

Department of Mechanical Engineering

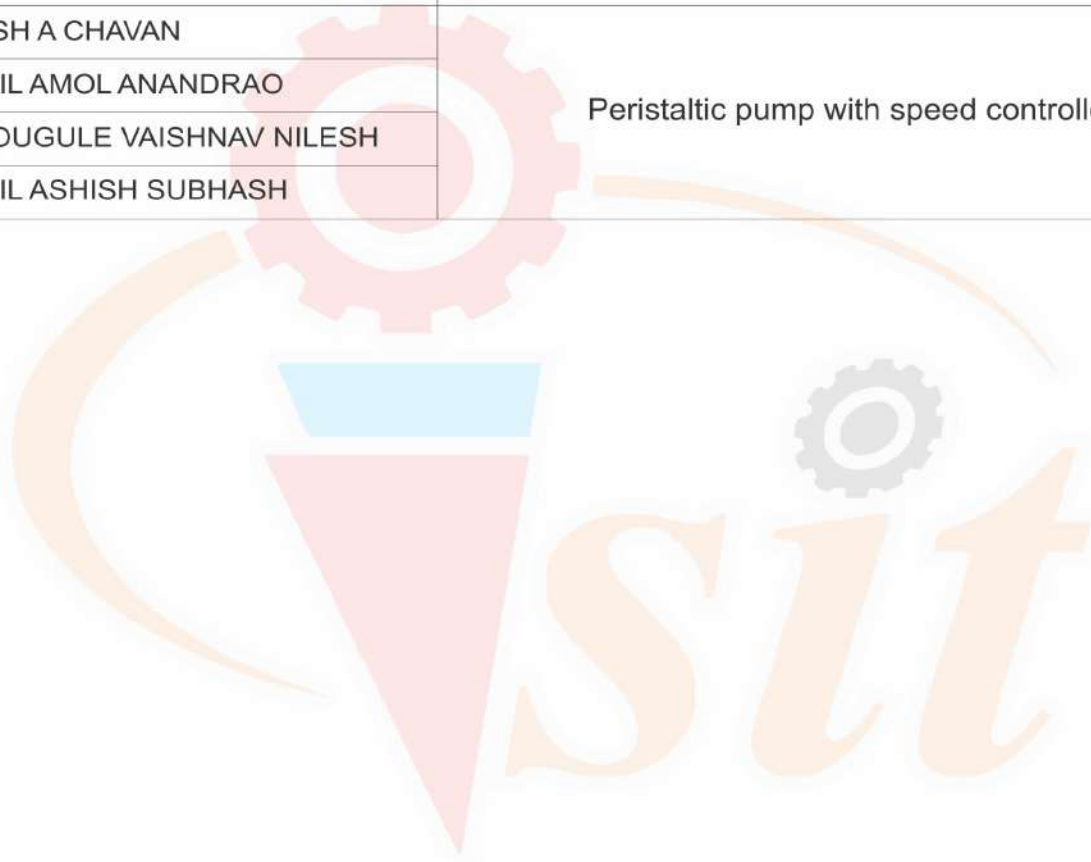
FACULTY LIST (1ST SHIFT)

SR. NO.	NAME OF FACULTY	DESIGNATION
1	S. S. MALI	HOD
2	M. A. PATIL	LME
3	A. K. MAGDUM	LME
4	A. B. PATIL	LME
5	B. J. JUGALE	LME
6	B. A. MADGUM	LME
7	S. N. BODAKE	LME
8	W. I. SHAIKH	LME
9	A. S. KEKARE	TPO
10	S. S. KOTHALE	LME
11	MS. K. S. LATTH	LME
12	MS. R. R. KADAM	LME
13	A. M. PANDHARE	LME
14	K. J. AWATI	LME
15	A. K. BURSE	LME
16	A. B. KHOT	LME
17	P. P. MANGAVE	LME

FACULTY LIST (2nd SHIFT)

SR. NO.	NAME OF FACULTY	DESIGNATION
1	N.S.PATIL	LME
2	P.J.PATIL	LME
3	B.B.PATIL	LME
4	V.C.GADAGE	LME
5	A.D.PATIL	LME
6	R.R.KAPSE	LME

Sr. No.	Participants	Project Title
23	AMBI NIRANJAN NAMDEV	Automatic weighing machine
	SHINDE HRISHIKESH SHIVAJI	
	PAWAR SHREYAS SUBHASH	
	PATIL ABHISHEK RAJENDRA	
24	CHOUGULE OMKAR SATYAJIT	Development of 3D printer
	THIGALE ADITYA SHIVANAND	
	MADAKE SAURABH SUKUMAR	
	NALAWADE ROHIT RAVASAHEB	
25	ATISH A CHAVAN	Peristaltic pump with speed controller
	PATIL AMOL ANANDRAO	
	CHOUGULE VAISHNAV NILESH	
	PATIL ASHISH SUBHASH	



Department of Mechanical Engineering

EDITOR'S DESK



Mr. A. D. Patil

We are delighted that the 2019-20 issue of the Newsletter of the Mechanical Engineering Department has been published herewith.

We at mechanical Engineering department always help and assist the students in all the technical as well as nontechnical events that have been taking place throughout the year. This association not only helps students in group activities but also gives students a chance to develop their personality.

I would like to thank Exe. Director, Principal, Faculty Members for their valuable & tireless support.

Newsletter Editorial Board

S.N.	Name of Student	Designation	S.N.	Name of Student	Designation
1	Atish Chavan	President	8	Nitish Kulkarni	Co-ordinator
2	Sairam Patil	Vice President	9	Atharv Mali	Co-ordinator
3	Rushikesh Shinde	Secretary	10	Sharmin Takawade	Co-ordinator
4	Shriraj Kine	Treasurer	11	Nikita Yerudakar	Co-ordinator
5	Gomtesh Upadhye	Co-ordinator	12	Samiksha Patil	Co-ordinator
6	Abhishek Chougule	Co-ordinator	13	Apoorva Jolapure	Co-ordinator
7	Pranav Patil	Co-ordinator		Sanskriti Patil	Co-ordinator

Faculty Co-ordinator

MESA Faculty Advisor : Mr. A. D. Patil

Students Co-ordinator

MESA President : Atish Chavan

Sr. No.	Participants	Project Title
14	RAVANDE YASH RUPESH	Design & manufacturing of hydraulic multi spindle drilling machine
	DADIBUDE PRATHAMESH P	
	PATIL VAIBHAV NITIN	
	BEDAGE SACHIN DHANAJI	
15	SANADI SHOAIB BALECHAND	Biodegradable plants sugar cane leaves
	ATTAR AJEEM AIJAJAHMAD	
	PHALLE PRASHANT MOHAN	
	PARIT ANIKET ANUPKUMAR	
16	YADURE CHAITANYA DHONDIRAM	Design of machine element by using Auto LISP programming in AUTOCAD
	SHAHA SAHARSH SANDESH	
	PAWAR PRAVIN SAMBHAJI	
17	PISE TEJAS SUBHASH	Power Tapping machine
	PATIL KOUSHIK RAMESH	
	KHATANGALE PRATIK MARUTI	
	MANE RAHUL MAHADEV	
18	SHINDE RUSHIKESH SUHAS	Solid fertilizer machine
	JADHAV ANIL KISHOR	
	KAMBLE SAURABH SHANTINATH	
19	GAIKWAD AKSHAY DILIP	Design & Fabrication of attachment for press machine for safe working
	PATIL SANKALP SUBHASH	
	SHUBHAM SAMBHAJI DALAVI	
	SHINGADE RAHUL KUMAR	
20	HERALAGE SAMMED PRAVIN	Agri-sheidder machine
	DESAI AFTAB RAJMAHAMAD	
	NIRMAL PRATHMESH DATTATRAY	
21	CHOUGULE PRITAM RAJKUMAR	Agri-sheidder machine
	KILLEDAR HARISH MAHADEV	
	PADALKAR SHIVAM UMESH	
22	PATIL NISARG PRAKASH	Design & manufacturing of machining hydrolic fixture
	DAKARE RUTIK SUNIL	
	JANGLE PUSHKAR SUNIL	

Sr. No.	Participants	Project Title
6	CHALWADI UBEDULLAH BABASAHEB	Gear & Shaft drive cycle
	KAMBLE OMKAR BHIMRAV	
	KHATKOLE ADITYA VIJAY	
	NAYAKAWADE SUHEL ARIF	
7	ATHARVA SATISH SINFAL	Investigation of EDM machine
	MUJAWAR VASIM MUNIR	
	KUMBHAR YASH DIPAK	
8	PATIL ABHISHEK MAHESH	Mechanical wheels
	KAVATHE PRITHVISH PRASHANT	
	JOSHI VARAD SANDIP	
	PORE KRISHNAKANT C	
9	DABADE PRATHAMESH DINESH	Modification of side stand to prevent standing of bike
	LAGARE PRANAV SANDIP	
	DEMANNA VARDHAM PRAKASH	
	GAT KUNAL SUDHIR	
10	AGARWAL PRAJWAL PRADEEP	Analysis of 3D printing properties
	OGALE AMEY PRASAD	
	KADAV MAHESH RAVINDRA	
	DADMODE TEJAS SUNIL	
11	TAKAWADE SHARMEEN JAMEER	Analysis of composite material
	PATIL SAMIKSHA MAHAVIR	
	CHOUGULE ARATI ANIL	
12	HOGADE NIKITA BALASO	Automatic potato crops making machine
	YERUDKAR NIKITA JOTIBA	
	KUKADE AMRUTA RAMESH	
13	SAIRAM ANNASAHEB PATIL	Accident detector using wireless communication
	SINFAL CHANDRASHEKHAR SATISH	
	PUJARI SHIVANAND KALLAPPA	
	SIDDHARTH S HAVALE	

Department of Mechanical Engineering

PROJECT COMPETITION 2019-20

Project Competition was arranged in the academic year 2019-20, an overwhelming response of 150+ students & their projects was recorded.

Projects from all domains of mechanical engineering such as production, thermal, material sciences etc. had taken part in this competition.

Sr. No.	Participants	Project Title
1	DEVMORE DARSHAN SURESH	Robotic seed sowing machine
	MAGDUM DHIRAJ AJIT	
	KHOT GANESH VASUDEV	
	DHUMALE ANIKET VIJAY	
2	PATIL NIKHIL ASHOK	Mulching paper lying machine
	PATIL SAMMED SANJAY	
	KULKARNI SHREYAS ANANT	
	WAGHARE ABHISHEK SANTOSH	
3	NIRMALE OMKAR VISHNU	Investigation of mechanical properties of Reinforced natural fiber composite using banana shell
	POMAJE PRAJWAL RAJENDRA	
	PUJARI SUNIL SURESH	
	AMBADE PUSHKARAJ ARUN	
4	KARANJKAR MANISH NISHANT	Basic home purpose hydraulic lift
	BUJRUH SAHIL DILAWAR	
	GADADE GANESH NAMDEV	
	GHASTI SAHIL SANJAY	
5	PATIL SANSKAR RAHUL	Solar power absorption in refrigeration system
	PATIL PIYUSH SUNIL	
	KHALIPHA RANIKAHAMAD RAFIQUE	
	GADE SMITESH UDAY	

Department of Mechanical Engineering

PARENTS MEET

To know the progress of the students and various activities that are conducted by institute, communication between parents and teachers is essential. As part of this communication, department regularly conduct meeting with parents to discuss what is being taught and how the student is progressing. Parents Meet focus on students' specific strengths and weaknesses in individual subjects and generalizing the level of inter-curricular skills and competences.



MENTOR SYSTEM

We have a well established mentor system for regular progress of students. All students of department divided into batches under a mentor from teaching staff. Monthly mentor meet is conducted, where issues related to the welfare of students are discussed and feedbacks are taken. Post-meeting the issues and feedback of students are addressed at a swift rate.

Department of Mechanical Engineering

MESA ACTIVITIES

It is to provide opportunities for students to pursue their personal, professional and academic goals in student-led organization. To exchange their educational experience students are encouraged to participate in group activities that allow them to develop personal and professional relationships, learn leadership and organizational skills and serve the community.



MEDICAL CAMP IN FLOOD AFFECTED PEOPLE



MEDICAL CAMP IN FLOOD AFFECTED PEOPLE



RANGOLI COMPETITION



TREE PLANTATION



TREE PLANTATION



TREE PLANTATION

Department of Mechanical Engineering

STUDENTS SPECIAL ACHIEVEMENTS (ZONAL EVENTS)

SR NO	DESCRIPTION	NAME OF STUDENT	ACHIEVEMENT
1	WeightLifting	Sammed Santosh Patil	Gold Medal (77 kg)
2	WeightLifting	Shantanu Santosh Naik	Gold Medal (56 kg)
3	Athletics	Avadhut Mohan Mule	Second Runner up
4	Athletics	Pranav Malgonda Patil	Second Runner up
5	KHO KHO	Yash Vijaykumar Desai	Winner
6	KHO KHO	Rohit Jayawant Kalkute	Winner
7	KHO KHO	Akash Magadev Patil	Winner
8	KHO KHO	Atharv Ravindra Kadam	Winner
9	KHO KHO	Sankalp D Mangalekar	Winner
10	KHO KHO	Avadhut Mohan Sutar	Winner
11	KHO KHO	Nikhil Ashok Patil	Winner
12	KHO KHO	Dinesh M Kariyapannavar	Winner
13	Wrestling	Prathmesh Sunil Bodake	Winner (56 kg)
14	Kabaddi	Anuja Pachore	Second Runner Up

STUDENTS SPECIAL ACHIEVEMENTS (INTER-ZONAL EVENTS)

SR NO	DESCRIPTION	NAME OF STUDENT	ACHIEVEMENT
1	KHO KHO	Yash Vijaykumar Desai	Runner Up
2	KHO KHO	Rohit Jayawant Kalkute	Runner Up
3	KHO KHO	Akash Magadev Patil	Runner Up
4	KHO KHO	Atharv Ravindra Kadam	Runner Up
5	KHO KHO	Sankalp D Mangalekar	Runner Up
6	KHO KHO	Avadhut Mohan Sutar	Runner Up
7	KHO KHO	Nikhil Ashok Patil	Runner Up
8	KHO KHO	Dinesh M Kariyapannavar	Runner Up
9	Wrestling	Prathmesh Sunil Bodake	Winner (56 kg)
10	Kabaddi	Anuja Pachore	Runner Up

Department of Mechanical Engineering

STUDENTS SELECTED FOR CAMPUS

SR NO	NAME OF STUDENT	COMPANY NAME
1	Shoaib Sanadi	Jindal Steel Works, Ltd
2	Chougule Arati Anil	Cummins India Ltd, Pune
3	Samiksha Patil	Cummins India Ltd, Pune
4	Sachin Bedage	Cummins India Ltd, Pune
5	Pritam Chougule	Cummins India Ltd, Pune
6	Amol Anandaro Patil	Cummins India Ltd, Pune
7	Aniket Dhumale	Cummins India Ltd, Pune
8	Pravin Sambhaji Pawar	Cummins India Ltd, Pune
9	Sammed Sanjay Patil	Cummins India Ltd, Pune
10	Omkar Chougule	Cummins India Ltd, Pune
11	Shoaib Sanadi	Cummins India Ltd, Pune

Department of Mechanical Engineering

CNC Production Centre

The Focus of SHARAD Pattern is to bridge the gap between Industry and Curriculum. as a part of this a well equipped CNC Machining Center has been established to imbibe the knowledge about production industry.



Department of Mechanical Engineering

Guest Lectures

To aware the Students about Current Industry Scenario which will help them to be prepared for there further career, We have conducted guest lectures with the help of eminent personalities from various industries and institutes.



COMPETITIVE EXAM GUIDANCE - RTO



ENERGY CONSERVATION



SOFT SKILL DEVELOPMENT



JIG AND FIXTURE DESIGN



ENTREPRENEURSHIP DEVELOPMENT

Department of Mechanical Engineering

FACULTY DEVELOPEMENT PROGRAM

Sr.No.	NAME OF FACULTY	TRAINING & FDP
16	Miss. K. S. LATTHE	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav.
17	MR. N. S. PATIL	FDP on Renewable Energy Sources: A Way Ahead at Cummins College of Engineering for Women, Nagpur. STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. Training on Industrial training at Festo India Pvt. Ltd. Mumbai.
18	MR. P. J. PATIL	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. Training on Industrial training at M/s. Central Institute of Plastic Engineering & Technology, Aurangabad.
19	MR. A. D. PATIL	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. Training on Pneumatics & Hydraulics system at M/s. KEC International Ltd., Nagpur.
20	MR. V. C. GADAGE	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. Training on Power plant familiarization & best management practices at Adani Dahanu Thermal Power Station, Dahanu.
21	MR. B. B. PATIL	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav.
22	Miss. R. R. KAPSE	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. Training on Industrial training at M/s. Nashik Engineering Cluster, Nashik.
23	MR. A. S. KEKARE	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav.

Department of Mechanical Engineering

Laboratories



MEASUREMENT LAB



MECHANICAL ENGINEERING MATERIALS LAB



AUTO MOBILE ENGINEERING LAB



POWER ENGINEERING LAB



METROLOGY LAB



CAD LAB

Department of Mechanical Engineering

STUDENTS PAPER PUBLICATIONS

Sr.No.	NAME OF FACULTY	NAME OF STUDENTS	TITLE	PUBLICATION/CONFERENCE
1	A. K. Burse	Kunal S. Gat Pranv S. Lagare Vardham P. Demanna Prathmesh D. Dabade	Anti-accident Engine Inhibitor System	Journal of Automation and Automobile Engineering
2	A. K. Magdum	Ajeem A. Attar Shoaib B. Sanadi Prashant M. Phalle Aniket A. Parit	Biodegradable, Anti-Pollutant Breakfast Plates Using Sugarcane Leaves or Bagasse	Journal of Industrial Mechanics
3	A. M. Pandhare	Chandrashekhar Sinfal Sairam Patil Siddharth Havale Shivanand Pujari	Automobile Accident Detector using Wireless Communication	Journal of Automation and Automobile Engineering
4	B. A. Magdum	Prajwal Pomaje Omkar Nirmale Sunil Pujari Pushkaraj Ambade	Investigation of Mechanical Properties of Reinforced Composite Material Using Banana Shell Fiber: A Review	Journal of Recent Activities in Production
5	B. J. Jugale	Smitesh Uday Gade Ranikahamad R. Khalipha Piyush Sunil Patil Sanskar Rahul Patil	Solar powered Adsorption in Refrigeration System	Journal of Thermal Energy Systems
6	K. J. Awati	Yash R. Ravande Vaibhav N.Patil Sachin D. Bedge Prathmesh P. Dadibude	Development of Multi Spindle Drilling Machine to Enhance the Productivity in Sonica Industries, Kagal	Journal of Recent Trends in Mechanics
7	K. S. Latthe	Rushikesh Shinde Anil Jadhav Sourabh Kamble	Solid Fertilizer Spreading Machine: A Review	Journal of Industrial Mechanics

Sr.No.	NAME OF FACULTY	NAME OF STUDENTS	TITLE	PUBLICATION/CONFERENCE
8	P. P. Mangave	Prajwal P. Agarwal Tejas S. Dadmode Mahesh R. Kadav Ameey P. Ogale	Experimental Analysis of Mechanical properties of PETG Material 3D Printed Material by Using Fused Deposition Modelling Technique	Journal of Mechanical and Mechanics Engineering
9	R. R. Kadam	Sahil Bujruk Manish Karanjkar Sahil Ghasti Ganesh Gadade	Design & Manufacturing of Tamarind Seeds removal machine: A Review	Journal of Advancement in Machines
10	S. S. Sajane	Darshan Devmore Dhiraj Magdum Ganesh Khot Aniket Dhumale	Design and Manufacturing of Hydraulic Fixture for Gear Housing for VMC: A Review	Journal of Advancement in Machines
11	A. B. Patil	Atharva Sinfal Vasim Mujawar Yash Kumbhar	Demonstrational Model of Electro Chemical Machine for Drilling Micro Holes	Journal of Mechanical and Mechanics Engineering
12	S. N. Bodake	Tejas S. Pise Rahul M. Mane Pratik M. Khatangale Koushik R. Patil	A Research and Parametric Study of Power Tapping Machine	Journal of Fluid Mechanics and Mechanical Design
13	M. A. Patil	Ubedullah B. Chalwadi Omkar B. Kamble Aditya V. Khatkole Suhel A. Nayakawade	Design & Fabrication of Gear & Shaft Driven Bicycle: A Review	Journal of Fluid Mechanics and Mechanical Design
14	M. A. Patil	S. Jameer Takawade S. Mahavir Patil A. Anil Chougule	Investigation of Mechanical Properties of Reinforced Composite Material Using coconut coir Fiber: A Review	Journal of Fluid Mechanics and Mechanical Design
15	S. B. Herwade	Nikhil A. Patil Sammed S. Patil Shreyas A. Kulkarni Abhishek S. Waghare	Design & Manufacturing of fixture for Gear Casting Cover for JCB: A Review	Journal of Fluid Mechanics and Mechanical Design
16	S. S. Kothale	Abhishek M. Patil Prithvish P. Kavathe Varad S. Joshi Krishnakant C. Pore	Design and Development of Two Speed Gear Box for Agricultural Machinery	"Journal of Advancement in Machines"

Department of Mechanical Engineering

FACULTY DEVELOPEMENT PROGRAM

Sr.No.	NAME OF FACULTY	TRAINING & FDP
9	Mr. P. P. MANGAVE.	FDP on Renewable Energy Sources: A Way Ahead at Cummins College of Engineering for Women, Nagpur STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav Training on Industrial training at M/s. Central Institute of Plastic Engineering & Technology, Aurangabad
10	Miss. R. R. KADAM	FDP on Renewable Energy Sources: A Way Ahead at Cummins College of Engineering for Women, Nagpur FDP on Artificial Intelligence at BVRIT Hydrabad STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav Training on Pneumatics & Hydraulics system at M/s. KEC International Ltd., Nagpur
11	Miss. A. K. BURSE	FDP on Awarness of Covid -19 & ICT Tools at SIT Engineering, Yadrav STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav Training on Industrial training at M/s. Nashik Engineering Cluster, Nashik
12	Mr. S. S. KOTHALE	FDP on Technical Teachers Training at Vidyavardhini Institute of Technology, Pal STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav Training on Industrial training at M/s. Central Institute of Plastic Engineering & Technology, Aurangabad
13	Mr. K. J. AWATI	FDP on Technical Teachers Training at Vidyavardhini Institute of Technology, Pal STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav
14	Mr. A. M. PANDHARE	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav Training on Power plant familiarization & best management practices at Adani Dahanu Thermal Power Station, Dahanu
15	MR. A. B. KHOT	FDP on Awarness of Covid -19 & ICT Tools at SIT Engineering, Yadrav STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav. Training on Industrial training at M/s. Measurement Technovision Pvt. Ltd., Aurangabad.

Department of Mechanical Engineering

FACULTY DEVELOPEMENT PROGRAM

Sr.No.	NAME OF FACULTY	TRAINING & FDP
1	Mr. S. S. Mali	FDP on Renewable Energy Sources: A Way Ahead at Cummins College of Engineering for Women, Nagpur Training on Industrial training at M/s. Saj Test Plant Pvt. Ltd., Pune STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav.
2	MR. M. A. PATIL	Training on Industrial training at M/s. Saj Test Plant Pvt. Ltd., Pune STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav
3	MR. A. B. PATIL	Training on Power plant familiarization & best management practices at Adani Dahanu Thermal Power Station, Dahanu STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav
4	MR. A. K. MAGDUM	FDP on Spoken Tutorial Technology Smt. Kashibai Navale COE, Vadgaon STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav Training on Industrial training at Festo India Pvt. Ltd. Mumbai.
5	MR. W. I. SHAIKH	STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav
6	MR. B. J. JUGALE	FDP on Awarness of Covid - 19 & ICT Tools at SIT Engineering, Yadrav STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav
7	MR. S. N. BODAKE	FDP on Technical Teachers Training at Vidyavardhini Institute of Technology, Pal STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav
8	MR. B. A. MADGUM	FDP on Awarness of Covid -19 & ICT Tools at SIT Engineering, Yadrav FDP on Machine Learning & Deep Learning Applications in Engineering & Science at Govt. COE , Karad & Rajkiya Engineering College Azamgarh STTP on C Programming at Sharad Institute of Technology Polytechnic, Yadrav

Department of Mechanical Engineering

Industrial Visit

Industrial Visit is a part of a college curriculum, seen more often in an engineering course, during which students visit companies and get insight regarding the internal working environment of a company and how a company functions, as well as useful information related to the practical aspects of the educational course which cannot be visualized in lectures.



SAROJ ENGINEERING



MICRO ENGINEERING



SWABHAMANI AGRO



ADVANCED MEASURING SYSTEM



BALWANT INDUSTRIES

Department of Mechanical Engineering

T Y MECHANICAL ENGINEERING 1st SHIFT

No.	Name of Student	% Obtained
1	AGARWAL PRAJWAL PRADEEP	97.67
2	TAKAWADE SHARMEEN JAMEER	97.33
3	PISE TEJAS SUBHASH	96.89
4	RAVANDE YASH RUPESH	96.56
5	SHINDE RUSHIKESH SUHAS	96.56
6	LAGARE PRANAV SANDIP	96.44
7	SINFAL CHANDRASHEKHAR S	96.44

S Y MECHANICAL ENGINEERING - 2nd Shift

No.	Name of Student	% Obtained
1	KHOT ABHISHEK ANIL	83.25
2	TONE USMESH KAKASO	82.13
3	PRASAD AMAN TILAKDHARIJI	81.81
4	KOKATE JAY RAJESH	80.80
5	GHORPADE SAURABH SANJAY	79.38

T Y MECHANICAL ENGINEERING - 2nd Shift

No.	Name of Student	% Obtained
1	CHOUGULE OMKAR SATYAJIT	95.56
2	PATIL AMOL ANANDRAO	95.56
3	PATIL SANKALP SUBHASH	92.44
4	SHINDE HRISHIKESH SHIVAJI	92.00
5	DESAI AFTAB RAJMAHAMAD	91.67
6	MADAKE SAURABH SUKUMAR	91.56