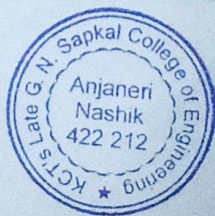
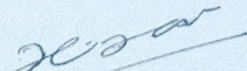


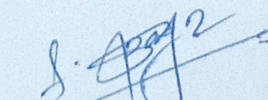




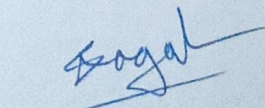
Figure 15: Along with the educational trip, the students also spent some time at the sea shore and enjoyed some moments at Uran Beach

  
Prof. K. M. Deore

Visit Coordinator

  
Prof. R. M. Jadhav

HoD (Civil)

  
Prof. Dr. S. B. Bagal

Principal, LGNSCOE

**PRINCIPAL**

Kalyani Charitable Trust, Nashik

