



S J P N Trust's

Hirasugar Institute of Technology, Nidasoshi*Inculcating Values, Promoting Prosperity*

Approved by AICTE, New Delhi, Permanently Affiliated to VTU Belagavi.

Recognized under 2(f) & 12 B of UGC Act, 1956

Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE, ECE

Mech. Engg. Dept.

AIMSS

Activity Report

AY:2023-24

Activity Report

| S.No. | Title of the information | Information in brief | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---------------------|-----------------------------|--------------------|---------------------|-----|---|------|-------|-----|---|------|-------|-----|---|------|-------|-----|---|------|-------|
| 1 | Identified Gap No/s.: | 20 | | | | | | | | | | | | | | | | | | | | |
| 2 | Activity Type: | Industry Visit | | | | | | | | | | | | | | | | | | | | |
| 3 | Activity/Event Organizer/s or Coordinator/s: | Dr. S. N. Topannavar, Professor and HOD, Mechanical Engineering Department, HIT Nidasoshi | | | | | | | | | | | | | | | | | | | | |
| 4 | Title of the Activity/Event: | Industry Visit at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka | | | | | | | | | | | | | | | | | | | | |
| 5 | Date: | 23-03-2024 | | | | | | | | | | | | | | | | | | | | |
| 6 | Venue: | Dharwad- Karnataka | | | | | | | | | | | | | | | | | | | | |
| 7 | Objectives: | <ol style="list-style-type: none"> To understand the working principles of excavator. To understand types of excavator. To understand design consideration of accessories. To understand the application and maintenance of excavator. To understand the assembly and application of excavator. | | | | | | | | | | | | | | | | | | | | |
| 8 | Activity Outcomes: | <ol style="list-style-type: none"> Structural design for supporting excavations is required to safely construct foundations, deep basements, utilities, shafts, and tunnels. Excavators system is powered by a hydraulic pump, which generates the hydraulic pressure required to operate the hydraulic cylinders. Excavators are popular earthmoving vehicles that feature a bucket, arm, rotating cab and movable tracks. These components provide superior digging power and mobility, allowing this heavy equipment to perform a variety of functions, from digging trenches and breaking holes to lifting away waste and excavating mines. Many of today's excavator attachments feature advanced sensors that provide data regarding soil conditions, the position of the attachment, and potential hazards. In an excavator, several key components require regular maintenance to ensure smooth and efficient operation: Engine: The engine is the powerhouse of the excavator. Regular maintenance of the engine includes oil and filter changes, fuel system inspections, and monitoring coolant levels. | | | | | | | | | | | | | | | | | | | | |
| 9 | Details of Resource Person/s with contact details: | Mr. Mukesh Choudhary, Customer Quality Assurance & Quality Planning Engineer, TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka | | | | | | | | | | | | | | | | | | | | |
| 10 | Finance Management: | Expenses, incurred by the Department Association (AIMSS) | | | | | | | | | | | | | | | | | | | | |
| 11 | No. of participants | Students: Boys: 21 & Staff: 02 | | | | | | | | | | | | | | | | | | | | |
| 12 | Mapped POs, Weight-age assigned & %age of attainment: PO (Weight-age) | <table border="1"> <thead> <tr> <th>PO mapped</th> <th>Weight-age assigned (1/2/3)</th> <th>%age of Attainment</th> <th>Level of attainment</th> </tr> </thead> <tbody> <tr> <td>PO1</td> <td>3</td> <td>99.5</td> <td>2.985</td> </tr> <tr> <td>PO2</td> <td>3</td> <td>99.5</td> <td>2.985</td> </tr> <tr> <td>PO3</td> <td>3</td> <td>99.5</td> <td>2.985</td> </tr> <tr> <td>PO4</td> <td>3</td> <td>99.5</td> <td>2.985</td> </tr> </tbody> </table> | PO mapped | Weight-age assigned (1/2/3) | %age of Attainment | Level of attainment | PO1 | 3 | 99.5 | 2.985 | PO2 | 3 | 99.5 | 2.985 | PO3 | 3 | 99.5 | 2.985 | PO4 | 3 | 99.5 | 2.985 |
| PO mapped | Weight-age assigned (1/2/3) | %age of Attainment | Level of attainment | | | | | | | | | | | | | | | | | | | |
| PO1 | 3 | 99.5 | 2.985 | | | | | | | | | | | | | | | | | | | |
| PO2 | 3 | 99.5 | 2.985 | | | | | | | | | | | | | | | | | | | |
| PO3 | 3 | 99.5 | 2.985 | | | | | | | | | | | | | | | | | | | |
| PO4 | 3 | 99.5 | 2.985 | | | | | | | | | | | | | | | | | | | |



| | | | | | |
|----|---|--|-----------------------------|--------------------|---------------------|
| | | PO5 | 3 | 99.5 | 2.985 |
| | | PO6 | 3 | 99.5 | 2.985 |
| | | PO7 | 3 | 99.5 | 2.985 |
| | | PO8 | 3 | 99.5 | 2.985 |
| | | PO9 | 3 | 99.5 | 2.985 |
| | | PO10 | 3 | 99.5 | 2.985 |
| | | PO11 | 3 | 99.5 | 2.985 |
| | | PO12 | 3 | 99.5 | 2.985 |
| 13 | Mapped PSOs, Weight-age assigned & %age of attainment: PSO (Weight-age) | PSO mapped | Weight-age assigned (1/2/3) | %age of Attainment | Level of attainment |
| | | PSO1 | 3 | 99.5 | 2.985 |
| | | PSO2 | 3 | 99.5 | 2.985 |
| | | PSO3 | 3 | 99.5 | 2.985 |
| 14 | Outcomes achieved/Impact analysis: | 1. The activity mapped with PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, and PO11 & PO12 was found satisfactory with an attainment level of 2.985 each against the Mapped values during the impact analysis. | | | |
| | | 2. The activity mapped with PSO1, PSO2 & PSO3 was found satisfactory with an attainment level of 2.985 each against the Mapped value during the impact analysis. | | | |

Photo Gallery



Plant engineer briefing the about industry to the students at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka held on 23rd March 2024.



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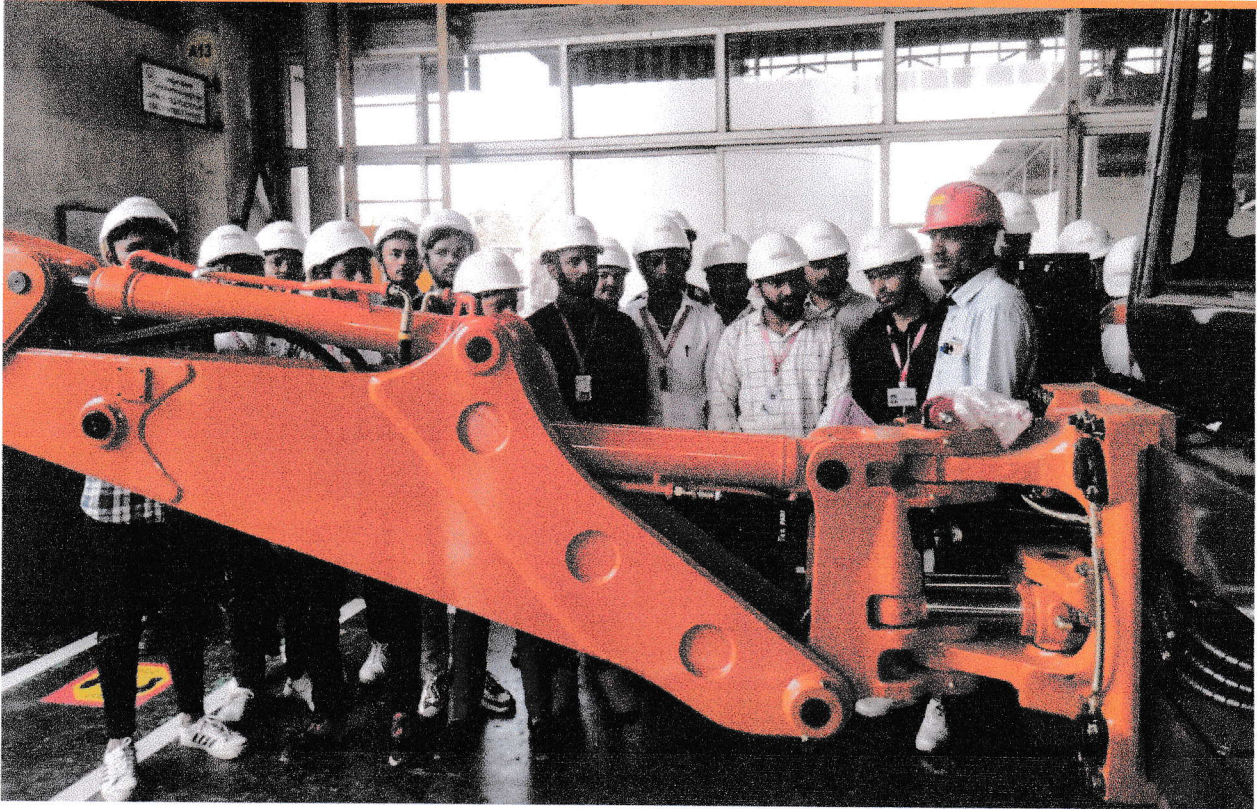
Accredited at 'A' Grade by NAAC & Programmes Accredited by NBA: CSE, ECE

Mech. Engg. Dept.

AIMSS

Activity Report

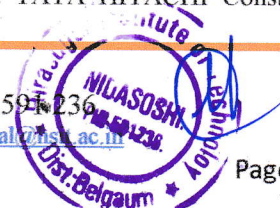
AY:2023-24



Plant Technician is explaining working of excavator to students at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka held on 23rd March 2024.



Group photo of students and staff in the industry campus during industry visit at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka held on 23rd March 2024.





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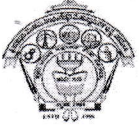


Staff and students attended an industry visit at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka held on 23rd March 2024.

Mr. Akash R. Anajepatil
AIMSS Secretary

Dr. M. M. Shivashimpi & Prof. D. N. Inamdar
AIMSS-Coordinator/s

Dr. S. N. Topannavar
HOD
Mechanical Engg.
HIT, Nidasoshi



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Activities

AY:2023-24

Activity Brochure

Activity: "Industrial Visit"

| | | |
|---|---|--|
| Date-Time & Venue: | 23 rd March 2024- 03:00 PM @ TATA HITACHI Construction Machinery Company Private Limited. Dharwad- Karnataka | |
| Participants: | Mandatory for VIII semester students. | |
| Event Designer | 1. Dr. M. M. Shivashimpi, Associate Professor, Mechanical Engineering Department, Hirasugar Institute of Technology, Nidasoshi 2. Prof. M.A. Hipparagi, Assistant Professor, Mechanical Engineering Department, Hirasugar Institute of Technology, Nidasoshi | |
| Prior permission & Certificate | 1. Industrial visit permission letter 2. Head of the institute and HOD 3. Parents undertaking letter 4. Physical fitness certificate | |
| Prerequisite | 1. Mechanics of Materials 2. Material Science 3. Fluid Mechanics 4. Fluid Mechanics 5. Kinematics of Machines 6. Design of Machine Elements 7. Dynamic of Machines 8. Fluid Power Engineering 9. Control Engineering | |
| Objectives: | 1. To under the working principles of excavator. 2. To understand types of excavator. 3. To understand design consideration of accessories. 4. To understand the application of excavator. 5. To understand the assembly and application of excavator. | |
| Program Outcomes: (POs)-Attainment Weight age (Low as1-High as 3): | PO1: Engineering knowledge-3 ,PO2: Problem analysis -3 PO3: Design/development of solutions-3, PO4: Conduct investigations of complex problems-3, PO5: Modern tool usage-3, PO6:The engineer and society-3 ,PO7:Environment and sustainability-3, PO8:Ethics -3 PO9:Individual & Team work -3, PO10:Communication-3 PO11:Project Management & Finance-3, PO12: Lifelong Learning-3 | |
| Program Specific Outcomes: (PSOs)-Attainment Weightage (Low as1-High as 3): | PSO1: 03 PSO1: 03 PSO1: 03 | |
| Organized by AIMSS-Activity Coordination | 1. Dr. S. N. Topannavar 2. Dr. K. M. Akkoli 3. Dr. M. M. Shivasimpi 4. Prof. D. N. Inamdar 5. Prof. S.A. Goudadi 6. Prof. M. A. Hipparagi | 7. Prof. M.S. Futane 8. Prof. G.M. Zulapi 9. Prof. P. M. Kokatkar 10. Prof. N.T. Kamar 11. STTs (Students) |

Mr. Akash R. Anajapatil
AIMSS Secretary

Dr. M. M. Shivashimpi & Prof. D. N. Inamdar
AIMSS-Coordinator/s

Dr. S. N. Topannavar
HOD



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Industrial Visit

Permission Letter

Even Semester

AY:2023-24

Date: 18-03-2024

To,

Mr. Mukesh Choudhary,

Customer Quality Assurance & Quality Planning

TATA HITACHI Construction Machinery Company Private Limited.

Dharwad- Karnataka.

Dear Sir,

Sub: Seeking permission for Industrial Visit to TATA HITACHI Dharwad- Karnataka.

With reference to the above we, at the very outset, introduce ourselves.

Ours is a technical institution offering four years B E Degree Courses in the disciplines of CS&E, E&EE, E&CE, ME and MTech in Mechanical Engg. Dept... We are successfully moving ahead in 22nd year of existence in providing quality and affordable technical education to the needy masses of this region.

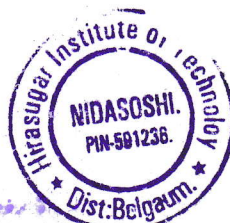
As a part of VTU curriculum the students are expected to visit some reputed industries in the field of their study to get an insight into practical aspects of engineering. So now, our VIII Semester B E (Mech) students are very much interested to visit your esteemed organization. Hence, we seek your kind permission for a team of 21 numbers of students and 03 numbers of faculties to visit your organization on 23rd March 2024.

With best personal regards and thanks.

Dr. S. N. Topannavar
18/03/24

Dr. S. N. Topannavar

HOD
Mechanical Engg.
HIT, Nidasoshi



Nidasoshi, Taq: Hukkeri, Dist: Belgaum, Karnataka - 591 236

Phone:+91-8333-278887. Fax:278886. Web:www.hsit.ac.in Mail:brincipal@hsit.ac.in

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Mech. Engg. Dept.

Industrial Visit

Permission Letter

Even Semester
AY:2023-24

Date: 18-03-2024

To,
The Principal,
HSIT, Nidasoshi.

FWD Through: HOD, Mechanical Engineering Department.

Respected Sir,

Subject: Seeking permission and bus facility for attending the industrial visit on 23rd March 2024-Reg.

We the students of 8th Semester Mechanical Engineering Department are interested to visit the industry at TATA HITACHI Construction Machinery Company Private Limited. Dharwad- Karnataka on 23rd March 2024. So we kindly request you to permit us to attend the industrial visit with providing the college bus on 23rd March 2024 at 10.00am. We enclosed the duly signed list of students & staff and industry e- permission letter.

We hope you will do the needful.

Thanking you sir,

Yours faithfully

Mr. Nitish Bani
Student Coordinator

Place: Nidasoshi

Date: 18-03-2024



*Permitted for
needful action*
Chop
18/3/24.

HOD
Mechanical Engg.
HIT, Nidasoshi

Permitted
✓
18/3/24



Mahesh Hipparagi <maheshhipparagi.mech@hsit.ac.in>

FW: Approv44al for industrial visit

2 messages

Choudhary, Narayan Mukesh (THCM) <Mukesh.Choudhary@tatahitachi.co.in>

Sat, Mar 16, 2024 at
8:50 AM

To: Mahesh Hipparagi <maheshhipparagi.mech@hsit.ac.in>

Cc: "Ugrankar, Santosh (THCM)" <SANTOSH.UGRANKAR@tatahitachi.co.in>, "Mail, Security (THCM)" <mailsecurity@tatahitachi.co.in>, "Monikut, Sharma (THCM)" <monikut.sharma@tatahitachi.co.in>, "Dayama, Piyush (THCM)" <Piyush.Dayama@tatahitachi.co.in>

Dear Sir,

Please go through the below instruction.

You can plan half day plant tour on 23rd along with your team.

I will be out of Dharwad next week.

You can co-ordinate with Mr. Santosh (9972406937)

Thanks & Regards

Mukesh Choudhary | Customer Quality Assurance & Quality Planning

TATA HITACHI Construction Machinery Company Private Limited.

Dharwad- Karnataka.

Mobile: +91 6366356660 / 7903578107.



From: Ugrankar, Santosh (THCM) <SANTOSH.UGRANKAR@TATAHITACHI.CO.IN>

Sent: Friday, March 15, 2024 6:29 PM

To: Choudhary, Narayan Mukesh (THCM) <Mukesh.Choudhary@Tatahitachi.co.in>

Cc: Monikut, Sharma (THCM) <monikut.sharma@tatahitachi.co.in>; Dayama, Piyush (THCM) <Piyush.Dayama@tatahitachi.co.in>

Subject: Re: Approv44al for industrial visit

Dear Mukesh San

As discussed we confirm the plant visit on 23rd March 2024 for the students of Hirasugar Institute of Technology. They can visit the plant in 2nd Half (reporting time 03:00pm)

Please request the concerned college representative to send us a formal request letter, along with the list of visiting students & facility members for keeping their gate pass ready.

Please note that no kids will be allowed during the visit.

| Time | Activity | Instructions |
|---------|---|--|
| 3:00 PM | Arrival at Main Gate - Proceed to Skill Training Center | Students must wear college uniform and closed shoes & Carry College ID Cards (Request them to follow this instructions strictly) |
| 3:15 PM | Introduction Session | Welcome address by HR |
| | | Presentation on Company Overview - by company representative |
| 3:30 PM | Guided Plant Tour | Brief about the Shop Floor Visit and they will proceed for tour to shop floors |
| | | The students need to wear helmets, closed shoes. |
| 4:30 PM | Return to Skill Training Centre | Students will gather back to Skill Training Center - Have Tea & Biscuits |
| 4:45 PM | Feedback and Conclusion | Feed Back and conclusion |



Regards

Santosh U

From: Choudhary, Narayan Mukesh (THCM) <Mukesh.Choudhary@Tatahitachi.co.in>
Sent: 12 March 2024 15:34
To: Ugrankar, Santosh (THCM) <SANTOSH.UGRANKAR@TATAHITACHI.CO.IN>
Cc: Monikut, Sharma (THCM) <monikut.sharma@tatahitachi.co.in>
Subject: Approval for industrial visit

Dear Santosh Ji.

Hirasugar Institute of Technology , Nidasosi (Belgavi) wants industrial visit as per University Curriculum for one day / Half day at THCM.

Total no of students -21 along with 3 teachers.

Kindly allow them.

Preferred date between 18th to 23rd Mar'24.

Thanks & Regards

Mukesh Choudhary | Customer Quality Assurance & Quality Planning

TATA HITACHI Construction Machinery Company Private Limited.

Dharwad- Karnataka.

Mobile: +91 6366356660 / 7903578107.

Mahesh Hipparagi <maheshhipparagi.mech@hsit.ac.in>

Mon, Mar 18, 2024 at 1:27 PM

To: "Choudhary, Narayan Mukesh (THCM)" <Mukesh.Choudhary@tatahitachi.co.in>

Dear sir,

As per our telephonic talk , I am sending this request letter along with a student list to attend the industrial visit in esteemed organization on 23rd March 2024. Kindly find the attached letter and student list.

Thanking you sir,

With Regards
Prof. M A Hipparagi



Asst.Prof.
Institute News Coordinator/ Dept. Alumni Coordinator
MED HIT Nidasoshi
Mob: 7411507405

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 **Permission request letter and student list.pdf**
781K



Mahesh Hipparagi <maheshhipparagi.mech@hsit.ac.in>

Seeking Permission for Industrial visit

2 messages

Mahesh Hipparagi <maheshhipparagi.mech@hsit.ac.in>

Mon, Mar 18, 2024 at 2:24 PM

To: SANTOSH.UGRANKAR@tatahitachi.co.in, monikut.sharma@tatahitachi.co.in

Dear Santosh sir,

As per our telephonic talk to Mr. Mukesh Choudry sir , I am sending this request letter along with a student list to attend the industrial visit in esteemed organization on 23rd March 2024. Kindly find the attached letter and student list.

Thanking you sir,

With Regards

Prof. M A Hipparagi

Asst.Prof.

Institute News Coordinator/ Dept. Alumni Coordinator

MED HIT Nidasoshi

Mob: 7411507405

 Permission request letter and student list.pdf
781K

Ugrankar, Santosh (THCM) <SANTOSH.UGRANKAR@tatahitachi.co.in>

Fri, Mar 22, 2024 at 4:50 PM

To: Mahesh Hipparagi <maheshhipparagi.mech@hsit.ac.in>

Cc: "Monikut, Sharma (THCM)" <monikut.sharma@tatahitachi.co.in>

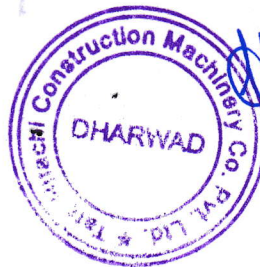
Dear Sir

You can Plan accordingly as mentioned in the mail and report to Tata Hitachi Plant by 03:00 pm.

Regards,

Santosh U.


[Quoted text hidden]



The following 8th semester students and three staff members are visiting industry [TATA HITACHI-DWD] on 23rd march 2024.

| | | | |
|-----|-------------|--------------------------|---------------------|
| 01. | 2HN20ME001 | Akash. R. Patil | <u>AP</u> |
| 02. | 2HN20ME002 | Basavaraj. G. Kambar, | <u>BK</u> |
| 03. | 2HN20ME003 | Atharv. S. Gondhali. | <u>AG</u> |
| 04. | 2HN20ME004 | Koushik. G. Shivakali. | <u>K. Shivakali</u> |
| 05. | 2HN20ME005 | pranod B. Ammanagi. | <u>P. Amgi</u> |
| 06. | 2HN20ME006. | sangamesh. k. surappaou. | <u>SK</u> |
| 07. | 2HN20ME007 | Yogesh. R. Donawade | <u>YR</u> |
| 08. | 2HN21ME400. | Abdulrahim. Khazi. | <u>AK</u> |
| 09. | 2HN21ME401 | Akasha. A. Badiger. | <u>AB</u> |
| 10. | 2HN21ME402 | Akash. P. madhalli | <u>AP</u> |
| 11. | 2HN21ME403 | Akshay. chebbi | <u>AK</u> |
| 12. | 2HN21ME404 | Malikjon. M. Mujawar. | <u>MM</u> |
| 13. | 2HN21ME405 | nitesh. R. Bani. | <u>NR</u> |
| 14. | 2HN21ME406. | Rohel. D. Mangsui | <u>RD</u> |
| 15. | 2HN21ME407. | Rohel vandeshwar. | <u>RV</u> |
| 16. | 2HN21ME408. | sachin. S. Patjari | <u>SP</u> |
| 17. | 2HN21ME409 | shivaprabhu. M. Paturota | <u>SP</u> |
| 18. | 2HN21ME410. | shivaraj. B. nilakanth. | <u>SN</u> |
| 19. | 2HN21ME411 | shrinath. G. Soji. | <u>SS</u> |
| 20. | 2HN21ME412 | yash. mane | <u>YM</u> |
| 21. | 2HN21ME413. | omkar. V. Patil. | <u>OP</u> |

- ① Dr. M. M. Shivarshimpi - MS 18/03/24
- ② Prof. M. A. Hippavagi - HA
- ③ Prof. M. S. Futane - MS


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Mech.Engg.Dept

ACADEMIC

STUDENT LIST

2023-24 (OddSem)

Student List

Sem:VIII

Total: 21 Students

| R.No | STUDENT NAME | USN | Contact No. | e-mail ID |
|------|------------------------|------------|---------------|--------------------------------|
| 1 | AKASH RAJU PATIL | 2HN20ME001 | 8970358852/62 | arp8970@gmail.com |
| 2 | BASAVARAJ G KAMBAR | 2HN20ME002 | 9945063960 | prajwalkambar895@gmail.com |
| 3 | GONDHALI A SHANKAR | 2HN20ME003 | 7498194119 | atharvgondhali956@gmail.com |
| 4 | KAUSHIK SHIVAKALE | 2HN20ME004 | 8762936555 | kgshivakale@gmail.com |
| 5 | PRAMOD B AMMANAGI | 2HN20ME005 | 8904703863 | pramodammanagi@gmail.com |
| 6 | SANGAMESH K SURAPPAGOL | 2HN20ME006 | 9902826925 | sangmeshsurapagol@gmail.com |
| 7 | YOGESH R DHANWADE | 2HN20ME007 | 9663276591 | yogeshdhanawade18@gmail.com |
| 8 | ABDULRAHIM B KAZI | 2HN21ME400 | 9964405656 | abdulrahimkazi7@gmail.com |
| 9 | AKASH ASHOK BADIGER | 2HN21ME401 | 9591304521 | akashabadiger1234@gmail.com |
| 10 | AKASH P MADIHALLI | 2HN21ME402 | 6360192823 | akashmadihalli1234@gmail.com |
| 11 | AKSHAY MAHADEV CHABBI | 2HN21ME403 | 6363959820 | akshaymchabbi2472@gmail.com |
| 12 | MALIKJAN MUJAWAR | 2HN21ME404 | 7676164379 | malikjanmujawar0@gmail.com |
| 13 | NITISH RAVINDRA BANI | 2HN21ME405 | 9901851203 | baninitishr7979@gmail.com |
| 14 | RAHUL D MANGASULI | 2HN21ME406 | 9606379556 | rahulmangasuli705@gmail.com |
| 15 | RAHUL M NANDESHWAR | 2HN21ME407 | 9620698438 | rahulnadnishwar1147@gmail.com |
| 16 | SACHIN S PUJERI | 2HN21ME408 | 7337825438 | pujerisachn11@gmail.com |
| 17 | SHIVAPRABHU PATROT | 2HN21ME409 | 7760183609 | shivupatrot8808@gmail.com |
| 18 | SHIVARAJ B NEELAKANTH | 2HN21ME410 | 6361702459 | hivarajneelkanth7804@gmail.com |
| 19 | SHRINATH G SOOJI | 2HN21ME411 | 8310456559 | shrinathsooji139@gmail.com |
| 20 | YASH RAMESH MANE | 2HN21ME412 | 8938251751 | yesmane02021999@gmail.com |
| 21 | OMKAR PATIL | 2HN21ME413 | 9538787566 | omkarvpatil@gmail.com |

Staff Members:

1. Dr. M.M Shivashimpi
2. Prof. M.A. Hipparagi

Mechanical Engg
HIT, Nidasoshi



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Hirasugar Institute of Technology, Nidasoshi
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Industrial Visit

Physical Fitness
Certificate

2023-24 (Even Sem)

Physical Fitness Certificate

This is certified that, the following students are physical fit to attend the Industry Visit at TATA HITACHI Construction Machinery Company Private Limited, Dharwad- Karnataka on 23rd March 2024.

Semester: VIII

| R.No | STUDENT NAME | USN | Remarks |
|------|------------------------|------------|---------|
| 1 | AKASH RAJU PATIL | 2HN20ME001 | |
| 2 | BASAVARAJ G KAMBAR | 2HN20ME002 | |
| 3 | GONDHALI A SHANKAR | 2HN20ME003 | |
| 4 | KAUSHIK SHIVAKALE | 2HN20ME004 | |
| 5 | PRAMOD B AMMANAGI | 2HN20ME005 | |
| 6 | SANGAMESH K SURAPPAGOL | 2HN20ME006 | |
| 7 | YOGESH R DHANWADE | 2HN20ME007 | |
| 8 | ABDULRAHIM B KAZI | 2HN21ME400 | |
| 9 | AKASH ASHOK BADIGER | 2HN21ME401 | |
| 10 | AKASH P MADIHALLI | 2HN21ME402 | |
| 11 | AKSHAY MAHADEV CHABBI | 2HN21ME403 | |
| 12 | MALIKJAN MUJAWAR | 2HN21ME404 | |
| 13 | NITISH RAVINDRA BANI | 2HN21ME405 | |
| 14 | RAHUL D MANGASULI | 2HN21ME406 | |
| 15 | RAHUL M NANDESHWAR | 2HN21ME407 | |
| 16 | SACHIN S PUJERI | 2HN21ME408 | |
| 17 | SHIVAPRABHU PATROT | 2HN21ME409 | |
| 18 | SHIVARAJ B NEELAKANTH | 2HN21ME410 | |
| 19 | SHRINATH G SOOJI | 2HN21ME411 | |
| 20 | YASH RAMESH MANE | 2HN21ME412 | |
| 21 | OMKAR PATIL | 2HN21ME413 | |

H. O.
S. J. P. N. Trust's Department
Nidasoshi
[Signature]

UNDERTAKING

I the undersigned Mr/Ms Rahul D Mangasuli.....studying in 8th Semester, Mechanical Engineering Branch of Hirasugar Institute of Technology, Nidasoshi, interested to participate in industry Visit of TATA HITACHI Construction Machinery Company Private Limited, Dharwad, Karnataka on 23rd March 2024. I will obey the respective rules, regulations of the Institute and company and spot instructions given by the concerned authority during the visit without fail. I have undergone Medical checkup and fit to participate in Industry Visit. If anything happens wrong with me during the journey, I only responsible. The institute or the faculty of the institute is not responsible for any kind of damage or accidents or uneven things happen with me. I will not claim any kind of damages from institute. I have taken prior permission from my parents to participate in the above said event.

| | | | |
|--------------------|--|-----------------|-------------|
| Name: | Rahul D mangasuli | USN: | 2HN21ME406 |
| Mob. No: | 9606379556 | Parent Mob. No: | 97090379556 |
| Permanent Address: | Kamadanu gate. At/ Kamadanu Tq:- Hukkeri Pin 591340 Dist:- Belagavi | | |

 19/03/24,
Students Signature with Date

UNDERTAKING

I the undersigned Mr/Ms Akash P. Madhalli.....studying in VIIth Semester, Mechanical Engineering Branch of Hirasugar Institute of Technology, Nidasoshi, interested to participate in industry Visit of TATA HITACHI Construction Machinery Company Private Limited, Dharwad, Karnataka on 23rd March 2024. I will obey the respective rules, regulations of the Institute and company and spot instructions given by the concerned authority during the visit without fail. I have undergone Medical checkup and fit to participate in Industry Visit. If anything happens wrong with me during the journey, I only responsible. The institute or the faculty of the institute is not responsible for any kind of damage or accidents or uneven things happen with me. I will not claim any kind of damages from institute. I have taken prior permission from my parents to participate in the above said event.

| | | | |
|--------------------|---|-----------------|------------|
| Name: | Akash P. Madhalli | USN: | 2HN21ME402 |
| Mob. No: | 6360192823 | Parent Mob. No: | 9481558279 |
| Permanent Address: | A/P: Nidasoshi Gate Tq: Hukkeri Dist:- Belagavi P.n:-591236 | | |

 19/03/2024
Students Signature with Date



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Mech.Engg.Dept

Industrial Visit

Attendance

2023-24 (Even Sem)

Attendance

Event: Industry Visit at TATA HITACHI Construction Machinery Company Private Limited, Dharwad- Karnataka on 23rd March 2024

Semester: VIII

| R.No | STUDENT NAME | USN | Contact No. | Sinature | Remarks |
|------|------------------------|------------|---------------|----------|---------|
| 1 | AKASH RAJU PATIL | 2HN20ME001 | 8970358852/62 | | |
| 2 | BASAVARAJ G KAMBAR | 2HN20ME002 | 9945063960 | | |
| 3 | GONDHALI A SHANKAR | 2HN20ME003 | 7498194119 | | |
| 4 | KAUSHIK SHIVAKALE | 2HN20ME004 | 8762936555 | | |
| 5 | PRAMOD B AMMANAGI | 2HN20ME005 | 8904703863 | | |
| 6 | SANGAMESH K SURAPPAGOL | 2HN20ME006 | 9902826925 | | |
| 7 | YOGESH R DHANWADE | 2HN20ME007 | 9663276591 | | |
| 8 | ABDULRAHIM B KAZI | 2HN21ME400 | 9964405656 | | |
| 9 | AKASH ASHOK BADIGER | 2HN21ME401 | 9591304521 | | |
| 10 | AKASH P MADIHALLI | 2HN21ME402 | 6360192823 | | |
| 11 | AKSHAY MAHADEV CHABBI | 2HN21ME403 | 6363959820 | | |
| 12 | MALIKJAN MUJAWAR | 2HN21ME404 | 7676164379 | | |
| 13 | NITISH RAVINDRA BANI | 2HN21ME405 | 9901851203 | | |
| 14 | RAHUL D MANGASULI | 2HN21ME406 | 9606379556 | | |
| 15 | RAHUL M NANDESHWAR | 2HN21ME407 | 9620698438 | | |
| 16 | SACHIN S PUJERI | 2HN21ME408 | 7337825438 | | |
| 17 | SHIVAPRABHU PATROT | 2HN21ME409 | 7760183609 | | |
| 18 | SHIVARAJ B NEELAKANTH | 2HN21ME410 | 6361702459 | | |
| 19 | SHRINATH G SOOJI | 2HN21ME411 | 8310456559 | | |
| 20 | YASH RAMESH MANE | 2HN21ME412 | 8938251751 | | |
| 21 | OMKAR PATIL | 2HN21ME413 | 9538787566 | | |

Industrial visit Coordinators

1. Dr. M.M.Shivashimpi
2. Prof. M.A. Hipparagi
3. Prof. M.S. Futane



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23/3/2024



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Academic

Industry Visit
Report

AY:2023-24

Report on Industry Visit to TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka

Date: 23rd March 2024



Student Co-ordinators:

1. Mr. Shivaprabhu Patrot
2. Mr. Yash mane

Staff Co-ordinators:

1. Dr. M.M. Shivashimpi
2. Prof. M.A. Hipparagi

Dr. S. N. Topannavar

**HOD
Mechanical Engg.
H.T. Nidasoshi**



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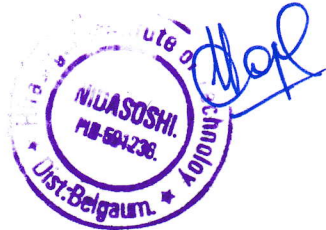
Academic

Industry Visit
Report

AY:2023-24

CONTENTS

| Sl. No | TOPIC | Page. No. |
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| 1 | Company Outline | 1 |
| 2 | Company Vision | 1 |
| 3 | The Details of the Industry Visit | 2 |
| 4 | Codes of Conduct | 3 |
| 5 | Products | 5 |
| 6 | Conclusions | 8 |
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Industry Visit
Report

AY:2023-24

1. Company Outline

Company Name: Hitachi Construction Machinery Co., Ltd.

Capital: 81,577 million yen (Total Number of Shares Issued: 215,115,038)

Business Results:

- Consolidated revenue : 1,405.9 billion yen
- Adjusted operating income : 168.0 billion yen
- Net income attributable to owners of the parent : 93.3 billion yen

Head Office: 16-1, Higashiueno 2-chome, Taito-ku, Tokyo, 110-0015 Japan

Established: October 1, 1970

Representative: Masafumi Senzaki, Representative Executive Officer, President and Executive Officer, COO

Number of Employees: Consolidated: 26,230 and Non-consolidated : 5,862

Subsidiaries & Affiliates

- Subsidiaries: 86 companies (Japan: 7 companies, Overseas: 79 companies)
- Affiliates: 15 companies (Japan: 2 companies, Overseas: 13 companies)

With Tata Hitachi Mini Excavators, operators feel safe and comfortable and can do a lot more. Leading to customers finding the best return on investment. The machines have been designed to offer solutions specially tailored for Indian conditions and meets all local regulations. It is therefore no wonder that Tata Hitachi has emerged as the largest selling manufacturer of mini excavators in India.

2. Company Vision

Our Vision is “To pass on a productive environment and prosperous cities to future generations. HCM Group helps to create comfortable living spaces.” In striving to accomplish this, we embrace the values of the Hitachi Construction Machinery Employee Spirit “Kenkijin Spirit”, and we are working to create new value aimed toward achieving our “Vision.” The Hitachi Construction Machinery Group will maintain the core values: Harmony, Sincerity and a Pioneering Spirit.

The Hitachi Construction Machinery Group Codes of Conduct consist of rules and principles intended to assist officers and employees in making decisions and taking actions in accord with these core values. All officers and employees of Hitachi Construction Machinery Group



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Industry Visit
Report

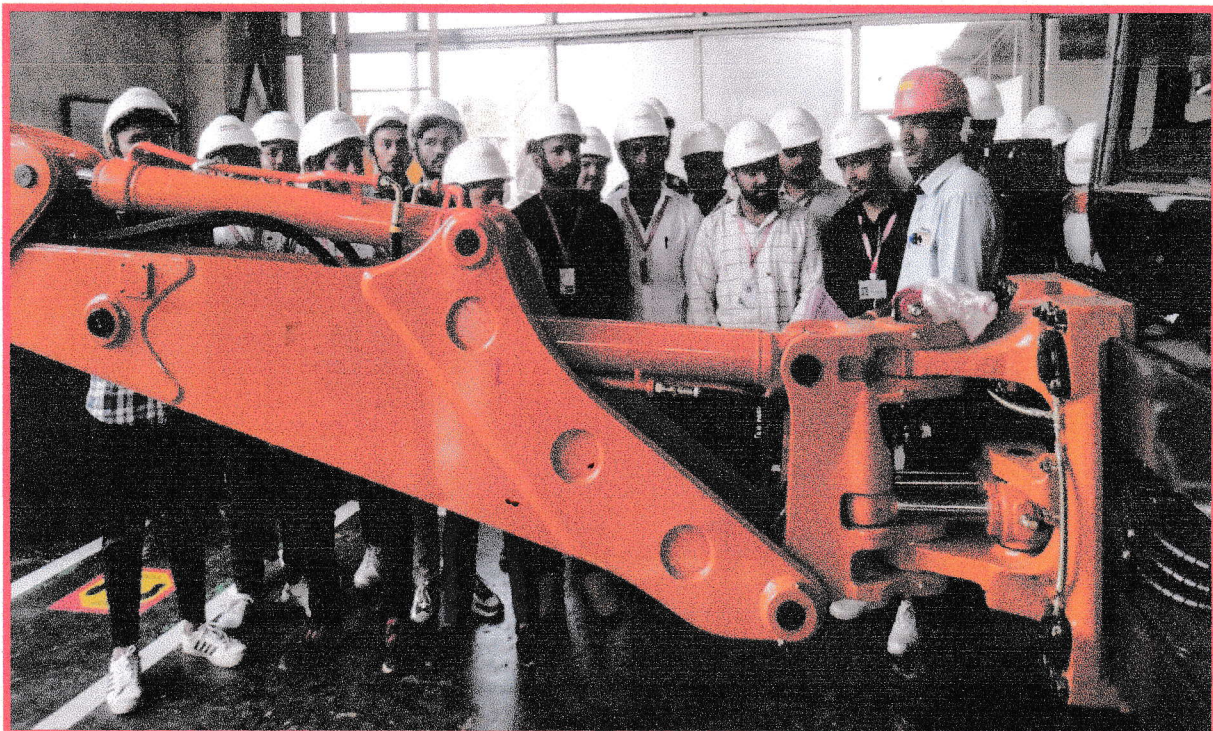
AY:2023-24

companies shall understand and follow the Codes of Conduct and act with sincerity and fairness in a highly ethical manner.

3. The Details of the Industrial Visit

The Department of Mechanical Engineering, HSIT College of engineering organized a one day Industrial Visit to Industry Visit at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka on 23rd March 2024 for Final year students. The visit was organized with the prior permission and guidance of Dr. M. M. Shivashimpi and Prof. M.A. Hipparagi. A total of 21 students along with 2 faculty members have joined the visit.

- We Reached TATA HITACHI, Dharwad at 03.00 pm on 23rd March 2024.
- We are welcomed by the Plant Engineer TATA HITACHI, Dharwad at 03.00 pm. He gave instructions before visiting the company. He also had given oral explanation about the company overview. Which makes the students to know about the company and also he explained types of excavators assembled in the company.
- At 03.30 pm, we visited the shop floor with the plant engineer. At each layout we got about the explanation of the each part which is to be installed in the company.
- Finally at the end of the session at 04.30 pm. Our faculty Dr. M. M. Shivashimpi on behalf of HSIT college of Engineering, has given a vote of thanks for the TATA HITACHI, Dharwad for giving a great opportunity to visit the plant.





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Industry Visit
Report

AY:2023-24

As shown in the above figure, Plant Technician is explaining working of excavator to students at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka held on 23rd March 2024.

4. Codes of Conduct

4.1 Toward a Sustainable Society

We will contribute to resolving social issues by promoting innovative solutions, accelerating collaborative creation with partners and stakeholders, and further integrating social and environmental responsibility into our business activities.

We will strive to develop technologies that contribute to social development and use them with due consideration of their impact on society.

We envision a low-carbon society, a resource efficient society, and a harmonized society with nature. To this end, we will endeavor to reduce CO2 emissions, use water and other resources efficiently, and minimize impacts on natural capital throughout our value chain.

As a corporate citizen, we will make efforts to build rapport with communities and contribute to their development by working together to resolve social issues.

4.2 Sincere and Fair Business Activities

- To ensure fair and open competition, we will observe the fundamental rules of trade, including domestic and overseas competition laws and regulations, and act in compliance with legislation and sound corporate ethics.
- We will have no relationship whatsoever with antisocial forces anywhere in the world, and resolutely reject involvement in improper or antisocial transactions.
- We will not trade shares using undisclosed information regarding the group, affiliated companies, business partners, or customers that could affect the judgment of investors (insider information).
- We strictly prohibit and will have no involvement in bribery and other corrupt business practices. We will neither give or receive gifts nor extend or accept invitations to business entertainment beyond socially accepted limits, as we recognize that such practices can foster corruption. When working with political entities, we will build and maintain sound and transparent relationships.
- We will help maintain international peace and security through compliance with all applicable laws and regulations concerning import and export, and will operate appropriately according to our internal rules and policies.





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Industry Visit
Report

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- We will comply with applicable laws, respect social cultures and practices, and act sincerely and fairly in countries and regions where we have operations. Furthermore, we will do so guided by international norms and standards even in areas where legislation is not adequately enforced.

4.3. Respect for Human Rights

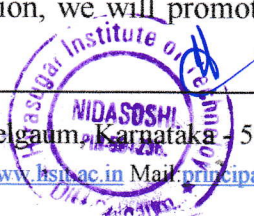
- We will promote our understanding of internationally recognized human rights, and will respect and not infringe on the human rights of all those involved in our business activities.
- We will implement human rights due diligence appropriate to the social circumstances of the countries and regions where we have operations and the nature of our businesses, products, and services there.
- We will assess and prevent potential violations of human rights. In the event of such a violation, we will promptly take internal and external actions to correct and remedy the situation.
- We will respect individual human rights in the recruitment and treatment of employees and during all other company activities. We will not engage in any acts that may impair individual dignity or discriminate on bases such as sex, sexual orientation, age, nationality, race, ethnicity, ideology, belief, religion, social status, family origin, disease, disability.
- We will hire employees in compliance with the relevant laws and regulations in each country and region, and in accordance with international norms and standards. We will not use child labor that employs children below the minimum working age or forced labor that is against the will of employees.
- We will strive to resolve issues through sincere and constructive discussion between management and employees, in compliance with the laws, regulations, and labor practices of each country and region, and in accordance with international norms and standards.

4.4 Building a Work Environment That Brings Out Employee Strengths

- Prioritizing health and safety above all else, we will strive to ensure the safety of employees and the workplace. In addition, we will promote the physical and mental health of employees and their families.

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Industry Visit
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- We will support flexible work styles and respect diverse values, creating workplaces that provide employees with a sense of accomplishment and personal growth, and we will promote the sustainable growth of the organization and individuals.
- We will invest in educational programs to help employees expand their capabilities and exercise their strengths. Supervisors will fairly and appropriately support, guide, and educate their employees to develop their abilities

4.5. Information Management and Communication

- We will promote the ethical handling of information, so as to ensure respect for human rights and security, through the proper management of personal information based on our Personal Information Protection Policy.
- We will properly manage and protect confidential information related to our business activities in compliance with domestic and international laws and regulations as well as our internal rules and policies.
- In order to maintain and expand our trusting relationship with the Hitachi Construction Machinery Group's diverse stakeholders, we will disclose information openly and transparently, and respond to stakeholders responsibly through dialogue and other means of communication

5. Products

5.1 Mini excavators

TMX 20 neo is as shown in figure 5.1, which is a smart machine promising high power, high fuel efficiency, and high durability. Ensuring best in class performance and low running cost. Equipped with a reliable and powerful Japanese engine, improved structures, superior hydraulic and electricals. TMX 20 neo is a powerful yet quiet mini excavator.

5.2 Backhoe loaders

As shown in figure 5.2, A ubiquitous machine seen everywhere across India, in different types of terrains and applications, Tata Hitachi has been offering backhoe loader solutions to the market for more than 20 years.

Tata Hitachi's offering has been upgraded based on the changing Indian customer demands. These backhoe loaders are highly adaptable to urban engineering and construction projects.



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AY:2023-24

Their range of advanced features and technology, coupled with a reputation for product strength, agility and reliability are instrumental in achieving maximum productivity

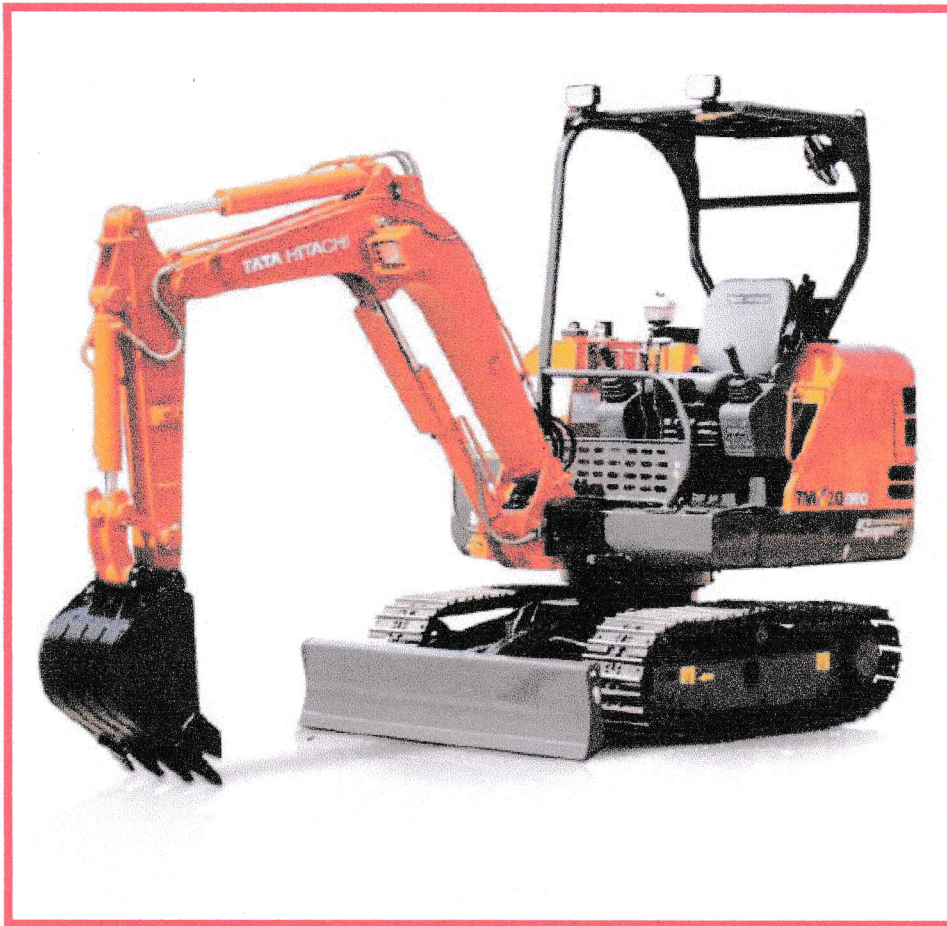


Figure 5.1 TMX 20 neo



Figure 5.2 Shinrai Prime





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Industry Visit
Report

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5.3 Wheel loaders

As shown in figure 5.3, Tata Hitachi offers a wide range of wheel loader models. Tata Hitachi's wheel loaders have good payload capacity coupled with excellent productivity and enables the customer to operate his machines at a low cost.



Figure 5.3 ZW550

5.4 Dump trucks

As shown in figure 5.4, The EH 5000AC-3 Rigid Dump Truck (RDT) is the largest of the Hitachi RDTs with a nominal payload of over 296 tonnes, and a reputation in the surface mining industry. The truck proves to be exceedingly capable and reliable with drive control systems, economic advantages, a high-powered engine and a strong-structured body.



Figure 5.4 EH 5000AC-3 Rigid Dump Truck





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Industry Visit
Report

AY:2023-24

6. Conclusions

Industrial visit provides knowledge of working principle of earthmovers & its spare parts design concept. Also different types of earthmovers used in specific applications.

7. Industry Visit Photo Gallery




The staff and Students attended Industry Visit at Industry Visit at TATA HITACHI Construction Machinery Company Private Limited Dharwad- Karnataka held on 23rd March 2024.





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| | <p>Activities</p> | |
| | <p>Feedback</p> | |
| | <p>2023-24 (Even)</p> | |

FEEDBACK

| Title of the Activity: Industrial Visit to TATA HITACHI Construction Machinery Company Private Limited. Dharwad- Karnataka | | | | |
|---|--|---------------------------|-----------------|----------------|
| Gap No.: 14 | Mapped POs | POs Weightage | Mapped PSOs | PSOs Weightage |
| | 1,2,3,4,6,7,8,10, 11 & 12 | 3,3,3,3,3,3,3,3,3,3,3 & 3 | 1,2 & 3 | 3,3 & 3 |
| Date/Duration: 23-03-2024 | | | Place: Belagavi | |
| Note: Solicit your response in numeric (10 points:Excellent-0 point: Not Good) | | | | |
| S.No. | Parameter | Numeric Response (0-10) | | |
| 1 | Concept realization and skills observed during industry visit. | 10 | | |
| 2 | Inspired to build and lead the better career after the graduation. | 10 | | |
| 3 | Rate the industry in the professional learning prospective. | 10 | | |
| 4 | Your development/+ve change during the industry visit. | 10 | | |
| 5 | Overall motivation and inspiration received during the industry visit. | 10 | | |
| | | Total points | 50 | |
| Write your comments on activity/event organization (All Arrangements such as Hospitality, Logistics, and Hall etc.): | | | | |
|  Signature of the Participant | | | | |

| | | |
|---|---|-------------------------|
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| | <p>Activities</p> | |
| | <p>Feedback</p> | |
| | <p>2023-24 (Even)</p> | |

FEEDBACK

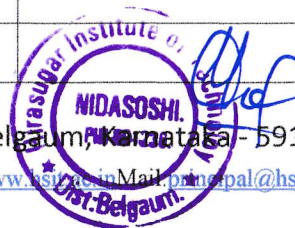
| Title of the Activity: Industrial Visit to TATA HITACHI Construction Machinery Company Private Limited. Dharwad- Karnataka | | | | |
|---|--|---------------------------|-----------------|----------------|
| Gap No.:14 | Mapped POs | POs Weightage | Mapped PSOs | PSOs Weightage |
| | 1,2,3,4,6,7,8,10,1 1 & 12 | 3,3,3,3,3,3,3,3,3,3,3 & 3 | 1,2 & 3 | 3,3 & 3 |
| Date/Duration: 23-03-2024 | | | Venue: Belagavi | |
| Note: Solicit your response in numeric (10 points:Excellent-0 point: Not Good) | | | | |
| S.No. | Parameter | Numeric Response (0-10) | | |
| 1 | Concept realization and skills observed during industry visit. | 10 | | |
| 2 | Inspired to build and lead the better career after the graduation. | 10 | | |
| 3 | Rate the industry in the professional learning prospective. | 10 | | |
| 4 | Your development/+ve change during the industry visit. | 10 | | |
| 5 | Overall motivation and inspiration received during the industry visit. | 10 | | |
| | | Total points | 50 | |
| Write your comments on activity/event organization (All Arrangements such as Hospitality, Logistics, and Hall etc.): | | | | |
|  Signature of the Participant | | | | |



Impact Analysis and PO & PSO Attainment

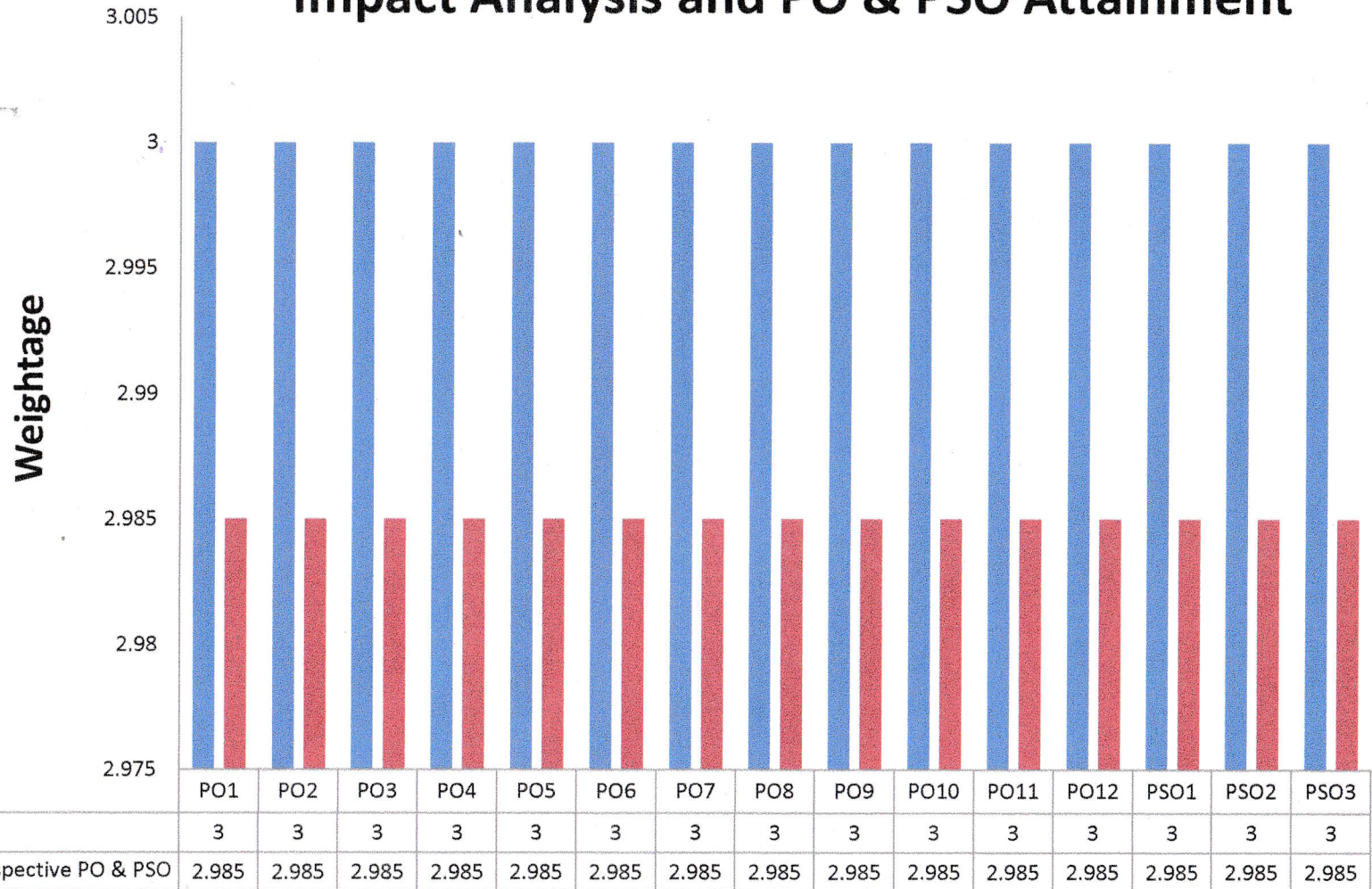
| | | | |
|---|---|-------------------------------------|---|
| Activity Name: | Industry Visit at TATA HITACHI Construction Machinery Company Private Limited Dharwad-Karnataka | No. of Respondents (N): | 20 |
| Grand Total Points are given by all respondents (T): | 995 | Impact Coefficient (IC=0-1): | Here, $IC = T / (N * 50) = 995 / (20 * 50) = 0.995$ |

| Mapped PO/s | Weightage Assigned (1/2/3) | PO Attained/Activity Contribution to the respective PO (IC*Weightage Assigned) | Mapped PSO/s | Weightage Assigned (1/2/3) | PO Attained/Activity Contribution to the respective PSO (IC*Weightage Assigned) |
|-------------|----------------------------|--|--------------|----------------------------|---|
| PO1 | 3 | 2.985 | PSO1 | 3 | 2.985 |
| PO2 | 3 | 2.985 | PSO2 | 3 | 2.985 |
| PO3 | 3 | 2.985 | PSO3 | 3 | 2.985 |
| PO4 | 3 | 2.985 | | | |
| PO5 | 3 | 2.985 | | | |
| PO6 | 3 | 2.985 | | | |
| PO7 | 3 | 2.985 | | | |
| PO8 | 3 | 2.985 | | | |
| PO9 | 3 | 2.985 | | | |
| PO10 | 3 | 2.985 | | | |
| PO11 | 3 | 2.985 | | | |
| PO12 | 3 | 2.985 | | | |





Impact Analysis and PO & PSO Attainment





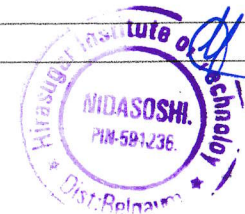
Justification:

1. Justification for Mapping of POs & PSOs

| Mapped POs/ PSOs | Weightage | Justification |
|------------------|-----------|---|
| PO1 | 3 | This activity substantially addresses the operating an excavator requires skill, knowledge, and adherence to safety protocols. They are used for a wide range of earthworks including laying foundations, grading soil, removing dirt and rocks, digging trenches, demolition works, etc. These complex machines are operated by professionals. |
| PO2 | 3 | This activity substantially enlightens automation steps and the procedural steps involved in the short loading cycle. This section also defines operator assistance functions and presents a previously reported case study on tele-remote operation and assisted loading. |
| PO3 | 3 | This activity substantially key challenges in automation and tele-remote operation of earth-moving machines and provides a survey of different areas of research within the scope of the earth-moving operation. |
| PO4 | 3 | This activity substantially many of today's excavator attachments feature advanced sensors that provide data regarding soil conditions, the position of the attachment, and potential hazards. This crucial feedback helps operators make more informed decisions that are based on the most up-to-date data, keeping them safe throughout the project at hand. |
| PO5 | 3 | This activity substantially addresses AI algorithms make special excavator attachments more precise and accurate in their movements, providing greater control during operation. This is especially helpful for digging, grading, and demolition projects that require such precision and control. |
| PO6 | 3 | This activity addresses briefly develop technologies that contribute to social development and use them with due consideration of their impact on society. |
| PO7 | 3 | This activity addresses briefly excavators can collect and analyze data to enhance their performance. Telematics systems feature sensors, GPS tracking, and computers to monitor things like fuel consumption, engine performance, maintenance schedules, and location. Operators can make more informed decisions by assessing the analytics provided, helping them work more efficiently, maximize equipment longevity, and minimize operational costs. |



| | | |
|------|---|---|
| PO8 | 3 | This activity addresses promote the ethical handling of information, so as to ensure respect for human rights and security, through the proper management of personal information based on our Personal Information Protection Policy. |
| PO9 | 3 | This activity addresses make efforts to build rapport with communities and contribute to their development by working together to resolve social issues. |
| PO10 | 3 | These activity GPS systems aren't just for cars; they're for excavators and other heavy equipment too. Satellite signals that help locate the exact location of the machine in real time, operators can navigate worksites more precisely and have greater control over the equipment. |
| PO11 | 3 | This activity provides knowledge about the Construction project coordinators plan, organize, and guide the actions of a construction project, under the guidance of a manager. He works on-site most of the time, overlooking the day-to-day tasks of the project. |
| PO12 | 3 | This activity enlightens modern features like obstruction detection systems, proximity sensors, and cameras, operating an excavator are safer than ever before. It's also more comfortable than ever before. Climate-controlled cabins, reduced noise levels, and ergonomic seating keep operators comfortable while they're using an excavator. Increased comfort results in less fatigue and fewer accidents on the job. It also increases productivity by enabling operators to work longer without needing to take a break. |
| PSO1 | 3 | This activity provides wide range of earthworks including laying foundations, grading soil, removing dirt and rocks, digging trenches, demolition works, etc. These complex machines are operated by professionals. |
| PSO2 | 3 | This activity addresses the t is very difficult or even impossible to deter-mine dynamic solutions using analytical methods. Further-more, real tests on physical prototypes are too laborious and pricey. Consequently, numerical simulations are often regarded as better alternatives to solve the dynamic problems. |
| PSO3 | 3 | This activity enlightens about earth-moving equipment is essential to almost any construction site but improperly maintained equipment can be expensive and dangerous. It's vital that you take regular steps to clean and maintain your heavy equipment to keep everyone safe and avoid expensive equipment failures. |





2. The activity mapped with PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, and PO11 & PO12 was found satisfactory with an attainment level of 2.985 each against the Mapped values during the impact analysis.
3. The activity mapped with PSO1, PSO2 & PSO3 was found satisfactory with an attainment level of 2.985 each against the Mapped value during the impact analysis.

Conclusion: The activity is organized to fulfill the program outcomes engineering knowledge, problem analysis, design/development solution, conduct investigations of complex problems, modern tool usage, engineer and society, environment and sustainability, ethics, individual & teamwork, communication, project management & finance and lifelong learning and PSO1, PSO2 & PSO3 has mitigated the gap identified satisfactorily to some extent.

Future Suggestions: Conducting such events will provides knowledge of working principle of earthmovers & its spare parts design, different types of earthmovers used in specific applications.

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