

**Criterion II – Teaching-Learning and Evaluation****Key Indicator : 2.3 Teaching-Learning Process**

2.3.1 Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences

EXPERIENTIAL LEARNING

| S.No | Description | Page No |
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| 1. | Industrial Visits | 2 – 47 |
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| 6. | Major / Mega Project | 199 - 208 |
| 7. | Mini Project | 209 - 220 |



Industrial visit sample

Industrial Visits:



Mechanical Engineering Industrial Visit at Ashta Liners, Ashta (SY), Year: 2021-22



Mechanical Engineering Industrial Visit at Kirloskar Oil Engines Ltd.

Class – Final Year B.Tech Year: 2021-22



Seeking permission for Industrial Visit

1 message

Yogesh Lubal <ysl_it@adcet.in>

To: Joseph_monis@infosys.com

Fri, Feb 8, 2019 at 11:40 AM

Dear Joseph Sir,

Greetings of the day....!!!

Sir Yogesh Lubal here from Annasaheb Dange College of Engineering, Sangli. I have done GBFS Program at your esteemed campus in the month of July 2018

I am writing this letter to seek your permission for the visit at your industry based in Pune in the month of February. I would like to share that we have planned this industrial visit for our Second year and Third year CSE students in order to give them an insight about the way things work in the real life scenario.

There would be a total of 80 to 100 students accompanied by 4 to 5 faculty member from our college. The visit is aimed at enhancing their knowledge. We intend to take a round of the entire industry and show the tasks handled in different departments to our students.

I hope you will allow us the opportunity to visit your industry and meet your skilled staff. I anticipate a positive response from your end.

—
Warm Regards



Prof. Yogesh Lubal.
Assistant Professor | Member Campus Recruitment Team |
Department of Computer Science & Engineering |
Annasaheb Dange College of Engineering & Technology Ashta |
|An Autonomous Institute| NAAC Grade 'A' |NBA & TCS Accredited Institute |
ISO 9001-2000 Certified
| Ashta-Sangli Road | Dist.- Sangli (M.S.) – 416301
Cell No: 7588627555.
yogeshlubal@gmail.com |
ysl_it@adcet.in
<http://www.adcet.in>

Infosys BPM - Student Connect Program - 23rd Feb 2019

3 messages

Joseph Monis <Joseph_monis@infosys.com>
To: "ysl_it@adcet.in" <ysl_it@adcet.in>

Mon, Feb 18, 2019 at 2:46 PM

Dear Sir,

Greetings from Infosys BPM,

Thank you for confirming your participation in Student Connect Program at our **Hinjewadi Pune Campus on 23rd February 2019 (Saturday)**.

Below in brief about the program;

- The program aims to facilitate Industry visit and give them a glimpse of the BPM industry
- We will be talking to the students on BPM industry, career, interview skills and self-motivation
- The program will have campus tour

Below would be the program agenda on the day of visit.

| | |
|--------------------|-------------------------------------|
| 8:45 am | Arrival at Gate 4 , Security Check |
| 9:30 am – 10:30 am | Tea/Coffee, Context Setting |
| 10:30 am– 12:00 pm | Senior leadership connect / session |
| 12:15pm to 1:00 pm | Lunch (Provided in the campus) |
| 1:00 pm to 2:00 pm | Campus Tour |
| 2:00 pm | Exit, Gate |

Our Office Address :

Gate No 4

Infosys Ltd. Phase II Campus (take a right from the Wipro circle)

Rajiv Gandhi Infotech Park, Mann Village,

Hinjewadi , Pune.

Please note : this program is only for students and faculty from the college. We will not be able to give an entry to anybody else.

Please share the students and faculty details in the attached format before 23rd February 2019

Regards,

Joseph Rudolph Monis

CSR Office | www.infosysbpm.com | Pune

M: +91 7798068666



BPM_Stuent_Connect_Response_Form_temp.xls
40K

Yogesh Lubal <ysl_it@adcet.in>
To: Joseph Monis <Joseph_monis@infosys.com>

Thu, Feb 21, 2019 at 3:28 PM

Thanks, I will be there.

[Quoted text hidden]

—

Warm Regards

ADCET

Prof. Yogesh Lubal.
Assistant Professor | Member Campus Recruitment Team |
Department of Computer Science & Engineering |
Annasaheb Dange College of Engineering & Technology Ashta |
[An Autonomous Institute] NAAC Grade 'A' | NBA & TCS Accredited Institute |
ISO 9001-2000 Certified
| Ashta-Sangli Road | Dist.- Sangli (M.S.) – 416301
Cell No: 7588627555.
yogeshlubal@gmail.com |
ysl_it@adcet.in
<http://www.adcet.in>

Yogesh Lubal <ysl_it@adcet.in>
Draft

Fri, Feb 22, 2019 at 9:30 AM

List of Students and faculties visiting to infosys on 23rd Feb 2019 from ADCET, Ashta

2 messages

Yogesh Lubal <ysl_it@adcet.in>
To: Joseph Monis <Joseph_monis@infosys.com>

Fri, Feb 22, 2019 at 9:43 AM

Dear Sir,

Greetings from ADCET, Ashta....

Thank you for allowing us to participate in student Connect Program at your Hinjewadi Pune Campus on 23rd February 2019 (Saturday).

Herewith i am attaching the list of faculties and students visiting the infosys Hingewadi Campus on Saturday 23rd February 2019.

—

Warm Regards



Prof. Yogesh Lubal.
Assistant Professor | Member Campus Recruitment Team |
Department of Computer Science & Engineering |
Annasaheb Dange College of Engineering & Technology Ashta |
[An Autonomous Institute] NAAC Grade 'A' [NBA & TCS Accredited Institute |
ISO 9001-2000 Certified
| Ashta-Sangli Road | Dist.- Sangli (M.S.) – 416301
Cell No: 7588627555.
yogeshlubal@gmail.com |
ysl_it@adcet.in
<http://www.adcet.in>



BPM_Stuent_Connect_Response_Form_temp.xls
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Yogesh Lubal <ysl_cse@adcet.in>
To: rbm_cse@adcet.in

Wed, Sep 21, 2022 at 10:01 AM

BPM Stuent Connect - Response Form

| Institution Level Information | | | | | | | | | |
|-------------------------------|---|---------|-------|-------------|---------------|-------------------------------|--------------------------|--|-----------------|
| No. | Name of the Institution | Address | City | State | Rural / Urban | Name of the Contact Person(s) | Designation / Department | Email Id(s) | Phone Number(s) |
| 1 | Annasaheb Dange College of Engineering & Technology | Ashta | ASHTA | MAHARASHTRA | Rural | Dr.L.Y.Waghmode | Registrar | vp_admin@adcet.in | 8600600777 |

| Faculty & staff Level Information | | | | | | |
|-----------------------------------|---------------------|---------------------|------------|---------------|-----------------------|--|
| No. | Name of the faculty | Designation | Department | Male / Female | Experience (in years) | |
| 1 | PROF. Y. S. Lubal | Assistant Professor | CSE | Male | 9 Yrs | |
| 2 | PROF. P. B. More | Assistant Professor | CSE | Male | 9 yrs | |
| 3 | Prof. A.S.Patil | Assistant Professor | CSE | Female | 9 Yrs | |
| 4 | Prof.P.S.Patil | Assistant Professor | CSE | Female | 1.5 Yrs | |
| 5 | Prof S.D.Khatavkar | Assistant Professor | CSE | Male | 13 Yrs | |

| Student Level Information | | | | | |
|---------------------------|-------------------------|-------------|------------|---------------|------------|
| No. | Student Name | Roll Number | Department | Male / Female | Year of |
| 1 | AMANE NAMRATA KIRAN | 301 | CSE | Female | THIRD YEAR |
| 2 | AMBI VARSHARANI BHAUSO | 302 | CSE | Female | THIRD YEAR |
| 3 | BABAR GANESH RAVSO | 304 | CSE | Male | THIRD YEAR |
| 4 | BALTE AKASH NAMDEO | 305 | CSE | Male | THIRD YEAR |
| 5 | BANSODE ALOK DEEPAK | 306 | CSE | Male | THIRD YEAR |
| 6 | BHANDARE TEJASHRI | 307 | CSE | Female | THIRD YEAR |
| 7 | BHISE PUJA MANIK | 308 | CSE | Female | THIRD YEAR |
| 8 | BHUSARI KARISHMA BASHIR | 309 | CSE | Female | THIRD YEAR |
| 9 | DANGE SWARANJALI | 311 | CSE | Female | THIRD YEAR |
| 10 | DHADE KAJAL GANESH | 312 | CSE | Female | THIRD YEAR |
| 11 | DHURI SANEET DIWAKAR | 313 | CSE | Male | THIRD YEAR |
| 12 | GHASTE YOGESH | 314 | CSE | Male | THIRD YEAR |

| | | | | | |
|----|---------------------------|-----|-----|--------|------------|
| 13 | HIRAVE CHINMAY SANJAY | 315 | CSE | Male | THIRD YEAR |
| 14 | JADHAV ASHISH | | | | |
| 14 | CHANDRAKANT | 316 | CSE | Male | THIRD YEAR |
| 15 | JOSHI GAURI PRASANNA | 319 | CSE | Female | THIRD YEAR |
| 16 | KADAM NIKITA SURESH | 320 | CSE | Female | THIRD YEAR |
| 17 | KADAM PRIYANKA APPASAHEE | 321 | CSE | Female | THIRD YEAR |
| 18 | KAMBLE NISHA RAMDAS | 322 | CSE | Female | THIRD YEAR |
| 19 | ANDEKAR KARISHMA MURLIDH | 323 | CSE | Female | THIRD YEAR |
| 20 | KHATAVKAR ASMITA NARAYAN | 324 | CSE | Female | THIRD YEAR |
| 21 | KHOT AMRUTA VIJAY | 325 | CSE | Female | THIRD YEAR |
| 22 | KOLEKAR SNEHA TANAJI | 326 | CSE | Female | THIRD YEAR |
| 23 | KORE SUMAN SHRISHAIL | 327 | CSE | Female | THIRD YEAR |
| 24 | MAYE MRUNMAYEE SADANAN | 328 | CSE | Female | THIRD YEAR |
| 25 | MALI PANKAJ POPAT | 329 | CSE | Male | THIRD YEAR |
| 26 | MALI SHRADDHA SANJAY | 330 | CSE | Female | THIRD YEAR |
| 27 | MANEPATIL DEVASHRI DEEPA | 331 | CSE | Female | THIRD YEAR |
| 28 | MORE ADITYA ASHOK | 333 | CSE | Male | THIRD YEAR |
| 29 | MUTKEKAR PRAJAKTA SHIVAJI | 338 | CSE | Female | THIRD YEAR |
| 30 | NANAWARE AJINKYA SANJAY | 339 | CSE | Male | THIRD YEAR |
| 31 | NIMBALKAR GANESH SURESH | 341 | CSE | Male | THIRD YEAR |
| 32 | PATHAN MUSKAN SHAFIK | 342 | CSE | Female | THIRD YEAR |
| 33 | PATIL GANESH ASHOK | 343 | CSE | Male | THIRD YEAR |
| 34 | ATIL JAYVARDHAN DHANANJAI | 344 | CSE | Male | THIRD YEAR |
| 35 | PATIL JYOTI RAJENDRA | 345 | CSE | Female | THIRD YEAR |
| 36 | PATIL KOMAL DAJIRAM | 346 | CSE | Female | THIRD YEAR |
| 37 | PATIL MRUNAL SUNIL | 347 | CSE | Female | THIRD YEAR |
| 38 | PATIL PRATIK KIRAN | 349 | CSE | Male | THIRD YEAR |
| 39 | PATIL PRATIKSHA VIJAY | 350 | CSE | Female | THIRD YEAR |
| 40 | PATIL RUSHIKESH BABASO | 351 | CSE | Male | THIRD YEAR |
| 41 | PATIL RUTUJA RAJENDRA | 352 | CSE | Female | THIRD YEAR |
| 42 | PATIL SANGRAM MANSING | 353 | CSE | male | THIRD YEAR |
| 43 | PATIL SHIVANI KIRANKUMAR | 354 | CSE | Female | THIRD YEAR |
| 44 | PATIL SHUBHAM ANIL | 355 | CSE | Male | THIRD YEAR |
| 45 | PATIL SHWETA MAHADEV | 356 | CSE | Female | THIRD YEAR |
| 46 | PATOLE SONALI LALASO | 357 | CSE | Female | THIRD YEAR |
| 47 | PAWAR ANUJA ANANDRAO | 359 | CSE | Female | THIRD YEAR |
| 48 | PAWAR RUPESH SURESH | 360 | CSE | Male | THIRD YEAR |
| 49 | PAWAR SWAPNALI MAHADEV | 361 | CSE | Female | THIRD YEAR |
| 50 | POWAR SUDARSHAN SURESH | 362 | CSE | Male | THIRD YEAR |

| | | | | | | |
|----|-------------------------|-----|-----|--------|------------|--|
| 51 | RASKAR AKASH MAHADEV | 363 | CSE | Male | THIRD YEAR | |
| 52 | RASKAR NAMRATA DILIP | 364 | CSE | Female | THIRD YEAR | |
| 53 | SALUNKHE PRIYANKA SUNIL | 365 | CSE | Female | THIRD YEAR | |
| 54 | SAYYED RAISA | 366 | CSE | Female | THIRD YEAR | |
| 55 | SHETE SAGAR SAMPATRAO | 367 | CSE | Male | THIRD YEAR | |
| 56 | SHINDE ADITYA SURESH | 368 | CSE | Male | THIRD YEAR | |
| 57 | SHINDE VAIBHAVI SUBHASH | 369 | CSE | Female | THIRD YEAR | |
| 58 | SHIRKE ASHITOSH SANJAY | 370 | CSE | Male | THIRD YEAR | |
| 59 | RYAWANSHI AMRUTA BALASA | 371 | CSE | Female | THIRD YEAR | |
| 60 | TANNA JANKESH BHARAT | 372 | CSE | Male | THIRD YEAR | |
| 61 | TATUGADE SHWETA SUBHASH | 373 | CSE | Female | THIRD YEAR | |
| 62 | WARE ATUL ASHOK | 374 | CSE | Male | THIRD YEAR | |
| 63 | YADAV NEHA VILAS | 375 | CSE | Female | THIRD YEAR | |
| 64 | YAMGAR NIKITA MAHADEV | 376 | CSE | Female | THIRD YEAR | |
| 65 | PANHALE ANIKET | 377 | CSE | Male | THIRD YEAR | |
| 66 | SALONKHE NEHA | 378 | CSE | Female | THIRD YEAR | |
| 67 | SHINDE SWAPNIL | 379 | CSE | Male | THIRD YEAR | |
| 68 | Mane Amruta | 301 | IT | Female | THIRD YEAR | |

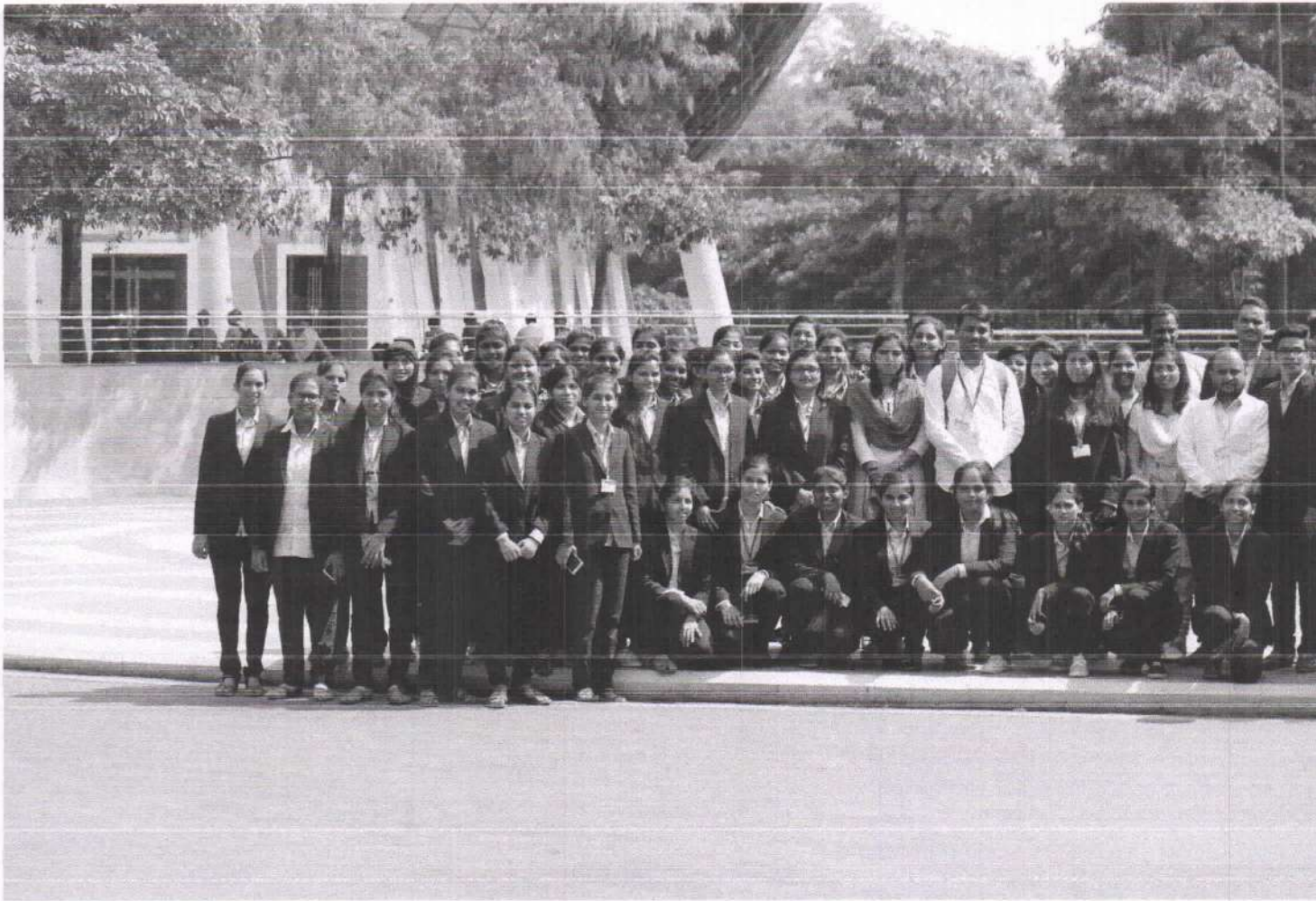


Industrial Visit coordinator.



[Handwritten signature]

Industrial Visit coordinator,



Susan C.

Industrial Visit coordinator.

INDUSTRIAL VISIT REPORT

An Industrial visit to "Infosys Limited Plot No. 1, Hinjawadi Phase 2 Rd, Phase 2, Hinjewadi Rajiv Gandhi Infotech Park, Hinjawadi, Pune, Maharashtra 411057" was organized by the Department of Computer Science and Engineering of ADCET, Ashta on Saturday, 23rd February 2019. Sixty eight students and 4 faculty from CSE department visited to Infosys to interact with the Software Industry to understand current market scenarios, latest most demanding technologies & criteria for selection etc. In this visit students were very eagerly waiting for listening to industrial higher authorities.

In the Morning at 09:00 Am we visited to Infosys. We divided our students in the batch of 20 students per batch for the visit. The Visit started with the breakfast provided by the Infosys in there cafeteria and then interaction with the industry person. The Technical Head and HR of Infosys conducted very informative session for the students. Also he motivated to the students to select their domain and area of interest. He also guided the students to select the areas like web development, mobile application development & software testing etc. and its importance in the current software market. He also guided on PHP technology which is their working technology. Finally he gave a brief introduction of Infosys to the students

The session was concluded with Question- Answer session. Many of the students asked different questions to the Technical Head on current demanding technologies, market scenarios etc. and he cleared all the doubt and myths which was in students mind about the technologies and IT sector. All students were satisfied after the session.

Then the working lunch was provided by the Infosys for all the students in there cafeterias followed by the visit to their campus where the software engineers work and the cafeterias gymnasium swimming pool etc. Company heads motivated to the students by giving token of affection in the form of diary & pen. The visit came to an end at 5.30 p.m. Finally, we left the premises at 5.30 p.m. It was an informative, interesting and a successful visit. As students of CSE Department, they understand a live Software applications and importance of technology selection, etc. We express our thanks to the Technical Head and all team members of Infosys. Ltd. who spent their valuable time for us.

We also thank to our respected Executive Director, Principal and HOD who motivate us to arrange such an informative program. Lately we request you to arrange more industrial visit in the future for the students which will be helpful for the students and help to train our students.



Mr. Yogesh S Subal

Industrial Visit Coordinator



HOD CSE

NCC

- 'A' Grade Institute Accredited by NAAC
- NBA Accredited courses
- ISO 9001:2008 Certified Institute



Sant Dnyaneshwar Shikshan Sanstha's
**ANNA SAHEB DANGE COLLEGE OF
ENGINEERING & TECHNOLOGY**

(Approved by AICTE, New Delhi, Govt. of Maharashtra.
Affiliated to Shivaji University, Kolhapur)

visit/EE/1336

Date: 10/02/2018

To,

Dy. Ex. Engineer,

MSEB, Talandage

Subject: **Permission for visit** of the Substation in RTC Talandage.

Respected Sir,

We are from Annasaheb Dange College of Engineering & Technology, Ashta. We wish to visit the **Transmission Substation at Talandage, Kagal MIDC, Kolhapur** as per our curriculum requirement of second year electrical. So kindly grant us permission to visit the substation and spend some precious moment with you. This visit will give practical knowledge to our students and get the chance to learn from you. We will be taking our faculty along with 68 students of Division-A and 68 students from Division-B students from Department of Electrical Engineering.

We assure you that the crucial information, which you will provide, will be used for the academic purpose and further project work only. If the permission is granted, kindly give us a suitable date and time.

Thanking you in anticipation.




Principal

- Accredited by NAAC
- NBA Accredited courses
- ISO 9001:2008 Certified Institute



(Approved by AICTE, New Delhi, Govt. of Maharashtra)
Affiliated to Savitribai Phule University, Kolhapur

Ref No. Visit/EE/1336

10/02/2018

Date: 10/02/2018

On behalf of our college ADCET, Ashta, We are giving heartfelt thanks to you, your crew and your organization for giving the permission to visit your estimated organization 400kV substation, RTC Talandage at Kagal MIDC, Kolhapur on date 16/02/2018. We extend our sincere thanks to you & your staff for spending your valuable time with us and sharing your knowledge and experience with our faculty and student visit. Including yourself and other staff member from your organization has provided useful Technical Information about functioning of substation and substation components structure and working to our Second Year Electrical Students.

You also shared your personal technical experience with student which is very useful to them in their future life.

Thanks to you for your kind Co-operation in this regard.

Thanking You

Yours Faithfully,



[Signature]
Principal

ADCET, Ashta

- A Grade Institute Accredited by NAAC
- NBA Accredited courses
- ISO 9001:2008 Certified Institute



**ASHRAHEB DANGE COLLEGE OF
ENGINEERING & TECHNOLOGY**

(Approved by AICTE, New Delhi, Govt. of Maharashtra
Affiliated to Shivaji University, Kolhapur)

Ref No- VISIT/EE/1336

10/02/2018

Thanking Letter

Date: 10/02/2018

On behalf of our college ADCET, Ashta, We are giving heartfelt thanks to you, your crew and your organization for giving the permission to visit your estimated organization 400kV substation, RTC Talandage at Kagal MIDC, Kolhapur on date 20/02/2018. We extend our sincere thanks to you & your staff for spending your valuable time with us and sharing your knowledge and experience with our faculty and student visit. Including yourself and other staff member from your organization has provided useful Technical Information about functioning of substation and substation components structure and working to our Second Year Electrical Students.

You also shared your personal technical experience with student which is very useful to them in their future life.

Thanks to you for your kind Co-operation in this regard.

Thanking You

Yours Faithfully,



[Signature]
Principal

ADCET, Ashta



ANNASAHAB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA

DEPARTMENT OF ELECTRICAL ENGINEERING

Industrial Visit

SEMESTER -EVEN

ACADEMIC YEAR:2017-18

CLASS: SE Electrical - Division B

DAY & DATE :MONDAY 16/02/2017

Organization/Company : 400kV substation at RTC Talandage, Kagal MIDC

List of the Students:

| Roll No. | Name of the Student | Signature |
|----------|------------------------------------|-----------|
| 1 | /Landage Trupti Dayanand | |
| 2 | Londhe Ganesh Bhimarav | |
| 3 | /Madane Amruta Bhimrao | |
| 4 | Magdum Ankita Alias Mauli Gaydhani | |
| 5 | /Magdum Manasvi Mohan | |
| 6 | /Magdum Prajka Pramod | |
| 7 | Mali Akshay Uttam | |
| 8 | /Mali Pooja Bapu | |
| 9 | Mali Pratik Dilip | |
| 10 | /Mali Radhika Prakash | |
| 11 | Mali Suraj Ramchandra | |
| 12 | Mandake Raturaj Arun | |
| 13 | Mandavkar Ravikiran Ganpat | |
| 14 | /Mestri Komal Dilip | |
| 15 | Metkari Aditi Shashikant | |
| 16 | Mhaishale Suraj Dipak | |
| 17 | /Mhargude Madhuri Machhindra | |
| 18 | /Mohite Shivani Ramesh | |
| 19 | More Mahesh Sarjerao | |
| 20 | More Sanjay Deelip | |
| 21 | /Mujawar Saniya Jahangir | |
| 22 | /Mulla Deebea Phaiyyaj | |
| 23 | Nandrekar Aditya A | |
| 24 | Nangare Sanket Sunil | |
| 25 | /Nardekar Sanjivani Pravinkumar | |
| 26 | Nerlekar Rutuja Vijay | |
| 27 | Patil Pratik | |
| 28 | Patil Ankita Sambhaji | |
| 29 | Patil Ashutosh Bhausaheb | |
| 30 | Patil Sourabh Krishnaraj | |
| 31 | /Patil Supriya Tanaji | |
| 32 | /Patil Sasne Pratibha Prashant | |
| 33 | Pavane Nirmala Vishnu | |

Faculty Coordinator

Industrial Visit In-charge

Head of the Department





Sant Dnyaneshwar Shikshan Sanstha's
**Annasaheb Dange College of Engineering and
Technology, Ashta**
Department of Electrical Engineering
Sem-IV SE-A

Date - 20/02/18

| Roll No. | Name of Student |
|----------|-------------------------------|
| ✓ 1 P | PATIL OMKAR |
| ✓ 2 P | SAGARE GANESHSRIRAM |
| ✓ 3 P | JADHAV RUSHIKESH RAVINDRA(BT) |
| ✓ 4 P | JADHAV SAURAV PRADIP |
| ✓ 5 P | BURUTE YOGESH GORAKH |
| 6 P | PATIL AJINKYA ANIL ✓ |
| 7 P | JADHAV TRUPTI ASHOK ✓ |
| 8 P | KUMBHAR RUTURAJ MUKUND ✓ |
| ✓ 9 P | KANDGAONKAR SHARAYU NEEL |
| ✓ 10 P | BALLAL KOMAL MAHIPATI |
| ✓ 11 P | CHAVAN RUSHIKESH DILIP |
| ✓ 12 P | PANDAV ROHIT MANIK |
| ✓ 13 P | PATIL ANKITA JAYASINGRAO |
| ✓ 14 P | ATTAR AZIMAHMAD ABDULRAUF |
| ✓ 15 P | RAUT NAMRATA MAHADEV |
| ✓ 16 P | SHINDE SARVESH SURESH |
| ✓ 17 P | ALDAR KIRAN |
| ✓ 18 P | JADHAV RUSHIKESH RAVINDRA |
| ✓ 19 P | MALI AKASH PRAKASH |
| ✓ 20 P | MANE VIJAY PRALHAD |
| ✓ 21 P | POTDAR SWAPNIL SURESH |
| 22 | BANSODE PRADIP |
| 23 P | GHORPADE APURVA SUNILKUMAR ✓ |
| 24 | AGALGAVE SHUBHAM VIJAYKUMAR |
| ✓ 25 P | ALUGADE SUSHANT DILIP |
| ✓ 26 P | BABAR SWAPNALI APPASO |
| 27 P | /BANDGAR SUJATA AKARAM ✓ |
| ✓ 28 P | BANKAR SUYOG DATTATRAYA |
| ✓ 29 P | /BARGIR MUSKAN MAHAMADHUSEN |
| ✓ 30 P | /BHANDARE PRAJAKTA SATISH |
| ✓ 31 P | BHANDARE SHITAL RAJARAM |
| ✓ 32 P | ABHIJEET MANESH BHOLE |
| ✓ 33 P | /CHOUGULE SAYALI PARSHVANATH |
| ✓ 34 P | DESAI JAYANT VIJAY |

Addl. Ex. Engineer





ANNASAHEB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA

DEPARTMENT OF ELECTRICAL ENGINEERING

Industrial Visit

SEMESTER -EVEN

ACADEMIC YEAR:2017-18

CLASS: SE Electrical - Division B

DAY & DATE :MONDAY 16/02/2017

Organization/Company : 400kV substation at RTC Talandage, Kagal MIDC

| | | |
|----|-------------------------------|---------------------------------|
| 34 | Pawar Sweta Prakash | <i>Sweta Pawar</i> |
| 35 | Phadtare Komal Suresh | <i>Komal Phadtare</i> |
| 36 | Phutane Dhiraj Anil | <i>Dhiraj Phutane</i> |
| 37 | Pradnyawant Atul Bhimrao | <i>Pradnyawant Atul Bhimrao</i> |
| 38 | Raje Sarveshkumar Suresh | <i>S. S. Raje</i> |
| 39 | /Raut Madhuja Rajendrakumar | <i>M. Raut</i> |
| 40 | /Raut Pratiksha Sadashiv | |
| 41 | Salunkhe Arvind Dattatray | <i>Arvind Salunkhe</i> |
| 42 | Salunkhe Shreyash Tukaram | <i>Shreyash Salunkhe</i> |
| 43 | /Satpute Komal Sunil | <i>Komal Satpute</i> |
| 44 | /Satpute Prajakta Bharat | <i>P. Satpute</i> |
| 45 | Sayyad Suhel Rafik | <i>Sayyad Suhel Rafik</i> |
| 46 | Shaikh Mohin Ramjan | <i>Mohin Shaikh</i> |
| 47 | /Shinde Manisha Bapuso | <i>Manisha Shinde</i> |
| 48 | /Shinde Rutuja Shivaji | <i>Rutuja Shinde</i> |
| 49 | Shingade Dattatray Ramchandra | <i>Dattatray Shingade</i> |
| 50 | Sonavane Avinash Ramesh | <i>Avinash Sonavane</i> |
| 51 | Sonawane Omkar Kishor | <i>Omkar Sonawane</i> |
| 52 | /Sutar Anuradha Mohan | <i>Anuradha Sutar</i> |
| 53 | /Tamboli Tabbasum Innus | <i>T. J. Tamboli</i> |
| 54 | Tashildar Bhaskar Shrikant | <i>Bhaskar Tashildar</i> |
| 55 | Thorat Shivani Subhash | <i>Shivani Thorat</i> |
| 56 | /Vagare Pooja Bapu | |
| 57 | Vathare Prasad Vijay | <i>Prasad Vathare</i> |
| 58 | /Velapure Monika Rajendra | |
| 59 | Abhishek Babaso Virbhadre | <i>A. B. Virbhadre</i> |
| 60 | Virbhakt Ankita Mukund | <i>Ankita Virbhakt</i> |
| 61 | Wadkar Srushti Shrikant | <i>Srushti Wadkar</i> |
| 62 | Waghmode Swapnil Sunil | <i>Swapnil Waghmode</i> |
| 63 | /Wale Pradnya Prashant | <i>Pradnya Wale</i> |
| 64 | Vynkatesh Vinayak Walvekar | |
| 65 | Yadav Supriya Tanaji | <i>Supriya Yadav</i> |
| 66 | Kumbhar Kajal Balaso | <i>Kajal Kumbhar</i> |
| 67 | Damane Sridhar Hanamant | <i>Sridhar Damane</i> |
| 68 | Mane Nishigandha Subhash | <i>Nishigandha Mane</i> |

Faculty Coordinator

Industrial Visit In-charge

Head of the Department



| | |
|--------|-----------------------------|
| ✓ 35 P | DESAI SHUBAHM RAMESH |
| ✓ 36 P | DESHMUKH VIRAJ VINOD |
| 37 P | DESHMUKHE SHUBHAM ANIL Ab |
| ✓ 38 P | DEVKAR SWAPNIL BAJIRAO |
| ✓ 39 P | DESAI PRADNYA DEELIP |
| ✓ 40 P | /GAIKWAD KAJAL MOHAN |
| ✓ 41 P | GAIKWAD MANGESH PRAKASH |
| ✓ 42 P | GAVADE RUSHIKESH PRAKASH |
| ✓ 43 P | GAVALI GAGANRAJ SUNIL |
| ✓ 44 P | GAWAS MAHADEV AJAY |
| ✓ 45 P | GHEWARI YOGESH ANIL |
| 46 P | GHULE BIBHISHAN BARBRUWAN ✓ |
| ✓ 47 P | /GIRIGOSAVI GAURI KUNDLIK |
| ✓ 48 P | GIRIGOSAVI NITIN VILAS |
| ✓ 49 P | /HAKE TRUPTI BALASAHEB |
| ✓ 50 P | HERWADE YOGESH KALLAPPA |
| ✓ 51 P | JADHAV ANAMIKA ANANDA |
| ✓ 52 P | /JADHAV DIPALI VASANT |
| ✓ 53 P | JADHAV HARSHADA CHANDRAKANT |
| 54 P | JADHAV NILESH JOTIRAM ✓ |
| 55 | /JADHAV SHITAL ANANDA |
| ✓ 56 P | /JAGADALE SUHASINI PRADIP |
| ✓ 57 P | /KADAM MADHURI RAMDAS |
| ✓ 58 P | KAMBLE MANDAR CHANDRAKANT |
| ✓ 59 P | KAMBLE PRATAP RAOSAHEB |
| ✓ 60 P | KEMPAWADE SANDESH RAMESH |
| ✓ 61 P | KODAG PARAG DIPAK |
| ✓ 62 P | KOKATE MAYURI VIJAY |
| ✓ 63 P | KOLAP GAURAV RANGRAO |
| ✓ 64 P | KOLI PRASHANT BALKRISHNA |
| ✓ 65 | /KOLI SARIKA BABASO |
| ✓ 66 P | KOSHTI VISHAL MARUTI |
| ✓ 67 P | KUMBHAR PRASHANT PRAKASH |
| ✓ 68 P | /KUMBHAR RUTUJA VIDYASAGAR |

Class Teacher

HOD

Visit conducted at 400KV Karmal on 20/02/18

Addl. Ex. Engineer



2
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2
2



Visit to Common Effluent Treatment Plant (CETP), Ichalkaranji, Maharashtra

**Common Effluent Treatment Plant (CETP), 12 MLD,
Ichalkaranji Municipal Council -416115**

Department of Civil Engineering



On 08-01-2022,
For B.Tech Final Year students

SantDnyaneshwarShikshanSanstha's
**Annasaheb Dange College of Engineering and Technology,
Ashta, Maharashtra-416301**

SANT DNYANESHWAR SHIKSHAN SANSTHA'S
**ANNASAHEB DANGE COLLEGE OF ENGINEERING AND
TECHNOLOGY, ASHTA, MAHARASHTRA-416301**



DEPARTMENT OF CIVIL ENGINEERING

REPORT ON

Visit to Common Effluent Treatment Plant (CETP), 12 MLD

[2021-22]

UNDER THE GUIDENCE OF

Dr.P.B.Bhagawati

SUBMITTED BY

Final year B.Tech Students

The aim of visit is to understand the working principals of various treatment unit of CETP and implement good engineering practices to upgrade existing system.

1. Data collection required for design of CETP.
2. Design of various components of C Treatment Plant (STP).
3. Implement good engineering practices to upgrade existing systems of CETP.

Ichalkaranji is characterized as “Manchester of Maharashtra”. Textile Industry has played an important in the growth of the city. Notably, the decadal growth of the city during the period 1951-61 (80 %) attributed to spurt in textile activity . Today , there are around one lakh power looms in the city employing almost 1.2 lakh directly and another lakh in ancillary industries. The textile industry has graduated from a mere single unit in 1904 to 1.113 lakh units in 2005. The power loom industry has eventually given rise to other supportive industries such as yarn manufacturing sizing , processing & garment manufacturing. Gradually, there has been shift from traditional hand looms to power auto looms & now shuttle less looms.

The city has four co-operative textile industries estates and these have played an important role in providing infrastructure facilities such as land, water , transportation , communication etc. The city has also been selected for funding under integrated industrial up gradation scheme funded by the Gol and GoM . The objective of the scheme is to develop the textile cluster and upgrade technology to make the city globally competitive. The scheme would be benefiting whole textile industry of Ichalkaranji. Ichalkaranji Textile development cluster ltd(ITDC) of 62 processes and 122 sizing units , these are involved in textile activities like bleaching , dyeing printing and finishing of cotton synthetic and blended fabrics.

Ichalkaranji Textile Development cluster (ITDC) has installed 12 MLD CETP at, Ichalkaranji , Tal : Hatkangale , Dist: Kolhapur , Maharashtra . The Plant is under commissioning Since June 2011. This report presents the brief description of the location, approachability project layout, salient features of the project , equipment's and machinery , infrastructure details and CETP units.

*Common Effluent Treatment Plant (CETP), 12 MLD, Ichalkaranji***Details of CETP, Ichalkaranji**

| Sr.No | Particulars | Details |
|-------|---|--|
| 1 | Plot Area (m ²) | 10568 |
| 2 | Built up Area (m ²) | 2060 |
| 3 | Domestic water requirement (m ² /day) | 10 |
| 4 | Water Requirement for polyelectrolyte preparation (m ² /day) | 56 |
| 5 | Treated sewage for dilution (m ² /day) | 9300 |
| 6 | Power requirement (MW) | 1.0 |
| 7 | Manpower requirement (nos) | 27 |
| 8 | No. of textile units contribution to Effluent | 62 process units, 122 sizing units |
| 9 | D.G Set Capacity | 750 kVA |
| 10 | Disposal of treated Effluent | TO NALLAH |
| 11 | CETP Sludge (kg/day) | Chemical Sludge :11655 Biological Sludge:2888 |
| 12 | Project Cost | Rs. 2275 lacs. |

Contribution Effluent to CETP

| Sr.No | Type of unit | Discharge MLD |
|-------|----------------------|---------------|
| 1 | Power Process | 07.390 |
| 2 | Hand Process | 02.800 |
| 3 | a) Stenter | 00.075 |
| | b) Hand with Stenter | 00.625 |
| 4 | Sizing | 01.110 |
| | Total | 12.000 |
| | Expansive 25 % | 03.000 |
| | GRAND TOTAL | 15.000 |

1. INTRODUCTION

1.1 PREFACE

Common effluent treatment plants (CETPs) are treatment systems specifically designed for collective treatment of effluent generated from small-scale industrial facilities in an industrial cluster.

Common effluent treatment plant (CETP) not only helps the industries in easier control of pollution, but also act as a step towards cleaner environment and service to the society at large.

The importance of cleanliness of an individual, or collectively the sanitation of a community as a whole was recognized by our fore fathers since long when they coined the proverbial saying “cleanliness is next to godliness”.



Fig.1 Common effluent treatment plant, Ichalakaraji

If untreated Industrial wastewater is allowed to accumulate, the decomposition of the organic material can lead to the production of large quantities of malodorous gases. Ichalkaranji is known as the Manchester of Maharashtra. Textile industry has played an important role in the growth of the city. It houses a number of small and medium scale textile units, which are export oriented. Ichalkaranji Textile Common Effluent Treatment Plant Ltd (ICH-CETP) has cluster of 67 processes, these are involved in activities like bleaching , dyeing printing and finishing of cotton , synthetic and blended fabrics. Besides these, unless the waste water is properly collected, treated &

disposed, this would create serious water pollution problems. Hence the ultimate goal is to protect the environment in a manner to commensurate with economic, social & political for concerns.

1.2. What is difference between STP and ETP

Some of the major important types of wastewater treatment process are as follows: 1. Effluent Treatment Plants (ETP) 2. Sewage Treatment Plants (STP) 3. Common and Combined Effluent Treatment Plants (CETP). It is estimated that every year 1.8 million people die due to suffering from waterborne diseases.

Sewage treatment, or domestic wastewater treatment, is the process of removing contaminants from wastewater and household sewage, both runoff (effluents) and domestic. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants.

Its objective is to produce a waste stream (or treated effluent) and a solid waste or sludge suitable for discharge or reuse back into the environment. This material is often inadvertently contaminated with many toxic organic and inorganic compounds

Effluent Treatment Plants or (ETPs) are used by leading companies in the pharmaceutical and chemical industry to purify water and remove any toxic and non toxic materials or chemicals from it. These plants are used by all companies for environment protection. The ETP plants are used widely in industrial sector, for example, pharmaceutical industry, to remove the effluents from the bulk drugs.

During the manufacturing process of drugs, varied effluents and contaminants are produced. The effluent treatment plants are used in the removal of high amount of organics, debris, dirt, grit, pollution, toxic, non toxic materials, polymers etc. from drugs and other medicated stuff. The ETP plants use evaporation and drying methods, and other auxiliary techniques such as centrifuging, filtration, incineration for chemical processing and effluent treatment

The wastewater generated from these small and medium sizes industry needs to be treated within the prescribed standards. The protection of water environment was one of the greatest concern now a days. Small Scale Industries (SSI), even if their strongly desire to install an effluent treatment plant to protect the water environment and meet the social obligation, they are unable to do so because of various constraints, lack of funds, technical man power, operational space etc. For the

protection of water environment, Ministry of Environment and Forest (MoEF) overcome with the concept of Common effluent water Treatment (CETP) in 1984). The concept of CETP refers to collective treatment which collects effluent from different industries and treats them in a common treatment plant. Implementation of CETPs reduce the number of discharge point, provides homogeneity of wastewater, emphasize hydraulic stability and facilitate the economy of waste treatment by reducing the cost for individual industries significantly.

1.3 Number of CETPs in INDIA

Central Pollution Control Board, India (CPCB, 2005) examined the performance of 130 CETPs, either established or in the process of establishment and found that only 91 CETPs are meeting effluent discharge standards for the parameters pH, BOD, COD, and TSS. The state-wise working CETPs in the country is given in Table 1.1.

Table 1.1. State-wise working status of CETPs in India

| State | Number of CETPs |
|----------------|-----------------|
| Uttar Pradesh | 3 |
| Haryana | 1 |
| Punjab | 2 |
| Delhi | 13 |
| Gujarat | 19 |
| Maharashtra | 12 |
| West Bengal | 1 |
| Rajasthan | 5 |
| Madhya Pradesh | 1 |
| Tamil Naidu | 33 |
| Karnataka | 2 |
| Andhra Pradesh | 2 |

1.4 Status of common effluent treatment plant in Maharashtra

Common Effluent Treatment Plant

Latest CETP reports as available on 03-03-2022 16:42

| Sr. No. | CETP | Designed Capacity Value (MLD) | Date | Inlet (mg/l except pH) | | | | | Outlet (mg/l except pH) | | | | |
|---------|--|-------------------------------|------------|------------------------|-----|--------|-----|------|-------------------------|------|-------|----|------|
| | | | | pH | BOD | COD | SS | TDS | pH | BOD | COD | SS | TDS |
| 1 | Additional Ambarnath CETP, Dist. Thane | 7.5 | 20-10-2019 | 7.59 | 241 | 696 | 146 | 2858 | 7.13 | 3.6 | 16 | 14 | 292 |
| 2 | Butibori CETP Pvt. Ltd., Dist. Nagpur | 5 | 24-01-2022 | 7.5 | 298 | 840 | 578 | 3598 | 7.9 | 22 | 52 | 20 | 528 |
| 3 | SMS Waluj CETP Pvt Ltd, Dist. Aurangabad | 10 | 14-02-2022 | 7.7 | 260 | 832 | 180 | 2864 | 7.8 | 1768 | 104 | 32 | 1768 |
| 4 | Greenfield CET Plant P. Ltd, Dist. Solapur | 1.5 | 07-02-2022 | 7.39 | 260 | 712 | 82 | 3478 | 7.86 | 140 | 376 | 44 | 3212 |
| 5 | Ichalkaranji Textile Development Cluster Ltd. (1 MLD), Dist. Kolhapur | 1 | 24-01-2022 | 5.5 | 850 | 2611.2 | 132 | 6914 | 7.1 | 135 | 422 | 84 | 3456 |
| 6 | Ichalkaranji Textile Development Cluster Ltd. (12 MLD), Dist. Kolhapur | 12 | 24-01-2022 | 5.6 | 310 | 939.6 | 172 | 5098 | 8 | 44 | 121.2 | 46 | 2011 |
| 7 | Kagal-Hatkanangale C.E.T.P., Dist. Kolhapur | 10 | 24-01-2022 | 7.7 | 68 | 213.6 | 92 | 3580 | 7.4 | 11.5 | 34 | 48 | 1574 |
| 8 | L.K. Akiwate Industrial Co Op, Estate Ltd, Dist. Kolhapur | 0.8 | 24-01-2022 | 6.3 | 300 | 911.6 | 124 | 5604 | 6.8 | 70 | 220.4 | 82 | 2020 |

1.5 Need for treatment

To form a Textile Cluster, a local agglomeration of small, medium and large textile and ancillary enterprises, which are engaged in production marketing range of related and complementary products and services. To provide adequate water supply, roads drainage system, power facilities, common infrastructure facilities. To develop markets, raw material bank, common processing center industrial training center, common facility center, communication center etc.

To provide facilities for quality improvement, common testing facilities, research and development.

To provide fire-fighting facilities, common effluent treatment plant and to promote and develop critical infrastructure facilities for textile trade commerce and industry.

2. STUDY AREA

Ichalkaranji Textiles Devp. Cluster (ITDC) is setting up common effluent treatment plants at different locations in Kolhapur district of Maharashtra. ITDC, a special purpose vehicle formed jointly by Ichalkaranji Municipal Council, Industrial Estate & DKTES will upgrade infrastructure in and around Ichalkaranji necessary for the development of textile industry. In June 2006, bids were invited for 12 MLD capacity CETP at Ichalkaranji for Ichalkaranji Municipal Council, 1 MLD capacity CETP at Hatkanangle for Shri Laxmi Co-operative Industrial Estate and 1.2 MLD capacity CETP at Yadrav for Parvati Co-operative Industrial Estate in Kolhapur.

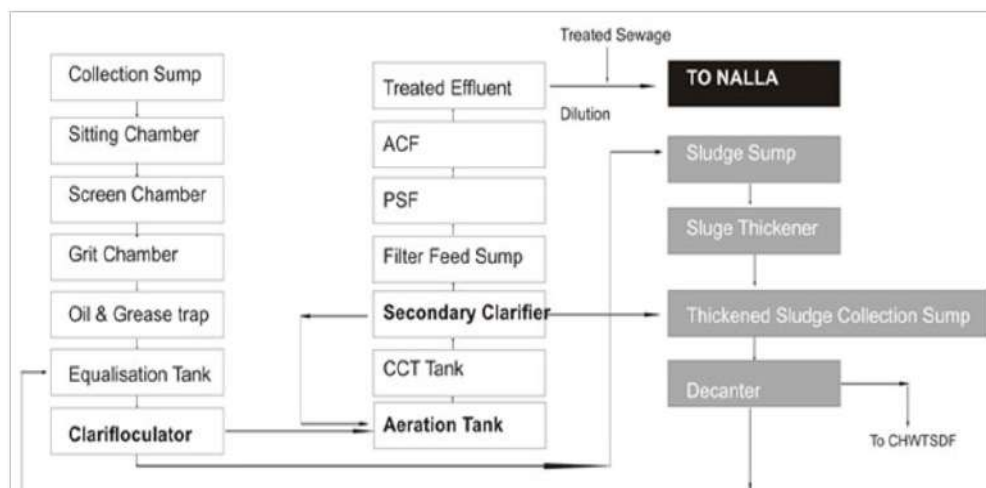


Fig. 2.1 Flow chart of Common effluent treatment plant, Ichalkaranji (CETP)
Process chart of the CETP units.

| Sr. | Location | PM ₁₀ µg/m ³ | PM _{2.5} µg/m ³ | SO ₂ µg/m ³ | NO _x µg/m ³ | CO µg/m ³ |
|-----|------------------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|-------------------------|
| 1 | Project Site | 55.81 | 27.60 | 10.49 | 13.70 | 0.39 |
| 2 | Ichalkaranji Industrial Area | 61.04 | 30.84 | 13.84 | 17.33 | 0.42 |
| 3 | Yadrav | 53.23 | 26.52 | 6.42 | 9.52 | 0.36 |
| 4 | Shiradwad | 47.73 | 24.00 | 5.84 | 9.21 | 0.36 |
| 5 | Takavade | 42.00 | 20.64 | 4.78 | 8.06 | 0.30 |

In CETP operations, the main safety hazards involve burns, shock, slips and falls. The project may cause health problems like skin diseases to workers handling toxic effluent discharged by various

industrial units. The workers are subject to various diseases, including skin diseases. For protection from toxic material it may be made compulsory for all workers in the plant to wear masks and gloves while working in the CETP. The plant workers may be encouraged to undergo health checkups at regular intervals in order to protect themselves from various diseases.

To meet the medical needs of the workers it is suggested that tie-ups with nearest hospital or primary Health center (PHC) may be made.

Various Units of CETP



Grit Chamber



Screen Chamber

Grit Chamber

Screen Chamber




Sludge Thickener

Sludge Thickener



Aeration Tank

Aeration Tank

| | |
|---|---|
|  <p>Decanter</p> |  <p>Sand and Activated Filter</p> |
| <p>Decanter Unit</p> | <p>Sand and activate filter</p> |
|  <p>Chemical Tank</p> |  <p>Secondary Clarifier</p> |
| <p>Chemical Tank</p> | <p>Secondary Clarifier</p> |

Environmental monitoring program

| Sr. | Environment attribute | Location | Parameters | Period and Frequency |
|-----|----------------------------------|--|--|--|
| 1 | Ambient Air Quality | One at center One Upwind One downwind | Criteria pollutants :SO ₂ , NO _X , PM ₁₀ PM _{2.5} | 24-hr average sampling (Twice a week) 3 Seasons |
| 2 | Ambient Noise | In plant Noise Levels and Noise level within 0.5 km radius from CETP | dB (A) Levels Leq (Night +Day) | Leq (day) and Leq (Night) should be monitored once in month. |
| 3 | Treated Effluent quality | CETP inlet and outlet | pH Suspended Solids, Dissolved Solids, Dissolved Oxygen , COD , BOD , oil & Grease, Chlorides , Mixed Liquor Suspended Solids, Mixed Liquor Volatile Suspended Solid , S V I | Daily |
| 4 | Soil quality | Greenbelt area | Organic matter C ,H,N, Alkalinity, Acidity , heavy metals and trace metal | Pre-monsoon and post-monsoon during functional phase |
| 5 | Ground water quality | Six Locations | Drinking Water parameters as per IS 10500 | Once in three months |
| 6 | Surface water quality | Six Location | Parameters as per IS 2296 | Once in Three months |
| 7 | Aquatic Flora and Fauna | 3 to 4 locations | Phytoplankton's (No. of species and their density), zooplanktons (No, of species and their density), Total Coli forms (TC) , E. Coli | Once in Three months |
| 8 | Green belt development | Around CETP site | Rate of Survival and growth various species | Once in Three months |
| 9 | Occupational exposure monitoring | At CETP site | Lung test, Audiometer test. | Once a Year |

In CETP operations, the main safely hazards involve burns, shock , slips and falls. The proposed project may cause health problem like skin diseases to workers handling toxic effluent discharged by various industrial units.

The workers are subject to various diseases, including skin diseases. For protection from toxic material it may be made compulsory for all workers in the plant to wear masks and gloves while working in the CETP.

The plant workers may be encouraged to undergo health checkups at regular intervals in order to protect themselves from various diseases.

To meet the medical needs of the workers it is suggested that tie-ups with nearest hospital or primary Health center (PHC) may be made

Hand Process Units (28 Nos) Contributing to CETP

| Sr.No | Name of the Unit | Effluent Generation MLD |
|--------------|---|--------------------------------|
| 1 | Shri Padmavati Bleaching Works | 0.1 |
| 2 | Sarveshwar Processors | 0.1 |
| 3 | Matoshri Dyeing | 0.1 |
| 4 | Bharat Processors | 0.1 |
| 5 | Hanuman Bleaching Works | 0.1 |
| 6 | Shri Anant Processors | 0.1 |
| 7 | Prakash Dyeing & Bleaching | 0.1 |
| 8 | Shri Ganga Processors | 0.1 |
| 9 | Rajmukund Processors | 0.1 |
| 10 | International Processors | 0.1 |
| 11 | Pavan Processors | 0.1 |
| 12 | Karani Processors | 0.1 |
| 13 | Arihant Processors | 0.1 |
| 14 | Shri Sai Processors | 0.1 |
| 15 | Shri Ambika Bleaching Works | 0.1 |
| 16 | Shivam Processors | 0.1 |
| 17 | Shri Processors | 0.1 |
| 18 | Sunder Processors | 0.1 |
| 19 | Shri Dattamohan co-op Hand Processors Ltd | 0.1 |

| | | |
|--------------|---------------------------------------|------------|
| 20 | Shrinivas Processors | 0.1 |
| 21 | Vyankateshwara Bleaching | 0.1 |
| 22 | Empire Processors | 0.1 |
| 23 | Gayatri Bleaching Works | 0.1 |
| 24 | Veeerbhadra Processors | 0.1 |
| 25 | Sidda – Hanuman Dying Industries | 0.1 |
| 26 | Tirupati Processors | 0.1 |
| 27 | Kranti Processors | 0.1 |
| 28 | Padmavati Processors (Bajarang Mills) | 0.1 |
| Total | | 2.8 |

Settling Chamber

| Particular | Data |
|------------|-------------------------------|
| Quantity | One No. |
| M.O.C | R.C.C M25 |
| DT | 30 sec at peak flow |
| Size | M x 1.0 m x 4.1 m LD + 0.5 FB |

Screen Chamber

| Particular | Data |
|------------|---------------------------------|
| Quantity | One No. |
| M.O.C | R.C.C M25 |
| DT | 4 m x 0.9 x 0.5 SWD + 0.5 m FB |
| Size | To remove large floating matter |


Grit Chamber

| Particular | Data |
|------------|---|
| Quantity | 2 (Two) |
| M.O.C | R.C.C M25 |
| DT | 30 m x 3.5 m x 2.0 m SWD + 4.5 M FB |
| Size | To Collect the effluent from various Industries |

References:

1. CPCB, 2005. Performance Status of Common Effluent Treatment Plants in India.
2. APHA, 2005. Standard Methods for the Examination of Water and Wastewater .21 st ed. Amer Pub. Health Assoc. Inc. Washington D.C.
3. CPC.B. 2001. Common Effluent Treatment Plants. Parivesh Newsletter, Central Pollution Control Board, Delhi.
4. Anantha Singh, T.S., Ramesh, S.T., 2013. New Trends in Electrocoagulation for the Removal of Dyes from Wastewater: A Review. Environ. Eng. Sci. 30, 333-345

Permission Letter

| | | |
|--|---|---|
|  <ul style="list-style-type: none"> ■ 'A' Grade Institute Accredited by NAAC, Bangalore ■ NBA Accredited courses ■ ISO 9001:2015 Certified Institute <p>An Autonomous Institute</p> | |  <p>Sant Dnyaneshwar Shikshan Sanstha's ANNAHAEB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY (Approved by AICTE, New Delhi, Govt. of Maharashtra. Affiliated to Shivaji University, Kolhapur)</p> |
| Ref. To, <u>ADCET/Civil/1972</u> | Date: <u>06-01-2022</u> | |
| Executive Engineer CETP, Ichalkaranji - 416115 | | |
| Sub : Permission to visit Common Effluent Treatment Plant. | | |
| Respected Sir, | | |
| As a part of curriculum, our B. Tech and T.Y civil engineering students are interested to visit Common Effluent treatment plant located in Ichalkaranji. So we are kindly requesting you to give us permission to visit Common Effluent treatment plant. | | |
| No. of students visiting the plant | - 46 (B.tech - 25 , T.Y - 21) | |
| No. of Faculty | - 2 | |
| No. of Non Teaching staff | - 1 | |
| Expected date of visit | - Saturday 8/1/2022 | |
| Contact Person Details - | Prof. P. B. Bhagawati Asst Prof. Civil Engg. Dept. Mobile no: 9742506253 E-mail : pbb_civil@adcet.in | Prof. M.H.Mota Asst. Prof. Civil Engg. Dept. Mobile no: 9511868650 E-mail : mhm_civil@adcet.in |
| I hereby undertake to follow the rules and discipline while visiting the plant. | | |
| We are hereby request you to kindly grant the permission to visit the plant. Also kindly arrange for technical person to guide the students. | | |
| Thanking you, | | |
| Yours Faithfully, |   | |
| ■ Ashta, Tal: Walwa, Dist. Sangli - 416 301, Maharashtra ■ Ph.: 02342-241107 ■ Fax: 02342-2411106 ■ E-mail : info@adcet.in | | |
| | | www.adcet.in |

Department of Civil Engineering

Students List

| Roll No. | PRN | Name of Student |
|----------|----------|--------------------------------|
| 401 | 18151037 | Bandgar Shivam Dilip |
| 403 | 18151025 | Bhandare Ashish Satish |
| 406 | 18151016 | Desai Pratik Vikas |
| 407 | 18151024 | Deshmukhe Prathmesh Ramchandra |
| 409 | 18111012 | Dharmadhikari Saurabh Arun |
| 410 | 18151028 | Farakte Mayuresh Shashikant |
| 412 | 18151004 | Hake vardhan vikas |
| 418 | 18151045 | Kamble Nikhil Sampat |
| 425 | 18151011 | Patil Ajinkya Kishor |
| 430 | 18151003 | Pisal Vishvraj Suresh |
| 436 | 18151008 | SHENDE PRATIK BHIMRAO |
| 437 | 18151034 | Suryavanshi Piyush Jotiram |
| 439 | 18151026 | Wankhade abhishek shankarrao |
| 441 | 18151020 | Yedage Vivek Rajaram |
| 442 | 19152004 | Agam sourabh |
| 448 | 19152002 | Itkar sujeet bibhishan |
| 456 | 19152019 | Pawara sandip vikala |
| 459 | 19152011 | Umbarje Revansidha Nilesh |
| 462 | 17151010 | Choudhari Shreyash Balasaheb |
| 463 | 17151054 | TANDALE SHUBHAM SANJAY |
| 464 | 20156012 | Bhure Rushikesh Vishwambhar |
| 465 | 20156011 | Mane Omkar Ashok |
| 466 | 21157002 | Koli Rohit Arun |

CPCB STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS

| Parameter | Into inland Surface water | On land for irrigation | Into marine Coastal area |
|------------------------------------|---------------------------|------------------------|--------------------------|
| 1. PH | 5.5-9.0 | 5.5-9.0 | 5.5-9.0 |
| 2. BOD _{5,20} | 30 | 100 | 100 |
| 3. Oil and grease | 10 | 10 | 20 |
| 4. Temperature (°C) | 4 | - | 45°C |
| 5. Suspended solids | 0 | 200 | 100 |
| 6. Dissolved solids (inorganic) | °c 1 | 2100 | - |
| 7. Total residual Cl | 0 | | |
| 8. Ammonia (as N) | 0 | - | 1.0 |
| | 2100 | - | 50 |
| | 1.0 | | |
| | 50 | | |
| 9. Kjedal (as N) | 100 | - 250 | 100 |
| 10. COD | 250 | 0.2 | 250 |
| 11. Arsenic (As) | 0.2 | - | 0.2 |
| 12. Mercury (Hg) | 0.01 | - | 0.01 |
| 13. Lead (Pb) | 0.1 | - | 1.0 |
| 14. Cadmium (Cd) | 1.0 | - | 2.0 |
| 15. Chromium (Cr) | 2.0 | - | 3.0 |
| 16. Copper (Cu) | 3.0 | - | 15 |
| 17. Zinc (Zn) | 5.0 | - | 0 |
| 18. Selenium (Se) | 0.05 | - | .05 |
| 19. Nickel (Ni) | 3.0 | 2.0 | 5.0 |
| 20. Boron (B) | 2.0 | 0.2 | - |
| 21. Cyanide (CN) | 0.2 | 600 | 0.2 |
| 22. Chloride (Cl-) | 1000 | 1000 | - |
| 2- 23. Sulphate (SO ₄) | 1000 | - | - 15 |
| 24. Flouride (F-) | 2.0 | | |

Concentration in mg L⁻¹ except for pH and temperature


Source: The Gazette of India: Extraordinary-Part (I) Sec3 (i)


Date: 27/02/2023

To,
Director,
Annasaheb Dange College of Engineering & Technology, Ashta.
Subject: - Regarding Industry Institute Interaction Report.
Respected Sir,

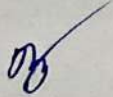
As per discussion in departmental meeting, we are here with submitting the information of industrial visit to various industries in the last five years.


| Year | Sr. No. | Names of the Industries visited | Names of the Faculty Members who visited. | Name & Designation of the person from industry to whom faculty interacted. | Date of Visit. | Expected Outcomes. |
|---------|---------|-----------------------------------|---|--|----------------|---|
| 2022-23 | 1 | Sweet Confectionery Pvt. Ltd. | 1) Mr. A. N. Metkari 2) Mr. C. V. Suryawanshi 3) Mr. Y. S. Shaikh 4) Mr. S. s. Mohite 5) Ms. P. R. Phalke | Mr. Prakash Patil 9765004861 | 07-09-2022 | - Company Offers industrial visits. - Company offers Testing and Consultancy opportunities. - Company Offers Training and Internship. - Company offers Sponsored Projects. |
| | 2 | Universal Power Control Pvt. Ltd. | 1) Mr. A. N. Metkari 2) Mr. C. V. Suryawanshi 3) Mr. Y. S. Shaikh 4) Mr. S. s. Mohite | Mr. Prakash Bhagat 7588588393 | 07-09-2022 | - Company Offers industrial visits. - Company offers Testing and Consultancy opportunities. - Company Offers Training and Internship. |


Mr. A. N. Metkari HOD
(Incharge Departmental I.I.I. Cell)


(Department of Basic Sciences)

| | | | | | | |
|---------|---|---|--|--|------------|---|
| | | | 5) Ms. P. R. Phalke | | | - Company offers Sponsored Projects. |
| 2021-22 | 1 | Super Craft Foundry, Pvt, LTD, Jaysingpur | 1) Mr. A. N. Metkari 2) Mr. C. V. Suryawanshi | Mr. Kumar Bhagate 9763713076 | 24-11-2021 | - Company offers Placement Opportunities. - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company offers Testing and Consultancy opportunities. |
| | 2 | Swift Enterprises, Pvt, LTD, Jaysingpur | anshi | Mr. Kumar Bhagate 9763713076 | 24-11-2021 | - Company offers Placement Opportunities. - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company offers Testing and Consultancy opportunities. |
| | 3 | M G Industries Karad | 1) Mr. R. B. Deshmukh 2) Mr. A. G. Shinde 3) Mr. S. B. Barge 4) Mr. S. D. Mane 5) Mr. S. S. Mohite | Mr. Shivraj Kashid (Contact No. 7040143145) | 27-11-2021 | - Company Offers Internship. - Company Offers industrial visits. |
| | 4 | A G Electrical Motors and Electro Services Mallapur Karad | 1) Mr. A. G. Shinde 2) Mr. R. B. Deshmukh 3) Mr. S. B. Barge 4) Mr. S. S. Mohite 5) Mr. S. D. Mane | Mr. Aarsh Shaha. +91 9822008646 | 27-11-2021 | - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company Offers Add-on Courses Opportunities. - Company Offers Training and Internship. |


 Mr. A. N. Metkari HOD
 (Incharge Departmental I.I.I. Cell)


 (Department of Basic Sciences)

| | | | | | | |
|---------|---|--|---|--|------------|--|
| | 5 | Accumax Products Malkapur Karad | 1) Mr. A G Shinde 2) Mr. R B Deshmukh 3) Mr. S. B Barge 4) Mr. S S Mohite 5) Mr. S D Mane | Mr. S G Dalvi 91-9307151671 | 27-11-2021 | - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company Offers Internship. |
| | 6 | Modern Battery Corporation, Sangli | 1) Mr. Z. D. Sande 2) Mr. Y. S. Shaikh | Mr. Mohammed Albaz 8482983377 | 01-01-2022 | - Company ready to give their contribution in curriculum design. - Company Offers industrial visits. - Company Offers Training and Internship - Company Offers for student's projects. |
| | 7 | Edate Brothers Distill Water manufactures and Suppliers, Kolhapur. | Mrs. V. M. Vairat | Mr. Deepak Prakash Edate Ph- 0231-240430 | 11-04-2022 | - Company ready to give their contribution in curriculum design. - Company Offers industrial visits. |
| | 8 | Softwin Infotech, Sangli | Mr. S. L. Salunkhe Mr. D. R. Kale | Mr. Yogesh Jadhav | 13-03-2022 | - Company ready to give their contribution in curriculum design. - Company Offers industrial visits. - Company Offers Training and Internship - Company Offers for student's projects. - Company Offers Add-on Courses Opportunities. - Company Offers for testing and Consultancy. |
| 2018-19 | 1 | Cooper Corporation Pvt. | 6) Mr. Deshmukh R.H. | Sanjeevasojha | 04/03/2019 | - Company Offers Sponsored projects, Training and Internship. |

Mr. A. N. Metkari HOD
(Incharge Departmental I.I.T. Cell)

(Department of Basic Sciences)

| | | | | | | |
|---|--|--|--|--|-----------|--|
| | | Ltd. Additional MIDC, Satara. | 7) Mr. Tate A.S. 8) Ms. S. Nayal. Ms. S. S. Warekar. | (Contact No. 898512668)) | | - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. |
| 2 | | Kirloskar Brother Ltd. Kirloskarwadi, Tal-Walwa, Dist-Sangli. | 6) Miss. S.B. Barge. 7) Mr. A.S. Tate. Mr. V. A. Patil. | Sangram Gorpade. +91 2346 222301 | 4/03/2019 | - Company Offers Sponsored projects if it is approved by R&D Department only. - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company Offers Add-on Courses Opportunities. - Company Offers Testing and Consultancy Opportunities. - Company Offers Industrial Trainings for students. |
| 3 | | Hindustan Aeronautics Ltd. HCL Corporation office, 15/1 Cubbon Road, Bangalore-560001 | 6) Mr. M. D. Khedekar. 7) S. J. Chettawar. 8) Miss. S. B. Barge. Mr. S. E. Barge. | Kalpna Maidam. 91-8022320107 | 5/03/2019 | - Company Offers Sponsored projects if it is approved by R & D Department only. - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company Offers Add-on Courses Opportunities. |
| 4 | | RCF Thal India Ltd. Alibag. | 1) Mr. C. V. Suryawanshi 2) Mr. H.S. Dhangade. 3) Mr. G.S. Gondkar. | Mr. Dharmendra M. Ramteke. Chief Manager (HRD) The RCF Thal India Ltd. Alibag Ph.No.-02141-238165 Mb No.- 9820560222 | 6/03/2019 | - Training, Internship after sixth semester only. - Company Offers industrial visits. |

Mr. A. N. Metkari HOD
(Incharge Departmental I.I.I. Cell)


(Department of Basic Sciences)

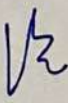
| | | | | | | |
|---------|---|---|--|--|------------|--|
| | 5 | Exotech Zanani Industries Pvt. Ltd. F27, B Ranjangaon MIDC Taluka – Shirur, Dist: Pune, 412220, Maharashtra, India | 1) Mr. A. G. Shinde. Mr. S. M. Chavan. | Mr. Lalasaheb Mane (9850084119), Sr. HR Manager. | 01/04/2019 | <ul style="list-style-type: none"> - Company Offers Sponsored projects, Training and Internship. - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. - Company Offers Recruitment opportunities - Company Offers expert lecture - Company Offers Internship opportunities |
| | 6 | AG Electronics, Karad. | 1) Mr. P. V. Gaikwad. 2) Mr. A. N. Metkari Mr. Sagar Patil. | Mr. Shridhar Ramdurgkar (9890248201) | 15/04/2019 | <ul style="list-style-type: none"> - Training, Internship after sixth semester only. - Company Offers industrial visits. - Company Offers Industrial Training. |
| 2017-18 | 1 | TRIO Enterprises, Shiroli. | 1) Ms. M. V. Patil. 2) Ms. A. A. Pujari. 3) Ms. M. M. Mathai. Mr. S. V. Nishandar. | Mr. Dev Shete. Chief Manager (HRD) The TRIO Enterprises, Shiroli. Ph.No.-02302460280 | 21/03/2018 | <ul style="list-style-type: none"> - Company Offers Sponsored projects, Training and Internship. - Company Offers industrial visits. |
| | 2 | RCF Thal India Ltd. Alibag. | 8) Mr. S. L. Chittewar. 9) Mr. M. R. Katti. 10) Mr. M. D. Khedekar. 11) Mr. A. S. Tate. 12) Mr. H.S. Daingade. Miss. Jyoti Kharade. | Mr. Dharmendra M. Ramteke. Chief Manager(HRD) The RCF Thal India Ltd. Alibag. Ph.No.-02141-238165 Mb No.- 9820560222 | 23-03-2018 | <ul style="list-style-type: none"> - Company Offers Sponsored projects, Training, Internship after sixth semester only. - Company Offers industrial visits. |
| | 3 | V. P. Project management, Pune. | 9) Mr. R. V. Jadhav. 10) Mr. Y. U. Kulkarni. 11) Mr. V. M. Patil. Mrs. S. K. Jadhav. | Mr. Nalin V. Iekar. HRD of V. P. Project management, Pune. Mb. No.- 9822053596 | 30-03-2018 | <ul style="list-style-type: none"> - Company Offers Sponsored projects if it is approved by R&D Department only. - Company Offers industrial visits. |

Mr. A. N. Metkari HOD
(Incharge Departmental I.I.I. Cell)

(Department of Basic Sciences)

| | | | | | | |
|--|---|--|--|---|------------|---|
| | | | | | | - Company ready to give their contribution in curriculum design. |
| | 4 | Shankar Sagar Engineering Pvt Ltd, Sangli. | 1) Mr. C. V. Suryawanshi. 2) Dr. S. H. Patil, Ms. S. Mayal. | Mr. Shankar Sagar Chief Manager (HRD) Shankar Sagar Engineering Pvt Ltd, Sangli. Mb No. 9421406972 | 24-03-2018 | - Company Offers Sponsored projects. - Company Offers industrial visits. - Company ready to give their contribution in curriculum design. |


 Mr. A. N. Metkari HOD
 (Incharge Departmental I.I.T. Cell)


 (Department of Basic Sciences)




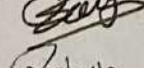
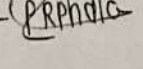
Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology,
Ashta

Industry-Institute-Interaction Cell
Consolidated Report of Industry Visit

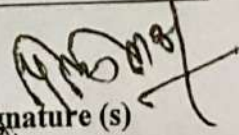
| | | | |
|---------------------------------------|-----------------|--|--|
| 1. Name of Industry | | Sweet Confectionery Pvt. Ltd. | |
| 2. Address | | Plot No-K-1 Block 416436, MIDC Industrial Area, Sangli (MAH) | |
| 3. Contact Details | 3.1 HRD | Mr. Prakash Patil - 9765004869 | |
| | 3.2 Development | - | |
| 4. Date of Visit | | 07/09/2022 | |
| 5. Name of Faculty Visited/Interacted | | Mr. A. N. Metkari Mr. C. V. Suryawandhi Mr. Y. S. Shaikh Mrs. S. S. Mohite Ms. P. R. Phalake | |
| 6. Objectives of the Meeting | | To correlate theoretical knowledge with industrial environment. | |
| 7. Points of discussion | | 1) Training / Internship 2) Sponsored Project 3) Curriculum Design 4) Industrial Visit 5) Testing & Consulting | |
| 8. Concluding Remarks | | | |
| 8.1 Placement Opportunities | | No | |
| 8.2 Training/Internship Opportunities | | Yes | |
| 8.3 Sponsored Projects | | Yes | |

Basic science term ends on
 Dec. 2022 for academic year
 2021-22

| | |
|--|-----|
| | |
| 8.4 Add-on Courses Opportunities | No |
| 8.5 Curriculum Design (Industry involvement) | No |
| 8.6 Testing and Consultancy Opportunities | Yes |
| 8.7 Industrial Visits | Yes |
| 8.8 Any other comments | — |

- 1) ANM - 
2) CVS - 
3) VSS - 
4) /SSM - 
5) /PRP - 



Signature (s) 


HOD

(Department of Basic Sciences)

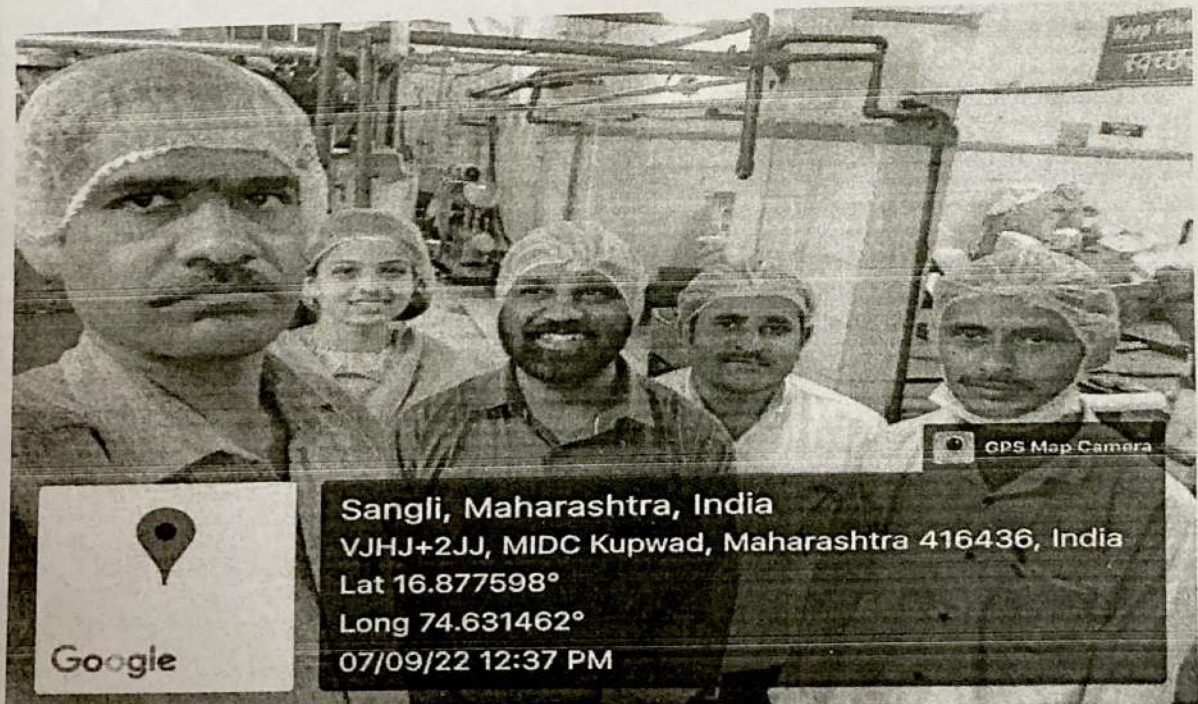
Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
(An Autonomous Institute)

DEPARTMENT OF BASIC SCIENCES

Faculty Industrial Visit

AY: 2022-23

Name of Industry: Sweet Confectionery Pvt. Ltd., Sangli





Field visit sample

FIELD TRAINING REPORT

A report submitted in partial fulfillment of the requirements of the award of

degree of

BACHELOR OF TECHNOLOGY IN

CIVIL ENGINEERING

Submitted by

Student Name : PRERNA PRADIP KALE

URN : 20152001

Roll No. : 463



DEPARTMENT OF CIVIL ENGINEERING

**Annasaheb Dange College of Engineering & Technology,
Ashta**

(An Autonomous Institute)

Approved by AICTE, Permanently affiliated to Shivaji University, Kolhapur,
Accredited by NBA (AICTE) & NAAC (UGC), Recognized by UGC u/s 2(f) &
12(B).

2022-2023



DEPARTMENT OF CIVIL ENGINEERING

Annasaheb Dange College of Engineering & Technology, Ashta

(An Autonomous Institute)




CERTIFICATE

This is to certify that the "Field Training Report" submitted by Ms. Prema Pradip Kale (URN:20152001) is a bonafide record of work done by him/her and submitted during 2021 - 2022 academic year, in partial fulfillment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY IN CIVIL ENGINEERING.


Guide

Name: P.S. Kadam


Department Field Training Coordinator

Mr. P. A. Pisal


Head of the Department

Prof. Santosh S. Mohite

Department of Civil Engineering

ACKNOWLEDGEMENT

I am highly indebted to Executive Director **Prof. R. A. Kanai** and Director **Dr. Vikram Patil**, for the facilities provided to accomplish this internship.

I would like to thank our Head of the Department **Prof. Santosh S. Mohite** for his ~~and~~ criticism throughout my internship.

I would like to thank **Mr. P. A. Pisal**, Department internship coordinator for their support and advices to get a complete internship in above said organization.

I am extremely grateful to my department staff members and friends who helped me in successful completion of this internship.

Any endeavor cannot lead to result unless and until a proper platform is provided for the same. We express our thanks to **Shrikrupa pearl** for giving us the opportunity to undertake this summer internship program.

We sincerely thank **Management** for their constant guidance, valuable suggestions and encouragement throughout the progress of summer internship program.

We would also like to take this opportunity to thank all projects team for their precious guidance and administration staff for their help.

And last but not the least we would like to thank our parents and colleagues for their motivational support.

Student Name : **PRERNA P. KALE**

URN: 20152001

ABSTRACT

- As an undergraduate, this training program was an excellent opportunity for me to get to the ground level and experience the things that I would have never gained. This also gave me a chance to move with different types of people on site. Within this 30 days field training I learned many things such as lineout, excavation, laying of PCC bed, shuttering of column, casting of footing and column, plastering work, flooring, etc. Having exposed to such situations I was able to obtain lot of experiences which will be definitely helpful in my future career as an engineer.

DECLARATION

I hereby declare that this Summer Field Training report is bonafide work carried out by me under guidance of project team at **SHRIKRUPA PEARL**. Further I declare that this report has not previously formed the basis of award of any associate ship or other similar degrees or diplomas, has not been submitted anywhere else.

DATE: 23/07/22

Student Name : PRERNA .P. KALE

URN: 20152001

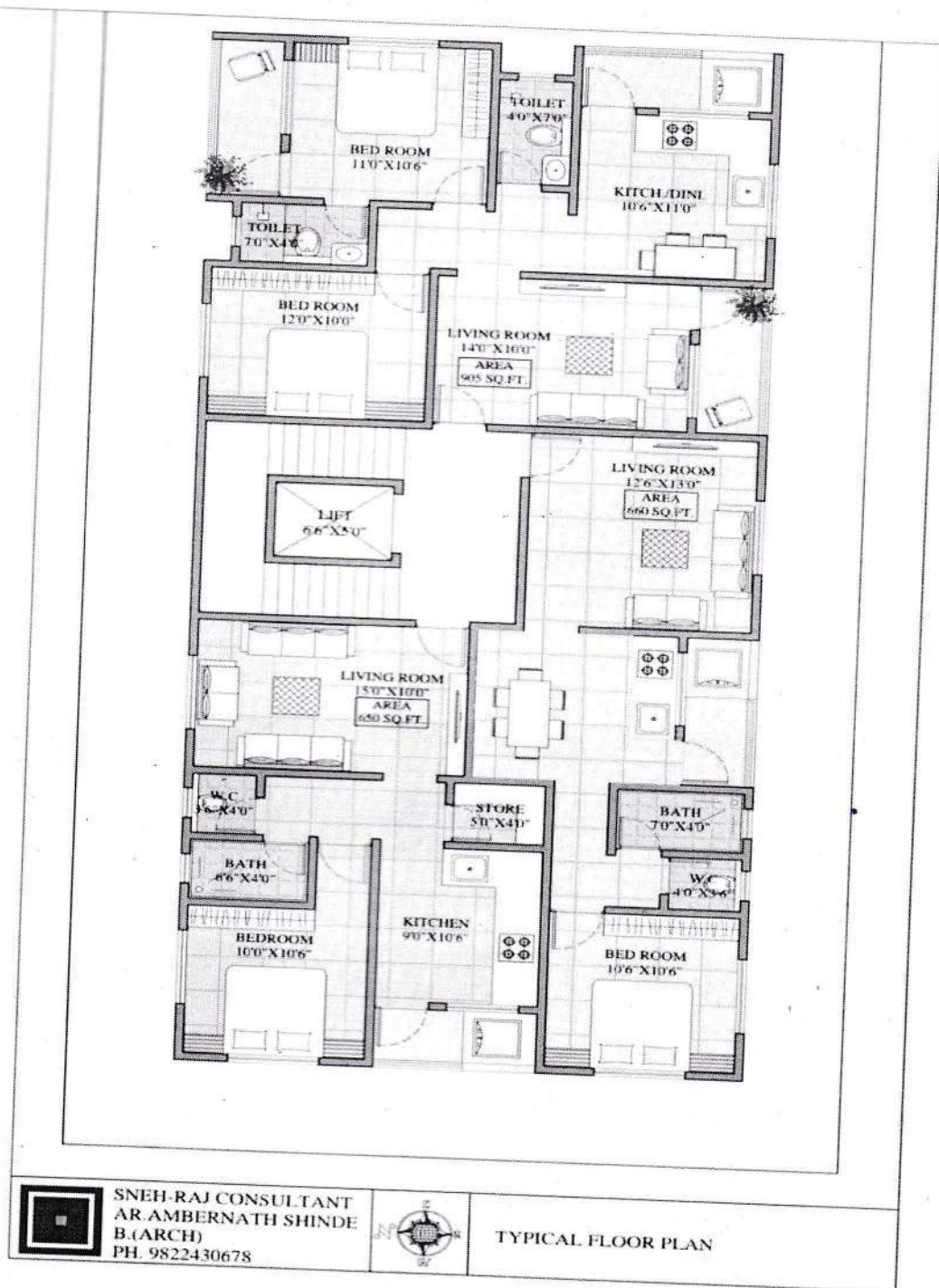
OBJECTIVES OF FIELD TRAINING PROGRAM

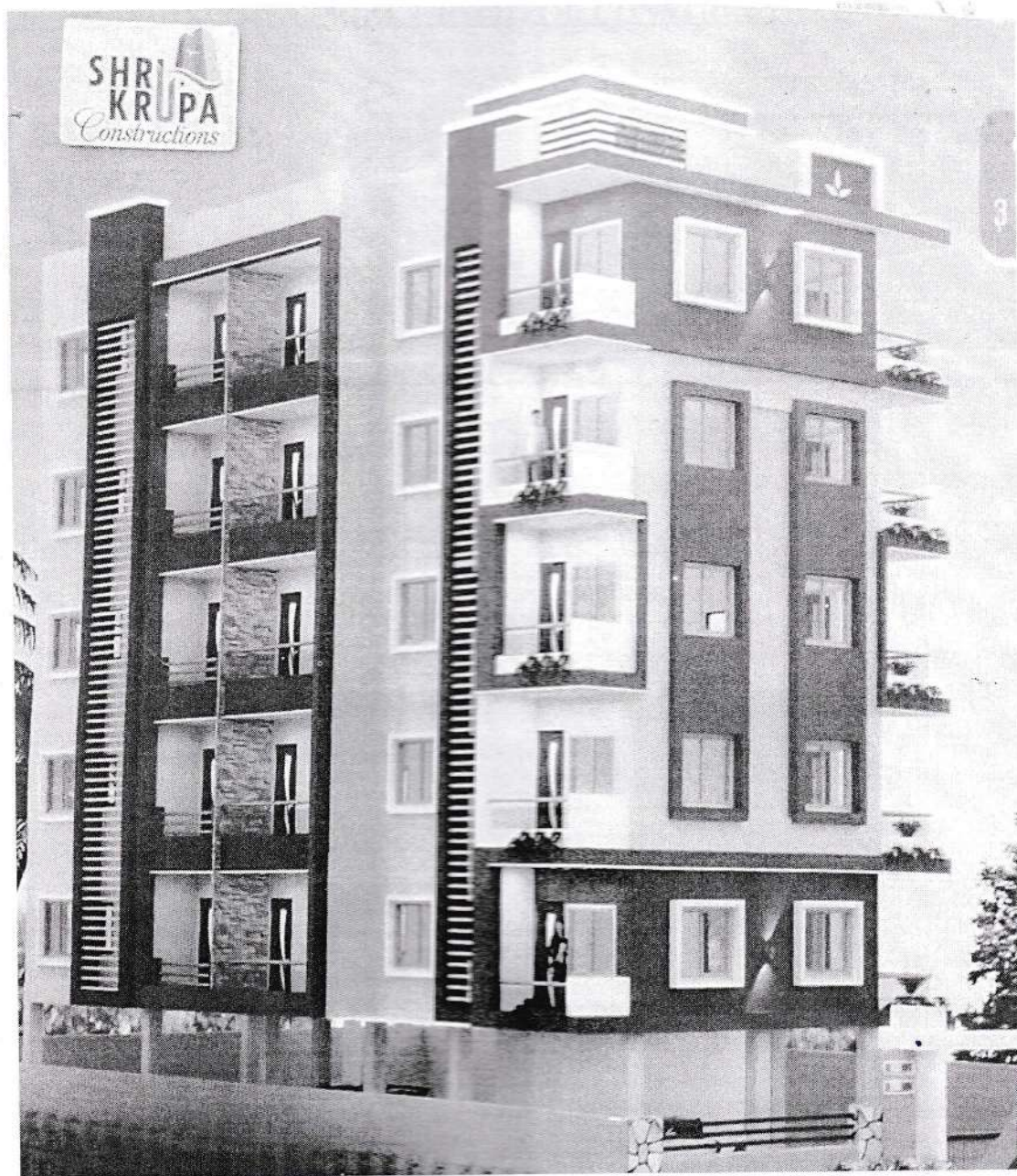
1. To familiarize with proper **planning, design** and field operations.
2. Plan should include **construction methods** to be adopted for different construction activities.
3. To get exposure with the **management** and communication functions performed with in a **construction project**.
4. Construction projects are **executed** based on the drawing and specifications.

COMPANY PROFILE

- NAME OF COMPANY - SHRIKRUPA CONSTRUCTION
- ESTABLISHMENT ON - 15 JULY 2011
- NAME OF SITE - SHRIKRUPA PEARL
SHRIKRUPA CLASSIC
SHRIKRUPA SANKUL
- NAME OF ENGINEER - TATYASAHEB KHOT
- NAME OF SITE ENGINEER - SUBHASH INGAVALE
- CONSULTANT -
 - NAME OF STRUCTURAL DESIGNER - N.K.PATIL
 - NAME OF ARCHITECTURE - AMBARNATH SHINDE
 - NAME OF LEGAL CONSULTANT - ABHIJEET SOHANI
- OFFICE ADDRESS - SHRIKRUPA CONSTRUCTION , AT SANGLI-MIRAJ ROAD .

• SITE DETAILS





SITE PHOTOGRAPHS :

Arrange day wise site photographs having site location details on it. (At least 2 colour photographs of each day)

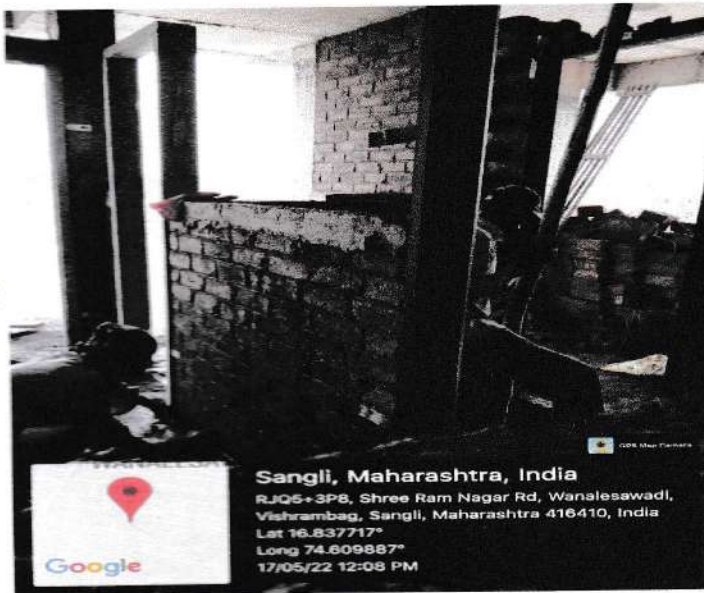
16/05/2022 – VISIT AND ANALYSIS OF SITE AS PER DRAWING



17/5/22 - BRICKWORK



18/5/22 - BRICKWORK



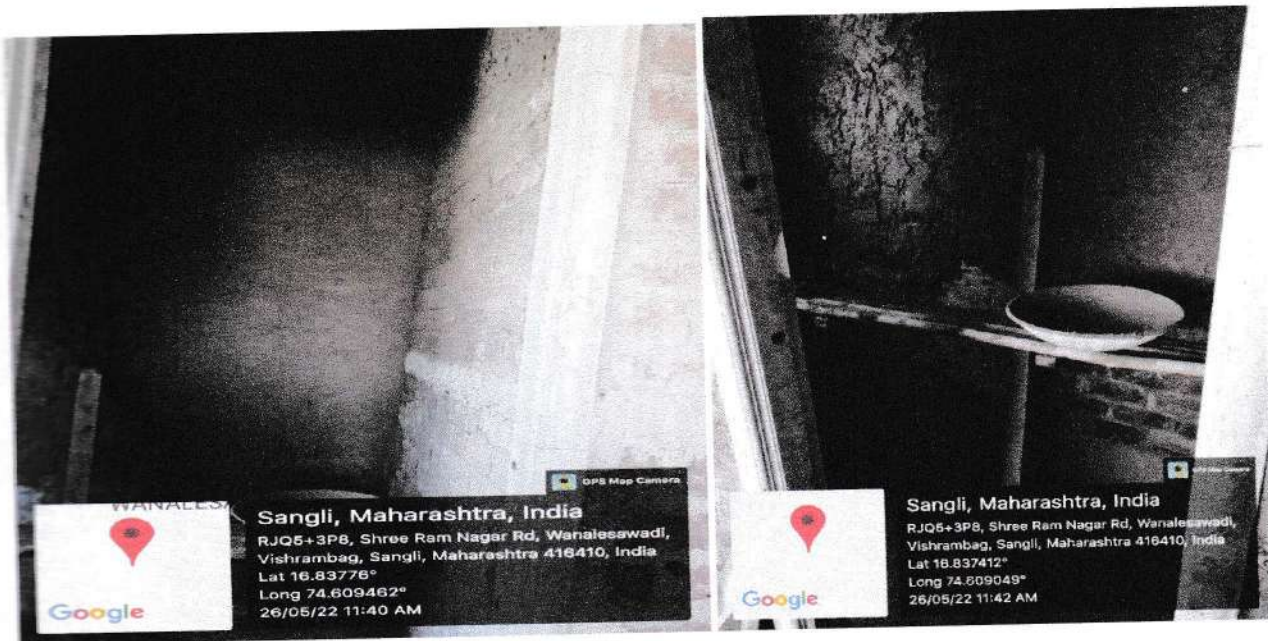
19/5/22 SHUTTERING OF COLUMN



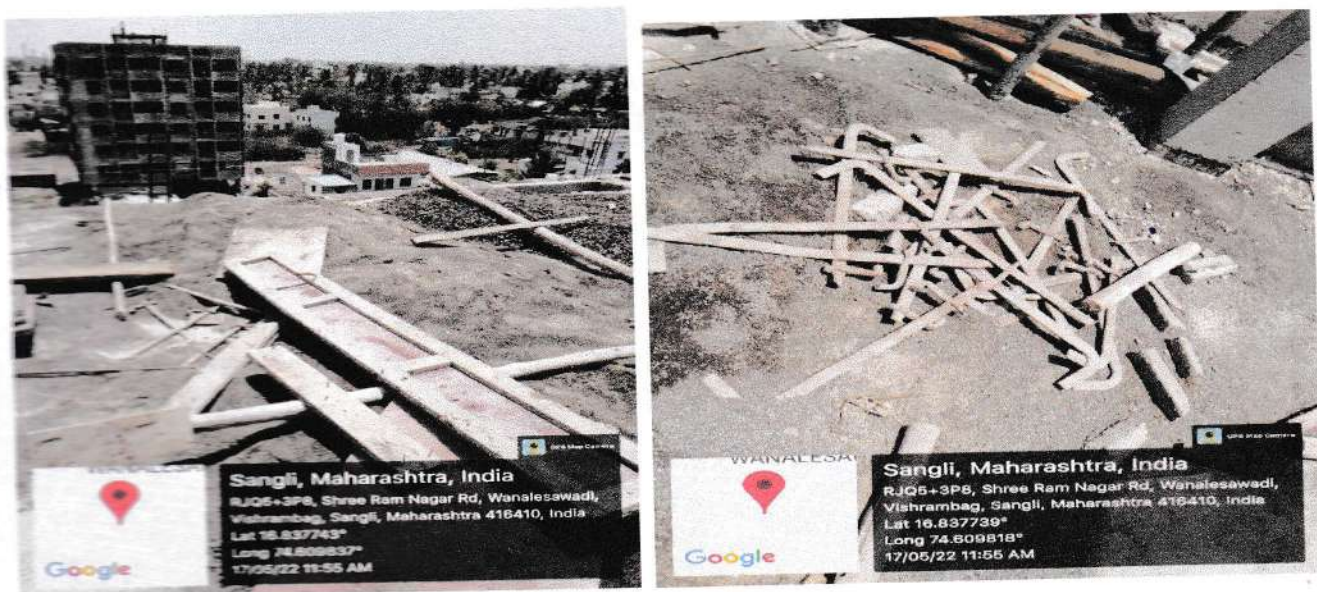
20/5/22 – PLASTERING



21/5/22 – PLASTERING WORK



23/5/22 – DESHUTTERING OF COLUMN





ANNASAHAB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA
(An Autonomous Institute)

DEPARTMENT OF CIVIL ENGINEERING

FIELD TRAINING & INTERNSHIP DAILY WORK REPORT

PROJECT / SITE NAME & ADDRESS: Hariom

DATE

REPORT NO

Plot No. 21 & 22, Omkar Colony, behind

16-05-22

01

SITE ENGINEER OR PROJECT I/C

New Highcourt Sangli

WORKING HOURS

From: -

To: -

Activity - Visit & analysis of site as per drawing

| A | MANPOWER (BY LABOR CLASS) | NO. | TOTAL HOURS |
|------------------------------------|--|---------------------|----------------|
| | - | | |
| | - | | |
| | - | | |
| | - | | |
| | - | | |
| | - | | |
| B | EQUIPMENT DETAILS | NO. | TOTAL HOURS |
| 1. | Level tube | 1 | - |
| 2. | Measuring tape | 1 | - |
| 3. | Plumb bob | 1 | - |
| | | | |
| | | | |
| C | MATERIAL CONSUMPTION | UNIT | TOTAL QUANTITY |
| | - | | |
| | - | | |
| | - | | |
| | - | - | - |
| | - | | |
| | | | |
| | | | |
| D | WORK DONE | UNIT | TOTAL QUANTITY |
| | - | | |
| | - | | |
| | - | - | - |
| | - | | |
| | - | | |
| | | | |
| E | SELF LEARNING EXPERIENCE | | |
| | Today it is the first day of our field training. I visited the site & observed the site and checked as per the drawing | | |
| SUEPRVISOR / SITE ENGINEER REMARK: | | For PRAJ Developers | |
| | | | |
| | | Partner | |
| | | SIGNATURE | |



ANNASAHAB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA
(An Autonomous Institute)

DEPARTMENT OF CIVIL ENGINEERING

FIELD TRAINING & INTERNSHIP DAILY WORK REPORT

| | | | |
|---|---|---|-----------------|
| PROJECT / SITE NAME & ADDRESS: Hariom Plot No 21 & 22, Omkar colony, Sangli | | DATE 17/5/22 | REPORT NO 02 |
| SITE ENGINEER OR PROJECT I/C Activity - Brickwork of 3 rd floor - | | WORKING HOURS From: 9 a.m To: 6 p.m | |
| A | MANPOWER (BY LABOR CLASS) | NO. | TOTAL HOURS |
| 1. | Skilled labour (masons) | 2 | 8 hrs |
| 2. | Bhisti | 1 | 4 hrs |
| 3. | Unskilled labour | 4 | 8 hrs |
| B | EQUIPMENT DETAILS | NO. | TOTAL HOURS |
| 1. | Trowel | 1 | - |
| 2. | Measuring tape | 1 | - |
| 3. | Plumb & bob | 1 | - |
| 4. | Pan | 2 | - |
| 5. | Straight edge | 1 | - |
| C | MATERIAL CONSUMPTION | UNIT | TOTAL QUANTITY |
| 1. | Cement } (1:6) | bags | 39 |
| 2. | Sand } | brass | 2.86 |
| 3. | Bricks | No. | 1420 |
| D | WORK DONE | UNIT | TOTAL QUANTITY |
| 1. | Brickwork of 3 rd floor | brass | 1.0 |
| E | SELF LEARNING EXPERIENCE On the 2 nd day of my training, I understood how brickwork is carried out on site. | | |
| SUEPRVISOR / SITE ENGINEER REMARK: | | For PRAT Developers Partner SIGNATURE | |



ANNASAHAB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA
(An Autonomous Institute)

DEPARTMENT OF CIVIL ENGINEERING

FIELD TRAINING & INTERNSHIP DAILY WORK REPORT

| | | | |
|---|---|---|----------------|
| PROJECT / SITE NAME & ADDRESS: Hariom Plot No 21 & 22, Omkar Colony Sangli | | DATE: 18/5/22 | REPORT NO: 03 |
| SITE ENGINEER OR PROJECT I/C: Activity → Brickwork of 3 rd floor | | WORKING HOURS From: 9:00 am To: 6:00 pm | |
| A | MANPOWER (BY LABOR CLASS) | NO. | TOTAL HOURS |
| 1. | Skilled labour (Masons) | 2 | 8 hrs |
| 2. | Unskilled labour | 4 | 8 hrs |
| 3. | Bhisti | 1 | 4 hrs |
| B | EQUIPMENT DETAILS | NO. | TOTAL HOURS |
| 1. | Trowel | 1 | |
| 2. | Measuring tape | 1 | |
| 3. | Plumb bob | 1 | |
| 4. | pan | 2 | |
| 5. | Straight edge | 1 | |
| C | MATERIAL CONSUMPTION | UNIT | TOTAL QUANTITY |
| 1. | Bricks | Nos. | 40 |
| 2. | Cement (1:6) | bags | 3 |
| 3. | Sand | brass | 1420 |
| D | WORK DONE | UNIT | TOTAL QUANTITY |
| 1. | Brickwork of 3 rd floor | brass | 1.1 |
| E | SELF LEARNING EXPERIENCE Today I have learned how the brickwork activity is carried out. | | |
| SUPERVISOR / SITE ENGINEER REMARK: | | For PRAT Developers Partner SIGNATURE | |



Hands on training sample



2019-2020

Student Industry Forum

Date – 06/06/2019

Activity: - CNC Vocational Training

Objectives: -To conduct the training as hands on training for the students

Duration: - 7th June to 21st June 2019 (15 Days)

Name of Trainer: - Mr. Raju Kage

Sponsoring Agency: - IEA (Ichalkaranji Engineering Association)

No of Students: - 10

Faculty Coordinator: - Prof. S. V. Nishandar and Prof. D. A. Mhamane





2019-2020

Date: 06th June, 2019

To,
The Chairman and Board Members,
Ichalkaranji Engineering Association (IEA),
Ichalkaranji.

Subject – Invitation for the Inaugural Function of “CNC Vocational Training” under **Student Industry Forum 2019-20 Activity** held at Head Office, Ichalkaranji Engineering Association (IEA), Ichalkaranji.

Respected Sir,

We, Faculty members and Students of Mechanical Engineering Department, Annasaheb Dange College of Engineering and Technology (ADCET), Ashta cordially invite Chairman and Board Members of IEA, Ichalkaranji for the Inaugural Function of “CNC Vocational Training” organized by IEA, Ichalkaranji and ADCET, Ashta for the students of ADCET, Ashta on June 07th, 2019 at 9:00 a.m.

Venue - Head Office, Ichalkaranji Engineering Association (IEA), Ichalkaranji.

Thanking you...

Dr. S. P. Chavan
HOD



Executive Director,
ADCET, Ashta

Date – 06/06/2019

Registration - CNC Vocational Training

[illegible]

Mr. S. V. Nishandar and Mr. D. A. Mhamane,
Faculty Coordinator

Dr. R. B. Patil,
Dean, R&D

~~Dr. S. P. Chavan,~~
HOD



2019-2020

CNC Vocational Training- Attendance

[illegible]

Mr. S. V. Nishandar and Mr. D. A. Mhamane,
Faculty Coordinator

Dr. R. B. Patil,
Dean, R&D

Dr. S. P. Chavan,
HOD





2019-2020

CNC Vocational Training- Attendance

[illegible]

Mr. S. V. Nishandar and Mr. D. A. Mhamane,
Faculty Coordinator


Dr. R. B. Patil,
Dean, R&D


Dr. S. P. Chavan,
HOD

**2019-2020**

CNC Vocational Training- Attendance

191619

[illegible]

Mr. S. V. Nishandar and Mr. D. A. Mhamane,
Faculty Coordinator

Dr. R. B. Patil,
Dean, R&D

Dr. S. P. Chavan,
HOD





①

Sant Dnyaneshwar Shikshan Sanstha's
ANNASAHAB DANGE COLLEGE OF ENGINEERING AND TECHNOLOGY, ASHTA,
Tal: Walwa, Dist: Sangli (MS). India 416 301
(An Autonomous Institute)

Department of Computer Science and Engineering

Date – 22/02/2022

To,

The Executive Director
ADCET Ashta,


Subject– Regarding Permission to Conduct 03 Days Hands on Training on AR-VR with IOT Integration for Third Year students of CSE department.

Respected Sir,

Computer Engineering Student Association “CESA” is planning to organize **03 days Hands on Training on AR-VR with IOT Integration** for Third Year students of CSE department from **Friday, 25th February to Sunday, 27th February - 2022**. As Augmented Reality and Virtual Reality (AR-VR) are thrust areas in the computer science and engineering stream, this training will be beneficial for students. The resource persons for 03 days hands-on training program are from **Intellect Technologies, Mumbai**. This training will be in self finance mode. We request you to permit us for conducting the training program at CSE department.

Thanking You,

Yours faithfully


Dr. Smriti Bhandari
HOD CSE

Executive Director Remark


Prof. R. A. Kanai
Executive Director



Sant Dnyaneshwar Shikshan Sanstha's

Annasaheb Dange College of Engineering and Technology, Ashta.

ADCET

Computer Engineering Students Association "CESA"
is organizing 03 days hand on training on

AR & VR with IOT Integration

Date: 25 Feb to 27 Feb 2022

Venue: CSE New Laboratory, Third Floor, Central Library.

Workshop Content

1. Getting proficient with Unity 3D Editor applications
2. Getting familiar with Microcontroller/Microprocessor
3. Controlling devices in realtime over cloud
4. Introduction to Augmented Reality
5. Work with Vuforia SDK & AR Foundation
6. AR in social media
7. Create VR environment & build ready to use VR Applications



Key Features

- ✓ Training through industrial experts.
- ✓ Participants will get free guidance for their final year project (MOU).
- ✓ Selective participants will get an internship offer & a Certificate of excellence based on activeness throughout the workshop and a participation certificate to all participants.
- ✓ Carrying a personal notebook computer is highly recommended.
- ✓ All the components required for IOT project will be provided along with a Google cardboard based VR box.

Registration Link: <https://forms.gle/Dp2MU2Jpobb59oeh6>

Note: Training Program is compulsory for students enrolled for ARVR elective course.

For other students limited seats only.

For query call or WhatsApp on: +91 8830854483

Prof. Amol Dange
CESA Incharge

Dr. S. H. Bhandari
HOD CSE

Dr. Vikram S. Patil
Director, ADCET.

Prof. R.A.Kanai
Executive Director, SDSS.





Sant Dnyaneshwar Shikshan Sanstha's

ANNASAHEB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA.

(An Autonomous Institute)



03 Days Hands-on Training on,

AR & VR with IOT Integration

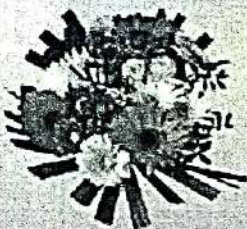
25th to 27th February - 2022

(Under Lead College Scheme of Shivaji University, Kolhapur)

Organized by

Computer Engineering Students Association (CESA)
Department of Computer Science & Engineering

WEL-COME





Sant Dnyaneshwar Shikshan Sanstha's
**Annasaheb Dange College of
Engineering and Technology, Ashta.**

ADCET

Computer Engineering Students Association "CESA"
is organizing 03 days hand on training on

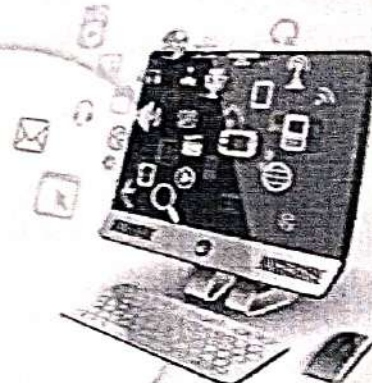
AR & VR with IOT Integration

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For other students limited seats only.

For query call or WhatsApp on: +91 8830854483



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Executive Director, SDSS.



**03 Days Hands-on Training on
AR & VR with IOT Integration**
(Under Lead College Scheme of Shivaji University, Kolhapur)
25th to 27th February 2022.

Day - 04 - Monday - 28 February - 2022

| Sr. No. | Roll No. | Name of Participant | Session - 1 | Session - 2 | Session - 3 |
|---------|----------|--------------------------------|-------------|----------------------|----------------------|
| 01 | 3021 | Anushka Anil Deshingkar | | <i>A. Deshingkar</i> | <i>A. Deshingkar</i> |
| 02 | 3157 | Gopane Snehal Vinayak | | <i>Gopane</i> | <i>Gopane</i> |
| 03 | 3001 | Ahamash Apsar Sayyad | | <i>A. Sayyad</i> | <i>A. Sayyad</i> |
| 04 | 3025 | Nikita Ravindra Patil | | <i>N. Patil</i> | <i>N. Patil</i> |
| 05 | 3091 | Bhairavi Ajitsinh Patil | | <i>B. Patil</i> | <i>B. Patil</i> |
| 06 | 3012 | Anushka Amar Gaikwad | | <i>A. Gaikwad</i> | <i>A. Gaikwad</i> |
| 07 | 3116 | Aarti Kore | | <i>A. Kore</i> | <i>A. Kore</i> |
| 08 | 3018 | Devyani Hanmant Shivankar | | <i>D. Shivankar</i> | <i>D. Shivankar</i> |
| 09 | 3013 | Shirute Omkar Rajendra | | <i>S. Shirute</i> | <i>S. Shirute</i> |
| 10 | 3158 | Satyam Madan Patil | | <i>S. Patil</i> | <i>S. Patil</i> |
| 11 | 3023 | Komal Sunil Pol | | <i>K. Pol</i> | <i>K. Pol</i> |
| 12 | 3108 | Ishtika Adsul | | <i>I. Adsul</i> | <i>I. Adsul</i> |
| 13 | 3113 | Sakshi Sunil Sutar | | <i>S. Sutar</i> | <i>S. Sutar</i> |
| 14 | 3008 | Deshmane Harshikesh Ramchandra | | <i>D. Deshmane</i> | <i>D. Deshmane</i> |
| 15 | 3119 | Abhishek Merruti Shinde | | <i>A. Shinde</i> | <i>A. Shinde</i> |
| 16 | 3145 | Onkar Shashikant Jadhav | | <i>O. Jadhav</i> | <i>O. Jadhav</i> |
| 17 | 3147 | Shubham Sitaran Bhore | | <i>S. Bhore</i> | <i>S. Bhore</i> |
| 18 | 3076 | Abrar Mahamadali Jamadar | | <i>A. Jamadar</i> | <i>A. Jamadar</i> |
| 19 | 3007 | Priyanka Prakash Patil | | <i>P. Patil</i> | <i>P. Patil</i> |
| 20 | 3114 | Anjali Balasaheb Nikam | | <i>A. Nikam</i> | <i>A. Nikam</i> |

Amol Dange
Prof. Amol Dange
CESA Incharge

S. H. Bhandari
Dr. S. H. Bhandari
HOD CSE

'A' Grade Institute Accredited by NAAC
NBA Accredited Courses
ISO 9001:2008 Certified Institute

DEPARTMENT OF COMPUTER SCIENCE
AND ENGINEERING



Sant Dnyaneshwar Shikshan Sanstha's
**ANNASAHEB DANGE COLLEGE OF
ENGINEERING AND TECHNOLOGY, ASHTA**
An Autonomous Institute

**03 Days Hands-on Training on
AR & VR with IOT Integration**
(Under Lead College Scheme of Shivaji University, Kolhapur)
25th to 27th February 2022.

Day - 04 - Monday - 28 February - 2022

| Sr. No. | Roll No. | Name of Participant | Session - 1 | Session - 2 | Session - 3 |
|---------|----------|------------------------------|-------------|-------------|-------------|
| 21 | 3115 | Pratiksha Sanjay Yadav. | | Pyadav. | Pyadav. ✓ |
| 22 | 3103 | Dipti Shankar Patil. | | Patil | Patil ✓ |
| 23 | 3006 | SAURABH AGRAWAL | | Agarwal | Agarwal ✓ |
| 24 | 3166 | Ranveersinh Amarsinh Shitole | | Shitole | Shitole ✓ |
| 25 | 3118 | Rushikesh Rajendra Barsing | | R.Barsing | R.Barsing ✓ |
| 26 | 3035 | Hemant Rajaram Lohar | | Hemant | Hemant ✓ |
| 27 | 3033 | Sangram Popat Harinar | | Harinar | Harinar ✓ |
| 28 | 3030 | Chaitanya Sunil Pethi | | Pethi | Pethi ✓ |
| 29 | 3019 | Sailesh Sanjay Takale | | Takale | Takale ✓ |
| 30 | 3140 | Shreyash Pralhad Lawhate | | Lawhate | Lawhate ✓ |
| 31 | 3024 | Rohit Gaurav | | Gaurav | Gaurav ✓ |
| 32 | 3004 | Ganesh Wadikar | | Wadikar | Wadikar ✓ |
| 33 | 3111 | Madhar Dhaygude | | Dhaygude | Dhaygude ✓ |
| 34 | 3109 | Saurabh Khade | | Khade | Khade ✓ |
| 35 | 3174 | Mohammadsaad Wahid Ibushe | | Ibushe | Ibushe ✓ |
| 36 | 3002 | Chaitanya Tukaram Mulik | | Mulik | Mulik ✓ |
| 37 | 3172 | Rushikesh Gnananrao Gore | | Gore | Gore ✓ |
| 38 | 3015 | Abhijeet Shashikant Kudche. | | Kudche | Kudche ✓ |
| 39 | 3009 | Radhika Poojin Powar | | Powar | Powar ✓ |
| 40 | 3120 | Anuja Uddhav Dake | | Dake | Dake ✓ |

Prof. Amol Dange
CESA Incharge

Dr. S. H. Bhandari
HOD CSE



**03 Days Hands-on Training on
AR & VR with IOT Integration**
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Day-04 - Monday - 28 February -2022

| Sr. No. | Roll No. | Name of Participant | Session -1 | Session - 2 | Session -3 |
|---------|----------|---------------------------|------------|-------------|------------|
| 41 | 3027 | Shreya Kailas Vibhute | | Shibhute | Shibhute |
| 42 | 3102 | Avanti Hanmant Pawar | | A.H. Pawar | A.H. Pawar |
| 43 | 3105 | Pallavi Jayakar Yadav | | Yadav | Yadav |
| 44 | 3020 | Shivam Nimbalkar | | Shivam | Shivam |
| 45 | 3028 | Muddassar Mujawar | | Mujawar | Mujawar |
| 46 | 3107 | Sonket Suryawanshi | | Sonket | Sonket |
| 47 | 3038 | Sumit S. Kamble | | Kamble | Kamble |
| 48 | 3026 | Kartik Bali | | Bali | Bali |
| 49 | 3117 | Mahesh Kagine | | Mahesh | Mahesh |
| 50 | 3014 | Rushikesh Jadhav | | Jadhav | Jadhav |
| 51 | 3022 | Rushikesh Fadnis | | Fadnis | Fadnis |
| 52 | 3110 | Pranay Paratwar | | Paratwar | Paratwar |
| 53 | 3112 | Aditi Santosh Patil | | Patil | Patil |
| 54 | 3106 | Ketaki Vishwas Pokhalekar | | Pokhalekar | Pokhalekar |
| 55 | 3037 | Tejaswini Vilas Kokate | | Kokate | Kokate |
| 56 | 3104 | Anagha Anil Hajare | | Hajare | Hajare |
| 57 | 3003 | Sakshi Kumar Wadkar | | Wadkar | Wadkar |
| 58 | 3123 | Priyanka Baburao Vhargar | | Vhargar | Vhargar |
| 59 | 3129 | Patil Sneha Sujit | | Sujit | Sujit |
| 60 | 3186 | Nikita Ramesh Gote | | Gote | Gote |

Prof. Amol Dange
CESA Incharge

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DEPARTMENT OF COMPUTER SCIENCE
AND ENGINEERING




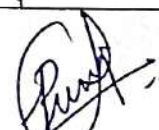
Sant Dnyaneshwar Shikshan Sanstha's
**ANNASAHEB DANGE COLLEGE OF
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**03 Days Hands-on Training on
AR & VR with IOT Integration**
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25th to 27th February 2022.

Day - 01 - Monday - 28 February - 2022

| Sr. No. | Roll No. | Name of Participant | Session - 1 | Session - 2 | Session - 3 |
|---------|----------|--------------------------|-------------|-------------|-------------|
| 61 | 3017 | Pratiksha Shivaji Bolake | | Bolake | Bolake |
| 62 | 3034 | Akshata Uttam Hodage | | Hodage | Hodage |
| 63 | 3032 | Mayuri Dariba Vhargar | | Vhargar | Vhargar |
| 64 | 3010 | Shravan Vijay Chavan | | Chavan | Chavan |
| 65 | 3148 | Prajwal Rajendra Patil | | Patil | Patil |
| 66 | 3122 | Aniket Vishwas Khot | | Khot | Khot |
| 67 | 3011 | Lalit Baliram Mane | | Mane | Mane |
| 68 | 3005 | Babaji Thakappa Patil | | Patil | Patil |
| 69 | 3039 | Tejas Shilwant | | Tejas | Tejas |
| 70 | 3155 | ADITYA VYAVAHARE | | Vyavahare | Vyavahare |
| 71 | | | | | |
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Prof. Amol Dange
CESA Incharge


Dr. S. H. Bhandari
HOD CSE



03 Days Hands-on Training on
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Computer Engineering Students Association (CESA)
(25th to 27th February - 2022)

My Feedback about (Recourse Person) **Mr. Rahul Gupta**, Managing Director, Intellect Technologies, Mumbai.

| SR. No. | QUESTIONS | EXCELENT | GOOD | SATISFACTORY | AVERAGE |
|---------|--|----------|------|--------------|---------|
| 1 | The lectures were delivered with good communication skills | ✓ | | | |
| 2 | Volce modulation of the faculty | ✓ | | | |
| 3 | The presentation slides were informative | ✓ | | | |
| 4 | Complex concepts discussed with simple analogies | | ✓ | | |
| 5 | The faculty responds positively to the queries asked | | ✓ | | |
| 6 | Hands-on demonstration | ✓ | | | |
| 7 | The practical session was based on the lecture conducted | ✓ | | | |
| 8 | The practical session helped me a lot in understanding the concepts taught during lectures | ✓ | | | |
| 9 | Knowledge gain from the faculty | | ✓ | | |
| 10 | I will be happy to see this faculty again in the next workshops arranged | ✓ | | | |



Sant Dnyaneshwar Shikshan Sanstha's

ANNASAHEB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA.

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03 Days Hands-on Training on,

AR & VR with IOT Integration

(Under Lead College Scheme of Shivaji University, Kolhapur)

Organized by

**Computer Engineering Students Association (CESA)
Department of Computer Science & Engineering**



CERTIFICATE

This is to certify that Mr. / Ms. _____
has successfully completed **03 Days Hands-on Training on Augmented Reality & Virtual Reality (ARVR) with IOT Integration**, held on 25th to 27th February 2022 at Department of Computer Science and Engineering, ADCET Ashta.

Prof. Amol Dange
CESA Incharge

Dr. S. H. Bhandari
HOD CSE

Dr. Vikram S. Patil
Director

Prof. R. A. Kanai
Executive Director



**DEPARTMENT OF
AERONAUTICAL ENGINEERING
PRESENTS**

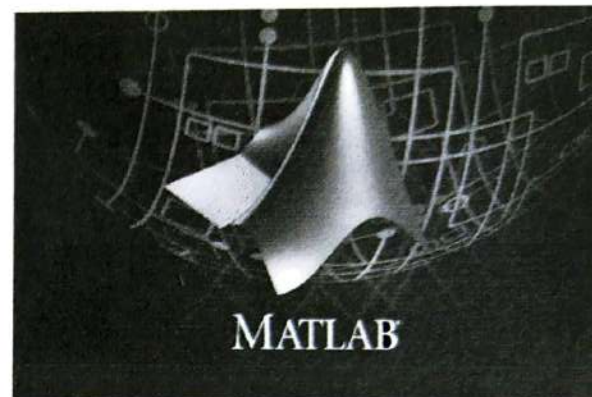


**STUDENT ACTIVITY
INTRODUCTION TO PROGRAMMING USING
MATLAB**

**This activity is aimed at imparting
programming skills used to carry out
numerical methods to Third year
Aeronautical Students**

Schedule

- **5 hours a week and for 4 weeks**
- **On Tue-Wed& Friday (2+2+1 hrs)**
- **Timing: 6 to 8 PM**



By:
Noble Sharma
Asst. Professor
Dept. of Aeronautical Eng
ADCET
Mobile no: +91- 9700266337

Register at: <https://forms.gle/pmcx6GzXUqrYN2wf7>



Notice:

Date: 16-June-2020

Addon course registration

Matlab for Numerical computing is an add-on program aiming to impart programming knowledge to second and third year students during the lockdown. The fundamentals of programming and their applications to the engineering domain will be taught on the MATLAB platform.

Pre-Requisites: Laptop/ PC with MATLAB or GNU Octave

Audience: T.Y and FY students of Aero Department

No. of participants: 50

Number of hours: 20 hours

Core topics covered: Introduction to the need of programming in the engineering domain, Fundamentals of programming, arrays, Matrix manipulations, curve fitting, conditional statements, data visualization using 2D plots, and contours, advanced plotting techniques, solving differential equations using ode45.

Registration link: <https://forms.gle/wEZfTeAhp4z7cybV8>

Faculty Incharge
Noble Sharma

HOD
Dr. Imran Bellary

| estamp | Email Address | Name | URN Number | Mobile Number | Email id | Timing preferred |
|--------------------|-------------------------|--------------------------|------------|---------------|-------------------------|------------------|
| 6/15/2020 13:06:12 | ruturajsalokhe123@gmail | Ruturaj Salokhe | 19172002 | 8600444985 | ruturajsalokhe123@gmail | 10AM-12PM |
| 6/15/2020 13:06:55 | tannaygholap@gmail.com | Tanmay Gholap | 18171048 | 7888268190 | tanmaygholap@gmail.com | 6PM-8PM |
| 6/15/2020 13:10:35 | jadhavvaishnavi1210@gn | Vaishnavi Sambhaji Jadh. | 18171019 | 8855951210 | jadhavvaishnavi1210@gn | 2PM-4PM |
| 6/15/2020 13:16:03 | omkarrajman416122@gm | Omkar Rajmane | 17171040 | 7972468116 | omkarrajman416122@gm | 6PM-8PM |
| 6/15/2020 13:18:02 | manths777x@gmail.com | Manthan Patil | 17171032 | 9145565554 | manths777x@gmail.com | 6PM-8PM |
| 6/15/2020 13:20:58 | pratikshajw49@gmail.com | Pratiksha Wadkar | 18171046 | 9762112912 | pratikshajw49@gmail.com | 2PM-4PM |
| 6/15/2020 13:26:55 | kalpeshjagdale53@gmail. | Kalpesh Jagadale | 17171017 | 8308232466 | kalpeshjagdale53@gmail. | 2PM-4PM |
| 6/15/2020 13:30:37 | abhishekmajage210945@ | Abhishek Shankar Majag | 18172009 | 8668616613 | abhishekmajage210945@ | 10AM-12PM |
| 6/15/2020 13:31:56 | psayalir1499@gmail.com | Sayali Rajgonda Patil | 17171034 | 8459048234 | psayalir1499@gmail.com | 2PM-4PM |
| 6/15/2020 13:32:24 | prathmesh.bhosale1999@ | Prathmesh Deepak Bhos | 18171036 | 8177961080 | prathmesh.bhosale1999@ | 6PM-8PM |
| 6/15/2020 13:35:17 | satputePriyanka165@gm | Priyanka Raosaheb Satp | 17171042 | 9767228596 | satputePriyanka165@gm | 2PM-4PM |
| 6/15/2020 13:36:23 | shivanisanap2018@gmai | Shivani Satish Sanap | 18171050 | 9021228799 | Shivanisanap2018@gmai | 2PM-4PM |
| 6/15/2020 13:37:34 | akashgund2121@gmail.c | Akash Sunil Gund | 17171013 | 9158834707 | akashgund2121@gmail.c | 6PM-8PM |
| 6/15/2020 13:37:57 | akshayrode65@gmail.cor | Akshaykumar Sunil Rode | 17171041 | 9730527207 | akshayrode65@gmail.cor | 2PM-4PM |
| 6/15/2020 13:39:06 | shubhammanglekar2333@ | Shubham Manglekar | 18171031 | 7758992333 | shubhammanglekar2333@ | 2PM-4PM |
| 6/15/2020 13:41:50 | abhitanange@gmail.com | Abhimanyu Tanange | 18171022 | 7083113087 | abhitanange@gmail.com | 2PM-4PM |
| 6/15/2020 13:46:45 | tdpusadkar@gmail.com | Tushar Dipakrao Pusadk | 18111120 | 8208859083 | tdpusadkar@gmail.com | 2PM-4PM |
| 6/15/2020 13:47:13 | surajvedaga@gmail.com | Suraj vedaga | 17171050 | 9922467055 | surajvedaga@gmail.com | 6PM-8PM |
| 6/15/2020 13:53:01 | shrutikajadhav02@gmail. | Shrutika | 18171017 | 9370854725 | shrutikajadhav02@gmail. | 10AM-12PM |
| 6/15/2020 14:05:26 | syadav.aero@gmail.com | Suman Yadav | 17171052 | 8329825756 | syadav.aero@gmail.com | 6PM-8PM |
| 6/15/2020 14:10:56 | jadhavvj8877@gmail.com | Rajvardhan yashwant jad | 18171014 | 8956294632 | Jadhavvj8877@gmail.com | 10AM-12PM |
| 6/15/2020 14:11:23 | zambnerutuja@gmail.com | Rutuja Balaso Zambre | 17171054 | 7083727881 | zambnerutuja@gmail.com | 2PM-4PM |
| 6/15/2020 14:19:54 | akashhatkar23122000@g | Akash Shankar Hatkar | 19172003 | 9011426780 | akashhatkar23122000@g | 2PM-4PM |
| 6/15/2020 14:21:13 | kmadhura2000@gmail.co | Madhura Rajendra kumb | 18171006 | 9021038023 | kmadhura2000@gmail.co | 6PM-8PM |
| 6/15/2020 14:21:58 | shashankssaero@gmail.c | Shashank Santosh Sakhe | 17171057 | +917666227088 | shashankssaero@gmail.c | 10AM-12PM |
| 6/15/2020 14:22:21 | nikhilmane5659@gmail.c | Nikhil Mane | 18161020 | 08956243692 | nikhilmane5659@gmail.c | 10AM-12PM |
| 6/15/2020 14:24:09 | pardeshisaloni9@gmail.c | Saloni Pardeshi. | 17171031 | 7083430430 | pardeshisaloni9@gmail.c | 10AM-12PM |
| 6/15/2020 15:01:59 | vishalshejwal513@gmail. | Vishal Shejwal | 18171009 | +917387819454 | vishalshejwal513@gmail. | 2PM-4PM |
| 6/15/2020 15:21:13 | rushimilpatwar2000@gm | Rushikesh Gopal Milpatw | 18171042 | 7218035485 | rushimilpatwar2000@gm | 2PM-4PM |
| 6/15/2020 15:24:56 | srhp711@gmail.com | Shubham Ravindra Patil | 18171004 | 9960617260 | srhp711@gmail.com | 6PM-8PM |
| 6/15/2020 15:26:29 | maneshubham4630@gm | Shubham Gunda Mane | 18172007 | 8788645216 | Maneshubham4630@gm | 2PM-4PM |
| 6/15/2020 16:26:33 | haraletushar31@gmail.co | Tushar Popat Harale | 18172002 | 9137145343 | haraletushar31@gmail.co | 2PM-4PM |

| Timestamp | Email Address | Name | URN Number | Mobile Number | Email id | Timing preferred |
|--------------------|-------------------------|-------------------------|------------|---------------|-------------------------|------------------|
| 6/15/2020 17:07:14 | aniruddhamagdum123@ | Aniruddha Rajendra Magd | 19176090 | 9130701155 | aniruddhamagdum123@ | 2PM-4PM |
| 6/15/2020 17:41:59 | pratiksurya608@gmail.co | Suryawanshi Pratik | 18171053 | 7218630777 | pratiksurya608@gmail.co | 6PM-8PM |
| 6/15/2020 18:26:58 | sarthaknarnor8888@gma | SARTHAK BABURAO NA | 17171029 | 9834958880 | sarthaknarnor8888@gma | 6PM-8PM |
| 6/15/2020 18:33:44 | varunsalunkhe07@gmail. | Varun Salunkhe | 18131044 | 8904861601 | varunsalunkhe07@gmail. | 10AM-12PM |
| 6/15/2020 18:37:55 | chandekar.harshit@gmail | Harshit Damodhar Chand | 17171004 | 7083864372 | chandekar.harshit@gmail | 10AM-12PM |
| 6/15/2020 19:02:44 | hemlatachouhan27@gma | Hemlata Chouhan | 17171008 | 8698672727 | hemlatachouhan27@gma | 6PM-8PM |
| 6/15/2020 21:37:44 | priyankakamble607@gm | Priyanka Shivaji Kamble | 17171021 | 7219149553 | priyankakamble607@gm | 10AM-12PM |
| 6/15/2020 21:43:28 | rp693163@gmail.com | Ramesh Subhash Patil | 18171025 | 9373088186 | rp693163@gmail.com | 6PM-8PM |
| 6/16/2020 11:48:10 | shinderahidnya@gmail.cc | RAHIDNYA RAMLING SH | 17171056 | 8329795602 | shinderahidnya@gmail.cc | 6PM-8PM |
| 6/16/2020 20:55:25 | kirandadhale1999@gmail | Kiran Apparao Dadhale | 17171009 | 9049002339 | kirandadhale1999@gmail | 2PM-4PM |
| 6/16/2020 21:15:32 | patilpuja200018@gmail.c | Pooja | 18171018 | 9021098626 | patilpuja200018@gmail.c | 2PM-4PM |
| 6/17/2020 11:18:34 | dineshnalawade2050@gr | NALAWADE DINESH SH | 18171040 | 9011931313 | dineshnalawade2050@gr | 2PM-4PM |
| 6/17/2020 11:37:36 | swatichougule8555@gm | Swati V Chougule | 17171007 | 8830104487 | swatichougule8555@gm | 2PM-4PM |
| 6/17/2020 11:42:02 | ankita96mane@gmail.cor | Ankita Dhanaji Mane | 17171023 | 7020295210 | ankita96mane@gmail.cor | 2PM-4PM |



Conclusion Report:

For the Addon course **Matlab for Numerical computing**, a total of 46 students have registered and have attended the sessions whose attendance was also recorded every session. The course which was planned for 20 hours was concluded in 12 hours due to the start of academics.

The name of the students who have registered for the course are:

| S. No | URN number | Name | Mobile Number |
|-------|------------|----------------------------|---------------|
| 1 | 19172002 | Ruturaj Salokhe | 8600444985 |
| 2 | 18171048 | Tanmay Gholap | 7888268190 |
| 3 | 18171019 | Vaishnavi Sambhaji Jadhav | 8855951210 |
| 4 | 17171040 | Omkar Rajmane | 7972468116 |
| 5 | 17171032 | Manthan Patil | 9145565554 |
| 6 | 18171046 | Pratiksha Wadkar | 9762112912 |
| 7 | 17171017 | Kalpesh Jagdale | 8308232466 |
| 8 | 18172009 | Abhishek Shankar Majage | 8668616613 |
| 9 | 17171034 | Sayali Rajgonda Patil | 8459048234 |
| 10 | 18171036 | Prathmesh Deepak Bhosale | 8177961080 |
| 11 | 17171042 | Priyanka Raosaheb Satpute | 9767228596 |
| 12 | 18171050 | Shivani Satish Sanap | 9021228799 |
| 13 | 17171013 | Akash Sunil Gund | 9158834707 |
| 14 | 17171041 | Akshaykumar Sunil Rode | 9730527207 |
| 15 | 18171031 | Shubham Manglekar | 7758992333 |
| 16 | 18171022 | Abhimanyu Tanange | 7083113087 |
| 17 | 18111120 | Tushar Dipakrao Pusadkar | 8208859083 |
| 18 | 17171050 | Suraj vedaga | 9922467055 |
| 19 | 18171017 | Shrutika | 9370854725 |
| 20 | 17171052 | Suman Yadav | 8329825756 |
| 21 | 18171014 | Rajvardhan yashwant jadhav | 8956294632 |
| 22 | 17171054 | Rutuja Balaso Zambre | 7083727881 |
| 23 | 19172003 | Akash Shankar Hatkar | 9011426780 |



Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
DEPARTMENT OF AERONAUTICAL ENGINEERING



| | | | |
|----|----------|----------------------------|------------|
| 24 | 18171006 | Madhura Rajendra kumbhar | 9021038023 |
| 25 | 17171057 | Shashank Santosh Sakhare | 7666227088 |
| 26 | 18161020 | Nikhil Mane | 8956243692 |
| 27 | 17171031 | Saloni Pardeshi. | 7083430430 |
| 28 | 18171009 | Vishal Shejwal | 7387819454 |
| 29 | 18171042 | Rushikesh Gopal Milpatwar | 7218035485 |
| 30 | 18171004 | Shubham Ravindra Patil | 9960617260 |
| 31 | 18172007 | Shubham Gunda Mane | 8788645216 |
| 32 | 18172002 | Tushar Popat Harale | 9137145343 |
| 33 | 19176090 | Aniruddha Rajendra Magdum | 9130701155 |
| 34 | 18171053 | Suryawanshi Pratik | 7218630777 |
| 35 | 17171029 | SARTHAK BABURAO NARNOR | 9834958880 |
| 36 | 18131044 | Varun Salunkhe | 8904861601 |
| 37 | 17171004 | Harshit Damodhar Chandekar | 7083864372 |
| 38 | 17171008 | Hemlata Chouhan | 8698672727 |
| 39 | 17171021 | Priyanka Shivaji Kamble | 7219149553 |
| 40 | 18171025 | Ramesh Subhash Patil | 9373088186 |
| 41 | 17171056 | RAHIDNYA RAMLING SHINDE | 8329795602 |
| 42 | 17171009 | Kiran Apparao Dadhale | 9049002339 |
| 43 | 18171018 | Pooja | 9021098626 |
| 44 | 18171040 | NALAWADE DINESH SHIVAJI | 9011931313 |
| 45 | 17171007 | Swati V Chougule | 8830104487 |
| 46 | 17171023 | Ankita Dhanaji Mane | 7020295210 |



Sant Dynaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
DEPARTMENT OF AERONAUTICAL ENGINEERING



2019-20 Even

Matlab Training Attendance

An Autonomous institute

| S. No | URN | Name | 2hrs 17-Jun | 2hrs 19-Jun | 2hrs 23-Jun | 2hrs 24-Jun | 2hrs 26-Jun | 2hrs 30-Jun | 12 Hrs Total % |
|-------|----------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|
| 1 | 19172002 | Ruturaj Salokhe | A | P | P | P | P | A | 4 |
| 2 | 18171048 | Tanmay Gholap | A | A | A | A | p | A | 1 |
| 3 | 18171019 | Vaishnavi Sambhaji Jadhav | P | p | P | P | p | P | 6 |
| 4 | 17171040 | Omkar Rajmane | p | p | A | A | p | A | 3 |
| 5 | 17171032 | Manthan Patil | p | p | A | p | p | P | 5 |
| 6 | 18171046 | Pratiksha Wadkar | p | p | A | A | p | P | 4 |
| 7 | 17171017 | Kalpesh Jagadale | p | p | A | A | p | P | 4 |
| 8 | 18172009 | Abhishek Shankar Majage | A | p | A | A | p | A | 2 |
| 9 | 17171034 | Sayali Rajgonda Patil | A | A | A | A | A | A | 0 |
| 10 | 18171036 | Prathmesh Deepak Bhosale | P | P | P | p | p | P | 6 |
| 11 | 17171042 | Priyanka Raosaheb Satpute | P | P | P | P | P | P | 6 |
| 12 | 18171050 | Shivani Satish Sanap | A | A | A | p | p | A | 2 |
| 13 | 17171013 | Akash Sunil Gund | p | A | A | p | p | A | 3 |
| 14 | 17171041 | Akshaykumar Sunil Rode | A | A | A | p | p | P | 3 |
| 15 | 18171031 | Shubham Manglekar | A | A | A | p | p | P | 3 |
| 16 | 18171022 | Abhimanyu Tanange | P | P | P | p | p | P | 6 |
| 17 | 18111120 | Tushar Dipakrao Pusadkar | p | A | p | p | p | A | 4 |
| 18 | 17171050 | Suraj vedaga | A | A | A | A | A | A | 0 |
| 19 | 18171017 | Shrutika | A | A | A | A | A | A | 0 |
| 20 | 17171052 | Suman Yadav | A | A | A | A | A | A | 0 |
| 21 | 18171014 | Rajvardhan yashwant jadhav | A | A | A | A | A | A | 0 |
| 22 | 17171054 | Rutuja Balaso Zambre | P | P | P | P | P | A | 5 |
| 23 | 19172003 | Akash Shankar Hatkar | P | P | P | P | P | A | 5 |
| 24 | 18171006 | Madhura Rajendra kumbhar | A | A | A | A | A | A | 0 |
| 25 | 17171057 | Shashank Santosh Sakhare | P | P | P | P | P | P | 6 |
| 26 | 18161020 | Nikhil Mane | A | A | A | A | A | A | 0 |
| 27 | 17171031 | Saloni Pardeshi. | A | A | A | A | A | A | 0 |
| 28 | 18171009 | Vishal Shejwal | P | P | P | P | P | P | 6 |
| 29 | 18171042 | Rushikesh Gopal Milpatwar | P | P | P | P | P | P | 6 |
| 30 | 18171004 | Shubham Ravindra Patil | A | A | A | A | A | A | 0 |
| 31 | 18172007 | Shubham Gunda Mane | A | A | A | A | A | A | 0 |
| 32 | 18172002 | Tushar Popat Harale | A | A | A | A | A | A | 0 |
| 33 | 19176090 | Aniruddha Rajendra Magdum | P | P | P | p | p | P | 6 |
| 34 | 18171053 | Suryawanshi Pratik | P | P | P | p | p | P | 6 |
| 35 | 17171029 | SARTHAK BABURAO NARNOR | P | P | P | p | p | P | 6 |
| 36 | 18131044 | Varun Salunkhe | A | p | p | p | p | A | 4 |
| 37 | 17171004 | Harshit Damodhar Chandekar | p | p | p | p | p | A | 5 |
| 38 | 17171008 | Hemlata Chouhan | P | P | P | p | p | P | 6 |
| 39 | 17171021 | Priyanka Shivaji Kamble | A | A | A | p | p | A | 2 |
| 40 | 18171025 | Ramesh Subhash Patil | p | A | A | p | p | A | 3 |
| 41 | 17171056 | RAHIDNYA RAMLING SHINDE | P | P | P | p | p | P | 6 |
| 42 | 17171009 | Kiran Apparao Dadhale | A | A | p | p | p | A | 3 |
| 43 | 18171018 | Pooja | A | p | A | p | p | A | 3 |
| 44 | 18171040 | NALAWADE DINESH SHIVAJI | A | p | p | p | p | A | 4 |
| 45 | 17171007 | Swati V Chougule | A | p | A | p | p | A | 3 |
| 46 | 17171023 | Ankita Dhanaji Mane | A | p | A | p | p | A | 3 |

Prepared by:

Mr. Noble Sharma



Annasaheb Dange College of Engineering & Technology, Ashta
Department of Aeronautical Engineering
Workshop Evaluation Rubric (To be filled by an expert)

AD CET

Name of Workshop/Seminar: Mat Lab Workshop
Event Name: Introduction to Programming using MatLab
External/Conducting Agency Name:
Branch:

Date: 1st July 2020
Organizing committee: Mr. Noble Sharma.

Class:

Semester:

| Performance Criteria | PO | Excellent | Average | Poor | Ex Grading Poor | | | | |
|--|----|--|---|--|-----------------|---|---|---|---|
| | | | | | 5 | 4 | 3 | 2 | 1 |
| Apply basic knowledge | 1 | Majority of students having sound knowledge of fundamentals; They were applying the fundamental knowledge during workshop/seminar. | The fundamentals of students were average and need to be focus further. | The fundamentals of students were poor and required immediate attention. | ✓ | | | | |
| Hands-on experience* | 4 | All or majority of the students were involved seriously in hands-on training. | Only some students were involved seriously in hands-on training. | All or majority of the students were not involved seriously in hands-on training. | ✓ | | | | |
| Attitude and behavioral aspect of students | 8 | All or majority of the students were very much punctual and disciplined; arrived on time, following instructions | Some students were disciplined; Following instruction during workshop/seminar | All or majority of the students were not punctual and disciplined; arrived very late, not followed instructions. | ✓ | | | | |
| Communication skill | 10 | Students were able to communicate very well with an expert | The communication skill of students was average and need to be improved further | Students were not able to communicate to us in a proper language. | ✓ | | | | |
| Technical Curiosity | 12 | All or majority of students were very much curious to know more about topic. | Some Students were keen and showing interest and some were attending casually. | Majority or all of the students were very much casual and not interested to learn. | ✓ | | | | |
| Contemporary issues | 6 | Majority of the students aware about latest development/update in the field. | Few students aware about latest development/update in the field. | Students not aware about latest development/update in the field. | ✓ | | | | |
| Modern engineering tools* | 5 | Students were able to use modern software confidently. | Very few students were able to use software. | Students were not able to use modern software. | ✓ | | | | |

*- If applicable

HOD

DAAC Member

Expert/ Presenter

Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
(An Autonomous Institute affiliated to Shivaji University, Kolhapur)

Date : 29/01/2022

IEI (The Institution of Engineers (India))

Student Chapter organizes

Add-on course for S. Y. B-Tech **Civil Engineering**

| Sr. No | Date | Time | Name of Course | Faculty Allotted | No of Student Allotted | Venue |
|--------|--|---------------|--|--|------------------------|--------------------------|
| 1 | 14 th Feb 2022 to 18 th Feb 2022 | 10 am to 4 pm | Advance Surveying Instrument's (Total Station) | Mr. K. K. Shinde Mr. B. V. Mane Mr. R. V. Jadhav | 26 | S. Y. Classroom |
| 2 | 14 th Feb 2022 to 18 th Feb 2022 | 10 am to 4 pm | Word | Mr. R. V Jadhav Mr. A. G. Mujawar | 27 | Civil Dept. Computer Lab |
| | | | Excel | Dr. A. P Patil Mr. P. A. Mali | | |
| | | | PowerPoint presentation | Dr. P. G. Chandak Mr. R. A. Chougule | | |
| 3 | 21 st Feb 2022 to 26 th Feb 2022 | 10 am to 4 pm | Word | Mr. R. V Jadhav Mr. A. G. Mujawar | 26 | Civil Dept. Computer Lab |
| | | | Excel | Dr. A. P Patil Mr. P. A. Mali | | |
| | | | PowerPoint presentation | Dr. P. G. Chandak Mr. R. A. Chougule | | |
| 4 | 21 st Feb 2022 to 26 th Feb 2022 | 10 am to 4 pm | Advance Surveying Instrument's (Total Station) | Mr. K. K. Shinde Mr. B. V. Mane Mr. R. V. Jadhav | 27 | S. Y. Classroom |



1/2 3011
Head

Dept. of Civil Engineering.

IEI (The Institution of Engineers (India) Student Chapter organizes

Training program on Advance Surveying Instrument's (Total Station)

Introduction :

The Total station is designed for measuring of slant distances, horizontal and vertical angles, and elevations in topographic and geodetic works, tachometric surveys, as well as for solution of application geodetic tasks. The measurement results can be recorded into the internal memory and transferred to a personal computer interface.

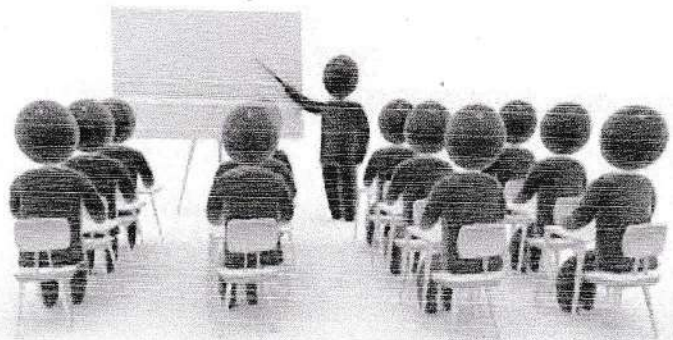
The basic properties are unsurpassed range, speed, and accuracy of measurements. Total stations are developed in view of the maximal convenience of the work of the user. High-efficiency electronic tachometers are intended for the decision It has a broad audience for the sole of industrial problems.

Angles and distances are measured from the total station to points under survey, and the coordinates (X, Y, and Z or northing, easting, and elevation) of surveyed points relative to the total station position are calculated using trigonometry and triangulation.

Data can be downloaded from the total station to a computer and application software used to compute results and generate a map of the surveyed area.

Background of Training on Total Station

We are living in a digital world or rather an information age. Technology is rapidly changing and advancing at an unprecedented rate. To be at peace with these changes, it's imperative to get acquainted with modern and



relevant skills through learning and capacity development. Training is therefore a prerequisite. The development of human resources is probably the single

most important success factor for any organization. Training is essential as it enables the staff members of any organization get acquainted with relevant modern GIS and IT skills that enable them to become more productive in an organization.

Furthermore, education and training are vital to the successful implementation of any project. The proposed training on the use of Total Station will expose the engineers to the basic operation of Sokkia total station including powering on the machine, set-up, and configuration, taking readings, data download, and processing in AutoCAD software.

Relevance of Proposed Training

The aim of any topographical survey using a total station is to determine the relative locations of points (places) on the earth's surface by measuring horizontal distances (X and Y), differences in elevation (Z), and directions (θ). The topographical maps that are produced often give the locations of places (observable features within the study area) and information about changes in elevation depicted using contours and spot heights.

Overview of Training on Total Station

We propose to conduct our training using Sokkia total station. Sokkia TS machine has been proposed to be used in measuring horizontal angles and distances. It has an accuracy of 1" in angular measurements. It has 2 screen, a dot matrix graphic LCD display. It has internal memory capable of storing up to 24,000 points of data storage. This total station is ideal for this nature of work.



It has Auto Tracking Function, Superior Auto Pointing "Direct Aiming Technology", Advanced Angle Measurement System, RED-tech Technology, Reflector less EDM, Long Range Data Communication, Dust and Water Protection, Field On-Board Application Software and TS shield™ Advanced Security and Maintenance.

Total station training entails the use of electronic survey equipment used to perform horizontal and vertical measurements to obtain angles, distances, and coordinates of objects/features below, on, and above the surface of the earth



in reference to a grid system (e.g. UTM, mine grid). Some of the tasks performed by a total station include staking out, topographical surveys, control and offset lines, leveling, traverse surveys and adjustments; resection and intersections, etc.

Training Objectives

- To learn the basic concept of surveying and understand how total station works.
- To learn different parts of the total station as well as how to operate it.
- To learn to survey using total station, techniques, and real-world applications.
- To learn how to use related surveying software (AutoCAD) for data download and processing.
- To generate outputs and present the results in form of contours, surfaces, etc.
- To have a clear understanding of the principles of surveying with a total station.
- To have theoretical and practical skills in working with different total station modes.
- To have an opportunity for trainers to share experiences of their specific work and roles.

Course Contents

- 1) Introduction: On the first day, the students will be introduced to basic principles of the survey, the survey measurement equipment; Total Stations, Level Machines, and GPS; an Introduction to theoretical background to the basic distance, angle, and coordinate measurements.
- 2) Parts of a Total Station: This section will cover the introduction to Topcon GTS 1002 total station; powering on the total station; Getting started with the names and functions of a total station part; Powering off the total station; the accessories of the total station.
- 3) Setting-up Total Station: The initial total station setup; Total station modes – (i) angle mode; (ii) distance mode; (iii) coordinate mode; (iv) offset mode; carrying out measurements.
- 4) Surveying (Field Data Collection): Field data collection; surveying; staking out; resection method; file management; importing and exporting data; area (projection and roadway); downloading data and using it in AutoCAD Civil 3D; plotting and labeling the contours; map layout; map production; applications of topo data in drainage systems.



- 5) Total Station Errors (Types of Errors & Adjustment): Types of survey/total station errors – angular errors, distance errors; coordinate errors; adjusting index error; adjustment and corrections; total station config; COGO; data post-processing.

| TIMETABLE – TRAINING ON TOTAL STATION | | |
|--|---------------------------------|--|
| <i>Training Period</i> | | 1 week |
| <i>Training Venue</i> | | Department of Civil Engineering, ADCET Ashta |
| DAY | TIME | DETAILS |
| Day 1 | Start 10.00 AM End: 04.00 PM | Introduction: On the first day, the students will be introduced to basic principles of the survey, the survey measurement equipment; Total Stations, Level Machines, and GPS; Introduction to theoretical background to the basic distance, angle, and coordinate measurements. |
| Day 2 | Start 10.00 AM End: 04.00 PM | Parts of a Total Station – This section will cover the introduction to Sokkia total station; powering on the total station; Getting started with the names and functions of total station parts; Powering off the total station; the accessories of the total station. |
| Day 3 | Start 10.00 AM End: 04.00 PM | Setting-up and Operating a Total Station: The initial total station setup; Total station modes <ul style="list-style-type: none"> (i) Angle mode; (ii) Distance mode; (iii) Coordinate mode; (iv) Offset mode; (v) Carrying out measurements... |
| Day 4 | Start 10.00 AM End: 04.00 PM | Surveying (Field Data Collection): Field data collection; surveying; staking out; resection method; file management; importing and exporting data; area (projection and roadway); downloading data and processing it in AutoCAD Civil 3D; plotting and labeling the |



| | | |
|-------|---------------------------------|--|
| | | contours; map layout; map production; working with surfaces, applications of topo data in drainage systems. |
| Day 5 | Start 10.00 AM End: 04.00 PM | Total Station Errors (Types of Errors & Adjustment): Types of survey/total station errors – angular errors, distance errors; coordinate errors; adjusting index error; adjustment and corrections; total station config; data post-processing. |

Expected Outputs

The expected outputs and deliverables include the evaluation report, training report, and certificates.



**IEI (The Institution of Engineers (India))
Student Chapter organizes**

Training program on Word, Excel, and Powerpoint Presentation

Introduction

Course Description

We use MS Word, MS Excel, and MS PowerPoint on day to day basis. This is a fundamental course that covers fonts and formats, creating a table, and few other basic functions. Besides that, formulas can be used for sorting a table or formatting. It also helps the people to use the various layouts, do slide formatting, provide special effects or select customized designs of templates for their presentation.

Course Objective

The participant will be able to pick up on Microsoft Excel, Word & PowerPoint which are simple office productivity tools from Microsoft.

Training Methodologies

- Training is hands-on using easy-to-follow step-by-step instructions.
- Instructor-Led Training (ILT) on live exercises of each topic.

Course Contents

Microsoft Word

Lesson 1: Getting Started with Microsoft Word

- Explore the User Interface and the Ribbon
- Quick Access Toolbar
- Creating Documents

Lesson 2: Editing Documents

- Selecting Text
- Deleting Text
- Moving and Copying Text
- Undoing and Redoing Changes
- Finding and Replacing Text

Lesson 3: Formatting Documents

- Formatting Text
- Changing the Font and Font Size
- Changing the Font Color and Highlighting Text
- Applying Font Styles and Effects
- Clearing Formatting
- Copying Formatting
- Formatting Paragraphs
- Changing Paragraph Alignment
- Changing Line and Paragraph Spacing



- Changing Paragraph Indentation
- Setting Tab Stops
- Adding Borders and Shading
- Creating Bulleted and Numbered Lists
- Applying Styles
- Formatting Headings

Lesson 4: Working with Tables

- Inserting Tables
- Navigating Tables
- Selecting Table Parts
- Adding Borders and Shading
- Inserting Rows and Columns
- Resizing Rows and Columns

Lesson 5: Working with Headers and Footers

- Insert Headers and Footers
- Insert the date or time into a header or footer
- Inserting Page Numbers
- Changing the Page Layout
- Changing the Page Margins
- Changing the Page Orientation
- Changing the Page Size

Lesson 6: Using the Mail Merge Wizard

- Use the Mail Merge Feature

Lesson 7: Printing Word Documents, Getting Help and Exiting Word Document

- Printing and Previewing a Work Document
- Getting Help
- Exiting Word

Microsoft PowerPoint

Lesson 1: Getting Started with Microsoft PowerPoint

- Explore the User Interface and the Ribbon
- Quick Access Toolbar
- Create a New Presentation
- Using Templates
- Saving Presentations
- Slide Basics
- Working with Text
- Add a Text Box

Lesson 2: Adding Multimedia Elements

- Using Multimedia Elements
- Working with Pictures
- Applying Styles & Effects
- Modifying Hyperlinks
- Working with SmartArt

Lesson 3: Enhancing Presentations

- Insert Audio from a File



- Insert a Video from a File
- Using Animation
- Applying Transitions

Lesson 4: Managing and Preparing the Slide Show

- Create Slide Sections
- Presenting a Slide Show
- Presentation Tools and Features
- Presenter View

Microsoft Excel

Lesson 1: Getting Started with Microsoft Excel

- Explore the User Interface and the Ribbon

Lesson 2: Overview of Workbooks

- Creating Workbooks
- Saving Workbooks
- Closing Workbooks
- Opening Workbooks
- Selecting Cells, Rows, and Columns
- Using Templates

Lesson 3: Modifying a Worksheet

- Entering Data
- Editing Data
- Moving and Copying Cells
- Using Paste Special
- Clearing Cells
- Undoing and Redoing Changes

Lesson 4: Working with Rows and Columns

- Inserting Rows and Columns
- Deleting Rows and Columns
- Changing Row Heights
- Changing Column Widths
- Hiding and Unhiding Rows and Columns

Lesson 5: Formatting Worksheet

- Changing the Font and Font Size
- Changing the Font Color and Fill Color
- Applying Font Styles
- Adding Cell Borders
- Formatting Numbers
- Positioning Cell Contents
- Copying Cell Formatting
- Applying Cell Styles

Lesson 6: Performing Calculation

- Using Formulas and Functions
- Using Cell References in Formulas
- Entering Formulas
- Displaying Formulas



- Using Functions in Formulas
- Using the AutoSum Button
- Inserting Functions
- Using Formula AutoComplete

Lesson 7: Visualizing Data with Charts

- Creating Charts
- Selecting Chart Elements
- Changing the Chart Type

Lesson 8: Getting Help and Exiting Excel Document

- Getting Help
- Exiting Excel

| TIMETABLE – TRAINING ON Word/Excel/PowerPoint Presentation | | |
|---|---------------------------------|---|
| <i>Training Period</i> | | 1 week |
| <i>Training Venue</i> | | Department of Civil Engineering, ADCET Ashta |
| DAY | TIME | DETAILS |
| Day 1 | Start 10.00 AM End: 04.00 PM | Microsoft Word |
| Day 2 | Start 10.00 AM End: 04.00 PM | Microsoft Word |
| Day 3 | Start 10.00 AM End: 04.00 PM | Microsoft Excel |
| Day 4 | Start 10.00 AM End: 04.00 PM | Microsoft Excel |
| Day 5 | Start 10.00 AM End: 04.00 PM | Microsoft Powerpoint Presentation |
| Day 6 | Start 10.00 AM End: 04.00 PM | Microsoft Powerpoint Presentation |

Expected Outputs

Learners will be familiar with some advanced Office functions, including Mail Merge (Word) and formulas (Excel). Learners will understand how to use Word, Excel, and PowerPoint in a variety of professional, educational, and personal situations. Learners will be able to claim Office proficiency.



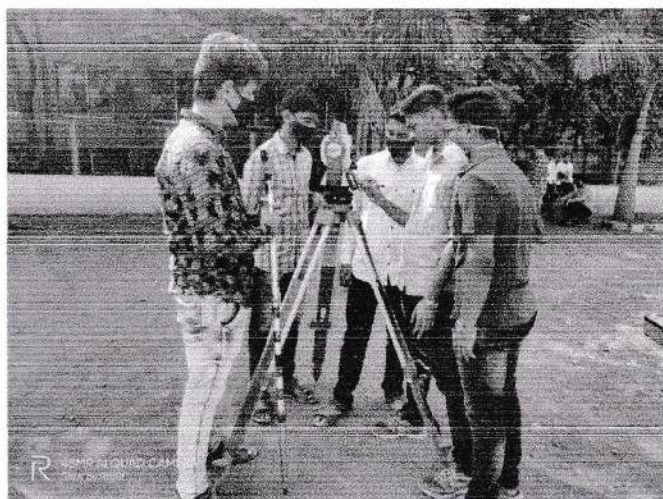
Title /Theme: Advanced Surveying Instruments / Microsoft WEP

Date : 14th Feb 2022 to 18th Feb 2021

Duration: 5 Day (1 Week)

No of Students Participated: 51

Photographs



Mr. P. A. Pisal

Signature of the Faculty Advisor
with date affixed with seal

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Annasaheb Dange College of Engineering and Technology, Ashta
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Department of Civil Engineering

IEI (The Institution of Engineers (India))
Student Chapter organizes
Add-on course for S. Y. B-Tech Civil Engineering
Student Attendance

| Name of Course: <u>Advance Surveying Inst.</u> | | | |
|--|----------|-------------------------------|---------------------|
| Day : <u>1</u> | | Date : <u>14/02/2022</u> | |
| Roll No. | URN | Name of Student | Sign |
| 257 | 21052001 | DHUMAL SAMRAT SHAHAJI | <u>Dhumal</u> |
| 258 | 21052002 | PATIL PRASAD JAYKUMAR | <u>P. Prasad</u> |
| 259 | 21052003 | SURYAWANSHI AVIRAJ SURESH | <u>AS</u> |
| 260 | 21052004 | MULANI SAHIL JAVED | <u>Sahil</u> |
| 261 | 21052005 | KADAM AADYA SATISH | <u>A. Kadam</u> |
| 262 | 21052006 | KHARAT RITESH TANAJI | <u>R. Kharat</u> |
| 263 | 21052007 | PATIL ADITI AJIT | <u>Aditi</u> |
| 264 | 21052008 | SURYAWANSHI HARIOM KRISHNADEV | <u>H. K.</u> |
| 265 | 21052009 | GOLGIRE NIKHIL BALASO | <u>N. Golgire</u> |
| 266 | 21052010 | AWALE YASHODHAN RAJENDRA | <u>Y. P. Awale</u> |
| 267 | 21052011 | KHARAMATE SHRUTI RAMESH | <u>S. K.</u> |
| 268 | 21052012 | SARNATHAN AKUL AJAYKUMAR | <u>A. Sarnathan</u> |
| 269 | 21052013 | JADHAV RUTURAJ SANJAY | <u>R. Jadhav</u> |
| 270 | 21052014 | MADBHAVI NIJAM ABUBAKAR | <u>M. A.</u> |
| 271 | 21052015 | THAVARE DIPAK NAMDEV | |
| 272 | 21052016 | PAWAR SATYAJEET SHIVNANDAN | <u>S. Pawar</u> |
| 273 | 21052017 | PATIL PRADNYA BAJIRAO | <u>P. Patil</u> |
| 274 | 21052018 | GURAV SAMRUDDHI RAJESH | <u>G. R.</u> |
| 275 | 21052019 | REVE PADMASHRI MALLAPPA | <u>P. R.</u> |
| 276 | 21052020 | JAMDADE SARVESH KAKASO | <u>S. J. J. J.</u> |
| 277 | 21052021 | BANSODE ABHISHEK SAMARTH | <u>A. Bansode</u> |
| 278 | 21052022 | PATIL ADITYA DHANANJAY | <u>A. Patil</u> |
| 279 | 21052023 | MANE TEJAL VAIBHAV | |
| 280 | 21052024 | NASHTE KOMAL SANJAY | <u>K. N.</u> |
| 281 | 21052025 | SHINDE MRUNALI LAXMAN | <u>M. Shinde</u> |



Shinde
14/02/22

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Student Attendance

| Name of Course: <u>Advance Survey Instruments</u> | | | |
|---|----------|-------------------------------|---------------------|
| Day : <u>2</u> | | Date : <u>15/02/2022</u> | |
| Roll No. | URN | Name of Student | Sign |
| 257 | 21052001 | DHUMAL SAMRAT SHAHAJI | <u>Dhumal</u> |
| 258 | 21052002 | PATIL PRASAD JAYKUMAR | <u>Pr. Patil</u> |
| 259 | 21052003 | SURYAWANSHI AVIRAJ SURESH | <u>AS</u> |
| 260 | 21052004 | MULANI SAHIL JAVED | <u>Mulani</u> |
| 261 | 21052005 | KADAM AADYA SATISH | <u>Kadam</u> |
| 262 | 21052006 | KHARAT RITESH TANAJI | |
| 263 | 21052007 | PATIL ADITI AJIT | <u>Patil</u> |
| 264 | 21052008 | SURYAWANSHI HARIOM KRISHNADEV | <u>AS</u> |
| 265 | 21052009 | GOLGIRE NIKHIL BALASO | <u>N. Golgire</u> |
| 266 | 21052010 | AWALE YASHODHAN RAJENDRA | <u>Y. R. Awale</u> |
| 267 | 21052011 | KHARAMATE SHRUTI RAMESH | <u>Sh. Karamate</u> |
| 268 | 21052012 | SARNATHAN AKUL AJAYKUMAR | <u>A. Sarnathan</u> |
| 269 | 21052013 | JADHAV RUTURAJ SANJAY | <u>J. Jadhav</u> |
| 270 | 21052014 | MADBHAVI NIJAM ABUBAKAR | <u>M. Nijam</u> |
| 271 | 21052015 | THAVARE DIPAK NAMDEV | |
| 272 | 21052016 | PAWAR SATYAJEET SHIVNANDAN | <u>P. Pawar</u> |
| 273 | 21052017 | PATIL PRADNYA BAJIRAO | <u>P. Patil</u> |
| 274 | 21052018 | GURAV SAMRUDDHI RAJESH | <u>G. Gurav</u> |
| 275 | 21052019 | REVE PADMASHRI MALLAPPA | <u>P. Reve</u> |
| 276 | 21052020 | JAMDADE SARVESH KAKASO | <u>J. Jamdade</u> |
| 277 | 21052021 | BANSODE ABHISHEK SAMARTH | <u>A. Bansode</u> |
| 278 | 21052022 | PATIL ADITYA DHANANJAY | <u>P. Patil</u> |
| 279 | 21052023 | MANE TEJAL VAIBHAV | <u>T. V. Mane</u> |
| 280 | 21052024 | NASHTE KOMAL SANJAY | <u>K. Nashte</u> |
| 281 | 21052025 | SHINDE MRUNALI LAXMAN | <u>M. Shinde</u> |



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Student Attendance

| Name of Course: <u>Adv. Surveying Instruments</u> | | | |
|---|----------|-------------------------------|--------------------|
| Day : <u>3</u> | | Date : <u>16/02/2022</u> | |
| Roll No. | URN | Name of Student | Sign |
| 257 | 21052001 | DHUMAL SAMRAT SHAHAJI | <u>Dhumal</u> |
| 258 | 21052002 | PATIL PRASAD JAYKUMAR | <u>Prasad</u> |
| 259 | 21052003 | SURYAWANSHI AVIRAJ SURESH | <u>Aviraj</u> |
| 260 | 21052004 | MULANI SAHIL JAVED | <u>Mulani</u> |
| 261 | 21052005 | KADAM AADYA SATISH | <u>Aditya</u> |
| 262 | 21052006 | KHARAT RITESH TANAJI | <u>RCharat</u> |
| 263 | 21052007 | PATIL ADITI AJIT | <u>Aditi</u> |
| 264 | 21052008 | SURYAWANSHI HARIOM KRISHNADEV | <u>Hariom</u> |
| 265 | 21052009 | GOLGIRE NIKHIL BALASO | <u>Nikhil</u> |
| 266 | 21052010 | AWALE YASHODHAN RAJENDRA | <u>Y. Rajendra</u> |
| 267 | 21052011 | KHARAMATE SHRUTI RAMESH | |
| 268 | 21052012 | SARNATHAN AKUL AJAYKUMAR | |
| 269 | 21052013 | JADHAV RUTURAJ SANJAY | <u>Ruturaj</u> |
| 270 | 21052014 | MADBHAVI NIJAM ABUBAKAR | <u>Nijam</u> |
| 271 | 21052015 | THAVARE DIPAK NAMDEV | <u>Dipak</u> |
| 272 | 21052016 | PAWAR SATYAJEET SHIVNANDAN | <u>Satyajeet</u> |
| 273 | 21052017 | PATIL PRADNYA BAJIRAO | <u>Pradnya</u> |
| 274 | 21052018 | GURAV SAMRUDDHI RAJESH | <u>Gurav</u> |
| 275 | 21052019 | REVE PADMASHRI MALLAPPA | <u>Reve</u> |
| 276 | 21052020 | JAMDADE SARVESH KAKASO | <u>Jamdade</u> |
| 277 | 21052021 | BANSODE ABHISHEK SAMARTH | <u>Abhishek</u> |
| 278 | 21052022 | PATIL ADITYA DHANANJAY | <u>Aditya</u> |
| 279 | 21052023 | MANE TEJAL VAIBHAV | <u>T.V. Mane</u> |
| 280 | 21052024 | NASHTE KOMAL SANJAY | |
| 281 | 21052025 | SHINDE MRUNALI LAXMAN | <u>Mrunali</u> |



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16/02/2022

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Student Attendance

| Name of Course: <u>Advance Survey Instruments</u> | | | |
|--|----------|---------------------------------|--------------------|
| Day : <u>4</u> | | Date : <u>17/02/2022</u> | |
| Roll No. | URN | Name of Student | Sign |
| 257 | 21052001 | DHUMAL SAMRAT SHAHAJI | <u>Dhumal</u> |
| 258 | 21052002 | PATIL PRASAD JAYKUMAR | <u>P. Pratik</u> |
| 259 | 21052003 | SURYAWANSHI AVIRAJ SURESH | <u>Surya</u> |
| 260 | 21052004 | MULANI SAHIL JAVED | <u>Sa</u> |
| 261 | 21052005 | KADAM AADYA SATISH | <u>Akadam</u> |
| 262 | 21052006 | KHARAT RITESH TANAJI | <u>R. Charat</u> |
| 263 | 21052007 | PATIL ADITI AJIT | <u>Aditi</u> |
| 264 | 21052008 | SURYAWANSHI HARIOM KRISHNADEV | <u>Hari</u> |
| 265 | 21052009 | GOLGIRE NIKHIL BALASO | <u>N. Golgire</u> |
| 266 | 21052010 | AWALE YASHODHAN RAJENDRA | <u>Y. Rajendra</u> |
| 267 | 21052011 | KHARAMATE SHRUTI RAMESH | |
| 268 | 21052012 | SARNATHAN AKUL AJAYKUMAR | |
| 269 | 21052013 | JADHAV RUTURAJ SANJAY | <u>T. Jadhav</u> |
| 270 | 21052014 | MADBHAVI NIJAM ABUBAKAR | <u>M. Nijam</u> |
| 271 | 21052015 | THAVARE DIPAK NAMDEV | <u>D. Thavare</u> |
| 272 | 21052016 | PAWAR SATYAJEET SHIVNANDAN | <u>S. Pawar</u> |
| 273 | 21052017 | PATIL PRADNYA BAJIRAO | <u>P. Pradnya</u> |
| 274 | 21052018 | GURAV SAMRUDDHI RAJESH | <u>G. Samrudhi</u> |
| 275 | 21052019 | REVE PADMASHRI MALLAPPA | <u>P. Reve</u> |
| 276 | 21052020 | JAMDADE SARVESH KAKASO | <u>J. Jambade</u> |
| 277 | 21052021 | BANSODE ABHISHEK SAMARTH | <u>A. Bansode</u> |
| 278 | 21052022 | PATIL ADITYA DHANANJAY | <u>A. Patil</u> |
| 279 | 21052023 | MANE TEJAL VAIBHAV | <u>T. Mane</u> |
| 280 | 21052024 | NASHTE KOMAL SANJAY | <u>K. Nashte</u> |
| 281 | 21052025 | SHINDE MRUNALI LAXMAN | <u>M. Shinde</u> |



(Signature)
17/02/22

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Student Attendance

| Name of Course: <u>Advance Surveying Instruments</u> | | | |
|---|----------|---------------------------------|-----------------------|
| Day : <u>5th</u> | | Date : <u>18/02/2022</u> | |
| Roll No. | URN | Name of Student | Sign |
| 257 | 21052001 | DHUMAL SAMRAT SHAHAJI | |
| 258 | 21052002 | PATIL PRASAD JAYKUMAR | <u>Prasad</u> |
| 259 | 21052003 | SURYAWANSHI AVIRAJ SURESH | <u>Aviraj</u> |
| 260 | 21052004 | MULANI SAHIL JAVED | <u>Sahil</u> |
| 261 | 21052005 | KADAM AADYA SATISH | <u>Aadya</u> |
| 262 | 21052006 | KHARAT RITESH TANAJI | <u>Ritesh</u> |
| 263 | 21052007 | PATIL ADITI AJIT | <u>Aditi</u> |
| 264 | 21052008 | SURYAWANSHI HARIOM KRISHNADEV | <u>Hariom</u> |
| 265 | 21052009 | GOLGIRE NIKHIL BALASO | <u>Nikhil</u> |
| 266 | 21052010 | AWALE YASHODHAN RAJENDRA | <u>Y. R. Kulkarni</u> |
| 267 | 21052011 | KHARAMATE SHRUTI RAMESH | |
| 268 | 21052012 | SARNATHAN AKUL AJAYKUMAR | |
| 269 | 21052013 | JADHAV RUTURAJ SANJAY | <u>Ruturaj</u> |
| 270 | 21052014 | MADBHAVI NIJAM ABUBAKAR | <u>Madhavi</u> |
| 271 | 21052015 | THAVARE DIPAK NAMDEV | <u>Dipak</u> |
| 272 | 21052016 | PAWAR SATYAJEET SHIVNANDAN | <u>Satyajeet</u> |
| 273 | 21052017 | PATIL PRADNYA BAJIRAO | <u>Pradnya</u> |
| 274 | 21052018 | GURAV SAMRUDDHI RAJESH | <u>Gurav</u> |
| 275 | 21052019 | REVE PADMASHRI MALLAPPA | <u>Reve</u> |
| 276 | 21052020 | JAMDADE SARVESH KAKASO | |
| 277 | 21052021 | BANSODE ABHISHEK SAMARTH | <u>Abhishek</u> |
| 278 | 21052022 | PATIL ADITYA DHANANJAY | <u>Aditya</u> |
| 279 | 21052023 | MANE TEJAL VAIBHAV | <u>T. V. Mane</u> |
| 280 | 21052024 | NASHTE KOMAL SANJAY | <u>Komal</u> |
| 281 | 21052025 | SHINDE MRUNALI LAXMAN | <u>Mrunali</u> |



Handwritten Signature
18/02/22

Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering & Technology

(An Autonomous Institute)

Ashta, Dist-Sangli, Maharashtra - 416301



Certificate of Participation

This certificate is awarded to



Adeeba Pathan

Tata Technologies

In recognition of Successful completion of Workshop on
"Design of Electric Vehicle with MATLAB - Simulink"

Organized by Department of Electrical Engineering,
Annasaheb Dange college of Engineering & Technology, Ashta
on 01-02 July 2021

Mr. N. M. Jamadar
Coordinator

Dr. G. R. Kulkarni
HOD - Electrical

Dr. Vikram Patil
Director

Prof. R. A. Kanai
Executive Director



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In plant/vocational training sample

- A Grade Institute Accredited by TAAC
- NBA Accredited courses
- ISO 9001:2008 Certified Institute

An Autonomous Institute**ANNASAHAB DANGE COLLEGE OF
ENGINEERING & TECHNOLOGY**

(Approved by AICTE, New Delhi, Govt. of Maharashtra,
Affiliated to Shivaji University, Kolhapur)

Ref. ADCET/Mech/2019-20/Industrial Training/10

Date: 11/12/2019

To

The Manager,

Pragati Industries, Sangli

Subject: Request for Vocational Industrial Training at your organisation

Dear Sir,

We have pleasure in introducing our institute 'Annasaheb Dange College of Engineering & Technology', Ashta has been established in the year 1999. The college offer Degree Engineering Programs in Mechanical, Electrical, Computer Science, Information Technology, Automobile, Electronics and Telecommunication, Civil, Aeronautical and Food Technology streams.

Our commitment is to impart quality education to students. As a part of it, we seek to provide industrial exposure to the students. In this endeavor, we request you to permit our student **PRANJALI JEEVAN GHODAKE** (Mechanical Department) his/her Vocational training at your highly reputed organization. He/She will visit on own cost, risk and responsibility and behave as per rules and regulations of your organization.

To enhance our industry and institute relations, I take this opportunity to invite you to visit our institute as per your convenience. Your visit will certainly add value to our institute.

Sincerely,

Dr. L. Y. Waghmode

Professor and Head

Department of Mechanical Engineering,

Annasaheb Dange College of Engineering and Technology, Ashta

Taluka: Walwa, District: Sangli, Maharashtra, INDIA, Pin: 416 301

Web: www.adcet.inEmail:- hod_mech@adcet.in

A

INDUSTRIAL TRAINING REPORT

On

“ Pragati Industries ”

Submitted in the fulfillment of the of the requirement for The Degree of

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING



Submitted By

Miss.Pranjali Jeevan Ghodake

Under the Guidance of

Prof. S.V.Yadav

DEPARTMENT OF MECHANICAL ENGINEERING

ANNASAHEB DANGE COLLEGE OF ENGINEERING AND

TECHNOLOGY, ASHTA

(2019-20)



Case Study.

Pragati Industries, Sangli.

PAGE No.: 1

DATE: / /20

• Introduction-

Pragati ind. was established in the year 1996 under kind guidance of Mr. Malsarji Babu Patil. Company offers wide range of products which comprises of industrial pumps like centrifugal pumps, Fire fighting pumps, & more as follows.

- ① Horizontal split case pump
- ② Irrigation pump
- ③ Industrial water pump.
- ④ Process pump.
- ⑤ processing cavity pump.
- ⑥ Self priming pump.
- ⑦ Sewage pump
- ⑧ Slurry pump (sugar industries)
- ⑨ Solid handling pump.
- ⑩ Sprinkler pump.
- ⑪ Industrial vacuum pump.

company also provides spare parts of various pumps. Company has foundary producing ferrow & non-ferrous castings. Castings are made inside companies pfoundary Metal used for cashing of casing of pump depends on, where the the pump is to be fitted.

* Types of Metal for (Casing & Impeller)

① Cast Iron → Used for making cases of pumps which are to be fitted in Sugar Industry.

② Mild steel (M.S) → Used for pumps used in chemical industries. (i.e. in Reactive environment)

③ Gun Metal (G.M)

* Machine Shop -

Companies m/c shop contains following machines.

- 1] Turnmaster Lathe m/c
- 2] Radial Drilling m/c
- 3] Automatic threading & Tapping m/c.
- 4] Milling m/c (Horizontal)
- 5] Broaching m/c
- 6] Grinding m/c (Horizontal)
- 7] Boring m/c. (Horizontal) & Vertical
- 8] Shaper

* Carpentry Shop -

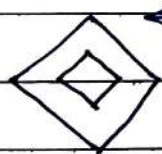
Here all the patterns are made out of wood with the help of drawing of pattern. This shop is first step of manufacturing of pump.



* Various Tools used \Rightarrow

① Milling Cutter

② Carbide tool with C.I & M.S insert of diamond shape.



\leftarrow 0.2, 0.4, 0.8, 1.2 \leftarrow radius of tip.

- All 4 sides can be used when one side of insert is worn out.

- Instead of replacing all the tool, insert are changed

③ Tapping Tool

- For joining two flanges holes are made & in that holes tapping is done.

④ Drilling Tool.

⑤ Chamfer tool.

⑥ Grooving tool

⑦ Chamfer tool.



* Measuring Instruments Used :->

- ① Vernier scales (various sizes)
- ② Depth gauge
- ③ Dial gauge Vernier.
- ④ Digital vernier (for fine measurements)
- ⑤ Inside outside micrometer.
- ⑥ Slip gauge
- ⑦ Plug gauge
- ⑧ Ring gauge.

* Foundries -

① Non-Ferrous (NF)

In This Foundry raw materials used are as follows -

1. Aluminium.
2. Gunmetal
3. Bronze
4. Binder \Rightarrow Sodium silicate.

- Melting temperature of Aluminium is about 1100°C .
- Sodium silicate is used as Binder



(2) CI Foundry

- Raw material \rightarrow Cast Iron (only)
- Cupola furnace is used. Usually charge is coke, flux, limestone is used.
- C.I Melting Temperature $\rightarrow 1400^{\circ}\text{C}$.

* Types of pumps manufactured in company.

- (1) APDL pump
- (2) APD/APE pump
- (3) APK Pump
- (4) APU Pump
- (5) APV Pump
- (6) Slurry Pump
- (7) APM Pump
- (8) APS Pump

* APD/APE pump Type pump.

- Range : Delivery size upto 150mm
Capacity \rightarrow upto 550 m^3/hr
Head \rightarrow upto 100 m
Fluid Temperature $\rightarrow -10^{\circ}\text{C}$ to 100°C
- Applications : Industrial air conditioning plants, water circulation, Lift irrigation, Sprinkler system, Brine pumping

ADCET



* Manufacturing of APD/APE type Pump.

• Process -

1. Pattern making
2. Mould making & Sand preparation
3. Casting
4. ^{Primary} Surface finishing. (Smoothing of Uneven surface)
5. Machining.
6. Painting.
7. Assembly.

1. Pattern making (Carpentry shop)

- Once drawing of casing is made available from ~~ea~~ CAD designer. Wood produced for specific purpose of pattern making is 'machined' on the equipment in the Pattern shop.
- The pieces are assembled into the pattern which forms the outer shape of the part.
- Core boxes form the inner spaces/shapes of casing.
- Pattern is different for different types of pumps. It depends on design.
- Company stores these patterns for further use if needed.



- many of parts like → Impeller, Volute casing is made by caste iron pattern.

- core is used for making hole or space in the mould.
like space betⁿ impeller & propellers,

- Core is a body usually made up of sand, molasses, Tar and wire.

2. Sand Preparation & Mould Making.

- Green Sand is made by mixture of sand, Betonite clay saw dust and bit of water.

* Tools used while making mould →

- | | | |
|------------------|----------------|------------------|
| 1. Shovel | 5. Vent wire | 9. Swab brush |
| 2. Rammer. | 6. Slick | 10. Runner pin |
| 3. Spurge cutter | 7. lifter | 11. Clamp |
| 4. Riser pin. | 8. Gate cutter | 12. Spirit level |
| | | 13. Bucket. |

- Mold making is done by very experienced workers who are working in Pragati pumps for almost 5 to 6 years.

- ^{wood or} Iron pattern is placed in flask with enough space for gating.
- Sand is hammered tight and holes are made for escape of gases. & excess molten metal.

- Then, wood pattern is removed, & mould is ready
after 1 day

ADCET



3. Metal Casting (Melting & Pouring)

- Pragati Industries has 2 furnaces for raw material melting purpose (1st for G.M & 2nd for C.I)
- C.I is bought from industry for ₹54/kg (rate is ₹54/kg is rate when we were training there)

* Pouring →

- In Pragati Ind. they use hand lifted stretcher to lift the buckets of molten metal from furnace (Ladels) (Traditional method)
- Pouring is accomplished with gravity.
- Porosity often seriously damages the shape of mould.

* Shake out →

- The solidified metal component is removed from mould.
- Here the casting is still connected to runners & gates.

4. Surface finishing

- It is primary surfacing using the grinder to remove uneven surface on the casted materials.



5. Machining Section :->

- Machining is the process to achieve desire shape of material by different type of machining work.

1] Facing -

- This operation is essential giving proper shape to the mating parts of pump such as flange,
- Facing tool is fed from centre of w/p towards outer surface or vice versa.

2] Step turning -

- Mainly used on impellers, producing various steps of different diameters in workpiece.
- This creates different diameters in one workpiece.

3] Drilling -

- Holes are drilled to mount attachments.
- Vertical drilling m/c was used in Pragati Ind.

4] Reaming -

- Previously drilled holes are now finished properly



• 5] Milling Operation

- knee-type milling m/c is used
- ~~Sett~~ Setting up a job is more complex task.
- It produces flat, ~~curved~~ surface.

6] Shaper Machine -

- This m/c is rarely used in Pragati Ind, for some special purpose.
- w/p is mounted on box-shaped table & reciprocating tool is fed against w/p
- w/p ~~may be~~ can be placed with tilted angle.
- This creates flat surface on the parts of pump which are having slope on mating face.

6. Painting-

- Machined parts are now sent to paint section.
- Paint is chemical solution used to increase the life of part by providing insulation from rust.
- Pumps are used in chemical industries, so more chance of rusting is there
- Blue coat of paint is applied on the parts which are prone to fluid contact.



7. Assembly section -

1. Install bearing & oil seals on shaft.
2. Install shaft on housing
3. Put Install the impeller then put & tighten impeller lock nut.
4. Install the suction volute housing.
5. Then, Put front & back covers & tighten the bolts.
6. Install all mechanical seals.

Testing - • Testing facility is not available at Pragati Ind.
• Because mostly pumps are used for mud, slurry pumps which don't require that much accuracy.
• They asked us to provide them with Testing facility.

* Conclusion -

After the successful training in Pragati Industries, Sangli, I got to know about casting & m/c shop process. The gap betⁿ theoretical and practical understanding of pumps is reduced.



Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering & Technology, Ashta
Department of Mechanical Engineering
Vocational Training Assessment Rubric (By Industry Person)



URN: 1711142 Student Name: GHODAKE PRANJALI J. Industry Name: PRAGATI INDUSTRY

| Performance criterion | Sub criterion | Excellent | Average | Poor | Grading | | | | |
|---|--|--|--|--|---------|------|------|--|--|
| | | | | | Ex. | Avg. | Poor | | |
| Objective of Industrial Training (0MEPR366_1K) | <ul style="list-style-type: none">Basic knowledge about industry i.e. type of industry etc.Type of work in an industry | Clear & specific idea of industrial training objective | Moderate idea about industrial training objective. | Less knowledge about industrial training objective. | | ✓ | | | |
| Identification of Industry for Training (0MEPR366_2K) | <ul style="list-style-type: none">The way student interacted with industry about industrial training | Very well approach with clear idea what to do in industrial training | well approach with clear idea what to do in industrial training | Unsatisfying approach with less idea what to do in industrial training. | | ✓ | | | |
| Case Study problem Solving (0MEPR366_3K) | <ul style="list-style-type: none">Problem identificationSolving case study problem | Very good ability to identify problem & solve case study with achieving goal | Can able to identify problem but solve case study without achieving goal | Unsatisfying approach to identify problem as well as solving case study | | ✓ | | | |
| Modern tools usage (0MEPR366_3S) | <ul style="list-style-type: none">Use of different modern tools to solve the problem | The student used modern tools to solve the problems using different techniques, software with good accuracy applied as solutions | Modern tools are used but less accuracy in results of software's used. | No use of modern tools usage for solving industrial problems. | ✓ | | | | |
| Team/ Individual Work (0MEPR366_4A) | <ul style="list-style-type: none">Tasks given or completed in a team or individually | The student worked well in a team contributed in a valuable way to training; | The students behavior in a team is moderate | Less involvement in a team of training. | ✓ | | | | |
| Ethical & Professional Behavior (0MEPR366_5A) | <ul style="list-style-type: none">Complying with procedureQuestions new conceptsEmphasis on self-learningNeat and tidy, Punctuality | <ul style="list-style-type: none">Always follows procedureAlways interacts for better understandingGood in self-learningAlways punctual neat and tidy | <ul style="list-style-type: none">Frequently follows procedureFrequently interactsFair in self-learningFrequently neat and tidy most of the time Punctual | <ul style="list-style-type: none">Never follows procedureNever interactsNever neat and tidyPoor Punctuality | ✓ | | | | |

Date and Place:

(Name & Signature of Authority with Industry Seal)



Plot No.134, Industrial Estate, Sangli - 416 416. (Mah.) India
Phone - (0233) 2310942 / 43 Fax : 2310941, 9423868898 / 99
Web : <http://www.centrifugalpumpindia.in>
Email : pragatisangli@gmail.com info@centrifugalpumpindia.in

Manufacturers & Suppliers of : Pumps & Spares, Mill Spares, V. T. Pump Spares, Ferrous & Non Ferrous Castings.

Date - 12 - 1 - 2020

CERTIFICATE

To Whomsoever it may Concern

This is to certify that **Miss. Pranjali Jeevan Ghodake**, Student of T.E. Mechanical Engineering of Annasaheb Dange College of Engineering & Technology , Ashta, has successfully completed his Industrial Vocational Training in our Organization from 28/12/2019 to 12/1/2020 .

During the above period we found him sincere & hard working and he has taken proper initiative and efforts towards completing his Industrial Vocational Training.

For Pragati Industries



Authorised Signatory





In plant training / Internship 2021-22 Sample

AD CET

Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
(An Autonomous Institute Affiliated To Shivaji University, Kolhapur)
Department of Electrical Engineering


Name of Company: Deltron Power Kolhapur

Outcome of MoU: Internship of Students.

No of Students Completed Internship:

Year of Internship: 2022

1. Satpute Mayur Dattatray
2. Lendave Mahesh Nanasaheb
3. Sargar Ramesh Mangesh


Annasaheb Dange College of Engineering & Technology, Ashta
(An Autonomous Institute Affiliated To Shivaji University, Kolhapur)
• A Grade Institute Accredited by NAAC
• NBA Accredited course
• ISO 9001:2008 Certified Institute
Department of Electrical Engineering

Department Ref. No: EE / 2021-22 / Industrial Training / 42 Date: 03 June 2022

To,
Deltron Power,
Ujalepandi, Kolhapur.

Subject: Request for Internship / Industrial Training at your organization - Reg

Dear Sir,

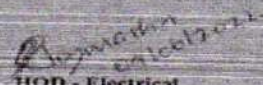
We have the pleasure of introducing our institute to you. Annasaheb Dange College of Engineering & Technology, Ashta has been established in 1999. The college offers Degree Engineering Programs in Electrical, Mechanical, Electronics and Telecommunication, Computer Science, Information Technology, Automobile, Civil, and Aeronautical streams.


Our commitment is to impart quality education to students. As a part of it, we seek to improve industrial exposure to the students. In this endeavor, we request you to permit our following student(s) of Third Year Electrical Engineering to have a minimum of 15-days of Internship / Industrial Training at your highly reputed organization.

| S.No | Student Name | URN |
|------|--------------------------|----------|
| 1 | Satpute Mayur Dattatray | 19141022 |
| 2 | Sargar Ramesh Mangesh | 19141010 |
| 3 | Lendave Mahesh Nanasaheb | 19131001 |


They will visit their own cost, risk, and responsibility and behave as per the rules and regulations of your organization. I take this opportunity to invite you to visit our institute at your convenience. Your visit will certainly add value to our institute.

Sincerely,


HOD - Electrical
AD CET, Ashta

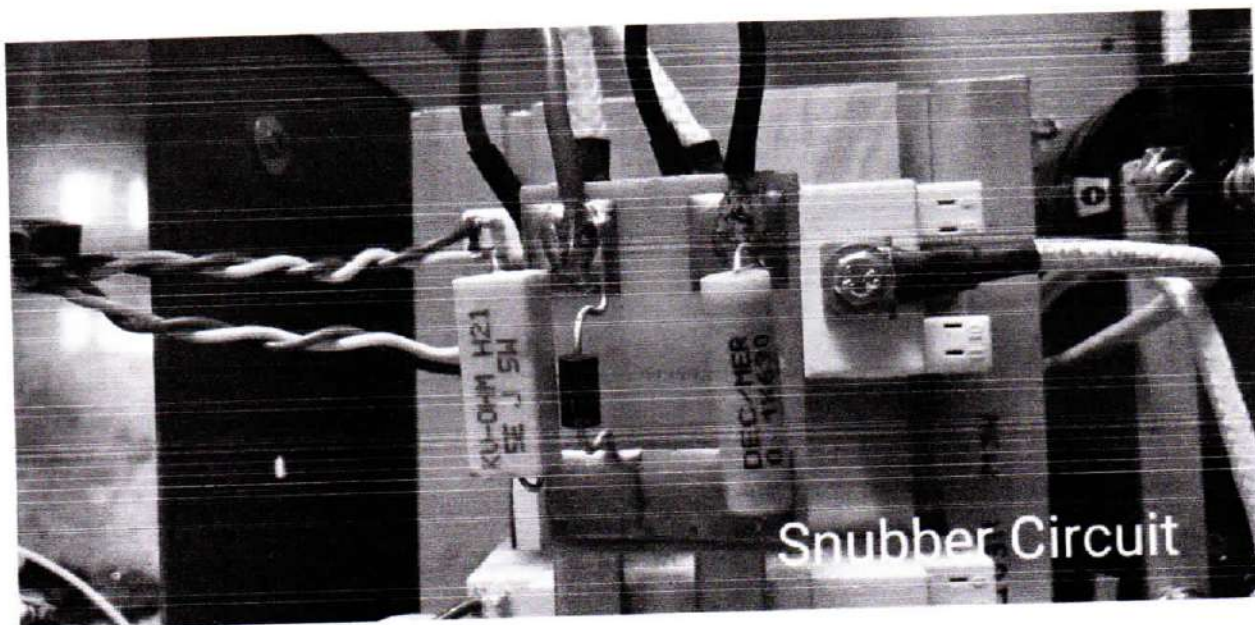
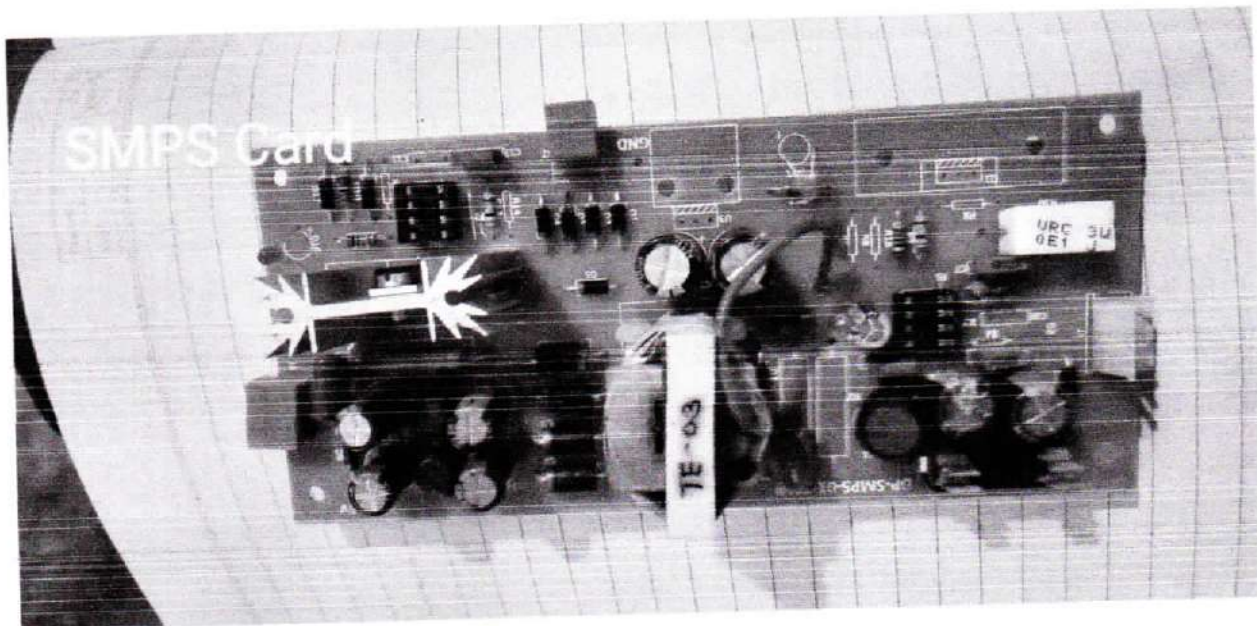

Head
Electrical Engineering Department
AD CET, ASHTA

www.adcet.in
hnd_eh@adcet.in



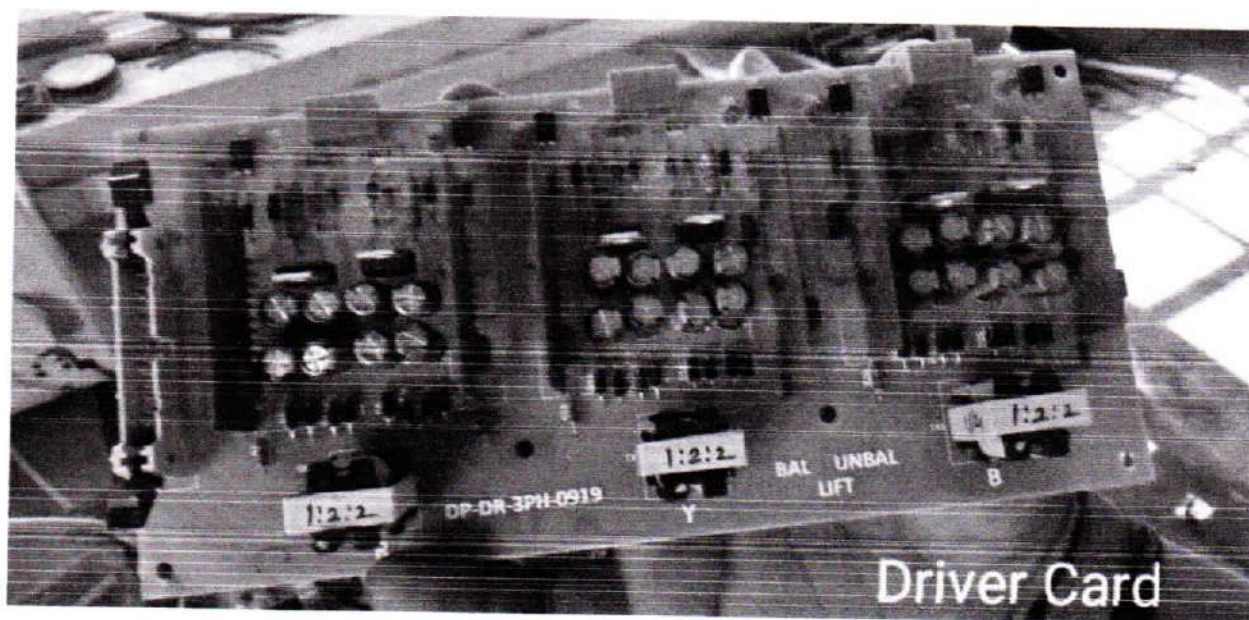
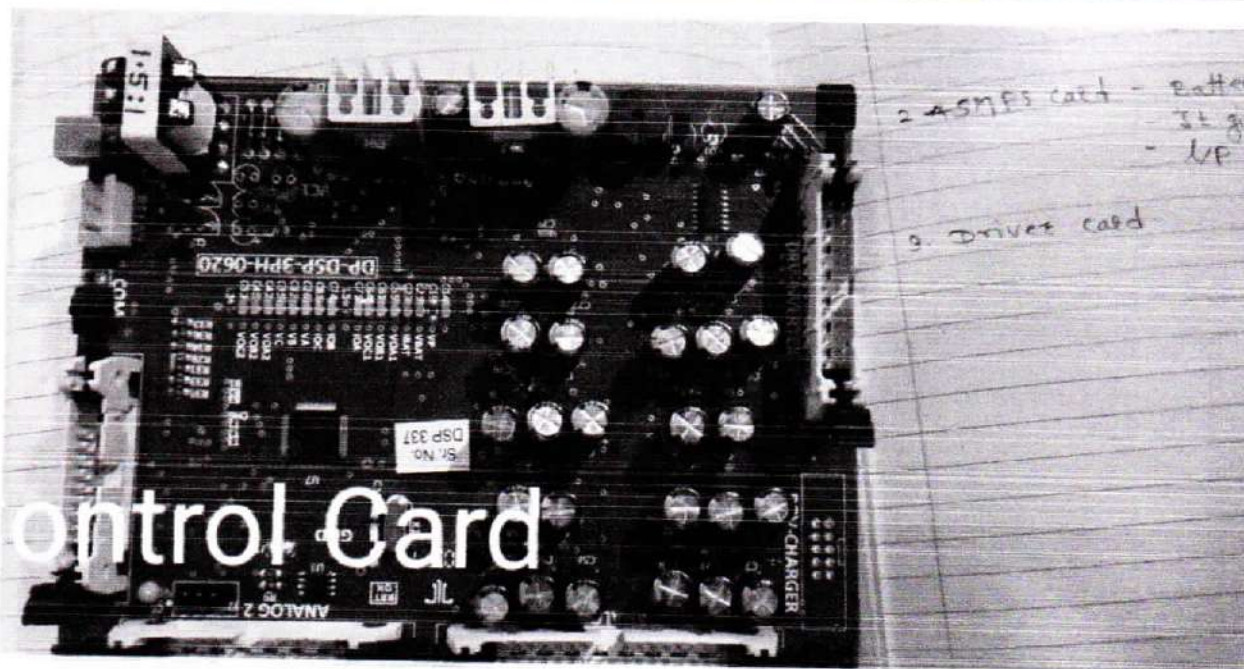


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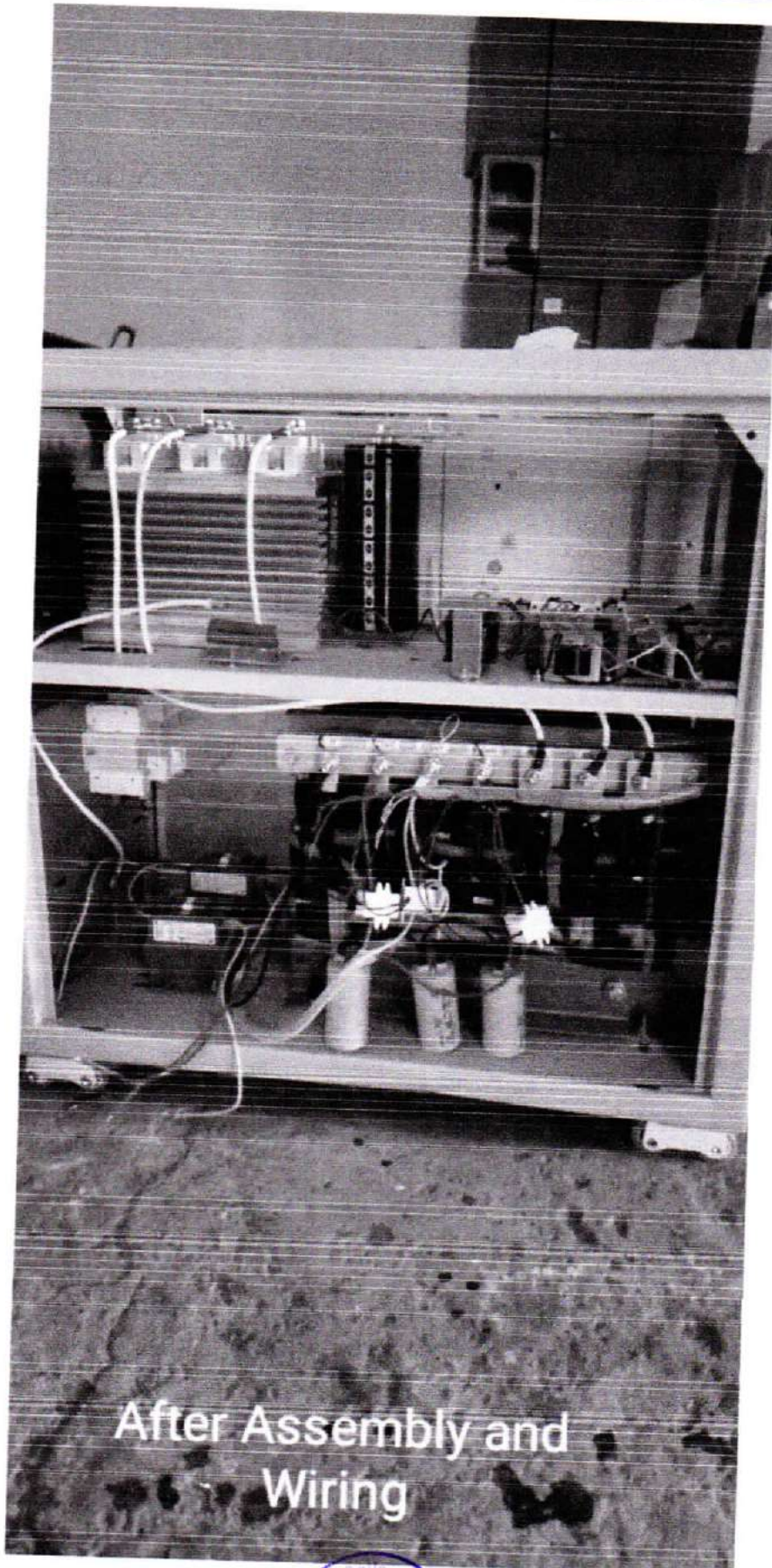
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Department of Electrical Engineering

AD CET



After Assembly and
Wiring





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Department of Electrical Engineering

| | |
|--|---|
|  DELTRON THE POWER TO YOUR POWER NEED | DELTRON POWER Manufacture : Online UPS, Offline UPS, Solar Inverter, Solar Charger. Batteries : Exide, Quantia, Luminous. Our Services : AMG, UPS on Rent, OLD Battery buyback. |
| Ref. No. | Date : 30/6/2022 |
| REF. NO. DEL/02/22-23 | |
| CERTIFICATE | |
| This is to certify that MR. MAYUR DATTATRAY SATPUTE of 'ANNASAHEB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA' as completed 21 Day's Industrial Training under mentorship of our firm Dated from 09/06/2022 to 30/06/2022 during the academic year 2022-2023. | |
|  Authorised signatory | |
| Address : Datta Colony, Nerli-Tamgaon Road, Near Royal Kitchen Trolley Ujalewadi, Kolhapur. E-mail : sales@deltronpower.in Website : www.deltronpower.in Sales Enquiry No. 9552516540, 9552596540 Service helpline No. 9850376540 | |





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Annasaheb Dange College of Engineering and Technology, Ashta
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Department of Electrical Engineering


**DELTRON POWER**
Manufacture : Online UPS, Offline UPS, Solar Inverter, Solar Charger.
Batteries : Exide, Quanta, Luminous.
Our Services : AMC, UPS on Rent, Old Battery buyback.

Ref. No. _____ Date : 30/6/2022

REF. NO, DEL/02/22-23

CERTIFICATE


This is to certify that **MR. MAYUR DATTATRAY SATPUTE** of **ANNASAHEB DANGE COLLEGE OF ENGINEERING & TECHNOLOGY, ASHTA** as completed **21 Day's** Industrial Training under mentorship of our firm Dated from **09/06/2022 to 30/06/2022** during the academic year 2022-2023.


Authorised signatory

Address : Datta Colony, Narli-Tamgaon Road, Near Royal Kitchen Trolley, Ujalewad, Kolhapur.
E-mail : sales@deltronpower.in Website : www.deltronpower.in
Sales Enquiry No. 9552516540, 9552596540 Service helpline No. 9850376540


Coordinator
P.D. More




HOD
Department of Electrical Engg.



Internship sample



A
REPORT

ON

Internship/Industrial Training

Done at

**“Shree Warana Sahakari Dudh Utpadak Prakriya Sangh
Ltd.”**

Submitted by

Ms. Shravani Sanjay Palkar

[URN:19181033.]

During the period of

11/05/2022 to 13/06/2022

in partial fulfillment for the Third Year

of

BACHELOR OF TECHNOLOGY

In

FOOD TECHNOLOGY

At

Department of Food Technology

Annasaheb Dange College of Engineering & Technology

(An Autonomous Institute affiliated to Shivaji University, Kolhapur)

Ashta, Dist: Sangli - 416301- Maharashtra

2021-2022



Annasaheb Dange College of Engineering & Technology

(An Autonomous Institute affiliated to Shivaji University, Kolhapur)

Ashta, Dist: Sangli - 416301- Maharashtra

Department of Food Technology



CERTIFICATE

This is to certify that,

Ms. Shravani Sanjay Palkar

[URN: 19181033]

have successfully completed internship/industrial training at **“Shree Warana Sahakari Dudh Utpadak Prakriya Sangh Ltd.”** during the period of 11/05/2022 to 13/05/2022 and submitted the report of same in partial fulfillment of third year of Bachelor of Technology (B.Tech) in Food Technology at Annasaheb Dange College of Engineering & Technology, Ashta, during the academic year 2021-2022.

Date: 04/07/2022

Place: Ashta.

Examiner:

Ms. S. S. Joshi

Dr. S. V. Taralkar
Head of Department



Shree Warana Sahakari Dudh Utpadak Prakriya Sangh Ltd.,

Tatyasaheb Korenagar, Post Warananagar 416113, Dist. Kolhapur (Maharashtra State)

श्री वारणा सहकारी दूध उत्पादक प्रक्रिया संघ लि., तात्यासाहेब कोरेनगर

पो. वारणानगर, जि. कोल्हापूर (महाराष्ट्र राज्य)



S. T. D. 02328
224055 Resl. (Chairman)
224252 Resl. (M. D.)
224181 To 224187 Office



Gram : WARANA DUDH
Fax No. (02328) 224188



Ref. No. WDU / 2022 - 2023 / 14

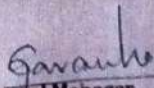
Date : 01/07/2022

TO WHOM-SO-EVER IT MAY CONCERN

This is to certify that **MISS. Palkar Shrawani Sanjay** Student of **B.Tech (Food Technology) Annasaheb Dange College of Engineering & Technology, ASHTA, DIST: SANGLI Reg. No.-19181033** has completed the In-plant training at **Shree Warana Sahakari Dudh Utpadak Prakriya Sangh Limited** in **Malted Food Division**. His training period was from **10 May 2022** to **13 June 2022**.

He worked in **Quality assurance** and **Production** department. He has gained good knowledge on **Food Defense**.

He was sincere, hardworking and honest during his training. We wish him all the best for his future career. His training was found satisfactory.


General Manager
Malted Food Division



CONTENTS

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| 4 | Conclusion | 53 |

Summary

A well planned, properly executed and evaluated industrial training helps a lot in developing a professional attitude. It develop an awareness of industrial approach to problem solving, based on a broad understanding of process and mode of operation of organization. The aim and motivation of this industrial training is to receive discipline, skills, teamwork and technical knowledge through a proper training environment, which will help me, as a student in the field of food Technology, to develop a responsiveness of the self-disciplinary nature of problems in information and communication technology.

ACKNOWLEDGMENT

We would sincerely like to thank respected Mr. A.K. GAWALI(General Manager). Mr. P. S. PAWAR(Quality In charge). Mr. S.T.Patil(Production Manager) for giving us opportunity to work at their premises and to use their resources as and when required. I would like to express my thanks to "Dr. S.V.Taralkar" For permitting us to do us In-Plant Training in "Shree Warana Sahakari Dudh Utpadak Prakriya Sangh Ltd. (Malted Food Division) Kolhapur".

We would also especially thank the Production officer Mr. Vijay Desai, Mr.Mahesh kaingade, Mr. Jayraj patil for their help and guidance in Quality Department and also special thanks to Mr. S.S. Khade for guide us.

Date: 04/07 /2022

1) INTRODUCTION

1.1 ABOUT

Malted food division is the branch of Shri Warana Sahakari Dudh Utpadak Prakriya Sangh Limited, Kolhapur, which has been producing malt based food for multinational company for more than 26 years. Meeting global standard with highly experienced staff, they always look forward for the continuous growth of our plant & staff. They feel proud to say that Warana is the first organization in the Maharashtra state to provide 'foSTac training' to all supervisor and middle management level staff to fulfill the government requirement for food industry. Mixing, Pasteurizing, Oven Cooking, Grinding, Cooling and Packing are the main processes used in the Malted Food Division. they are the exporter of these foods to African, Gulf countries, Asian Countries and others. they are having FSSC 22000 and HALAL certificates.



Fig No.1 Malted Food Division

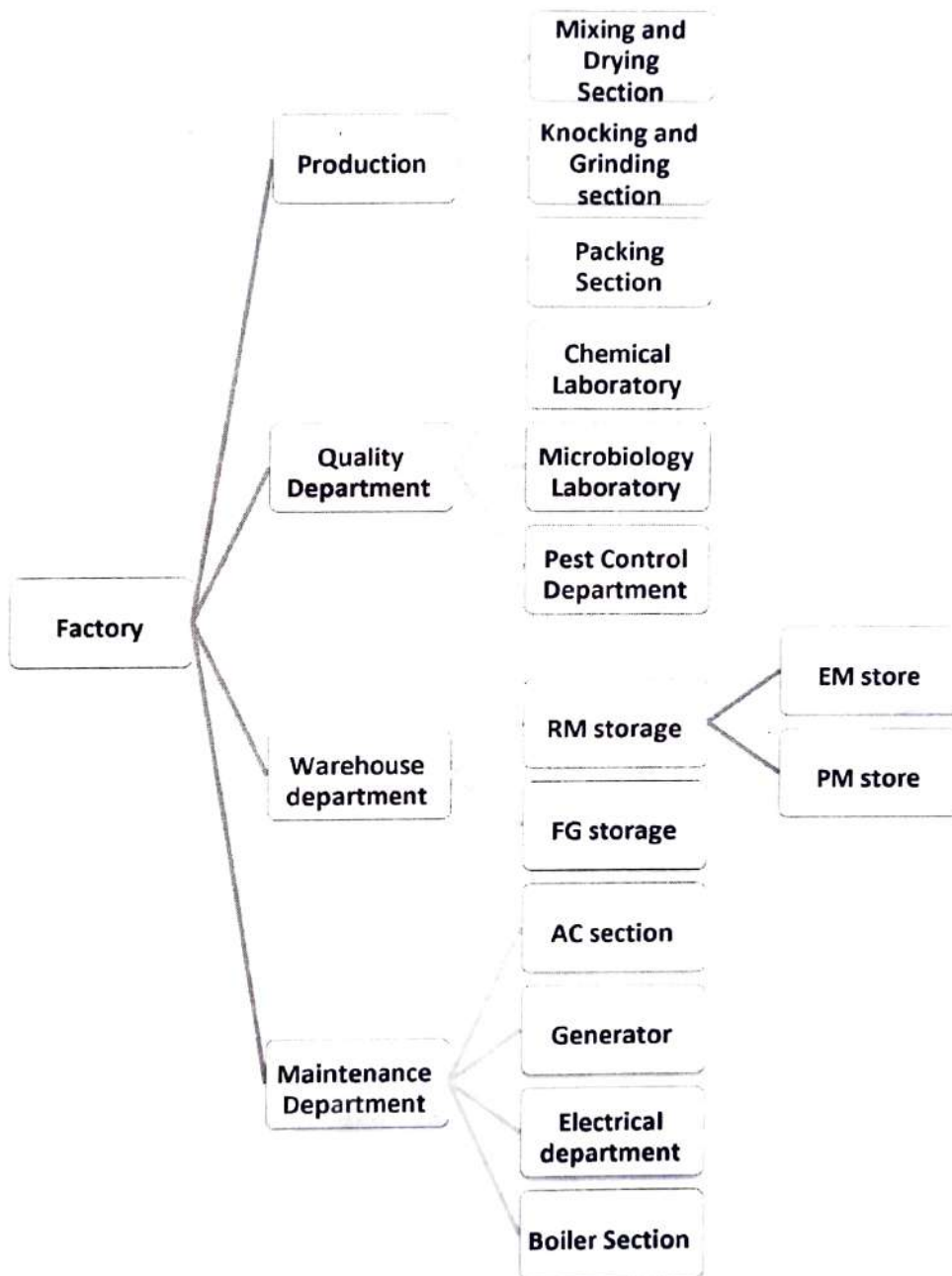
1.2 HISTORY

Malted Food Division is continuously growing from its inception since 1991, and expanding day by day and reached to position where we produce 1600 MT per Month and having worker strength more than 650 workers and best quality machineries like PSM (2 nos), Ovens, Silos, Automatic packing machines (6 nos), both Jar and Pouch Packing facility available with wide range of packing sizes and best in class cooling system available. Services Offered Looking for clients who are interested in Manufacturing & Marketing of Malt Based Food, Malted Milk Food, Malt Food, Baby Food, Infant Food, Weaning Food, Hot Chocolate, Drinking Chocolate, and allied products. We will provide all Manufacturing Facilities under their Brand name, or as franchisee operation. Further, we have infrastructure to manufacture the base for Pharmaceuticals Industries.

Shree Warana Sahakari Dudh Utpadak Prakriya Sangh Ltd. is working as a third party of Mondelez International since 1991. Warana manufacture Malt Based Food [Regular and Five Star Magic (FSM)] for Mondelez. Malted Food Division is branch of Shree Warana Sahakari Dudh Utpadak Prakriya Sangh Limited, is a co-operative movement engaged in collection, processing, packing and distribution of milk & milk products. In recent times Warana (Malted Food Division) is engaged in production of Malt Based Food (Regular & Five Star Magic) only. Warana is producing Malt Based Food, which is equivalent to 56% of market requirement. Production facility has manufacturing capacity of approximately 13,000- 14,000 tons per annum.

1.3 Departments and sections

Main departments along with their sub-departments are shown below in the chart :



1.4. PRODUCTS AT MALTED FOOD DIVISION, WARNANAGAR

Table No.1 products at malted food division

| Product | Net Wt. |
|---|----------------|
| Cereal based beverage mix (Regular Jars) | 200 g |
| | 500 g |
| | 1000 g |
| Cereal based beverage mix (Regular Pouch) | 14.4 g |
| | 75 g |
| | 500 g |
| | 750 g |
| | 1 kg |
| | 2 kg |
| Cereal based beverage mix (FSM) | 500g (jar) |
| | 500 g (pouch) |
| | 750 g (pouch) |

1.5 PRODUCTION DEPARTMENT

Bourn Vita



Fig no.2 Bournvita 75 gm pouch



Fig no.3 Bournvita 12.5 gm pouch

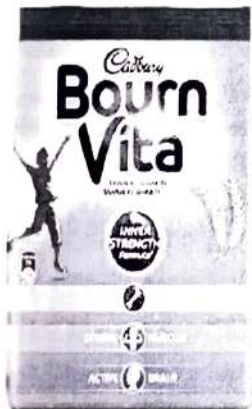


Fig no.4 Bournvita 500 gm



Fig no.5 Bournvita 1000 gm jar



Fig no.6 Five star Bournvita
1000 gm jar



Fig no.7 Five star Bournvita 500 gm
pouch

1.6 WAREHOUSE AND DISPATCH DEPARTMENT

Role of the Department:

- Receiving EM & PM from supplier by checking the quality certificate & other required document from supplier.
- Store the entire material batch wise, and keep EM, PM separately as per SOP.
- Issuing the material to production department batch wise by following FIFO.
- Storing the FG separately for each shift and dispatch the quality approved finished products to Depots as per FIFO.
- Record keeping of all incoming and outgoing materials and their current stock.
- Maintain the hygienic & clean environmental condition for storing raw material as well as finished goods.

2 . PROCESS

2.1 RAW MATERIALS USED FOR CEREAL BASED BEVERAGE MIX MANUFACTURING

I. Dry Ingredients

- 1) Crystal Sugar
- 2) Cocoa Powder
- 3) Skim Milk Powder
- 4) Vitamin Mix
- 5) Mineral Mix
- 6) EV Powder
- 7) AD-4 (Sodium bi-carbonate)
- 8) XY (Salt)
- 9) Maltodextrin
- 10) Vital Wheat Gluten
- 11) Rennet Casein

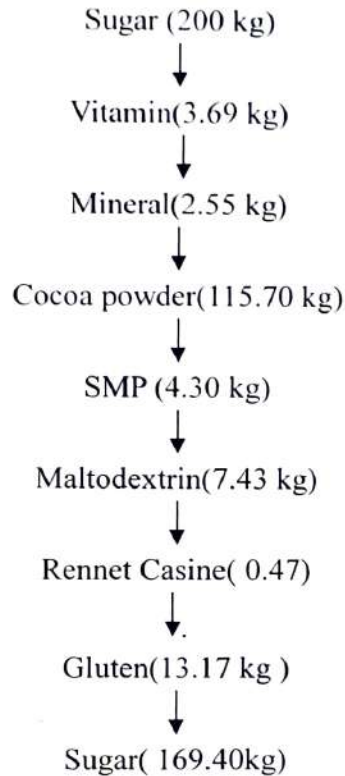
II. Wet Ingredients

- 1) Malt Extract
- 2) Soya Lecithin
- 3) Liquid Glucose
- 4) HMGL Liquid (mono and di glycerides of Fatty Acids)
- 5) EV Liquid (Ethyl Vanillin) CSS (Caramelized Sugar Syrup)
- 6) English Toffee Liquid Flavor, Caramel Liquid Flavor and Malt Booster Powder Flavour.

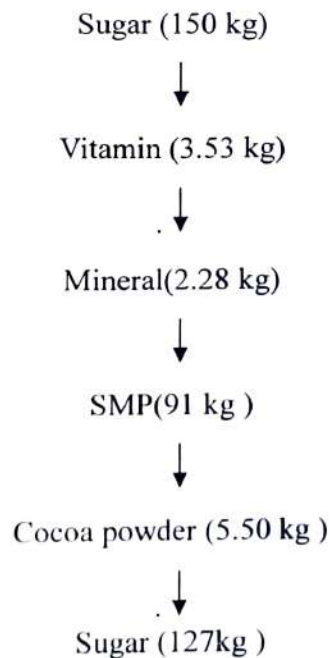
- **Section 1 – powder mixing**

Order of mixing –

1. **Regular Bournvita**



2) **FSM B.V**



- **Section 2 - Liquid mix making**

Equipment- wet mix vessel

Malt extract is typically charged into a batching vessel from storage tank. From this vessel, malt extract is added to the PSM in auto mode. CSS is charged into the PSM from CSS storage tank. XY and AD4 are added to malt extract to adjust the pH. Recipe quantities of liquid glucose, HMGL liquid, soy lecithin are added manually. After charging the ingredient, the mass is heated to 55-60 °C.. all the ingredients are mixed properly.

Sequence of adding is very important. The correct sequence is malt extract, CSS, AD4, XY, soy lecithin, HMGL liquid emulsifier, liquid glucose and liquid EV.

Powder pre-mix making Equipment- dry mix hopper

Cocoa powder, sugar, SMP, rennet casein, wheat gluten, vitamin mix, mineral mix, EV powder are charged into the dry mix hopper through a rotary sieve (with magnet) taking care that no lumps are formed. The charging is such that sugar forms a part of ingredients up to end of charging.

Magma making

Equipment- plough shear mixer

PSM is a jacketed mixer with a stirrer. The jacket water temperature is 107

°C.. entire quantity of liquid mix is charged into the PSM. Subsequently, the powder pre-mix is added gradually into PSM by screw feeder attached to powder mix hopper. The total mixing time in PSM is typically 900 sec at 54 rpm. The formed mass is called 'magma'.

Magma pre-heater Equipment- pasteurizer

The paste from the magma storage tank is continuously pumped into a SS jacketed pasteurizer, through which steam is circulated. The flow rate of the paste is adjusted so that it achieves the temperature of 83 ± 3 °C at discharge point and maintains the level of the paste in the depositor. In the pasteurizer, if the temperature does not go up by 83 ± 3 °C then it goes back to the magma holding tank.

Functions of pasteurizer

Pre heat the magma from approx. 80 -86°C.

Helps in reducing viscosity

Deposition in trays

Magma from the hopper of the tray depositor is used for filling of trays. Magma deposition per tray is typically from 2.3-2.4 kg. if the deposition exceeds this weight, it might cause over flowing and topping of the ovens.

- **Section 3 - Drying in oven**

Equipment- vacuum oven

Before charging the trays in the oven, hot water circulation (inlet temp. at 98-

102 °C.) should be on so as to pre heat the oven plate. The optimum level of 7-8 kg steam pressure is to be maintained. After charging the trays in oven and closing the oven door, primary vacuum is started i.e., only water ring pump. Initial minutes of the baking cycle are for pre heating the trays and the magma. At this stage evaporation starts and vacuum starts building up slowly. After about 20-25 min from the start, vacuum reaches approx. 580mmHg.

The cooking will start at this vacuum and the cycle for air blast will start. The steam ejector is started at this time. The rise in the level of magma in trays is clearly perceptible at this stage. The magma level then needs to be lowered to avoid sticking to the top of oven plate. The collapse of the magma level is achieved by either bleeding in some air (blast). This magma raising and collapsing sequence continuous for about 70 min. hot water flow is turned off at the end of this sub-step. The requirement to stop the blasting cycle is indicated when the mass in the tray is not collapsing even after a blast.

For the next drying stage that lasts about 20-25 min , the hot water circulation is stopped and the vacuum maximized (up to 750mmHg). Moisture is reduced from nearly 3% to 1%. Overall, the oven cycle is about 120 minutes.

- **Section 4- Cooling and knocking**

After discharging from the oven, the trays are cooled in a cooling room to about 30-40°C before knocking. The temperature of cooling room is around 19-25

°C. and humidity is 40±5%. The pallets are allowed to cool for 20-25 min in cooling room before knocking. The trays are then knocked to release the material.

The released material is conveyed to the size reduction equipment.

Nibbling

Equipment- Nibbler

Nibbling is done after knocking the puffed mass off the trays. The Nibbler sieve and rotor speeds are adjusted to get density typically around 0.60. the granulated material is conveyed pneumatically, past a magnet to the storage silo. The magnet is installed to avoid Fe-metal contamination in the product. The magnet strength shall exceed 10,000 Gauss.

• Section 5- Final packing

PP jars along with trays are received from the supplier in trucks. It is checked for the visual defects like condition of truck, any type of infestation, any type of foreign matter and other visual defects before unloading of truck. After quality inspection it is unloaded in the packing material godown on pallets.

Required amount of PP jars is brought from packing material godown to the production line on pallet by Hydraulic trolley one by one.

Empty PP Jars are supplied on the line at the feeding table. Empty PP jars filled automatic by jar filling Hassia machine.

Labeled jars are kept in inverted position and air is blowing inside the PP jar. It removes the dirt and dust from the PP jars if any.

Jars are filled automatically by Hassia jar filling machine.

Jar's filled 200gm, 500gm and 1kg by machine.

Compressed air is passed over the jars from outside to remove the adhered dust from outside of the PP jars.

Depending upon speed, 30-60 jars are filled per minute.

Placing and tightening of the Caps to the jars are done manually.

Jars are then passed through the Induction machine. When jar passed through Induction sealing machine the induced current is generated in the aluminum foil (conductor). Due to induced current the foil gets heated. Due to heat the film of the cap and PP jar get sealed.

Finally the jars are filled in trays along with the packing slip. Trays are stamped for the PKD/ code details prior to filling.

Trays are shrinking wrapped in shrink-wrapping machine. In which it is first wrapped in a polyethylene paper and sealed from all sides. Then it passes through the shrink tunnel. Hot shrink trays are cooled and then stacked over pallet and transfer to warehouse.

2.2 Process control parameters

Table No.2 Process control parameters

| Area | Parameters | Standards |
|--------------------|---|-----------------|
| Plough Shear Mixer | Malt Extract temp | 55° C |
| | Plough Shear Mixer | 55rpm |
| | Jacket water temp | 70-80° C |
| Pasteurizer | Temperature | 83+/-3 |
| Depositor | Magma per tray | 2.2 to 2.4 Kg |
| | Deposition rate | 13-14 trays/min |
| Oven | Hot water temp (through oven plates) | 98 to 102° C |
| | Oven cycle time | 120 minutes |
| | Vacuum Pressure | 580-760 mmHg |
| Nibbler | Sieve size | 9mm |
| Cooling Room | RH | 40-45% |
| | Temp | 19-25°C |
| Knocking Room | RH of the room | 35-45% |
| | Temp of room | 19-25 ° C |
| Packing room | RH | 40-50% |
| | Temp | 22-25 °C |

2.3 Equipment's used in Manufacturing

Table No.3 Equipment's

| Sr. No. | Equipment | Capacity |
|---------|-----------------------------|-------------------------------------|
| 1 | Plough shear mixer | Total capacity-1145 kg |
| 2 | Magma holding tank | 2290 kg |
| 3 | Intermediate storage Tank | 500 kg |
| 4 | Chain conveyor for tray | Speed= 14-16/ min |
| 5 | Depositor | Speed=14-16 tray/ min |
| 6 | Vacuum Oven | 170 tray/ oven (17&18-240tray/oven) |
| 7 | Silo 1,2,3 & 4 | 1 TON |
| 8 | Malt Storage tank | 30 & 65 ton |
| 9 | Hot water tank (Above oven) | 5000 lit |
| 10 | Rework Mixer | 650 kg |
| 11 | Trays | 2.3 -2.4 kg / tray |
| 12 | Boiler | 5 Ton/hr. |
| | Water & Fire Tube | 3.5 Ton/hr. |

2.4 Quality Department

- **LAB TESTING**

A. Edible material testing

1. Moisture Analysis

Weigh previously dried empty aluminum dish (W).

Take the sample (As per sampling plan) in aluminum dish (W1) and place it in Hot air oven at $100 \pm 2^{\circ}\text{C}$ for 4hrs.

Remove the dish & cool it in desiccators for 10 min. and weigh it (W2).

$$\% \text{ Moisture Content} = \frac{W1 - W2}{W1} \times 100$$

$$W1 - W$$

2. pH Determination

Keep the pH meter in STAND BY position before measurement of pH.

Always keep immerse the electrode of pH meter in distilled water beaker.

Prepare the solution of sample in beaker by dissolving 5g of sample in 45 ml of distilled water.

Set the temperature knob of pH meter at sample temperature.

Take sufficient quantity of prepared sample into the beaker and immerse the electrode of pH meter in it.

Turn the BUTTON to PH mode.

Record the pH after getting constant value in display.

Keep the pH meter again in STAND BY position.

Remove the sample beaker from pH meter.

Wash the pH meter electrode with distilled water and blot with tissue paper.

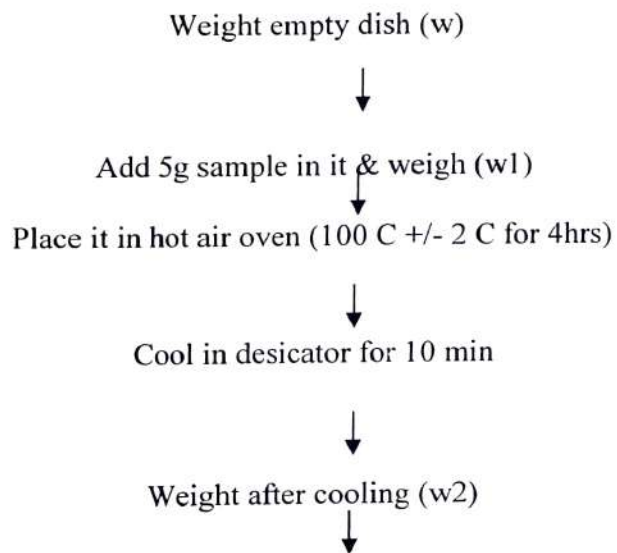
Again keep immerse the electrode in beaker containing distilled water.



Fig No.8 pH meter

B. Finished goods testing

1. Moisture content of Bourn vita



Repeat drying & cooling process till 2 constant are obtained.

Formula :

$$\frac{W_1 - W_2}{W_1 - W} \times 100$$

2. Bulk Density of Bourn vita



Fig No.9 Bulk Density

Weigh accurately 500 gm. of Bourn vita on the weighing balance.



Transfer it into plastic volumetric cylinder having 1000ml capacity.



Tap the cylinder up & down from wooden square block of 10 x10 x 10 inch size for 15 – 20 times.



Measure the volume accurately by noting volumetric cylinder reading.

Formula :

$$\text{Bulk Density} = \frac{\text{weight of Bournvita sample}}{\text{Volume of bournvita sample}}$$

3. Dust % of Bourn vita



Fig No.10 vibratory sieve

Weigh accurately 500 gm. of Bourn vita on the weighing balance.



Transfer weighed Bourn vita sample on 50-mesh size sieve.



Fix sieve on vibratory sieve machine.



Start the machine for 10-15 minutes.



Weigh the fraction of Bourn vita or Dust collected in the base pan.

Formula :

$$\text{Dust \%} = \frac{\text{weight of Dust Collected}}{\text{weight of BV sample}} \times 100$$

4. Alcoholic acidity of Bourn vita :



Fig No.11 conical stopper flask

Reagents

1. 95 % ethanol
2. 0.1N NaOH
3. Phenolphthalein indicator

Procedure:

Take 5 g of the sample in conical stopper flask.



Add 50 ml 95 % ethanol, shake it & allow standing for 24 hrs. with Occasional shaking.



Filter the alcoholic extract through a dry filter paper.



Titrate 10 ml of alcoholic extract against 0.1N NaOH solution using phenolphthalein as indicator.



Note down the burette reading as the colour changes to pink.



Calculate the % of alcoholic acidity as sulphuric acid.

2.5 Quality standards for finished good

- Chemical Standards –

Table No.4 Chemical Standards

| Sr. No. | Parameters | Regular B.V. | FSM B.V. |
|---------|--------------------|--------------|------------|
| 1 | Moisture % | 1.5 | 1.5 |
| 2 | pH | 6 - 6.4 | 6 - 6.4 |
| 3 | Bulk Density | 0.5 - 0.62 | 0.6 - 0.68 |
| 4 | Dust % | 30 | 30 |
| 5 | Protein % | 7 | 7 |
| 6 | Sediments ml | 10 | 10 |
| 7 | Alcoholic Acidity | 0.3 | 0.35 |
| 8 | Vit-C mg | 135 | 135 |
| 9 | Ash % | 5 | 5 |
| 10 | Acid Soluble Ash % | 0.1 | 0.1 |
| 11 | Particle Size | NA | NA |

- Nutritional Information Of Bournvita

Table No.5 Nutritional Information

| Sr.No | Nutrients | 100 gm |
|-------|-------------------------------|----------|
| 1 | Energy | 387 kcal |
| 2 | Protein | 7.0g |
| 3 | Carbohydrate | 86.7 g |
| 4 | Total sugar | 49.8 g |
| 5 | Total fat | 1.8 g |
| 6 | Saturated fat | 0.9 gm |
| 7 | Trans Fat | 0 |
| 8 | Vitamin B1 (Thiamin) | 1.4 mg |
| 9 | Vitamin B2 (Riboflavin) | 1.4 mg |
| 10 | Vitamin B3 (Niacin) | 18 mg |
| 11 | Vitamin B5 (Pantothenic acid) | 5 mg |
| 12 | Vitamin B6 | 2.5 mg |
| 13 | Biotin | 25.5 mg |
| 14 | Folic acid | 150 mcg |

| | | |
|----|-------------|----------|
| 15 | Vitamin A | 750 mcg |
| 16 | Vitamin C | 95 mg |
| 17 | Copper | 0.7 mg |
| 18 | Selenium | 31.5 mcg |
| 19 | Zinc | 4.5 mg |
| 20 | Vitamin D | 6.3 mcg |
| 21 | Phosphorous | 230 mg |
| 22 | Vitamin B12 | 2.5 mcg |
| 23 | Iodine | 150 mcg |
| 24 | Iron | 40 mg |

2.6 Microbiology lab –

Preparation of media

1) Peptone salt solution (maximum recovery diluent)

- Take 9.5 g in 1 lit distilled water
- Autoclave 15 min at 121 °C

2) Rose Bengal chloramphenicol agar (RBA)

- Take 32.2 g in 1 lit distilled water
- Autoclave 15 min at 121 °C

3) Violet red bile lactose agar (VRBA)

- Take 39.5 g in 1 lit distilled water
- Heat in boiling water bath and agitate frequently until completely dissolve, do not boil more than 2 min, do not autoclave

4) Violet red bile glucose agar (VRBGA)

- Take 39.5 g in 1 lit distilled water
- Heat in boiling water bath and agitate frequently until completely dissolve, do not boil more than 2 min, do not autoclave

5) Plate count agar (PCA)

- Take 22.5 g in 1 lit distilled water.
- Autoclave 15 min at 121 °C

| Sr no | tests | Media used | temperature | Incubation period |
|-------|-------------------------|--------------------------------------|----------------------|-------------------|
| 1 | Total plate count(TPC) | Plate count agar (PCA) | 30-32 degree celcius | 72 hrs |
| 2 | Yeast & mold | Rose Bengal agar (RBA) | 25 degree celcius | 120 hrs |
| 3 | coliform | Violet red bile agar (VRBA) | 38 degree celcius | 24 hrs |
| 4 | Enterbacterance (EB) | Violet red bile glucose agar (VRBGA) | 38 degree celcius | 24 hrs |

3.ASSIGNMENTS

Aim 1: Ingredients Used in Manufacturing of Bournvita (Regular & Five Star) .

Ingredients used in manufacture of bournvita are of two types:

- 1) Wet Ingredients
- 2) Dry Ingredients

1) Dry Ingredients:

Crystal Sugar(S-30 Grade), Cocoa Powder, Skim Milk Powder (SMP), Sodium bicarbonate, Maltodextrin, Vital Wheat Gluten, Rennet Casein, Common Salt, Ethyl Vanillin (EV) Powder, Vitamin Mix and Mineral Mix

2) Wet Ingredients:

Malt Extract, Caramelized Sugar Syrup (CSS), Liquid Glucose, HMGL Liquid Emulsifier (mono-diglycerides of Fatty Acids), Soya Lecithin and Ethyl Vanillin (EV) Liquid. English Toffee Liquid Flavour, Caramel Liquid Flavour and Malt Booster Powder Flavour are used in manufacturing of BV-FSM only.

Aim 2 – to study raw material and their shelf life.

Table No.8 raw material and their shelf life

| Sr no | Ingredients | FSSAI Lic No. | Availability per bag | Validity/shelf life |
|-------|-------------------------------|-----------------|----------------------|---------------------|
| 1 | Malt | | 23 & 30ton tankers | |
| 2 | AD 4 (soda) | | 25 Kg | 5 years |
| 3 | XY (salt) | 100140210014045 | 25 Kg | 2 years |
| 4 | CSS | | 70 Kg | 2 years |
| 5 | Glucose | 10012026000040 | 300 Kg | 2 years |
| 6 | Soya lecithin | 10012026000040 | 200 Kg | 2 years |
| 7 | Liquid GMS | | 50 Kg | 2 years |
| 8 | Ev liquid | | 10 Kg | 18 months |
| 9 | sugar | 10012051000261 | 50 Kg | 2 years |
| 10 | Vitamin premix | 10015022003558 | 25 Kg | 1 years |
| 11 | Mineral premix | | 25 Kg | 1 years |
| 12 | Cocoa powder | 1001402203164 | 25 Kg | 2 years |
| 13 | Ev powder | | 25 Kg | 5 years |
| 14 | SMP | 10015042002246 | 25 Kg | 1 years |
| 15 | Rennnet casein | | 25 Kg | 2 years |
| 16 | Vital wheat gluten | 1001406300368 | 25 Kg | 1 years |
| 17 | Malto dextrin | 10012043000055 | 25 Kg | 2 years |
| 18 | Diacetyl malt booster flavour | | 20 kg | 9 months |
| 19 | Milk caramal | | 5 kg | 1 year |
| 20 | English toffee | 1001202400007 | 5 kg | 1 year |

Aim 3 : To study process of sacktip to MHT tank.

For one mixing 1145 kg raw material required for one mixing including liquid materials.

Mixing Schedule-

- Mixing start- 10:30 AM (Powdered form material add from sacktip)
- Malt addition- 10:40 AM
- Liquid material addition- 10:45 AM
- Dry material addition from hopper- 10:50 AM
- Dry material stop- 10:55 AM
- Mixing complete- 11:05 AM
- PSM discharge to MHT- 11:10 AM

Mixing start to PSM discharge 40 min are required for one mixing complete.

- In One shift (8 hours)= 480 min (8 hrs)/ Time required for one mixing
$$= 480/40$$
$$= 12 \text{ mixing in one shift from one sacktip station}$$

We have 2 sacktip station = 12×2

= 24 mixing done in one shift

Aim 4- To study Deposition Process.

- Weight of empty tray = 9200 to 9500 gm
- Weight of Magma per tray = 2300 to 2400 gm

Temperature of Magma during deposition is 84 degree celcius ± 3

- Speed for magma deposition = 16 trays per minute.
= 16×60
= 960 trays
- In one shift (8 hrs) = 960×8
= 7680 trays per shift
- Total magma deposition in one shift = $7680 \times 2.4 = 18434$ kg
- Total magma deposited in three shift = 23040×2.4
= 55296 kg per day
- Total magma deposited in three shift = 23040×2.4
= 55296 kg per day

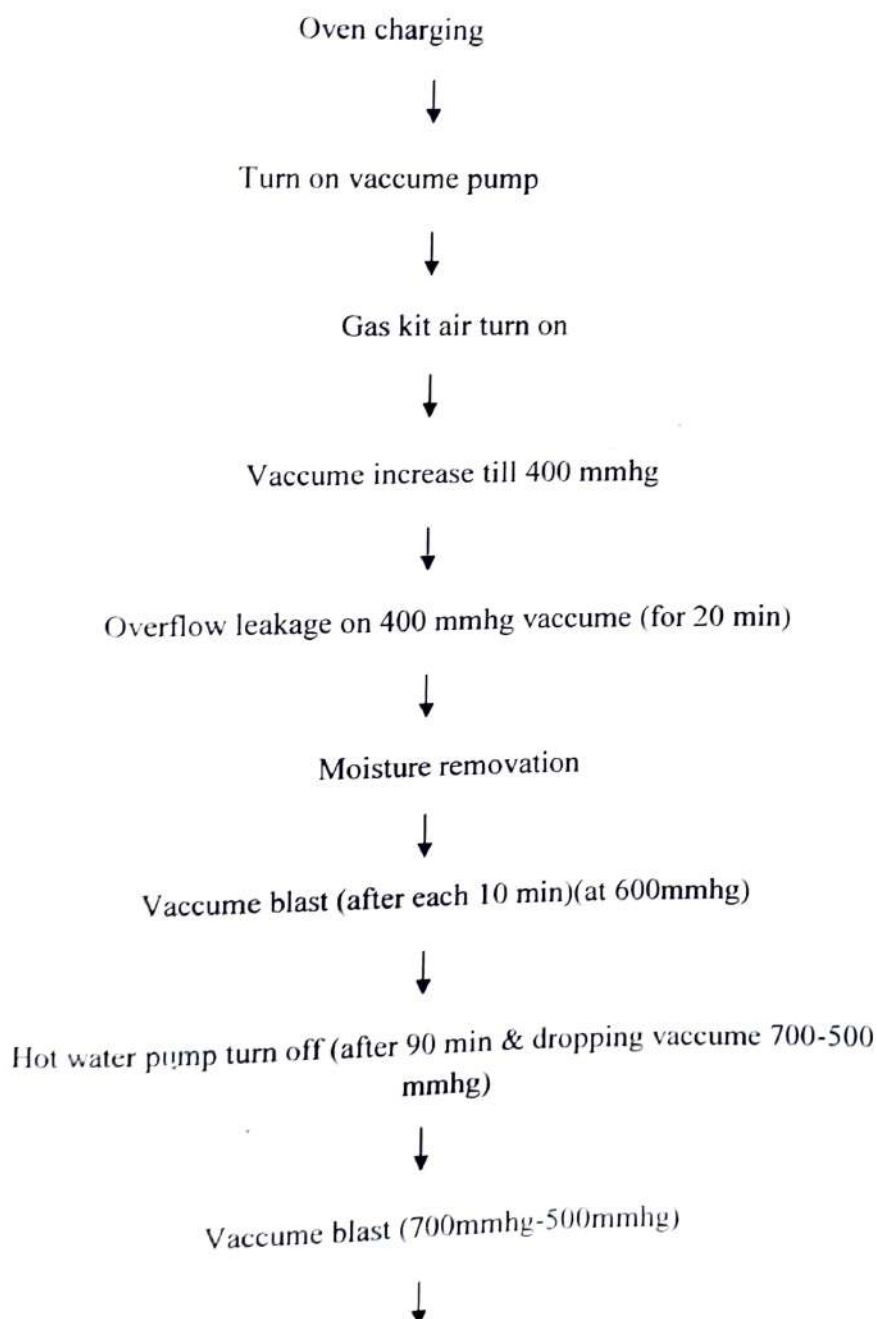
Aim 5: To Study Oven operation for Baking of Bournvita

Total ovens in oven section – 18

Oven tray capacities

- 1) Oven no 1 to 6 – 180 trays each.
- 2) Oven no 7 to 16 – 170 trays each.
- 3) Oven no 17 & 18 – 204 trays each

Oven Operation



Air gas kit turn off



Vaccume pump turn off



Hot water pump turn on



Final blast

- Hot water temperature – 98 – 102 degree celcius
- Boiler pressure – 7-8 kg
- Oven temperature – 80-85 degree celcius
- Discharge time 120 min – 710 mmhg

Aim 6 – Role of Ingredients

1. Dry Ingredients

1) Crystal Sugar (S/30 Grade)-Sugar is mainly used as a sweetening agent in

Cereal based beverage mix. **2) Cocoa Powder (12% Fat)** - Cocoa acts as a flavoring agent in Cereal based beverage mix

3) Skim Milk Powder (34% Protein) -It is a good substitute to whole milk. It is also low in fat and high in essential protein.

4) Vitamin Mix-It is a mixture of various vitamin and is used to enhance nutrition quality of the product.

5) Mineral Mix-it is mixture of various minerals and is used to enhance nutrition quality of the product.

6) EV Powder (Ethyl Vanillin) -It is an artificial flavoring compound powder used in cereal based beverage mix processing.

7) AD-4 (Sodium bi-carbonate)-It is used as a rising agent in cereal based beverage mix recipe.

8) XY (Salt)-Ionized salt is used in cereal based beverage mix production. Its main function is to neutralize malt extract and CSS.

9) Maltodextrin (10DE)-It is used as source of high energy (polysaccharide) in Cereal based beverage mix.

10) Vital Wheat Gluten (82% Protein)-Wheat gluten is a rich source of protein.

11) Rennet Casein (86% Protein) - Rennet casein has good nutritional properties as well as functional properties such as texture improvement and very good emulsifier properties.

Wet Ingredients

1) Malt Extract (7% Protein) -Malt Extract is an principle ingredient in Cereal hased beverage mix. About 50-52% of malt extract (barley) is used in processing. This is a source of all essential vitamins, amino acids proteins and minerals. It also gives necessary flavor and texture to cereal based beverage mix.

2) Soya Lecithin-It has emulsification and lubricant properties and also boosts: protein

3) Liquid Glucose -Also called as confectionery glucose and is made by hydrolysis of starch. Liquid glucose is used in cereal based beverage mix to sweeten the product, soften its texture and to add volume to the product.

4) HMGL Liquid (mono and di glycerides of Fatty Acids) - It is used as an

emulsifier.

5) EV Liquid (Ethyl Vanillin)-This is an artificial flavoring compound used in cereal based beverage mix processing.

6) CSS (Caramelized Sugar Syrup) -It is used as flavoring and coloring agent in cereal based beverage mix.

7) English Toffee Liquid Flavor, Caramel Liquid Flavor and Malt Booster Powder Flavour. These are used as flavours in Cereal based beverage mix Five Star Magic

Aim 7- to study SKU of product.

| | Line no | No of units In box | Wt of box Per kg | Stock height | No of box On pallet | Final wt on pallet in kg |
|-----------|-----------------------------|--------------------|------------------|--------------|---------------------|--------------------------|
| 4 gm GP | 4068391 | 864 pouch | 12.44 kg | 6 | 30 | 373.24 kg |
| 4 gm GP | 426534 | 720 pouch | 10.36 kg | 6 | 30 | 310.8 kg |
| 5 gm GP | 4067201 | 192 pouch | 14.4 kg | 7 | 35 | 504 kg |
| 50 gm GP | 4260339 FSM- 4260344 | 32 pouch | 16 kg | 5 | 40 | 640 kg |
| 50 gm GP | 4264095 FSM 4258229 | 16 pouch | 12 kg | 7 | 56 | 672 kg |
| kg GP | 4267648 | 12 pouch | 12 kg | 7 | 56 | 672 kg |
| kg GP | 4277045 | 6 pouch | 12 kg | 6 | 42 | 504 kg |
| 50 gm JAR | 4260338 | 30 jars | 6 kg | 10 | 80- | 480 kg |
| 50 gm JAR | 4260340 FSM - 4260343 | 15 jars | 7.5 kg | 7 | 63 | 472.5 kg |
| kg JARS | 4260342 | 8 jars | 8 kg | 6 | 60 | 480 kg |

Ann 8 To study stock remained in I.M store

| Ingredients | Pallet 1 | Pallet 2 | Pallet 3 | Pallet 4 | Pallet 5 | Pallet 6 | Pallet 7 |
|--------------------|----------|----------|----------|----------|----------|----------|----------|
| SAF | 50 | 50 | 1 | | | | |
| Bonnet capsule | 50 | 50 | | | | | |
| Kaladescent powder | 50 | 50 | 12 | 50 | | | |
| Wheat gluten | 50 | 50 | | | | | |
| Kali Flavon | 50 | 50 | 50 | | | | |
| Carbon powder | 50 | 50 | 50 | 50 | 50 | 50 | |
| Liquid glycerol | 1 | 1 | 1 | 1 | 1 | 1 | |
| Sugar | 50 | 50 | 50 | 50 | 50 | 50 | |
| Sodium | 50 | 50 | 50 | 50 | 50 | 50 | |
| Incubator | | | | | 0 | 12 | 11 |
| Caramel color | 11 | 11 | 11 | 11 | 11 | 10 | 10 |
| Mineral mix | 12 | | | | | | |
| Vitamin mix | 12 | | | | | | |

Aim 9- to study oven production

- Average Empty tray weight = 9.43 kg
- Average puffed tray weight = 11.69 kg
- Weight of final product = $11.69 - 9.43$

$$= 2.26 \text{ kg}$$

A) Oven no 1-6

$$= 180 \text{ trays in each oven}$$

$$= 180 \times 2.26$$

$$= 406.8 \text{ kg/discharge}$$

Average discharge in one shift = 3

$$= 406.8 \times 3$$

$$= 1220.4 \text{ kg/shift of one oven}$$

Total ovens with capacity of 180 trays are 6

$$= 1220.4 \times 6$$

$$= 7322.4 \text{ kg/shift of 6 ovens}$$

B) Oven no 7-16

$$= 170 \text{ trays in each oven}$$

$$= 170 \times 2.26$$

$$= 384.2 \text{ kg/discharge}$$

Average discharge in one shift = 3

$$= 384.2 \times 3$$

$$= 1152.6 \text{ kg/shift of one oven}$$

Total ovens with capacity of 170 trays are 10

$$= 1152.6 \times 10$$

$$= 11526 \text{ kg/shift of 10 ovens}$$

C) Oven no 17 and 18

= 204 trays in each oven

= 204×2.26

= 461.04 kg/discharge

Average discharge in one shift = 3

= 461.04×3

= 1383.12 kg/shift in one oven

Total ovens with capacity of 204 trays are 2

= 1383.12×2

= **2766.24 kg/shift of 2 ovens**

□ Total production of 1-18 ovens

Per shift = $7322.4 + 11526 + 2766.24$

= **21614.64 kg/shift**

Per day = 21614.64×3

= **64843.92 kg/day**

Aim 10: To study the location, capacity and use of weighing balance

Table No.9 location, capacity and use of weighing balance

| Location | Capacity | Use |
|-----------------------------|----------|---|
| 1) Sac – tip Mixing station | 60 kg | For weighing liquid A,A.D 4& XY salt |
| 2) Vitamin room | 6 kg | For weighing EV powder, vitamins & minerals |
| 3) Magma deposition section | 50 kg | For weighing magma deposited tray |
| 4) Knocking section | 6 kg | For weighing rework bournvita |
| 5) Packing area | 15 kg | For weighing 500 gm, 750 gm & 1kg. |
| 6) P.A.(Line 2) | 6 kg | For weighing 200 gm & 500 gm |
| 7) Packing section 2 | 60 kg | For weighing packed boxes, |
| 8) Bharat Plant | 15 kg | For weighing 14.4 gm packet. |
| 9) Quality Lab-(1) | 15 kg | For weighing bulk density. |
| 10) Lab-(2) | 100 gm | For weighing bournvita sample |

Aim 11:- To determine the deposition of magma.

Table No.10 Deposition of magma

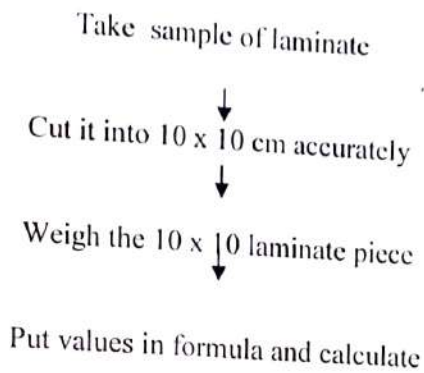
| Machine NO. | weight of empty Tray | wt. of Magma | Total wt. of magma depo.tray |
|-------------|----------------------|--------------|------------------------------|
| 1 | 9.54 | 2.42 | 11.97 |
| 2 | 9.55 | 2.47 | 11.97 |
| 3 | 9.69 | 2.47 | 11.116 |
| 4 | 9.69 | 2.44 | 11.16 |
| 5 | 9.68 | 2.43 | 11.112 |
| 6 | 9.55 | 2.44 | 11.91 |
| 7 | 9.65 | 2.44 | 11.109 |
| 8 | 9.68 | 2.58 | 11.126 |
| 9 | 9.61 | 2.65 | 11.126 |
| 10 | 9.54 | 2.68 | 11.122 |
| 11 | 9.31 | 2.68 | 11.99 |
| 12 | 9.45 | 2.53 | 11.88 |
| 13 | 9.44 | 2.40 | 11.84 |
| 14 | 9.54 | 2.35 | 11.89 |
| 15 | 9.32 | 2.38 | 11.69 |
| 16 | 9.45 | 2.53 | 11.98 |
| 17 | 9.68 | 2.56 | 11.121 |
| 18 | 9.71 | 2.53 | 11.124 |
| 19 | 9.48 | 2.44 | 11.92 |
| 20 | 9.49 | 2.41 | 11.90 |

Average weight of empty trays = 9.5525 kg

Average weight of magma deposit = 2.49 kg

Aim 12 – to determine GSM of laminate.

- **GSM** – it is an acronym for gram per square meter
- Flow chart



- **Formula**

$$\text{GSM} = \frac{Z \cdot 10^6}{a \cdot b}$$

whereas,

Z = weight of 10 x 10 laminate

a = length of laminate in mm

b = width of laminate in mm

□ **Standard measurements of GSM**

Table No.11 Measurements of GSM

| Laminates | Height(a) | Width (b) | GSM |
|-----------|------------|------------|-----|
| 14.4 g | 100 mm | 927 mm | 86 |
| 75 g | 100 mm | 225 mm | 96 |
| 500 g | 225 mm | 405 mm | 96 |
| 750 g | 260 mm | 405 mm | 108 |

Aim 13 - to study overweight of bournvita.

Table No.12 Overweight of bournvita

| Name Of Product - Bournvita Regular 500gm jar | box tare wt |
|---|-------------|
| Line Of Manufacturing - 500gm line | 7.496 |
| SKU code- | 7.511 |
| Lable weight declaration - 500.00 gm | 7.521 |
| Tolarance - 15.00gm | 7.492 |
| MAV light weight package -485.00 gm | 7.493 |
| Lower specification limit -485.00gm | 7.499 |
| upeer specification limit-515.00 gm | 7.496 |
| | 7.512 |
| Net wt -500.00gm | 7.53 |
| Decelare wt-500.00gm | 7.506 |
| minium -485.00gm | 7.506 |
| maximum -515 gm | 7.512 |
| Tare wt - 32+3 =35gm | 7.523 |
| | 7.523 |
| | 7.523 |
| | 7.482 |
| | 7.481 |
| | 7.521 |
| | 7.531 |
| | 7.522 |
| | 7.482 |
| | 7.481 |
| | 7.46 |
| | 7.481 |
| | 7.502 |
| | 7.506 |
| | 7.512 |
| | 7.502 |
| | 7.502 |
| | 7.486 |
| | 7.488 |
| | 7.506 |
| | 7.501 |
| | 7.502 |
| | 7.486 |
| | 7.488 |
| | 7.502 |
| | 7.48 |
| | 7.483 |
| | 7.501 |
| | 7.488 |

| | |
|-----------|---------|
| | 7.48 |
| | 7.502 |
| | 7.501 |
| | 7.486 |
| | 7.488 |
| | 7.484 |
| | 7.487 |
| | 7.48 |
| | 7.489 |
| | 7.506 |
| | 7.501 |
| | 7.496 |
| | 7.506 |
| | 7.492 |
| | 7.491 |
| | 7.491 |
| | 7.506 |
| | 7.504 |
| | 7.502 |
| | 7.506 |
| | 7.506 |
| | 7.501 |
| | 7.491 |
| | 7.506 |
| | 7.491 |
| | 7.486 |
| | 7.482 |
| | 7.486 |
| | 7.486 |
| | 7.506 |
| | 7.506 |
| | 7.501 |
| | 7.502 |
| | 7.501 |
| | 7.496 |
| | 7.496 |
| | 7.498 |
| | 7.501 |
| | 7.506 |
| Total | 600.504 |
| Average | 7.5063 |
| % Over wt | 0.63% |

Table No.13 Overweight of bournvita

| Name Of Product - Bournvita Regular 1kg pouch | Box tare wt |
|---|-------------|
| Line Of Manufacturing - 1 kg line | 12.2 |
| SKU code- 4267648 | 12.3 |
| Lable weight declaration -1000 kg | 11.6 |
| Tolarance - 15.00gm | 11.9 |
| MAV light weight package -985.00 gm | 11.6 |
| Lower specification limit -985.00gm | 11.6 |
| upeer specification limit-1015.00 gm | 11.5 |
| | 12.1 |
| Net wt -1000.00gm | 11.6 |
| Decelare wt-1000.00gm | 11.5 |
| minium - 11.82 kg | 11.3 |
| maximum - 12.18 kg | 11.4 |
| Tare wt - =1.175 gm | 11.5 |

| | |
|--|------|
| | 11.5 |
| | 12.1 |
| | 11.3 |
| | 12.1 |
| | 12.1 |
| | 11.9 |
| | 12.5 |
| | 12.6 |
| | 12.3 |
| | 12.4 |
| | 12.3 |
| | 12.6 |
| | 12.9 |
| | 12.8 |
| | 12.6 |
| | 12.3 |
| | 12.3 |
| | 12.1 |
| | 12.3 |
| | 11.8 |
| | 11.7 |
| | 12 |
| | 12.1 |
| | 12.3 |
| | 12.6 |
| | 12.3 |
| | 12.1 |
| | 11.8 |
| | 11.7 |

| | |
|--|--------|
| | 12.3 |
| | 12.603 |
| | 11.8 |
| | 11.5 |
| | 11.8 |
| | 11.93 |
| | 12 |
| | 12.1 |
| | 11.5 |
| | 12.6 |
| | 11.6 |
| | 12.3 |
| | 12.1 |
| | 12.6 |
| | 11.8 |
| | 11.8 |
| | 12.1 |
| | 11.6 |
| | 12 |
| | 12.4 |
| | 12.2 |
| | 12.1 |
| | 11.9 |
| | 11.8 |
| | 11.8 |
| | 11.3 |
| | 12.6 |
| | 12.1 |
| | 12.4 |

| | |
|---------|---------|
| | 12.3 |
| | 12.1 |
| | 11.3 |
| | 11.9 |
| | 11.7 |
| | 11.7 |
| | 11.8 |
| | 11.9 |
| | 11.8 |
| Total | 960.633 |
| Average | 12.0078 |
| over wt | 0.78% |

Table No.14 Overweight of bournvita

| Name Of Product - Bournvita Regular 500gm pouch | Box tare wt |
|--|-------------|
| Line Of Manufacturing - 500 gm line | 16.02 |
| SKU code- 4260339 | 15.51 |
| Lable weight declaration -500 gm | 15.46 |
| Tolarance - 15.00gm | 15.46 |
| MAV light weight package -485.00 gm | 15.78 |
| Lower specification limit -485.00gm | 15.79 |
| upeer specification limit-515.00 gm | 16.01 |
| | 15.86 |
| Net wt -500.00gm | 16.02 |
| Decelare wt-500.00gm | 16.021 |
| minium - 15.32 kg | 16.12 |
| maximum - 16.48 kg | 16.21 |
| Tare wt - = | 15.56 |
| | 15.98 |
| | 16.01 |
| | 16.02 |
| | 16.03 |
| | 16.2 |
| | 16.2 |
| | 16.21 |
| | 15.56 |
| | 15.45 |
| | 16.34 |

| | |
|--|--------|
| | 16.21 |
| | 16 |
| | 15.98 |
| | 16.23 |
| | 16.35 |
| | 16.4 |
| | 15.56 |
| | 15.98 |
| | 15.89 |
| | 16.21 |
| | 16.84 |
| | 16.69 |
| | 16.23 |
| | 16.25 |
| | 16.36 |
| | 16 |
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| | 16.03 |
| | 16.001 |
| | 16.001 |
| | 16.02 |
| | 16.23 |
| | 16.45 |
| | 16.54 |
| | 15.46 |
| | 16.21 |

| | |
|---------|----------|
| | 15.56 |
| | 15.45 |
| | 15.45 |
| | 15.44 |
| | 15.46 |
| | 15.14 |
| | 15.65 |
| Total | 1280.653 |
| Average | 16.0091 |
| over wt | 0.91% |

CONCLUSION

During our industrial training, there are many changes from the point of learning environments and discussion among colleagues. It can directly increase the dedication and rational attitude toward myself.

By this training we are able to know about the actual diff between therotical and actual process .While this training we are able to go through different situation which makes us more palatable for future. During this training period we are able to know about different process , food processing laws.

we can conclude that during this industrial training we received a lot of exposure in the computing world.



Annasaheb Dange College of Engineering and Technology, Ashta

(An Autonomous Institute affiliated to Shivaji University, Kolhapur)

Internship Permission Form

Candidate Details:

Name of the Candidate: Mahesh Mahadev Baraskar
 Branch: Mechanical Engineering Class: B.Tech Div.: D
 URN Number: 19112086 Roll Number: 1157
 Academic Year: 2021-22 Email Id: maheshbaraskar.me@gmail.com Mob.: 9834005881

Company Details:

Name of Company: Wipeo Ltd.
 Address of Company: _____
 Name of Contact Person (Technical Manager / HR): _____
 Email Id of Contact Person: _____ Mobile: _____

Internship Details:

Start Date: 21/02/2022 End Date: 30/04/2022
 Stipend (Yes/ No): No If Yes, how much stipend offered per month _____
 Name of Faculty Coordinator: Mr. S. V. Nishandax
 Remarks by Faculty Coordinator with Signature: _____

Undertaking

I Mahesh Mahadev Baraskar, assure of fulfilling all academic requirements laid down by the institute and department and abide to the rules and regulation of the institute and department.

Mahesh Mahadev Baraskar
 Signature of Candidate

Date: 17/02/2022

Remarks and Signature:
 Permitted/ Not Permitted

Head of Department

Remarks and Signature:
 Permitted/ Not Permitted

Dean, Training and Placement

Remarks and Signature:
 Permitted/ Not Permitted

Director Executive Director

Note: Candidate must attach Internship request letter/ mail copy sent to company and approval letter/ mail from the company along with this application form.





February 15, 2022

Dear Mahesh Baraskar,

Sub: Letter of Engagement as Intern

We are pleased to inform you that you have been selected for undergoing Internship in our organization Wipro Limited (Wipro) as Intern under the following terms and conditions:

1. Nature of Engagement

You will be engaged as an Intern at Wipro.

2. Duration of training

The duration of internship will be from **February 21, 2022 to April 30, 2022**. During this period, Wipro shall evaluate your performance. Unless Wipro extends the period of internship, in writing, solely at its discretion, your internship shall automatically stand terminated at the expiry of the internship period.

3. Verification Report

Your engagement with Wipro will be subject to receipt of satisfactory report with regard to verification of the particulars furnished by you in your application and information given at the time of Interview. If any declaration or information furnished to Wipro proves to be false or if you have wilfully suppressed any material information, in such case, you will be liable to removal from training without any notice.

4. Obligations and Responsibilities

- a. During your internship period, Wipro expects you to undergo training in any department / section in which you are placed with high standard of initiative and efficiency. You shall devote yourself exclusively for undergoing training. You shall not take up any other work for remuneration (part-time or otherwise) or work on advisory capacity or be interested directly or indirectly in any other trade or business (except as share-holder or debenture holder) during the training period without obtaining permission in writing from the appointing authority at Wipro. You will be governed by the service rules / standing orders, policies and regulations as may be promulgated by Wipro from time to time in relation to conduct, discipline and other matters. You will not seek membership of any local or public bodies without first attaining specific permission from the appointing authority at Wipro. You are expected to comply with the policies of Wipro including the Code of Business Conduct and other policies of Wipro as they form an integral part of the terms of your training with Wipro.

Consequently, you are required to understand the scope and intent behind these policies and to comply with the same. These Policies are updated / modified on a periodic basis and new Policies may be introduced and notified to employees/trainees from time to time and you will be required to comply with the same. Any matter or situation or incident that may arise that could potentially result, or has resulted, in any violation of the Policies or the terms of your employment, shall immediately be brought to the notice of Wipro and appropriate disciplinary action will be initiated.

- b. During the training period, if you conceive any new or advanced method of improving processes / formulae / systems in relation to the Business or Trade of Wipro, such developments will be fully communicated to Wipro and will be the sole property of Wipro. In consideration of the opportunities, training and access to new techniques and know-how that will be made available to you, you will be required to comply with the Confidentiality Policy of Wipro. Therefore, please maintain all Confidential Information as defined from time to time in the Confidentiality Policy of Wipro, as secret and confidential and do not use or disclose any such Confidential Information except as may be required

under obligation of law or as may be required by Wipro and in the course of your training. This covenant shall endure during your training and beyond the cessation of your training with Wipro.

c. During the training period and thereafter, you will not pass onto anyone in writing or by word of mouth or otherwise, particulars or details of work, processes, technical know-how, research carried out, security arrangements, administrative and organization matters of confidential or secret nature, which you may come across during your training period or become known to you by virtue of your undergoing training in Wipro or otherwise.

d. In connection with your internship and during the term of your internship, upon conception or creation, you shall disclose and assign to Wipro as its exclusive property, all inventions, ideas, concepts, discoveries, techniques, and improvements (including without limitation legal documents, training materials, computer software and associated materials) developed or conceived by you solely or jointly with others (whether or not during business hours), and shall comply with the Policies of Wipro in relation to Intellectual Property.

5. Posting

During your training period, you are liable to be transferred or assigned to training in any division / department / establishment or location at which Wipro or its associate companies have their offices or operation and whether at present existing or which may be set up in future at any time and at any place in India, without any increase in stipend. On such posting, you will be governed by the policies, rules and regulations as applicable in that Unit / Branch / Establishment.

6. Travel

You will be required to undertake travel as required by Wipro and you will be paid travel expenses as per Wipro rules.

7. Termination

Notwithstanding any of the clauses of this letter of engagement, Wipro reserves the right in its sole discretion of terminating this agreement during the training period without assigning any reason by giving one week's (7 days) notice or payment of one week's stipend, in lieu of notice.

8. Training Hours and Holidays

As an intern you will be called upon to undergo training during the hours and days as may be fixed by Wipro. Normally all Sundays will be weekly holidays together with all National and Festival Holidays observed by the establishment.

9. After completion / termination of internship

On completion / termination of internship, you will immediately surrender to Wipro all specifications, documents, literature, drawings, records etc. belonging to Wipro or relating to its Businesses and shall not take or retain any copies of the said items.

10. Date of commencement of training

In case the above terms and conditions are acceptable to you, you are required to return the duplicate copy of this letter of engagement within one week, duly signed by you, in token of your acceptance of the offer and report for training on or before the date of commencement of training. While reporting for training, please bring 3 copies of your latest passport size photographs and two copies each of your certificates and testimonials along with the originals. The original certificates will be returned to you after verification.

Yours sincerely,
For Wipro Limited,



Aparna Shailen
General Manager - Human Resources

Endorsement:

- 'A' Grade Institute Accredited by NAAC, Bangalore
- NBA Accredited courses
- ISO 9001:2015 Certified Institute

An Autonomous Institute



Sant Dnyaneshwar Shikshan Sanstha's
**ANNA SAHEB DANGE COLLEGE OF
ENGINEERING & TECHNOLOGY**

(Approved by AICTE, New Delhi, Govt. of Maharashtra
Affiliated to Shivaji University, Kolhapur)

Ref. ADCET/Civil/82

Date: 22/05/2019

To,
Director,
Shah Constructions,
Satara.

Subject: Regarding Internship for T.E Civil students.

Dear Sir,

ADCET is an autonomous institute it is accredited with "A Grade" by NAAC. All eligible programs including Civil Engineering Department have received accreditation from NBA recently in April 2017 as per Tier-II and also having ISO 9001:2015 Certification. ADCET is affiliated to Shivaji University.

The students of T.E class are interested in Internship of one month duration. We are sending our students Kurade Kiran Suresh, Mokashi Shreyas Vijay, Ghorpade Mandar Bhaskar for one month Internship training in your esteemed company / organisation. The trainee student shall obey all the rules, regulation and discipline of your company organisation.

We shall be grateful to you to allow us to send our student for training in future without causing any inconvenience to the company / organisation. The number of students may be fixed by you as per convenience of your company / organisation.

We look forward to your cooperation in future.

Thank you for providing assistant for Internship

Regards,



HOD

Department of Civil Engineering

HEAD

Civil Engineering Dept.
Annasaheb Dange College of
Engineering & Technology, Ashta. 416 301



Ref. No: AAT/CR/18-19/25

Date: 30.06.2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Miss.SAMPADA SHIVAJI LAMB (2252), B.Tech, Aeronautical Engineering third year student of Annasaheb Dange College of Engineering & Technology, Ashta has underwent internship in the area of "Design of Cubesat Structure" in our company during May 22, 2018 to June 30, 2018. She was found sincere and hardworking during this tenure.

We wish her all the best for her future endeavors.

Yours Sincerely,


Authorized Signature



Managing Director,
Aeolus Aero Tech Pvt Ltd,
Bangalore.



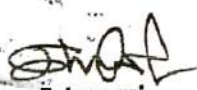
Vel Tech

Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Enrolled with UGC Act, 1956)

INTERNSHIP CERTIFICATE

This is to certify that Ms. / Mr. ANUJ RAIKUMAR BABAR has successfully completed the Project Internship Program on "DESIGN AND DEVELOPMENT OF AUTONOMOUS MULTI COPTER SYSTEMS FOR VARIOUS APPLICATION (UAV)" from 25/05/2012 to 25/06/2012 organized by the Department of Aeronautical Engineering, School of Mechanical and Construction at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai.
During the period of internship, his / her conduct was good.


Project Guide


R. Jaganraj
HOD / Aeronautical Engineering


Prof. Dr. A.T. Ravichandran
Dean - SoMC


Prof. Dr. techn. Koteswara Rao Anne
Director Academics



Computer science and engg.

Prof Tahseen A Mulla <tam_cse@adcet.in>

Fwd: ETG: Offer Letter for the Skill India Python for ML/AI

Anis Mulla <anm_cse@adcet.in>
To: Prof Tahseen A Mulla <tam_cse@adcet.in>

Wed, Feb 22, 2023 at 6:47 PM

Thanks and regards,

Mrs. Anis Mulla
Associate Professor, Dept of CSE,
Annasaheb Dange College of Engineering and Technology, Ashta.
Dist: Sangli, Maharashtra, India.

Contact Number: +917709136200

----- Forwarded message -----

From: **4030_Anagha Hajare** <anaghahajare123@gmail.com>
Date: Wed, Feb 22, 2023 at 6:46 PM
Subject: Fwd: ETG: Offer Letter for the Skill India Python for ML/AI
To: <anm_cse@adcet.in>

----- Forwarded message -----

From: **Elite Techno Groups** <mail@elitetechnogroup.com>
Date: Tue, 17 Aug 2021, 10:13 pm
Subject: ETG: Offer Letter for the Skill India Python for ML/AI
To: <anaghahajare123@gmail.com>



ETG Skill India

Hi,

Congratulations on qualifying in the Free Internship Program for Python for ML/AI

We are happy to see you soon to join us as our intern and start the program on **18th August**.

Read the Mail Carefully or watch this video and follow all the steps given below to confirm your internship

[Watch Video](#)**Step 1:**

Accept the Offer Letter by Signing up for the live session tomorrow. This will be counted as your acceptance. Do attend

it tomorrow to understand how your internship will work.

Join Link: [Click Here](#)

Time of the session: 8:30 to 9 PM

Deadline to accept offer letter: 18 Aug 10AM IST

Note: Even if you're not able to join the session, sign up. We will share the recording sessions with you.

Step 2:

Share your offer letter on LinkedIn which is attached below. This is to build your LinkedIn Profile which is very important in the professional world today as it makes everyone aware of what you are doing.

Share with the message below (you can modify it) and tag us. Click on Share on LinkedIn button and add text!

Message:

Hi Everyone,

I am thrilled to share that I have been shortlisted as an Intern among 1 Lac+ applicants to be part of <Internship Program Name> internship, and pleased to receive this internship offer letter from @elite techno groups.

Thank you Mayank sir for your incredible guidance during onboarding, looking forward to learning from you more on this journey ahead of us!

#ETG #internship

Share it on LinkedIn

Step 3:

Join the Telegram Group of your respective Internship program to stay updated on all that happens during the program. This is Mandatory!

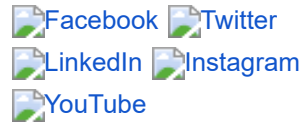
Join our 1 Lakh+ Engineering Community

Join the Telegram Group

If not working copy url <https://t.me/joinchat/2JK96LQqP6g5ZGQ1>

That's all folks! With all the above steps, you're now ready for the internship!


Elite Techno Groups



You received this email because you are registered with Elite Techno Groups

[Unsubscribe here](#)

Â© 2021 Elite Techno Groups

 **SKL11574.pdf**
320K



Dear **Anagha Anil Hajare**

17th Aug 2021

OFFER LETTER FOR SKILL INDIA INTERNSHIP

Team ETG is committed to the cause of raising the ante of Engineering in India. This is in response to your application for summer internship with Elite Techno Groups. We would like to extend heartiest congratulations on your selection for the Industrial Project Based Online Internship.

Role: Python for ML/AI

Duration of the Internship will be 1 Month (4 Weeks) starting from 18-August-2021.

Role of the 'Skill India Python for ML/AI':

1. Work with the ETG team to research opportunities in domain.
2. Learn the technical concepts, industrial application involved in the respective industry
3. Work on various projects & prepare its result report

Congratulations! Looking forward to working with you.

Mayank Arora

CEO & Founder

Skill India Internship

Certificate of Completion to

Anagha Anil Hajare

——— for completing 1-month internship on ———

Python For ML/AI Internship

In this one-month program, you've shown grit, patience, curiosity and hard-work to learn skills that are important in Industry. And, this is just the start of journey to your dream career. Make your dream come true.

Keep Learning, Keep Exploring!

We wish you all the best for your future

S. No: ETGSI11289



Mayank Arora

CEO & Founder

Date of Issue: 29th Sept 2021



Industry Internship Report- Academic Year- 2017-18

| Sr. No. | Name of students | Branch | Name of industries | Period of internship |
|---------|------------------------|--------------|---|----------------------|
| 1 | Suyash Ananda Jangam | Aeronautical | Menon And Menon Limited | 16/06/18 to 22/06/18 |
| 2 | Suyash Ananda Jangam | Aeronautical | Ashta Liners Private Limited | 06/06/18 to 21/06/18 |
| 3 | Chinmay C. Bhalkar | Civil | Samadhan Construction Company Islampur | 18/06/18 to 03/07/18 |
| 4 | Abhishek Tanaji Patil | Civil | Samadhan Construction Company Islampur. | 18/06/18 to 03/07/18 |
| 5 | Suresh Suresh Pawar | Civil | Samadhan Construction Company Islampur | 18/06/18 to 03/07/18 |
| 6 | Anjali Sunil Chavan | Civil | Samadhan Construction Company Islampur | 18/06/18 to 03/07/18 |
| 7 | Rushikesh Ramesh Pawar | Automobile | N. P. MotorsMalkapur Karad | 02/07/18 to 16/07/18 |
| 8 | Prithvij Sanjay Patil | Automobile | N. P. MotorsMalkapur Karad | 02/07/18 to 16/07/18 |
| 9 | Nirmale Ganesh Shankar | Mechanical | KasturiFoundary Private Limited | 01/07/18 to 21/07/18 |
| 10 | Kasim Khan | Mechanical | Munich MotarsHingna MIDC Nagpur | 25/06/18 to 11/07/18 |
| 11 | Amar VamanPandhawale | Mechanical | BAFNA Motors Private Limited | 01/06/18 to 01/07/18 |
| 12 | Siddheshwar P.Kumbhar | Mechanical | Siddhi Motors | 15/06/18 to 30/06/18 |
| 13 | Akash Sanjay Chavan | Mechanical | Chowgule Industries Private Limited | 18/06/18 to 30/06/18 |
| 14 | AkashVijayChavan | Mechanical | M/S Babasaheb Industries MIDC, Taswade. | 01/07/18 to 12/07/18 |
| 15 | Sammed S.Chougule | Mechanical | M/S Shankar Sargar Engineering | 24/06/18 to 01/07/18 |
| 16 | Vikas Vijay Kulkarni | Mechanical | M/S Shankar Sargar Engineering | 24/06/18 to 01/07/18 |
| 17 | Ankita Dinesh Dalvi | Mechanical | Om Plastic Industries Ahmednagar. | 18/06/18 to 29/06/18 |
| 18 | Mayur Mohan Patil | Electrical | Shreenath Electrical Private Limited | 30/05/18 to 30/06/18 |
| 19 | AshitoshDadasoKoruche | Electrical | Shreenath Electrical Private Limited | 02/06/18 to 03/07/18 |
| 20 | Pranali Arvind Yadav | Electrical | M/S Shankar Sargar Engineering. | 28/06/18 to 05/07/18 |



ADCE

Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
(An Autonomous Institute)
Department Of Basic Sciences

| Sr. No. | Name of students | Branch | Name of industries | Period of internship |
|---------|-------------------------|------------|--|----------------------|
| 21 | Pooja Prakash Babanagar | Electrical | Yash Energy Capacitors Private Limited | 04/07/18 to 11/07/18 |
| 22 | Juveriya Riyaj Mujawar | Electrical | Yash Energy Capacitors Private Limited | 04/07/18 to 11/07/18 |
| 23 | Rahul Subhash Bhosle | Electrical | Yash Energy Capacitors Private Limited | 20/06/18 to 24/06/18 |
| 24 | Akshay Arun Mali | Electrical | Yash Energy Capacitors Private Limited | 20/06/18 to 24/06/18 |
| 25 | Laxman B. Sangolkar | Electrical | Rekha Control Systems And Projeccts | 20/06/18 to 06/07/18 |
| 26 | Digvijay Dinkar Yesade | Electrical | RTCTalandage Karad Zone. | 12/06/18 to 27/06/18 |
| 27 | Dhananjay D. Kulkarni | Mechanical | Pragati Founders Private Limited. | 10/06/18 to 30/06/18 |
| 28 | Tushar Tanaji Kadam | Mechanical | Pragati Founders Private Limited. | 10/06/18 to 30/06/18 |
| 29 | Surve Abhishek Ashok | Mechanical | Perfect Components MIDC Tasawde Karad | 14/06/18 to 29/06/18 |
| 30 | Mali Shreyas Ashok | Mechanical | Perfect Components MIDC Tasawde Karad | 14/06/18 to 29/06/18 |
| 31 | Patil Mohit Subhash | Mechanical | Kasturi Foundry Private Limited. | 01/07/18 to 21/07/18 |

| | |
|-------------------------------|--------------------|
| PREPARED BY: Savita S. Mohite | HOD Basic Sciences |
|-------------------------------|--------------------|



Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology, Ashta
(An Autonomous Institute)
Department Of Basic Sciences

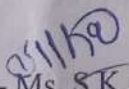

Industry Internship Report- Academic Year- 2018-19

| Sr. No. | Name of Student | Branch | Name Of Industry | Period for Internship |
|---------|---------------------------|--------------|--|-----------------------|
| 1 | Priyanka Ashok Teke | Aeronautical | Shriwardhan Corporation, Sangli | 16/06/19 to 24/06/19 |
| 2 | Haldipur Raksha Rohidas | Aeronautical | Vinati Organic Ltd. LoteMIDC,Khed | 07/06/19 to 22/06/19 |
| 3 | BhosalePrathmesh D. | Aeronautical | Mahabal Metals, Pvt.Ltd., MIDC, Miraj | 24/05/19 to 24/06/19 |
| 4 | ManglekarShubham N. | Aeronautical | Kirloskar Brothers, Ltd. Kirloskarwadi | 10/06/19 to 17/06/19 |
| 5 | KomalBhimraoKhot | CSE | Kirloskar Brothers, Ltd. Kirloskarwadi | 10/06/19 to 17/06/19 |
| 6 | Rushikesh R. Gawade | Electrcal | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 7 | ParitOmkarGajanan | Electrcal | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 8 | Rahul ArunChavan | Electrcal | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 9 | HajareDigvijay D. | Electrical | Indocount Home Textile, MIDC, Kagal. | 01/06/19 to 15/06/19 |
| 10 | Ghorpade Prathamesh S. | Electrical | A.G.Electricals, Karad | 08/06/19 to 24/06/19 |
| 11 | Patil Prathamesh Rajendra | Electrical | A.G.Electricals, Karad | 08/06/19 to 24/06/19 |
| 12 | Desai SwalehaKayyum | Electrical | A.G.Electricals, Karad | 08/06/19 to 24/06/19 |
| 13 | BotreDivyaUmesh | Electrical | A.G.Electricals, Karad | 08/06/19 to 24/06/19 |
| 14 | Mane AmrutaSadanand | Electrical | A.G.Electricals, Karad | 08/06/19 to 24/06/19 |
| 15 | Shinde Shakuntal Sanjay | ETC | Shankar Sargar Industry Madhavnagar,Dist.-Sangli | 24/05/19 to 07/06/19 |
| 16 | Prajwal Bharat Shinde | ETC | Shankar Sargar Industry Madhavnagar,Dist.-Sangli | 24/05/19 to 07/06/19 |
| 17 | Dnyaneshwari B. Bilure | ETC | Shankar Sargar Industry Madhavnagar,Dist.-Sangli | 24/05/19 to 07/06/19 |
| 18 | Vaishnavi Vikas Thorat | ETC | Shankar Sargar Industry Madhavnagar,Dist.-Sangli | 24/05/19 to 07/06/19 |
| 19 | TawdarPrathmeshDinkar | ETC | Shankar Sargar Industry Madhavnagar,Dist.-Sangli | 30/05/19 to 13/06/19 |
| 20 | TawdarPrathmeshDinkar | ETC | SNR Electronics, Kupwad | 15/06/19 to 22/06/19 |
| 21 | Sana YusufkhanKhatib | Machanical | Sheetal Industries, Pune | 20/05/19 to 05/06/19 |
| 22 | Pranita Shivaji Mane | Machanical | Sheetal Industries, Pune | 20/05/19 to 05/06/20 |
| Sr. No. | Name of Student | Branch | Name Of Industry | Period for Internship |



Sant Dnyaneshwar Shikshan Sanstha's
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| | | | | |
|----|------------------------|------------|---|----------------------|
| 23 | AshviniBalvantEdake | Mechanical | J.K.Engineering and suppliers, Sangli. | 01/06/19 to 20/06/19 |
| 24 | SuryawanshiAjit S. | Mechanical | M/s. GirijaIndusries | 10/05/19 to 05/06/19 |
| 25 | BamaneSourabh R. | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 26 | Shailesh Mahesh Kashid | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 27 | Jadhav Sachin Prakash | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 28 | SalunkheAkash Prakash | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 29 | KendeNishantMilind | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 30 | Gaikwad Aditya Arun | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 31 | WaghmareShivtej R | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 32 | BamaneSwaranjali S. | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 33 | ShekharPrasannaPramod | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 34 | More SuyashUttam | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 35 | ZendeSuraj Rajesh | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 36 | SheteShreyesh Suresh | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 37 | Patil Pranav R. | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 38 | Magdum Prathmesh P. | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 39 | Aviraj Arvind Shinde | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 40 | Sanjigol Abhishek G. | Mechanical | MG Industries Karad, Dist- Satara | 12/05/19 to 30/05/19 |
| 41 | MominArbajJabar | Mechanical | A.G.Electricals, Karad | 08/06/19 to 24/06/19 |
| 42 | AshviniBalvantEdake | Mechanical | Shankar Sargar Industry Madhavnagar,Dist.-Sangli | 20/05/19 to 05/06/19 |

| | |
|---|--|
| In-charge:-  Ms. S.K. Jadhav |  HOD |
|---|--|

HR/DGM/MML/249/2018

30 June 2018

CERTIFICATE

This is to certify that **Mr. Suyash Ananda Jangam** a FE (Aeronautics) student of **Annasaheb Dange College of Engineering & Technology** has completed Inplant Training in our organization from **17th June, 2018** to **30th June, 2018**.

We wish him all the best for future career.

For Menon and Menon Ltd.



SANJAY BURSE
DGM - HR & ADMIN.



ZANVAR GROUP

TS 16949

Certified

ASHTA LINERS PVT.LTD.ASHTA

Regd. Office:- 47 , Shivaji Park, Kolhapur-416001

E mail : shriramo@zanvargroup.com

Web: www.zanvargroup.com

Factory:- Sangli Islampur Road, ASHTA

E mail : ashtaliners@zanvargroup.com

Web: www.zanvargroup.com

Date . 19.06.2017

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Suyash Ananda Jangam , student of “Annasaheb Dange College of Engineering & Technology , Ashta” Studying in (FE.AERO.), He has under gone training on a study of “A Vocational Industrial Training” as project trainee in our production department.

He has carried out this project in Ashta Liners Pvt.Ltd Ashta From 30.05.2018 To 15.06.2018.

We wish to him all the best for his future endeavors.



For Ashta Liners Pvt.Ltd

[Signature]
HR and Admin Officer



M/S. SHANKAR SARGAR ENGINEERING

Manufacturer, Sales & Services of Electronic Weighing Machine.

Plot No.107,Vasantdada Industrial state, Sangli.
Tel: (0233) 2312972, 2314623.
Mob:- 9422406972

Date : 05/06/2019

Our Industry M/s. Shankar Sargar Engineering Manufactures & Sales of Weighing Machines. This is certifying to Miss. Edake Ashvini Balvant student of Annasaheb Dange College of Engineering and Technology, Ashta. (Mechanical) has completed 15 days training session during the period of 20/05/2019 to 05/06/2019 satisfactorily.

During the training period her behavior was suitable to the industrial environment she seeks the training on her own.

Authorized

For SHANKAR SARGAR ENGINEERING,


Proprietor

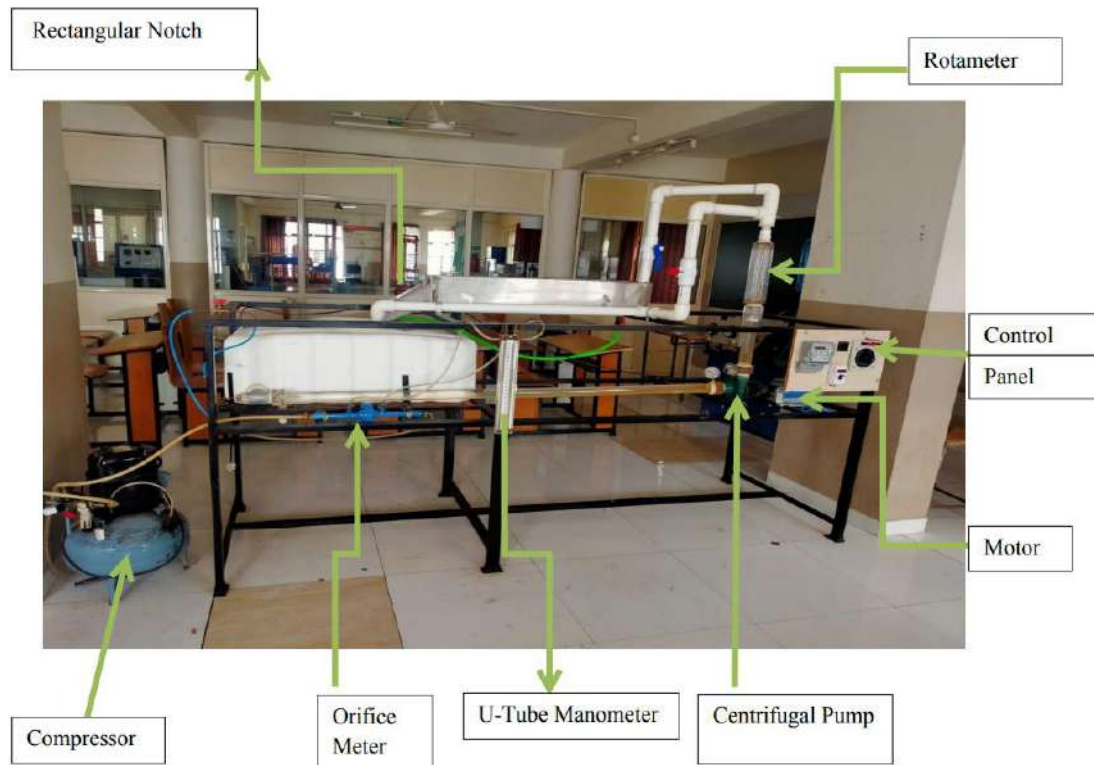


Major/Mega Project sample

Department: Mechanical Engineering

Title of project: Effect of Air Entrainment on the Performance of a Centrifugal Pump

Year: 2021-22



Department: Mechanical Engineering

Title of project "Design & development of automated clamping & de-clamping mechanism"

Year: 2017-18





Sample project report

A
PROJECT REPORT
ON

“Performance Evaluation of Clay Filters”

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR AWARD OF
THE DEGREE OF BACHELOR OF ENGINEERING

IN
CIVIL ENGINEERING

OF

SHIVAJI UNIVERSITY, KOLHAPUR

SUBMITTED BY:

MR. BHOPALE SOURABH D.
MR. WAGH SHUBHAM D.
MR. KADAM ABHIJEET V.
MR. BHENDAWALKAR VINOD V.
MR. KADAM PRATHMESH S.

UNDER GUIDANCE OF:

Prof. S. B. HIVAREKAR



DEPARTMENT OF CIVIL ENGINEERING
ANNASAHEB DANGE COLLEGE OF ENGINEERING AND
TECHNOLOGY, ASHTA 416301

2017-2018

**ANNASAHB DANGE COLLEGE OF ENGINEERING AND
TECHNOLOGY, ASHTA**



Certificate

This is to certify that the project report entitled
"PERFORMANCE EVALUATION OF CLAY FILTERS"

Submitted by

1. Mr. BHOPALE SOURABH D.
2. Mr. WAGH SHUBHAM D.
3. Mr. KADAM ABHIJEET V.
4. Mr. BHENDWALKER VINOD V.
5. Mr. KADAM PRATHMESH S.


In fulfillments of the requirements for the award of
Bachelor of engineering
In
CIVIL ENGINEERING

SHIVAJI UNIVERSITY KOLHAPUR

In the academic year 2017-18.


PROF. S.B. HIVAREKAR
(PROJECT GUIDE)


EXTERNAL
EXAMINER


DR. S.J. Arwlikar
(H.O.D.)


DR. Waghmode L.Y.
(PRINCIPAL)

A Project report on

STUDYING THE EFFECT OF PARTICLE SIZE DISTRIBUTION IN CRUSHED SAND ON STRENGTH OF CONCRETE

Submitted in partial fulfilment of the requirements for the degree of

**Bachelor of Engineering
in
Civil Engineering
from
SHIVJI UNIVERSITY KOLHAPUR**

Submitted by

**Kamble Udayraj Sanjay
Kamble Vishal Sanjay
Kurade Kiran Suresh
Patil Navjyot Suresh
Vyankatesh Tukaram Naikwade**

Under the guidance of

Dr. Amit P. Patil



**Sant Dnyaneshwar Shikshan Sanstha's
ANNASAHEB DANGE COLLEGE OF ENGINEERING AND
TECHNOLOGY, ASHTA.**

DEPARTMENT OF CIVIL ENGINEERING

2019-2020

DECLARATION

We hereby *declare* that, the work reported in the project report entitled 'STUDY OF PARTICLE SIZE DISTRIBUTION OF CRUSHED SAND ON STRENGTH OF CONCRETE' which is being submitted to the Department of Civil Engineering, Annasaheb Dange College of Engineering, Ashta in partial fulfilment of the requirements for the award of the Degree of Bachelor in engineering in Civil Engineering from Shivaji University Kolhapur is a *bonafide report of the project work carried out by us*. The material contained in this project report has not been submitted to any University or Institution for the award of any degree.

Place : Ashta

Date :

Name of Student

Kamble Udayraj Sanjay

Kamble Vishal Sanjay

Kurade Kiran Suresh

Naikwade Vyankatesh Tukaram

Patil Navjyot Suresh

Roll No.

428

429

435

443

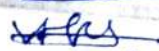
453

Sign











A Project report on

DESIGN OF SLOPE STABILIZATION SCHEME FOR EXISTING LANDSLIDE PRONE AREA

Submitted in partial fulfilment of the requirements for the degree of

**Bachelor of Technology
in
Civil Engineering**

Submitted by

**Mr. Jadhav Yashwardhan Sanjay
Mr. Hake Vardhan Vikas
Mr. Pisal Vishvraj Suresh
Mr. Patil Ajinkya Kishor
Mr. Kamble Nikhil Sampat**

Under the guidance of

Mr. S.V.Digole



DEPARTMENT OF CIVIL ENGINEERING

**ANNASAHEB DANGE COLLEGE OF ENGINEERING AND
TECHNOLOGY, ASHTA.**






2021-2022

DECLARATION

We hereby declare that, the work reported in the project report entitled '**Design of slope stabilization scheme for existing landslide prone area**' which is being submitted in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering from Annasaheb Dange College of Engineering and Technology, Ashta. The material contained in this project report has not been submitted to any University or Institution for the award of any degree.

Place : Ashta

Date : 22/04/2022

| Name of Student | URN. | Sign |
|---------------------------|----------|--|
| Jadhav Yashwardhan Sanjay | 18151019 |  |
| Hake Vardhan Vikas | 18151004 |  |
| Pisal Vishvraj Suresh | 18151003 |  |
| Patil Ajinkya Kishor | 18151011 |  |
| Kamble Nikhil Sampat | 18151045 |  |

CERTIFICATE

This is to certify that the project report entitled '**Design of slope stabilization scheme for existing landslide prone area**' submitted by

Jadhav Yashwardhan Sanjay (18151019)

Hake Vardhan Vikas (18151004)

Pisal Vishvraj Suresh (18151003)

Patil Ajinkya Kishor (18151011)

Kamble Nikhil Sampat (18151045)

as the record of the project work carried out by them, is accepted as the Project Report in partial fulfilment of the requirements for the award of degree of Bachelor of Technology in Civil Engineering from Annasaheb Dange College of Engineering and Technology, Ashta, during the academic year 2021- 2022.

Place: Ashta

Date: 22/04/2022



Mr. S. V. Digole
(Guide)



Mr. S. S. Mohite
(HOD Civil Dept.)



Dr. Vikram S. Patil
(Director)





Mini Project Sample

A

Mini Project Report
on

“LI-ION BATTERY CHARGER WITH MONITORING SYSTEM”

Submitted in partial fulfilment of requirements for the mini project

THIRD YEAR B. TECH OF ENGINEERING

In

ELECTRICAL ENGINEERING

Submitted by

Manjit Mali (19141037)

Shreyash Potpose (19141019)

Kiran Jadhav (20142017)

Vaishnavi Patil (19141038)

Under the guidance of

Mr. A. B. Parit



**DEPARTMENT OF ELECTRICAL ENGINEERING
ANNASAHEB DANGE COLLEGE OF ENGINEERING AND
TECHNOLOGY, ASHTA**

(An Autonomous Institute)

2021-2022



Sant Dnyaneshwar Shikshan Sanstha's
**ANNASAHEB DANGE COLLEGE OF ENGINEERING
AND TECHNOLOGY, ASHTA**
(Autonomous Institute)
DEPARTMENT OF ELECTRICAL ENGINEERING



CERTIFICATE

This is to certify that the mini project entitled "LI-ION BATTERY CHARGER WITH MONITORING SYSTEM", which is being submitted herewith for the completion of mini project course in T.Y.B. TECH in Electrical Engineering. This is the result of the sincere work under my supervision and guidance during 2021-2022.

Date: 16/04/2022

Place: ADCET, Ashta



Mr. A.B. Parit
Project Guide

Mr. R. B. Madake
Project Coordinator

Dr. Gopinath S.
HOD

ABSTRACT: -

In today's society, consumer electronics have a continuous demand on the improvement of battery technology. Ranging from large battery systems seen in electric vehicles to single cell (battery) wireless sensor nodes as seen with Internet of Things devices, the demand for improved capacity, safety, reliability, energy density, and life span continuously drive research activities. Battery systems contain two main components, the battery and the battery management system. This paper begins a preliminary investigation into the improvement of both of these technologies through their simultaneous development. One such investigated technology is a wireless battery management system.

The battery management system would allow for the separation of a battery pack's cells over a larger distance by communicating cell operation parameters, instead of using sometimes unreliable communication lines between a cell data auction board and the master module, the central microprocessor where the data is interpreted and actions are determined. Concurrently improvements on Li-Ion battery components are investigated through research on lithium metal anodes (LMAs). An undesirable step in lithium (Li) battery technology is the rapid formation of Li dendrites which causes failure of the battery. However, by fabricating thin film LMAs through manipulating 2 the deposition conditions of Li by controlling particle size, shape and surface results in the possibility of minimizing dendrite formation and improving capacity balancing between the cathode and anode.



CIRCUIT DIAGRAM: -

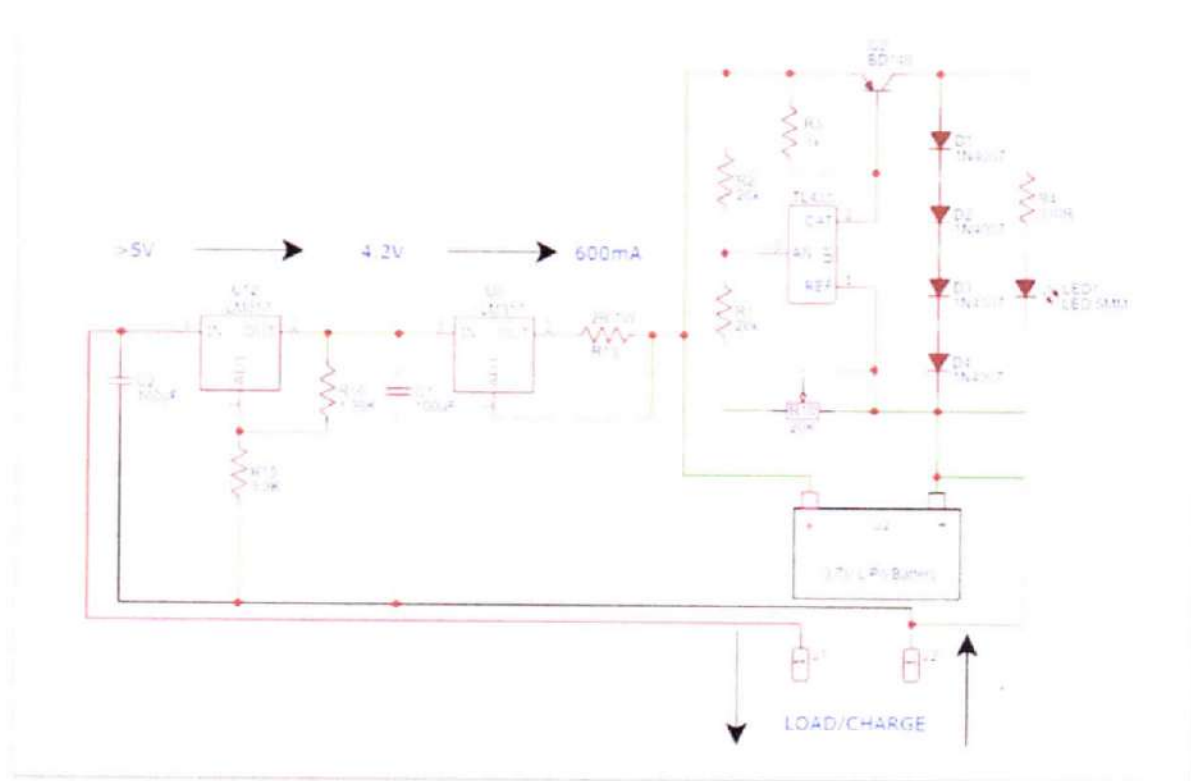


Fig- EasyEDA Circuit Diagram

When you have only one cell, you only care about the maximum voltage and the current limit to protect the battery. But when you have a battery pack of more than 1 cell, so 2S, 3S and so on, you also need to balance the value of each individual cell. We have a PNP transistor connected in series with 4 diodes that will simulate a load. At the base of the transistor, we have a ZENNER reference diode (TL431) which will get open at a certain voltage value and by that connects ground to the transistors base and when the transistor is active, we bypass the battery and waste the power on the diodes instead. This ZENNER diode is the TL431 and it has a reference pin, so by adjusting the potentiometer we can set this reference to be at 4.2V, that's how we select when the charging process will stop.

So, as you can see, this circuit is not that efficient since we waste power inside the diodes and transistor. Also, if the power waste is too high, maybe the transistor would need a heat dissipator so it won't burn out. But we are not looking for efficiency with this circuit



because we can use this charger with a supply from the main outlet so we don't care that much about efficiency.

We also add a LM317 regulator at the input place in current mode. In this configuration, the current limit is set by the resistor at the output and is equal to a formula, V_{REF} divided by the resistance value. V_{REF} for the LM317 is 1.25V so it should be easy to select a resistor and limit the charging current at let's say 600mA. We add a second LM317 regulator but on voltage control mode. Without this, the input must be exactly 4.2V. But sometimes we only have 5V from a USB connector or maybe 12V input from a DC adaptor. So, using this second LM317, we can adjust the output to 4.2V so no matter the input value, the voltage that goes to the battery is 4.2V. The output value is given by these 2 resistors.

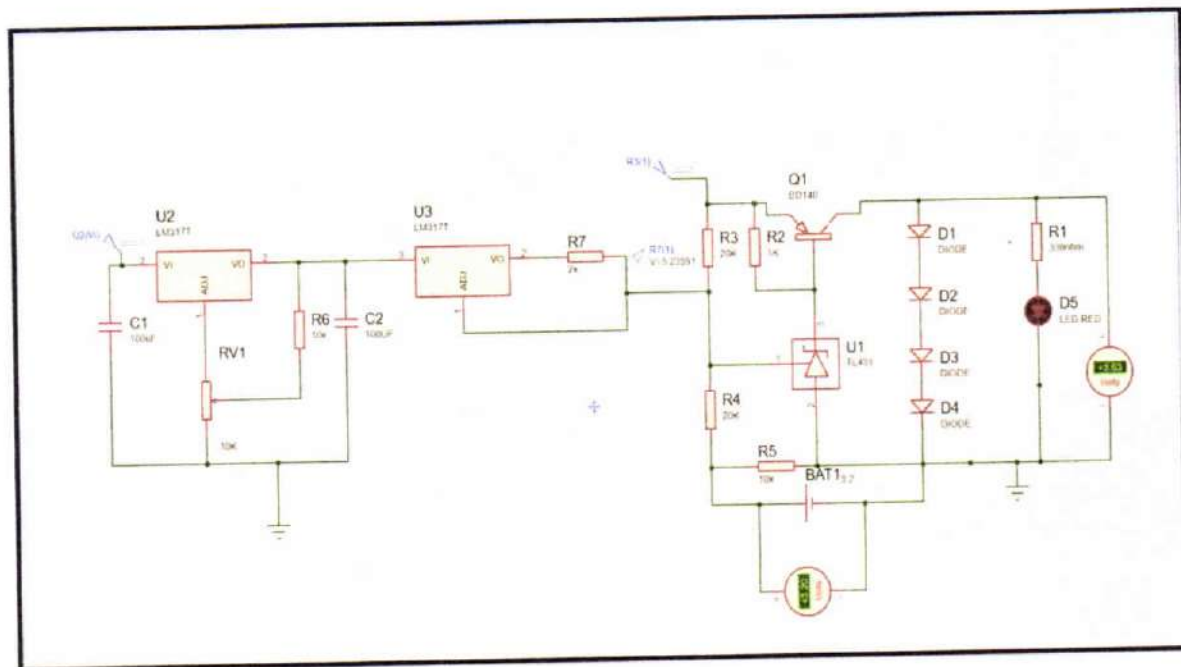


Fig- Proteus simulation.

We mount this simple circuit on my breadboard. We supply it with 4.2V from our power supply. We connect the multi meter at the output and using the potentiometer, we first fix the threshold value to around 4.16V, some value below 4.2V. We will use a battery which is discharged and below 4.2V (it was 3.8V). When we connect it to the charger, the LED is turned off. We have a current flow of around 450 mA and the battery is getting charged up. After some time, when we get above 4.16V the LED will turn ON so the charging process is complete. Current is now flowing through the diodes and transistor and we skip the battery, so the cell is protected for over voltage. We measure the battery and it is 4.11 volts.

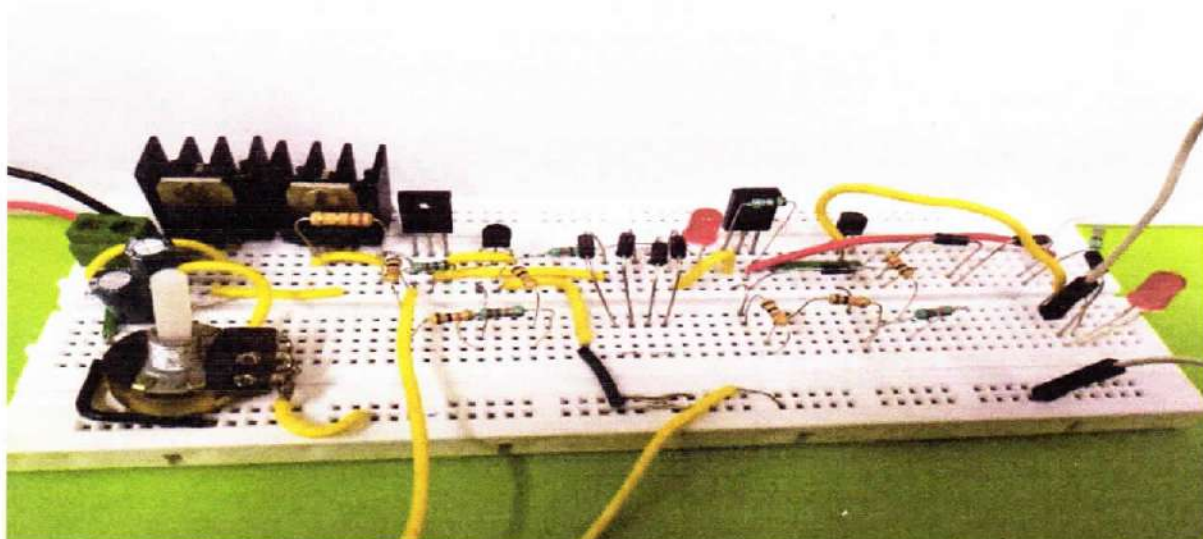


Fig. Schematic PCB Design on Bread Board. (Top View)

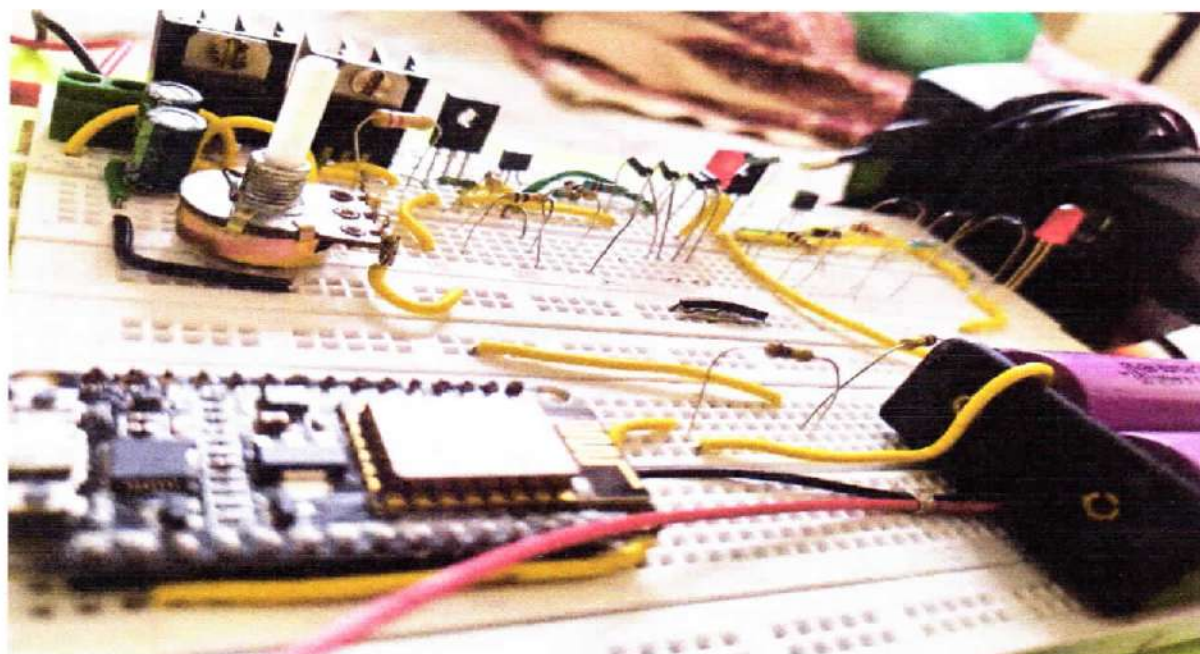


Fig: Schematic PCB Design on Bread Board. (Side View)



PCB DESIGN: -

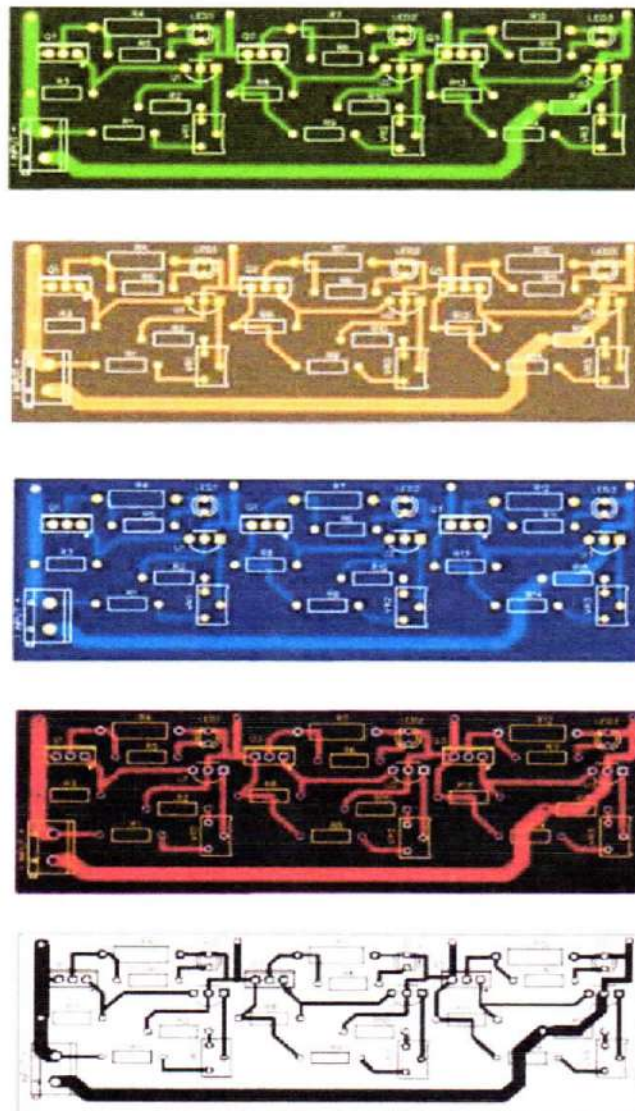


Fig. Schematic PCB Design of Our Project.



PERFORMANCE ANALYSIS: -

- OBSERVATION: -**

When we started the charging of our Li-Ion battery which we have to be tested, it shows the initial voltage of 3.66V as shown in the following fig. 12V DC supply is given to the circuit to charge the battery, the voltage flows from LM317 (voltage regulator) to TL431 which is reference diode and from TL431 to battery where it battery gets charged i.e. LM317--TL431--Battery.

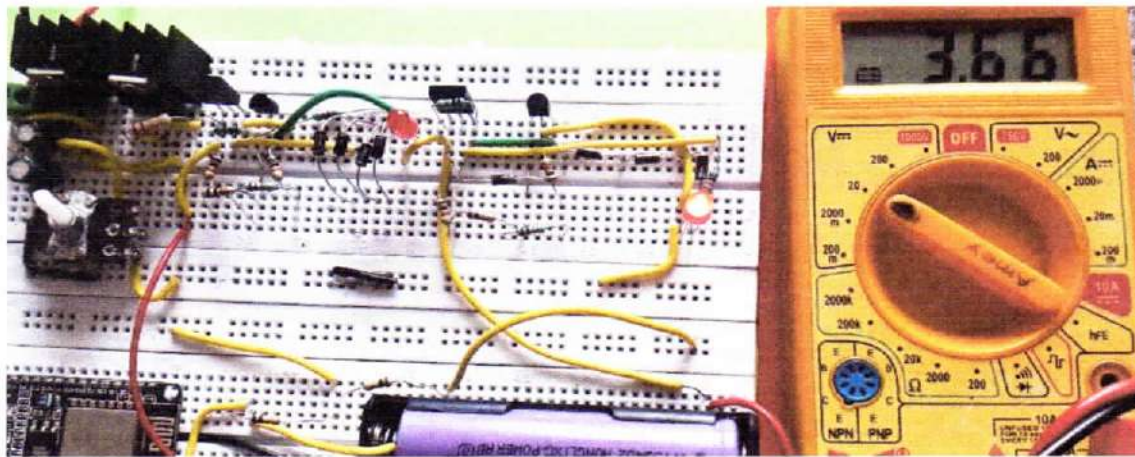


Fig: Initial charging status of Battery

After 20 mins the voltage of battery is increased by 0.9V because of constant voltage and constant current & it reaches to its nominal voltage of 3.75V. The result is shown in below figure.

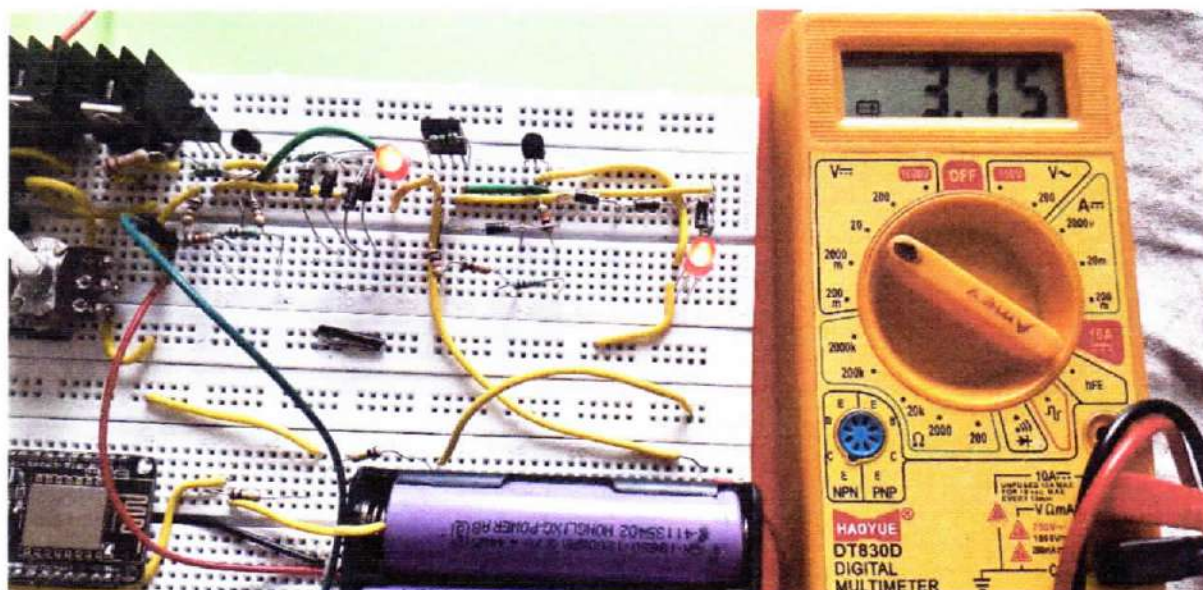


Fig: Charging status of Battery (After 20 mins)



CONCLUSION: -

Present dissertation work has performed for the “Li-ion Battery charger with monitoring system”. The project was performed using some simulation software like PROTEUS, MATLAB AND EASYEDA for analysing output of the project. Different parameter also verified through the multimeter, the main consideration of our project is as follow:

- Overvoltage Protection (In general, the battery has nominal voltage of 3.7V and maximum voltage near about 4.2V. When battery gets fully charged our circuit automatically cuts off the input supply from that particular battery. Hence the battery is protected from Overvoltage).
- Current Limit (The excessive current during charging can be prohibited).
- Cell Balancing (During charging of batteries, all batteries are not getting equally charged through other chargers, but in our circuit(charger) we have implemented this, in our charger each battery gets equally charged).



APPLICATIONS:

As established above, Li-ion batteries are available in all shapes and sizes. And that renders them to be the perfect option for power needs irrespective of the size of the system. Along with that, lithium-ion batteries offer power solutions across the spectrum- from energy storage solutions to portable energy solutions. Some of the most common applications of lithium-ion batteries are:

- ✚ Power backups/UPS
- ✚ Mobile, Laptops, and other commonly used consumer electronic goods
- ✚ Electric mobility
- ✚ Energy Storage Systems

As there are varied uses of a Lithium Ion Battery, it comes in different types of packaging. However, there are some general advantages of using a Li-ion battery over other traditional batteries





Sant Dnyaneshwar Shikshan Sanstha's
ANNASAHEB DANGE COLLEGE OF ENGINEERING AND TECHNOLOGY, ASHTA
(An Autonomous Institute)
(NAAC 'A' Grade, NBA Accredited Courses, ISO Certified)

DEPARTMENT OF MECHANICAL ENGINEERING



PROFEST 2K22

CERTIFICATE

This is to certify that Mr. / Ms. Mali Manjit, Potpose Shreyash.
from ADCET, Ashta has participated / Committee member in
Project Presentation at the State Level Technical Event
PROFEST 2K22 organized by the Department of Mechanical Engineering
held in Annasaheb Dange College of Engineering and Technology, Ashta on 9th
April, 2022.

Mr. A. R. Mane
MESA Coordinator

Mr. R. R. Gaji
Convener

Mr. M. M. Jadhav
HOD

Dr. Vikram S. Patil
Director

Prof. R. A. Kanai
Executive Director
SDSS Islampur