

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ('MOU') is made on 01 March, 2023.

Between

**Kalyani Charitable Trust's, Late Gambhirrao Natuba Sapkal College of Engineering, (LGNSCOE) Anjaneri, Trimbakeshwar Road, Nashik.**

and

**Kadwa Sahakari Sakhar Karkhana Ltd**

At Materewadi, Tal: Dindori, Maharashtra, 422202, Maharashtra.

(LGNSCOE and Kadwa Sahakari Sakhar Karkhana Ltd hereinafter individually referred to as "Party" and collectively referred to as "Parties")

### Terms and Conditions:

#### **1. Duration**

This MoU shall be valid for Three (3) years from 1<sup>st</sup> March, 2023 and thereafter it may be renewed on mutually agreed terms.

#### **2. Purpose**

This MOU is for collaboration between the parties for mutual benefit where Kadwa Sahakari Sakhar Karkhana Ltd to provide

- Industrial visit for faculties and students.
- Industrial training/workshop for students and staff
- Experts for Guest lecturers as per the expertise available in industry.
- Sponsorship for industrial project and mentoring for interviews of Final year students.
- To provide an opportunity to most eligible students for professional work experience through employment, if possible
- Assistance for developing project ideas for students of LGNSCOE.
- Technical guidance for lab developments in LGNSCOE. Nasik
- Platform for planning and utilizing resources like staff and infrastructure for joint. R&D work.
- Sponsoring the events activities being conducted at LGNSCOE, Nasik.
- Training on special topics supported by donating outdated machinery, equipment, cut-sections, charts etc.

#### **3. Late Gambhirrao Natuba Sapkal College of Engineering and Industry Standard of Performance:**



LGNSCOE shall expend reasonable efforts as follows:

- LGNSCOE shall provide training, lab visit permissions in such areas as may be mutually agreed between the parties, more particularly described in this agreement.
- LGNSCOE shall provide experts for the conduct of training at the LGNSCOE campus and or at the Industry premises.
- LGNSCOE shall provide certificates/completion letter to all students who have successfully completed the training, projects conducted at LGNSCOE or at the Industry premises.

#### **4. Mutual Obligations:**

- Both the parties shall appoint one person as one point of contact for smooth execution of the MOU.
- This collaboration shall not be exclusive to both parties and shall not disallow each party from having similar collaboration with others. Except as expressly stated in this MOU, there shall be no obligation on any party to compensate the other in any manner or to make any claim.
- Each party shall respect the other's intellectual property
- Nothing contained in this MoU shall be construed as resulting in the creation of a relationship of both Principal of LGNSCOE and Management of Industry. LGNSCOE and Industry are not authorized to make any representation contract or commitment on behalf of Industry. LGNSCOE without the prior written consent of other party

#### **Duration and Warranties:**

- Each party shall ensure that the other is not put to any liability for any act of the respective party under this MOU.
- Each party represents that they have full power and authority to enter into this MoU in general.

#### **Commercials:**

- LGNSCOE & Industry will design programs on mutual understanding and decide fees if any to be charged to the students.
- The training. Lab visit shall be conducted at the LGNSCOE or Industry facility in a time bound manner as per availability and schedule of both parties

#### **General:**

- Both the parties may receive information proprietary to other party (the "Confidential Information") in the course of performance of their obligations under this MoU. Confidential Information is not meant to include any information which (a) is publicly available (b) is rightfully received by the parties from third parties without accompanying secrecy obligations; (c) is already in either party's possession and was lawfully received from sources other than the parties or (d) is independently





developed by the parties. The two bodies understand and acknowledge that the Confidential Information is valuable and confidential and agrees that it will at all times be kept in trust, to be disclosed only to such persons as have a "need to know" the same for the effective implementation of this MOU and that it will only be used by the parties for the benefit of others.


- Both the parties understand and agree that all written or other tangible data and documentation developed or procured by the other party in performing its obligations under this MoU, whether in printed or electronic form, belongs to other party.
- Both parties shall not use the name and brand of the other party in any advertisement or make any public announcement without the prior written approval of the other.
- Each party shall be at liberty to terminate this MoU with a written notice period of one(1)month to the other party without any compensation.
- Any and all disputes or differences between LGNSCOE and Industry arising out of or in connection with this MoU or its performance shall, so far as it is possible, be settled by negotiations between the Parties amicably through consultation & understanding.

#### 8. Indemnification:

- Both the parties shall indemnify and hold each other harmless from and against any claim, loss, liability, or expense, including, but not limited to, damages, patent and trade mark infringement, costs
- In witness whereof, both parties put their hard seal on the day, month and year here in mentioned

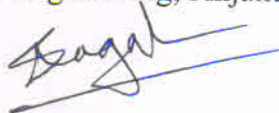
**IN WITNESS WHEREOF**, to show their assent, the duly authorized representative of the parties hereto have signed the Agreement and set their seals as below:-

Signed for and on behalf of for  
**Kadwa Sahakari Sakhar Karkhana Ltd.**  
At Materewadi, Tal:Dindori,  
Maharashtra, 422202

  
Mr. Hemant Mane  
Managing Director  
Kadwa Sahakari Sakhar Karkhana Ltd., Materewadi  
Tal. Dindori, Dist. Nashik



Signed for and on behalf of for  
KCT's Late Gambhirao Natuba Sapkal  
College of Engineering, Anjaneri. Nashik

  
Prof. Dr. S. B. Bagal  
Principal





Kalyani Charitable Trust's  
Late G. N. Sapkal College of Engineering

Kalyani Hills, Anjaneri, Trimbakeshwar Road,  
Nashik – 422 213



## Industrial Visit Report

**Title:** Industrial Visit Report on Fluid flow for the Subject Fluid Mechanics

**Day and Date:** Saturday, 16/03/2024

**Subject:** Fluid Mechanics

**Location:** Kadwa Sahakari Sakhar Karkhana Ltd. Rajaramnagar (Materewadi) Tal -Dindori, Dist - Nashik, Maharashtra, India

### Introduction:

Fluid mechanics is a crucial subject of Mechanical engineering that deals with the behavior of fluids (liquids, gases, and plasmas) at rest and in motion. Understanding fluid flow is essential for various industries ranging from aerospace to manufacturing. This industrial visit aimed to provide insights into practical applications of fluid mechanics principles in an industrial setting. A group of students from Late G. N. Sapkal College of Engineering, Anjaneri, Nashik embarked on an industrial visit to Kadwa Sahakari Sakhar Karkhana Ltd. Rajaramnagar, a leading company in the field of sugar mills.

### Objectives:

The primary objectives of our industrial visit were as follows:

1. Understanding the role of fluid dynamics in industrial processes.
2. Observing the design and operation of fluid flow systems.
3. Gaining insights into challenges and solutions related to fluid flow in industries.

### Visit Highlights:

1. **Company Overview:** The Kadwa Sahakari Sakhar Karkhana Ltd, (TKSSKL) is a cooperative sugar mill and it is registered under the vide registration no. NSK/PRG/(A)(3)(S) dated 15/10/1970. The sugar factory is located at village Materewadi (Rajaramnagar), Tal-Dindori Dist- Nashik, Maharashtra. The establishment of this sugar factory was in the interest of local sugarcane growers. Initially, a unit of 1650 TCD was established in the year 1978-79 under the leadership of Late Shri Rajaram Sakharam Wagh founder chairman. Now the mill is growing under chairmanship Shri Shriram Sahadu Shete. The management of TKSSKL has taken efforts for increasing in sugar cane







**Kalyani Charitable Trust's  
Late G. N. Sapkal College of Engineering**

**Kalyani Hills, Anjaneri, Trimbakeshwar Road,  
Nashik – 422 213**



in commanding area. As a result of increase in sugar cane availability is increased mill decided to increase the crushing capacity from 1650 to 2500 TCD. As increase in crushing capacity the byproduct like molasses and bagasse get increased. Considering all these aspects and to attain financial stability, the management of TKSSKL has decided to install a new 30 KLPD distillery plant.

**Observations and Learnings:**

**Fluid Flow Systems:** The company utilizes sophisticated fluid flow systems to transport raw materials, coolants, and finished products throughout the manufacturing facility. These systems consist of pumps, pipes, valves, and fittings designed to maintain desired flow rates and pressures.

**Pump Technology:** We observed different types of pumps employed by the company, including centrifugal and positive displacement pumps. Centrifugal pumps were predominantly used for large-scale fluid movement, while positive displacement pumps were utilized for precise metering applications.

**Flow Measurement Techniques:** Accurate measurement of fluid flow rates is critical for process control and optimization. The company utilizes various flow measurement techniques such as orifice plates, flow meters, and ultrasonic sensors to monitor and regulate fluid flow within the manufacturing process.

**Fluid Dynamics in Equipment Design:** The design of equipment and machinery takes into account fluid dynamics principles to ensure efficient operation. Components such as impellers, nozzles, and diffusers are meticulously engineered to minimize energy losses and enhance performance.

**Fluid Filtration and Purification:** The company emphasizes the importance of maintaining clean and contaminant-free fluids in their processes. Advanced filtration systems are integrated into the fluid flow systems to remove impurities and ensure product quality and reliability.

**Challenges and Solutions:** Despite advancements in fluid flow technology, the company faces challenges such as fluid leakage, cavitation, and pressure fluctuations. Engineers employ innovative solutions such as seal improvements, flow optimization algorithms, and material enhancements to address these challenges effectively.







**Kalyani Charitable Trust's  
Late G. N. Sapkal College of Engineering**

**Kalyani Hills, Anjaneri, Trimbakeshwar Road,  
Nashik – 422 213**



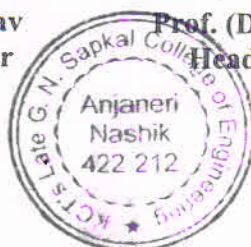
**Conclusion:**

The industrial visit provided valuable insights into the practical applications of fluid mechanics principles in an industrial setting. Witnessing firsthand how fluid flow concepts are integrated into manufacturing processes highlighted the importance of theoretical knowledge in real-world engineering applications. The experience underscored the significance of continuous innovation and problem-solving in overcoming challenges associated with fluid flow systems.

Overall, the visit was enlightening and enriching, offering a deeper understanding of the intricate relationship between fluid dynamics and industrial operations.



*Buecy*  
**Prof. M. V. Jadhav**  
Visit Coordinator



*Badgujar*  
**Prof. (Dr.) T. Y. Badgujar**  
Head of Department

*Bagal*  
**Prof. (Dr.) S. B. Bagal**  
Principal





Kalyanii Charitable Trust's

# LATE G. N. SAPKAL COLLEGE OF ENGINEERING

(Accredited with Grade 'B' by NAAC)

Affiliated to ➤ Savitribai Phule Pune University (ID. No. PU/NA/Engg./152/2009 Ref.No.-CA/6501 Dated- 18/11/2009)

Approved by ➤ A.I.C.T.E., New Delhi (F.N: 06/07/MS-Engg/2008/O-17, Dated- 11th June 2009)

➤ Govt. of Maharashtra (No. GEC-2009/(67/09)/T.E.- 4, Dated- 15th June 2009)

➤ D.T.E., M.S., Mumbai (No.2/NGC/Engg./Approval/2009/535, Dated - 23rd July 2009)

➤ AISHE CODE : C-42196



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

Dr. Ravindra G. Sapkal  
Chairman & Managing Director  
Kalyanii Charitable Trust

Ref. No.: KCT/LGNSCOE/ESTT/2023-24/ 368

Date: 01-03-2024

To,  
The Managing Director  
Kadwa Sahakari Sakhar Karkhana Ltd.  
Materewadi, Tal: Dindori,  
Maharashtra, 422202

**Subject: Industrial Visit for the students of Second year and Final Year Mechanical Engineering to your industry.**

Dear Sir/Madam,

We would like to introduce ourself as one of the emerging institute in Nashik District. We are affiliated to University of Pune and cater for Six Bachelor's degrees in Engineering, viz. Bachelor in Civil Engineering, Computer Engineering, Electronics & Telecommunications, Mechanical Engineering, Artificial Intelligence (AI) and Data Science and Electrical Engineering.

According to the syllabus of the University of Pune, it is essential for our Second Year Mechanical Engineering students to gain practical knowledge of Fluid Flow and for our Final Year students to understand Cogeneration and undergo trials on Steam Power Plants. Therefore, we would greatly appreciate it if you could permit our students to visit your plant to gain practical insights into the unit and its related parameters.

We kindly request that you allot a date for the visit between 08/03/2024 to 16/03/2024, at your convenience. The total number of students will be 176, accompanied by 3 faculty members to ensure discipline and safety. We humbly request you to consider our proposal and grant permission for our students to visit your prestigious project.

Thank you for considering our request. We look forward to your favorable response.


Thanking you.

Details of Visit Coordinator are as follows:


Name: Prof. P. D. Jadhav, Prof. M. V. Jadhav

Mobile No: 9765489211, 9765572008

Yours truly,

  
Prof. (Dr.) T. Y. Badgujar  
HOD, Mechanical Engineering



  
Prof. (Dr.) S. B. Bagal  
Principal

- **CAMPUS** : Sapkal Knowledge Hub, Kalyanii Hills, Anjaneri-Wadholi, Trimbakeshwar Road, Nashik - 422 213. (India)  
Tel.: + 91- 2594 - 220168/69/70 | Mob.: +91 9922252699 | Toll Free No.: 1800 233 2999 | **E-mail** : gns\_engineering@sapkalknowledgehub.org
- **CORPORATE OFFICE** : Sapkal Knowledge Hub, 'Parag' 46, Ashwin Sector, Opp. Hotel Sai Palace, Mumbai-Agra Highway, Nashik - 422 009.  
Tel.: +91 - 253 - 2392450 / 51 | **E-mail** : head.marketing@sapkalknowledgehub.org | **Website** : www.sapkalknowledgehub.org
- **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 / 15 | **E-mail** : cmd@sapkalknowledgehub.org, ravi.sapkal@gmail.com

Date: 13 March 2024

To,

The Principal,  
Late G. N. Sapkal,  
College of Engineering, Anjaneri,  
Nasik

Subject: Permission to go for industrial visit with students of second and final year Mechanical Engineering

Respected Sir,

With reference to above subject we have planned industrial visit for the subject Fluid Mechanics and Energy Engineering in Kadawa Sahakari Sakhar Karkhana, Materewadi, Rajaram Nagar, Tal, Dindori, Dist. Nashik, they have given permission to visit in their organization for 1 days with a 176 number of students along with 2 staff members.

Kindly permit us to go for visit as per above mention schedule.

Thanking You,

Yours Faithfully,

*Permitted with all required formalities*

*[Signature]*  
13/03/2024

*[Signature]*  
(Prof. M. V. Jadhav)  
Visit Coordinator





Date: 13-Mar-24

**DEPARTMENT OF MECHANICAL ENGINEERING**

**NOTICE**

All the Second year and Final year students are hereby informed that, industrial visit for subject Fluid Mechanics on Fluid flow and Energy Engineering on thermal power plant (Cogeneration) arranged on **Saturday, 16th March 2024 at Kadwa Sahakari Sakhar Karkhana Ltd.,** Materewadi, Rajaram Nagar, Tal, Dindori, Maharashtra as per following schedule from location New CBS to Kadwa Sahakari Sakhar Karkhana.

Sr. No.	Division	Date	Time	Faculty Coordinator
1	SE and BE	16/03/2024	09.00 am to 4.00 pm	1. Prof. Dr. T. Y. Badgujar 2. Prof. P. D. Jadhav 2. Prof. M. V. Jadhav

Note:-

1. Route of visit: - From New CBS to Kadwa Sahakari Sakhar Karkhana.
2. It's compulsory for all students to report at New CBS before said time.
3. No Personal Vehicles Allowed.
4. All wear college uniform along with I-card and shoes.
5. Students should maintain discipline and follow instructions during visit.
6. Industrial Visit is compulsory to all the students.



Prof. M. V. Jadhav  
Visit Coordinator



Prof. (Dr.) T. Y. Badgujar  
Head of Department





Kalyani Charitable Trust's  
**Sapkal Knowledge Hub**  
 Sapkal Knowledge hub, Kalyani Hills, Anjaneri, Wadholi,  
 Trimbakeshwar Road - 422 213  
 Phone: (02594) 220167 to 70, Fax: (02594) 220174

### Vehicle Requirement Note

Ref. No:-ois/req./veh/2015-16/02

Date: - 13/03/2024

To,  
 The Director,  
 KCT's Sapkal Knowledge Hub,  
 Nashik.

Dear Sir,

Request for vehicle requirement, Please provide the vehicle as per following details.

Journey:-

Date :- 16/03/2024	Time:- 09.00am
From :- New CBS	To :- Kadwa Sahakari Sakhar Karkhana Ltd

Return Journey:-

Date:- 16/03/2024	Time:-
From:- Kadwa Sahakari Sakhar Karkhana Ltd	To:- New CBS

Concern Staff :- Prof. (Dr.) T. Y. Badgujar, Prof. M. V. Jadhav  
 Contact Number :- 9765572008

Purpose:-

Industrial Visit at Kadwa Sahakari Sakhar Karkhana Ltd. Nashik

Type of Vehicle:-

Bus 54 Seater ☐

42 Seater ☐

40 Seater ☒

LMV :-

Winger ☐

Scorpio ☐

Tavera ☐

Ford ☐

13 Seater ☐

Submitted for your approval.  
 Thanking You.

  
 Section Head /HOD














  
 Principal / Director



Late G N Sapkal College of Engineering  
Department of Mechanical Engineering  
Academic Year 2023-24, Sem- II  
SE Div. - A

Attendance Industrial Visit at Kadawa Sakhar Karkhana

Sr. No.	Roll No.	Name of the student	Sign	Sr. No.	Roll No.	Name of the student	Sign
1	ME22F2A01	BEHERE GITESH ANANTA		34	ME23D2A34	KUYATE VISHNU GIRISH	
2	ME22F2A02	BHAMARE ROSHAN KISHOR		35	ME23D2A35	MANSURI ARSHAD MANWAR	
3	ME22F2A03	DATE CHAITANYA VILAS		36	ME23D2A36	MORE KETAN NITIN	
4	ME22F2A04	GAIKWAD DURGESH RAJENDRA		37	ME23D2A37	NAIDU VENKATESH RAVI	
5	ME22F2A05	GORE PRATIK ASHOK		38	ME23D2A38	NIKAM PRASHANT AJAY	
6	ME23D2A06	AHER YASH HEMANT		39	ME23D2A39	NIMBEKAR NAVNATH NAMDEV	
7	ME23D2A07	AHIRE MAYUR MURLIDHAR		40	ME23D2A40	PAGARE PRATHAM VIJAY	
8	ME23D2A08	AHIRRAO ABHISHEK SANJAY		41	ME23D2A41	PANPATIL SANJI VANI MAHENDRA	
9	ME23D2A09	AJINKYA BALASAHEB BHOJ(adm cancel)		42	ME23D2A42	PATEL MOHAMMAD RAZA SAMEER	
10	ME23D2A10	AMBEKAR OM SUNIL		43	ME23D2A43	PAWAR KALPESH SURESH	
11	ME23D2A11	AMRUT PATIL		44	ME23D2A44	PATIL HARSHAL MACHHINDRA	
12	ME23D2A12	BASHULKAR NIKHIL DILIP		45	ME23D2A45	PATIL SHUBHAM BHIMSING	
13	ME23D2A13	BACHHAV SONAL RAJENDRA		46	ME23D2A46	PATOLE SAGAR SANTOSH	
14	ME23D2A14	BADGUJAR GORAKH FAKIRA		47	ME23D2A47	PAWAR PRANAV ADHIKAR	
15	ME23D2A15	BHOI KUNAL RAM		48	ME23D2A48	PAWASE YASH MAHADEO	
16	ME23D2A16	BOMBALE SUNIL VIJAY		49	ME23D2A49	PINJARI SAHIL SHAKIL	
17	ME23D2A17	BORSE MANASI VIJAY		50	ME23D2A50	RANSHEVRE SAKSHI CHANDRAKANT	
18	ME23D2A18	BUNDELE UJWAL UMESH		51	ME23D2A51	SAINDANE RAHUL DIPAK	
19	ME23D2A19	CHAKRANARAYAN ASHISH SUDHIR		52	ME23D2A52	SHAIKH MOHAMMED KAIF RIYAJODDIN	
20	ME23D2A20	CHAUDHARI AKSHAY SANJAY		53	ME23D2A53	SHELAR GAURAV SHIVAJI	
21	ME23D2A21	CHAUDHARI CHANDRAKANT PRAKASH		54	ME23D2A54	SHEWALE SAURABH BHAUSAHEB	
22	ME23D2A22	CHOPADE SUHAS RAMESHWAR		55	ME23D2A55	SHINDE CHINTAN KALYANKRAO	
23	ME23D2A23	DABHOLKAR SANIL ANIL		56	ME23D2A56	SHRING BHAVNA DHANANJAY	
24	ME23D2A24	GADE RUSHIKESH BHAUSAHEB		57	ME23D2A57	SONAR SOURAV ATUL	
25	ME23D2A25	GAIKWAD AKSHAY RAMESHWAR		58	ME23D2A58	SONAWANE ANKUSH POPAT	
26	ME23D2A26	GODSE RUSHIKESH NANASAHEB		59	ME23D2A59	SONAWANE SAKSHI RAJENDRA	
27	ME23D2A27	JADHAV ATUL NANA		60	ME23D2A60	SURYAVANSHI DNYANESHWAR SUDHAKAR	
28	ME23D2A28	KADAM SWAPNIL NARAYAN		61	ME23D2A61	SURYAWANSHI DHANANJAY RAVINDRA	
29	ME23D2A29	KATKAR UDAY RAJENDRA		62	ME23D2A62	SURYAWANSHI VENKATESH JOGESH	
30	ME23D2A30	KHAIRNAR SHUBHAM GANGADHAR		63	ME23D2A63	TAJANPURE HARSHAL PRAKASHI	
31	ME23D2A31	KHAN JUNAID JAFAR		64	ME23D2A64	TARLE ANKUSH SHASHIKANT	
32	ME23D2A32	KHARE SANDESH SURESH		65	ME23D2A65	WASEKAR AKASH GAJANAN	
33	ME23D2A33	KHOND BHAGAWAN MOTIRAM		66	ME23D2A66	WELKAR SAHIL DIPAK	
				67	ME23D2A67	YEOLE YOGESH CHHAGAN	



Email : kadwasakar@yahoo.com

Email : kadwasugar@gmail.com

GST NO. 27AAAAK1052F1Z4

Office : (02557) 237181 to 237184

Fax : (02557) 237185

Regd. No. NSK/PRG (A) (3) (S) Dated : 15/10/1970

**THE KADWA SAHAKARI SAKHAR KARKHANA LTD., MATEREWADI**

Rajaramnagar, Tal. Dindori, Dist. Nashik. (Maharashtra) Pin - 422 209



**कादवा सहकारी साखर कारखाना लि., मातेरेवाडी,**

राजारामनगर, ता. दिंडोरी, जि. नाशिक. (महाराष्ट्र - ४२२ २०९)

## Conduction Certificate

This is to certify that the 02 faculty member and 176 Students of Late G. N. Sapkal College of Engineering have visited our industry on 16<sup>th</sup> March 2024, Saturday. The purpose of visit is to learn Fluid Flow, Boiler and thermal power plant (Cogeneration).

This visit is planned as per academic curriculum of the subject Fluid Mechanics and Energy Engineering. Students learn the working and exposure of Fluid Flow, Trial on Boiler and thermal power plant (Cogeneration), which is explained by our expert during the visit. The behavior of students was good during visit.

  
**Managing Director**  
Kadwa S.S.K. Ltd, Materewadi  
Tal. Dindori, Dist. Nashik  
(Kadwa Sahakari Sakhar Karkhana Ltd.  
Materewadi, Rajaram Nagar,  
Tal, Dindori, Maharashtra 422202)





## **TITLE: INDUSTRIAL VISIT**

**Aim:** Industrial visit to conduct Trial on Steam Power Plant along with Co-generation Power plant.

### **A Report on Industrial Visit**

**Title/Aim :** Visit industry to gain practical knowledge trial on steam turbine along with cogeneration plant.

**Objectives of visit:** 1 Trail on steam power plant

2. To study overall plant layout and co generation plant utilization

**Overview of visit:**

**Subject:** Energy Engineering

**Class /Div. :** BE

**No of students:** 13 **Date :** 16/03/2024

**Name & address of company:** Kadwa Sahakari Sakhar Karkhana Ltd. Materewadi, Rajaramnagar, Dindori (Nashik).

#### **Company Information :**

Kadwa Sugar factory was registered on 15th October 1970. In the year 1977-78, first crushing season was started. An overview of conditions before the establishment of Kadwa and after establishment of it, drastic changes shows in the area of Dindori tahsil. Various developments occur suddenly after the establishment of factory are as follows: - Development in Economic conditions: - Most of the farmers, who engaged in traditional farming and grows Wheat, Jowar, Bajra started to produce sugarcane. Produced Sugar Cane sold in the same area and due to security, economic development occurs. Economic development resulted into high standard of living.

**Factory Name:** The Kadwa Sahakari Sakhar Karkhana Ltd., Dindori, Maharashtra

**Operational Status:** Working

**Plant Name:** Materewadi

**Code:** 12001

**Factory Nature:** Co-Operative

**Nearest Railway Station:** Niphad 24 Km

**Nearest Airport:** N.A.

**Nearest Hotels:** Pimpalgaon, 12Km.

**Holiday:** Sunday

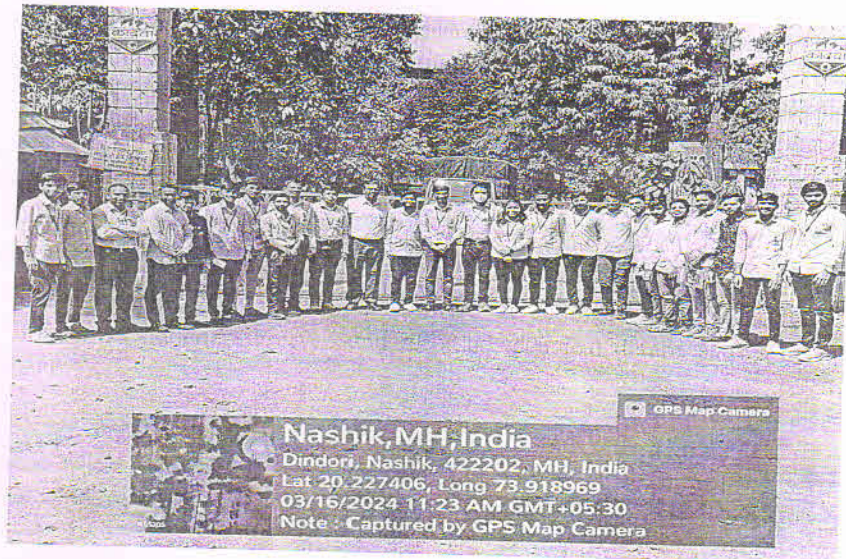
#### **Points studied in details:**

Final year students of Mechanical Engineering are studying a course on Energy Engineering. The course is framed to enable graduating students to take up the challenges in power engineering



such as design equipment, processes and whole system. In this endeavour, a visit to study thermal power plant with co generation unit was planned as per curriculum. Kadwa sugar mill plant visited has been installed by Walchand Industries, Sangli and periodically upgraded with technological advancements. It was shut down for maintenance work after closure of their crushing season of this year. This also helped to show the interior parts of some leading equipment such as furnaces, boiler tubes, co generation system etc. It comprises two water tube boiler units operating at 21 bar with yield of 20 ton of steam generation per hour. Each boiler is supported by two furnaces which consume bagasse which is a refused material after crushing sugarcane. Furnaces are provided with hot air passing over preheaters creating forced draft. The steam generated being wet is superheated while passing through superheaters tubes. Then superheated steam expands across single turbine unit to 6 bar. The exhausted steam is supplied for sugarcane juice concentration as a part of process heating. Also, it is used in crystallizers. Also, as a measure of efficiency improvement, economisers are installed in the flow path of flue gases leaving the furnaces. All the students were given illustrations regarding testing and operating protocols. Students observed and recorded technical details shown by operators of respective sections

#### Photos:



#### Conclusions:

1. Students understood location wise installation of equipment and overall plant layout
2. Prior testing, operating protocols were appreciated

#### Signatures of faculty coordinators:

Prof. M. V. Jadhav:







Kalyani Charitable Trusts

## LATE G. N. SAPKAL COLLEGE OF ENGINEERING

(Accredited with Grade 'B' by NAAC)

Affiliated to > Savitribai Phule Pune University (U. No. PU/MA/Engg./152/2009 Ref No. -CA/6501 Dated- 18/11/2009)

Approved by > AICTE, New Delhi (P.N. 06/07/MS-Engg/2008/D-17, Dated- 11th June 2009)

> Govt. of Maharashtra (No. GEC-2009/07/09/TE-4, Dated- 15th June 2009)

> D.T.E., M.S., Mumbai (No. 2/NGC/Engg./Aprone/2009/535, Dated- 23rd July 2009)

> AISHE CODE : C-42196



Dr. Ravindra G. Sapkal  
Chairman & Managing Director  
Kalyani Charitable Trusts

Dr. Sateesh R. Jagad  
HOD, Mechanical Engineering

Ref. No. KCTA.GNSCOE/USTT/2023-24/368

Date: 01.03.24

To,  
The Managing Director  
Kadwa Sahakar Sahakar Karkhana Ltd.  
Materewadi, Tal: Dindori,  
Maharashtra, 422202

Subject: Industrial Visit for the students of Second year and Final Year Mechanical Engineering to your industry.

Dear Sir,

We would like to introduce ourself as one of the emerging institute in Nashik District. We are affiliated to University of Pune and enter for Six Bachelor's degrees in Engineering, i.e., Bachelor in Civil Engineering, Computer Engineering, Electronics & Telecommunications, Mechanical Engineering, Artificial Intelligence (AI) and Data Science and Electrical Engineering.

According to the syllabus of the University of Pune, it is essential for our Second Year Mechanical Engineering students to gain practical knowledge of Fluid Flow and for our Final Year students to understand Cogeneration and undergo trials on Steam Power Plants. Therefore, we would greatly appreciate it if you could permit our students to visit your plant to gain practical insights into the unit and its related parameters.

We cordially request that you allow a date for the visit between 08/03/2024 to 16/03/2024, at your convenience. The total number of students will be 176, accompanied by 3 faculty members to ensure discipline and safety. We humbly request you to consider our proposal and grant permission for our students to visit your prestigious project.

Thank you for considering our request. We look forward to your favorable response.

Thanking you

Details of Visit Coordinator are as follows:

Name: Prof. P. D. Jadhav, Prof. M. M. Jadhav

Mobile No.: 9765821129, 9765821208

Sincerely,

Prof. Dr. T. A. Badigwar  
HOD, Mechanical Engineering



Dr. Sateesh R. Jagad  
Principal

सविच/03  
PI Permitted  
16 March  
DR

- \* CAMPUS: Sapkal Knowledge Hub, Kalyani Hill, Anjaneri, Nashik, (Dharmad-Var Road, Nashik - 422 213) Email: Tel: + 91-2584-220108/65970 | Mob: +91 9922253899 | Toll Free No: 1800 233 2999 | E-mail: gns\_engg@sapkalknowledgehub.org
- \* CORPORATE OFFICE: Sapkal Knowledge Hub, Parag 46, Ashwin Sector, Opp. Hotel Sai Palace, Mumbai-Agra Highway, Nashik - 422 008 Tel: +91-253-2382452/51 | E-mail: head.marketing@sapkalknowledgehub.org | Website: www.sapkalknowledgehub.org
- \* MUMBAI OFFICE: Sapkal Knowledge Hub, Unit No. 22, 1<sup>st</sup> Floor, Shubhash Tower Shopping Centre, Sai Poochkharnani Road, Andheri West, Office, Worli, Mumbai - 400 030. Tel: + 91-22-24038914 / 15 | E-mail: info@sapkalknowledgehub.org | Fax: sapkal@rediffmail.com



Kalyani Charitable Trust's  
**Late G. N. Sapkal College of Engineering**

Sapkal Knowledge Hub, Kalyani Hills, Anjaneri, Trimbakeshwar Road,  
Nashik - 422 212, Maharashtra State, India  
Tel: +91-2594-220168/71; Fax: +91-2594-220174  
Website: [www.sapkalknowledgehub.org](http://www.sapkalknowledgehub.org);  
E-mail: [gns\\_engineering@sapkalknowledgehub.com](mailto:gns_engineering@sapkalknowledgehub.com)



Date: 13 March 2024

To,

The Principal,  
Late G. N. Sapkal,  
College of Engineering, Anjaneri,  
Nashik

Subject: Permission to go for industrial visit with students of second and final year Mechanical Engineering

Respected Sir,

With reference to above subject we have planned industrial visit for the subject Fluid Mechanics and Energy Engineering in Kadawa Sahakari Sakhar Karkhana, Materewadi, Rajaram Nagar, Tal, Dindori, Dist. Nashik, they have given permission to visit in their organization for 1 day with a 176 number of students along with 2 staff members.

Kindly permit us to go for visit as per above mention schedule.

Thanking You,

Yours Faithfully,

*Permitted with all required formalities*

*[Signature]*  
13/03/2024

*[Signature]*  
(Prof. M. V. Jadhav)  
Visit Coordinator







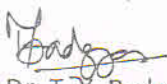
**Late G. N. Sapkal College of Engineering**  
**MECHANICAL ENGINEERING DEPARTMENT**  
**MOVEMENT ORDER**

Date: Wednesday, March 13, 2024

Name of Applicant :	1. Prof. (Dr.) T. Y. Badgujar 2. Prof. M. V. Jadhav
Designation:	1. Head of Department 2. Assistant Professor
Purpose of visit :	Industrial Visit at Kadwa Sahakari Sakhar Karkhana Ltd. Nashik
Duration of visit	01 Day
Is there any teaching assignment during this period	No Any
Address during leave period & Contact no.	Kadwa Sahakari Sakhar Karkhana Ltd.
Whether any financial assistance is required (Please state the requirements)	
Whether any stipend/ fees/ honorarium is being provided by the host institute Please enclose invitation/offer letter	NA
Any other requirements (please specify)	No Any -

SIGNATURE OF APPLICANT WITH DATE

RECOMMENDED/NON RECOMMENDED

  
Prof. Dr. T. Y. Badgujar  
Head,  
Mechanical Engineering Department



Late G. N. Sapkal College of Engineering

  
Prof. Dr. S. B. Bagal  
Principal





Kalyani Charitable Trust's  
**Sapkal Knowledge Hub**  
 Sapkal Knowledge hub, Kalyani Hills, Anjaneri, Wadholi,  
 Trimbakeshwar Road - 422 213  
 Phone: (02594) 220167 to 70, Fax: (02594) 220174

### Vehicle Requirement Note

Ref. No:-ois/req./veh/2015-16/02

Date: - 13/03/2024

To,  
 The Director,  
 KCT's Sapkal Knowledge Hub,  
 Nashik.

Dear Sir,

Request for vehicle requirement, Please provide the vehicle as per following details.

Journey:-

Date :- 16/03/2024	Time:- 09.00am
From :- New CBS	To :- Kadwa Sahakari Sakhar Karkhana Ltd

Return Journey:-

Date:- 16/03/2024	Time:-
From:- Kadwa Sahakari Sakhar Karkhana Ltd	To:- New CBS

Concern Staff :- Prof. (Dr.) T. Y. Badgujar, Prof. M. V. Jadhav  
 Contact Number :- 9765572008

Purpose:-

Industrial Visit at Kadwa Sahakari Sakhar Karkhana Ltd, Nashik

Type of Vehicle:-

Bus 54 Seater

☐

42 Seater

☐

40 Seater

☒

LMV :-

Winger

Scorpio

Tavera

Ford

13 Seater

☐
☐
☐
☐

Submitted for your approval.  
 Thanking You.

Section Head /HOD



Principal / Director



Sr. No.	Roll No.	Name of the student	Sign	Sr. No.	Roll No.	Name of the student	Sign	Sr. No.	Roll No.	Name of the student	Sign
1	ME21D4801	KUWAR KUSHKESH SANTOSH		19	ME21D4819	PATIL MANOH/CHIDAMANI		37	ME21D4837	TABLE DIVYADILIP	
2	ME21D4802	MAHALE ABHIJEET MURLIDHAR		20	ME21D4820	PATIL NILESH CHINABALLAL		38	ME21D4838	UPASANI MANOJ SUNIT	
3	ME21D4803	MODHE ATUL ARUN		21	ME21D4821	PATIL VASUDEV HARISH		39	ME21D4839	GISHI SIRADODHA RAJENDRA	
4	ME21D4804	MORE KUNAL VISHWAS		22	ME21D4822	PAWAR JEEVAN RAJU		40	ME21D4840	YAGAMA PUNEET MADAN	
5	ME21D4805	MORE RUCHIKA CHOTULAL		23	ME21D4823	PAWAR PRATIMESH SAMADHAN		41	ME21D4841	WARPE SANTOSH ANNASAHIB	
6	ME21D4806	MORE SHUBHAM VISAL		24	ME21D4824	PAWAR RAKESH PANDIT		42	ME21D4842	WAGH KALPESH NARENDRA	
7	ME21D4807	MUNGASE PRKASH VITHAL		25	ME21D4825	PAWAR RAJENDRA SHIVAJI		43	ME21D4843	WAGHETIADE SUREN RAJENDRA	
8	ME21D4808	NETE SHUBHINIL NISHOR		26	ME21D4826	PAYMODE SHUBHAM KAILAS		44	ME21D4844	WALTON AKSHAY BHANUSABH	
9	ME21D4809	NERE DIBURATATYABHARAJ		27	ME21D4827	QIRASHI TASAAYAR SADIQUE		45	ME21D4845	WARE SOMESH RAVIRANT	
10	ME21D4810	NERKAR BHAVESH JAGDISH	B.Sher	28	ME21D4828	SANDAS SHREYASH PRAVIN		46	ME21D4846	VADAY OM SAKURAO	
11	ME21D4811	NERKAR MAYUR BHARAT		29	ME21D4829	SARODE LOBHAS VIJAY		47	ME21D4847	YEOLE KOLHTRAJENDRA	
12	ME21D4812	PABALKAR PRANAV MADHUKAR		30	ME21D4830	SASWADE ONKAR DNYANESHWAR	Sher	48	ME21D4848	PARDHI AMARNATH EESAVHI	
13	ME21D4813	PATIL CHITAN ANANDRAO		31	ME21D4831	SHINDE ABHISHEK SANJAY		49	ME21D4849	PAWAR DEVDODHA CHAITAN	
14	ME21D4814	PATIL DASHANJUNIMATRAY		32	ME21D4832	SHINDE KOTILKSHALOKESH		50	ME21D4850	PAWAR NILESH ASHOK	
15	ME21D4815	PATIL DINKISH GOVIND		33	ME21D4833	SHIRSAT VISHAL GOPIRAME		51	ME21D4851	SHANKI MOJIB MEHMOOD	
16	ME21D4816	PATIL KALPESH DIPAN		34	ME21D4834	SOMAYANE MORTYU RAJENDRA		52	ME21D4852	MAHAJAN ANAND CHANDRASHENHAR	
17	ME21D4817	PATIL KALSHITAL MANOHAR		35	ME21D4835	SORE KRISHNESH SANJAY		53	ME21D4853	SOMAWANE SWAPNIL MADHUKAR	
18	ME21D4818	PATIL KISHAY BHANUSABH		36	ME21D4836	SURVAVANSHI ABHIVASHI RAJENDRA		54	ME21D4854	WADKAR HARSHAD SURESH	
								55	ME21D4855	PATIL LALIT BHIMAN	



St. No.	Roll No.	Name of the student	Sign	St. No.	Roll No.	Name of the student	Sign	St. No.	Roll No.	Name of the student	Sign
1	ME21D4B01	KUWAR RUSIKESH SANTOSHI		19	ME21D4B19	PATIL MANO CHIDAMAN		37	ME21D4B37	PATIL DIVYA DHUL	
2	ME21D4B02	NATALE ABHJEET MURLIDHAR		20	ME21D4B20	PATIL NIL ESH CHHABIBAL		38	ME21D4B38	UPASANI MANJUL SONIL	
3	ME21D4B03	MODHE ATUL AKUN		21	ME21D4B21	PATIL VASUDH HANISH		39	ME21D4B39	USHIR SHRADHA RAJENDRA	
4	ME21D4B04	MORE KUNAL VISHWAS		22	ME21D4B22	PAWAR JEYAN RAJU		40	ME21D4B40	YARMA PUNEET MADAN	
5	ME21D4B05	MORE KUTCHIKA CHOTULAL		23	ME21D4B23	PAWAR PRATHMESH SAMADHAN		41	ME21D4B41	YARDE SANTOSH ANNASHIB	
6	ME21D4B06	MORE SHUBHAM VISHAL		24	ME21D4B24	PAWAR RAKESH PANDIT		42	ME21D4B42	WAGH KALPESH NARENDRA	
7	ME21D4B07	MUNGASE PRACASH VITHAL		25	ME21D4B25	PAWAR RAJENDRA SHIVAJI		43	ME21D4B43	WAGHJIVARE SURAJ RAJENDRA	
8	ME21D4B08	NEHE SHUBHIL KISHOR		26	ME21D4B26	PATNODE SHUBHAM KAILAS		44	ME21D4B44	WALUNI AISHVAY BHASMADEB	
9	ME21D4B09	NEKE DHIRAJ TATYABHAU		27	ME21D4B27	OURAISH TASA VAVAR SADIQUE		45	ME21D4B45	WAKE SOMESH KAVISANT	
10	ME21D4B10	NEKAR BHAVESH JAGDISH		28	ME21D4B28	SARDA SHREYASH PRAVIN		46	ME21D4B46	YADAV OM SARABAO	
11	ME21D4B11	NEKAR MAYUR BHARAT		29	ME21D4B29	SANODE LOKESH VIDAY		47	ME21D4B47	YEOLE ROHIT RAJENDRA	
12	ME21D4B12	PABALEKAR PRANAV MADHUKAR		30	ME21D4B30	SASWADE ONKAR DNYANESHVAR		48	ME21D4B48	PARDHI ANARANTH HERNATH	
13	ME21D4B13	PATIL CHETAN ANANDRAO		31	ME21D4B31	SHINDE ADHESH K. SANJAY		49	ME21D4B49	PAWAR DEVENDRA CHAITRAN	
14	ME21D4B14	PATIL DAKSHIN HIMANTRAO		32	ME21D4B32	SHINDE KOLANSHIL KIRAN		50	ME21D4B50	PAWAR NILESH ASHOK	
15	ME21D4B15	PATIL DINESH GOVIND		33	ME21D4B33	SHERSAT VISHAL GOVIND		51	ME21D4B51	SHANKI MOON ABHINAV	
16	ME21D4B16	PATIL KALPESH DIPAK		34	ME21D4B34	SONAVANE MONTU RAJENDRA		52	ME21D4B52	SOLANAY AKASH CHANDRASHESHWAR	
17	ME21D4B17	PATIL KATISHA MANOHAR				SANE HIRSHIKESH SANJAY		53	ME21D4B53	SONAVANE SWAPNIL MADHUKAR	
18	ME21D4B18	PATIL KESINAV BHASASHEB				SARAVANESH ABHYASHI HANIRMA		54	ME21D4B54	WADKAR HARSHAD SURESH	
								55	ME21D4B55	PATIL JAY IT HIRAN	



Email : kadwasakar@yahoo.com

Email : kadwasugar@gmail.com

GST NO. 27AAAK1052F1Z4

Office : (02557) 237181 to 237184

Fax : (02557) 237185

Regd. No. NSK/PRG (A) (3) (S) Dated : 15/10/1970



**THE KADWA SAHAKARI SAKHAR KARKHANA LTD., MATEREWADI**

Rajaramnagar, Tal. Dindori, Dist. Nashik. (Maharashtra) Pin - 422 209

**कादवा सहकारी साखर कारखाना लि., मातेरेवाडी,**

राजारामनगर, ता. दिंडोरी, जि. नाशिक. (महाराष्ट्र - ४२२ २०९)

Ref/Admin/4560/2023-24

Date: 08/03/2024

To,  
The Principal,  
Late G. N. Sapkal COE,  
Nasik.

Subject: Regarding Permission of visit for students of Second and final year Mechanical Engineering...

Dear Sir,

As per your letter of Ref. No. KCT/LGNSCOE/ESTT/2023-24/368; Dated: 01/03/2024, we would like to inform you that your second and final year Mechanical Students visit to our Kadwa Sugar Factory to gain the Practical knowledge of Fluid Flow, Boiler and thermal power plant (Cogeneration) will be permitted on Saturday, 16 March 2024.

Yours Truly,

*(Signature)*

Managing Director  
Kadwa S.S.K.Ltd, Materewadi  
Tal. Dindori, Dist. Nashik

Kadwa Sahakari Sakhar Karkhana Ltd.  
Materewadi, Rajaram Nagar,  
Tal, Dindori, Maharashtra 422202



Tal, Dindori, Maharashtra 422202