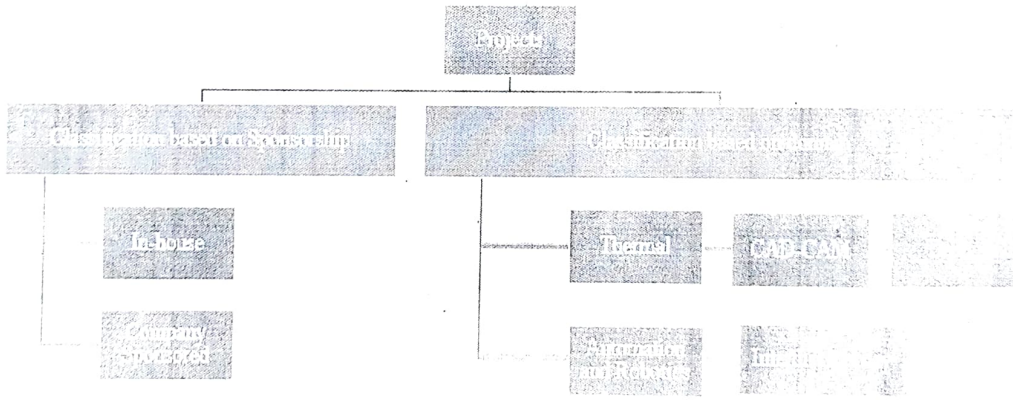
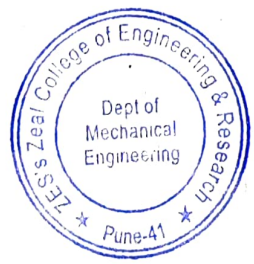
Project Work Guideline

Objective:

Objective of project work is to provide an opportunity of designing and building complete system or subsystems based on areas where the student likes to **acquire specialized skills**. Students must able to obtain hands-on experience in converting a small novel idea / technique into a working model / prototype involving multi-disciplinary skills. It is incorporated to embed the skill in a group of students to work independently on a topic/ problem/**experimentation** selected by them and encourage them to think independently on their own to bring out the conclusion under the given circumstances of the curriculum period in the budget provided with the guidance of the faculty. It Helps to **encourage creative thinking** processes to help them to get confidence by planning and carrying out the work plan of the project and to successfully complete the same, through observations, discussions and decision making process.

Types of Projects





Methodology

Sr. No	Project Activity
1	Formation of Project Review Committee
2	Formation of students Project groups
3	Submission of three Project Topics/ideas by faculty
4	Display list of selected Project Topic along with allocated guide.
5	Synopsis Submission By Each Project Group to Project Coordinator and Project Guide
6	Project Review I (Aim, Objective, Problem statement / Methodology review Seminar I)
7	Review II (Problem Statement/Methodology, Survey, Experimental Scheduled work,
8	Seminar on how to write Project reports
9	Review III (Final report writing doc, Model Seminar III)
10	Project Initial Draft & Correction
11	Project Final Draft Submission.
12	Evaluation and MOCK Presentation (Seminar IV)
13	End term Evaluation

Outcome:

On completion of the course the learner will be able to;

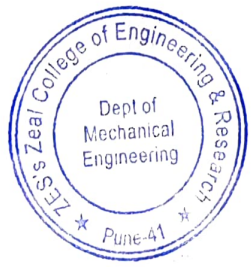
Implement systems approach.

To conceptualize a novel idea / technique into a product.

To think in terms of a multi-disciplinary environment.

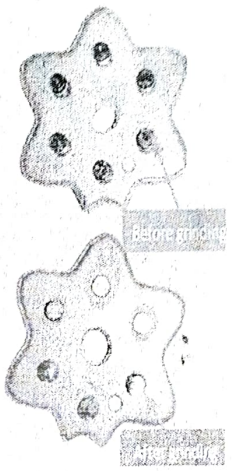
To take on the challenges of teamwork, and document all aspects of design work.

To understand the management techniques of implementing a project.



Sample Project Photographs

1) Sponsored Projects:



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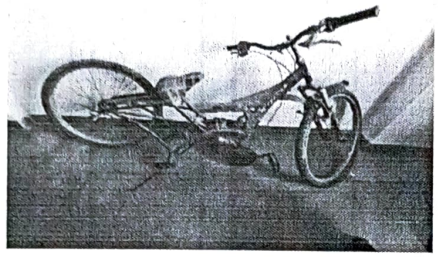
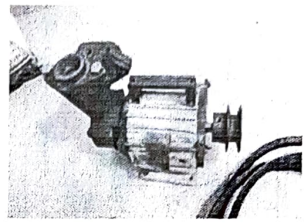
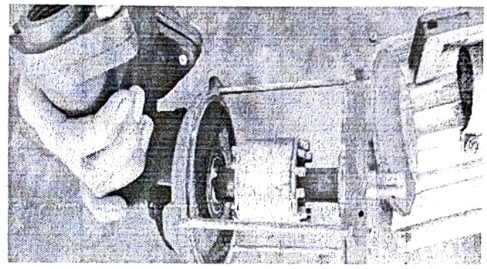
Dept of Mechanical Engineering
Pune-41

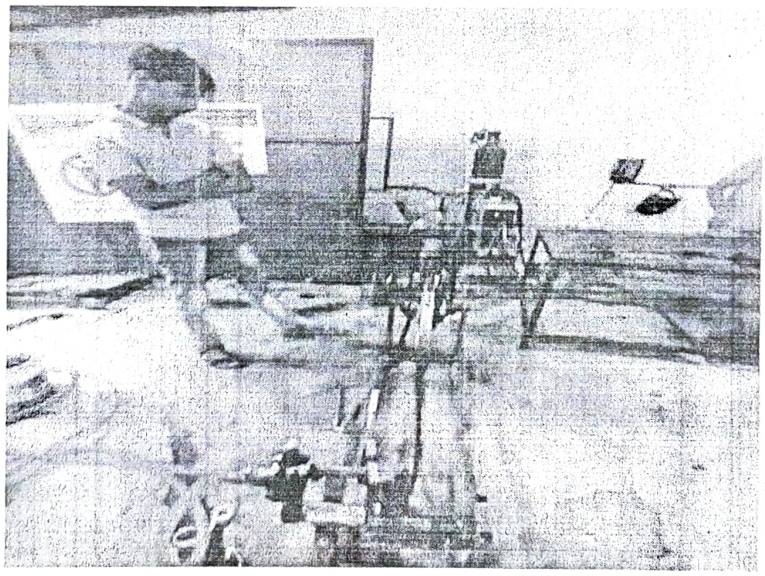
This is company sponsored project of Ay 2022-23 performed at Sigma Hi-tech Tooling by Satej chaugule and team

2) In-house: Pedal Operated Water Pump



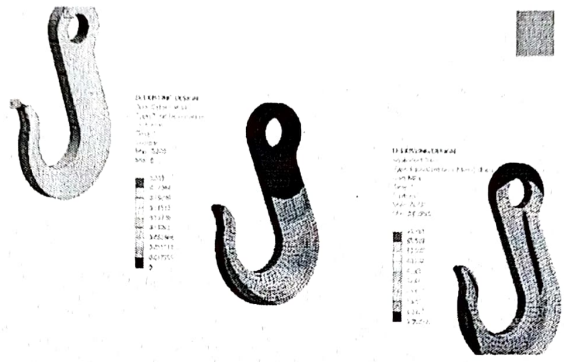


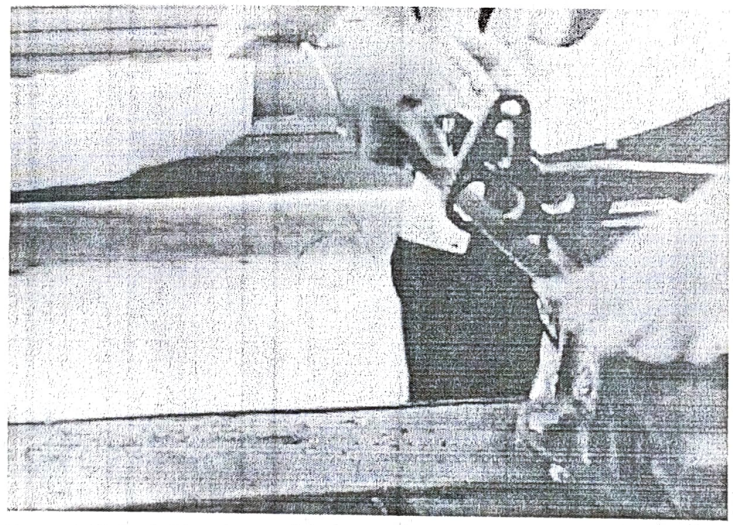




This is In-house project of Ay 2021-22 performed at Swaminarayan Tekadi by Avinash kli and his team. Prject was t make manual (Pedal) perated Pump t lift the water

3) Analysis Based project





This is analysis project of Ay 2021-22 performed based on Ansys Software by Prathamesh Garud and team

Project Coordinator

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Dept of Mechanical Engineering
Pune-41

Head of Department

Sr. No.	Internship Objectives
1	To encourage and provide opportunities for students to get professional/personal experience through internships.
2	To learn and understand real life/industrial situations.
3	To get familiar with various tools and technologies used in industries and their applications.
4	To nurture professional and societal ethics.
5	To create awareness of social, economic and administrative considerations in the working environment of industry organizations.
6	To encourage and provide opportunities for students to get professional/personal experience through internships.

Sr. No.	Internship Benefits to participants
1	Students can understand company organizational structure, products, services, processes, departments, customers, vendors etc.
2	Students can apply theoretical knowledge and concepts (as acquired under mechanical engineering program courses) to solve assignments given by company mentor
3	Students can identify, formulate and analyze existing engineering problems in industry related to design, manufacturing, procurement, quality, maintenance, research, new product development etc.
4	Students can suggest solutions to assigned engineering problems considering health, safety, legal and Environmental standards/requirements.
5	Students can understand and demonstrate effective verbal/written communication, listening and Documentation skills.
6	Students can demonstrate individual responsibility, participation in teams and management of multiple assignments/projects
7	Students can develop and demonstrate professional work habits, attitudes, ethics and behavior

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Internship Methodology

Internships are educational and career development opportunities, providing practical experience in a field or discipline. Internships are far more important as the employers are looking for employees who are properly skilled and having awareness about industry environment, practices and culture. Internship is structured, short-term, supervised training often focused around particular tasks or projects with defined time scales.

Engineering internships are intended to provide students with an opportunity to apply conceptual knowledge from academics to the realities of the field work/training.

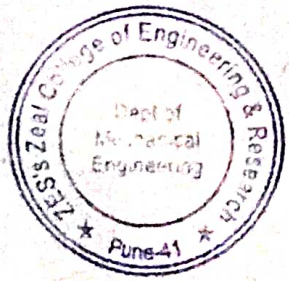
Student may choose to undergo Internship at Industry/Govt. Organizations/NGO/MSME/Rural Internship/ Innovation/IPR/Entrepreneurship. Student may choose either to work on innovation or entrepreneurial activities resulting in start-up or undergo internship with industry/NGO's/Government organizations/Micro/Small/ Medium enterprises to make themselves ready for the industry.

As per the AICTE and University guidelines, Internship is to be completed after 5th semester of Third Year Mechanical Engineering and before commencement of semester 6th of at least 4 to 6 weeks; and it is to be assessed and evaluated in semester 6th.

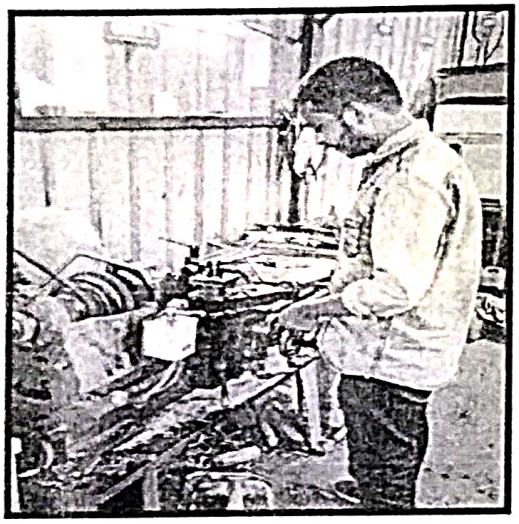
Students must maintain Internship Diary. The main purpose of maintaining diary is to cultivate the habit of documenting. The students should record in the daily training diary the day-to-day account of the observations, impressions, information gathered and suggestions given, if any. The training diary should be signed every day by the supervisor. Internship Diary and Internship Report should be submitted by the students along with attendance record and an evaluation sheet duly signed and stamped by the industry to the Institute immediately after the completion of the training.

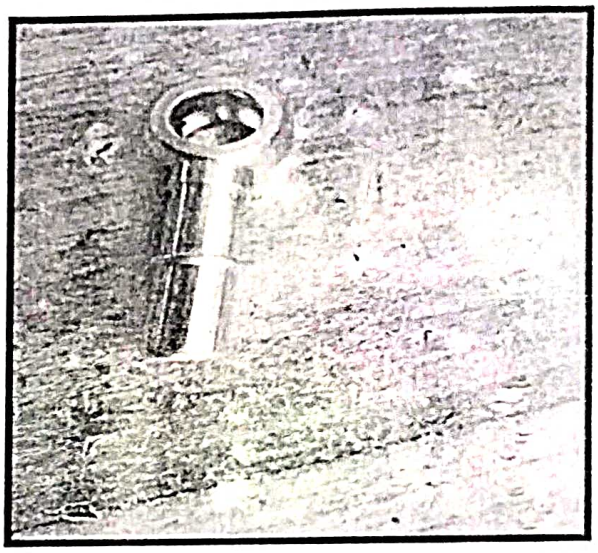
The student will give a seminar based on his training report, before an expert committee constituted by the department as per norms of the institute. The evaluation will be based on the following criteria:

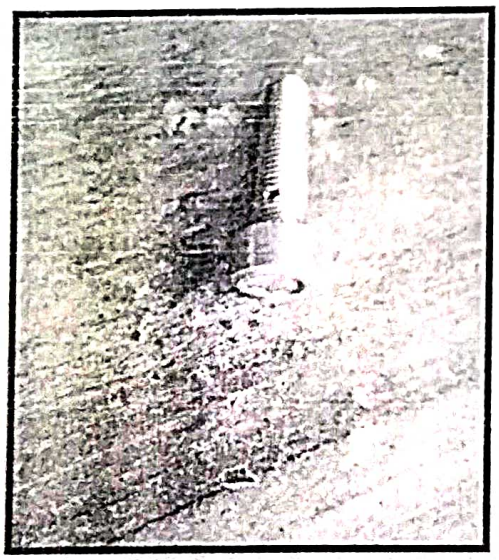
- Depth of knowledge and skills
- Communication & Presentation Skills
- Team Work and Creativity
- Planning & Organizational skills
- Adaptability
- Analytical Skills
- Attitude & Behaviour at work
- Societal Understanding
- Ethics
- Regularity and punctuality
- Attendance record
- Diary/Workbook
- Student's Feedback from External Internship Supervisor

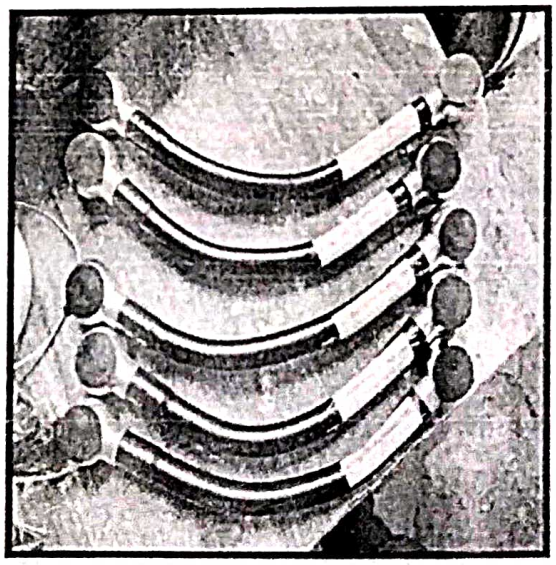


Photographs During Internship:









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Internship Report

Part I: Contact InformationStudent

Name: Mr. Prajwal Pralhad Mulik Student ID: T624040 Class Year: 2021-2022

Campus Address: Zeal college of Engineering and Research, nahre, pune - 411041

City, State :Pune,Maharashtra

Phone: 7522996619 Email: prajwalmulik0941@gmail.com

Industrial Supervisor

Name: Mr. Rohit Ankush Title: Factory Executive

Company/Organization: R.A. Enterprises

Internship Address: Khedekar Industrial Estate, Narhe-Dhayari Road, Narhe Pune - 411041

City, State, Pin: Pune,Maharashtra-411036

Phone: 7507538144 Email:.raenterprises.pune@gmail.com

Faculty Mentor

Name: Dr. Y. M. Bhamare Phone: 9172103903

Campus Address: Zeal College of Engineering and research, Survey no. 39, Narhe-Dhayari road, Narhe, Pune.

Academic Credit Information

Internship Title : Internship Department: Mechanical Engineering

Course : 303255 internship

Beginning Date: 12 January 2022 Ending Date: 11 February 2022

Hours per Week: 28 hrs Internship is : Paid / Unpaid: Unpaid

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Part II: Internship Objectives/Learning Activities

Internship Objectives: What do you intend to learn, acquire and clarify through this internship? Try to use concrete, measurable terms in listing your learning objectives under each of the following categories:

- **Knowledge and Understanding**

Since my internship was in field of manufacturing. I was able to practice and improve my skill on various manufacturing rated machines and I also understand the how material is flow through out the various department.

This internship also provided me with the opportunity to experience fieldwork through one important projects of the company.

During the internship tenure, I was able to understand the work culture practically and learned to handle the various situation more in a pragmatic way that I went through during my internship tenure.

- **Skills**

professional behaviour

practical knowledge

time management

communication skills

computer skills

project related skills

Learning Activities: How will your internship activities enable you to acquire the knowledge/understanding, and skills you listed above?

Part III: The Internship

Job Description: Describe in as much detail as possible your role and responsibilities while on your internship. Listduties, project to be completed, deadlines, etc. How can you contribute to the organization/site of internship?

I work as an internship fresher work was primarily to assist in the ongoing job manufacturing

In the company and learn from my seniors about instruction and guiding the workers.

Make report of on job name, what kind of operations are performing, how much job are manufactured.

To guide the worker to understand the drawing of job and also checking the job is manufacture as per requirement.

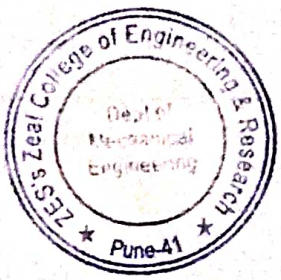
Supervision: Describe in as much detail as possible the supervision to be provided/needed at the work site. Listwhat kind of instruction, assistance, consultation you will receive from whom, etc.

In first day of my internship supeviser gave me required instruction and guide me how to handle the situations

1) To communicate the worker properly and give them necessary instruction.
2) To report if any problem crate during job production.
3) To make check list on row material stoke.

Evaluation: How will your work performance be evaluated? By whom?

1) Daily report in the company on time.
2) Review from the workers about my work by seniors
3) Job done by the workers under my supervision. And also checking of quality of job
4) Taken the overall review at the last date of my internship



R. A. ENTERPRISES

Khedekar Industrial Estate, Narhe-Dhayari Road, Narhe Pune – 411041
E- Mail – raenterprises.pune@gmail.com Contact – 7507538144
GST No – 27CMFPA7602D1ZJ ; UDYAM Reg. No. – UDYAM-MH-26-0002137

Ref No.- rent/lh/21-22/23

Date – 12/02/2022

To,

HOD, Mechanical Engg. Dept.
Zeal Education Society's
Zeal College of Engineering and Research
Narhe Pune- 411041.

Subject – Internship programme Completion Certificate.

Dear Sir/Madam,

This is to certify that **Mr. Prajwal Pralhad Mulik** student of TE Mechanical Engineering from Zeal College of Engineering , Narhe Pune has scuccessfully undergone the implant training/internship programme at our manufacturing facility during 12th Jan 2022 to 11th Feb 2022.

During his internship he has demonstrated his skill with self motivation to learn new skills. His performance exceeded our expectations.

We wish him All The Best for his upcoming career.

Best Regards,
For , R. A. Enterprises
Mr. Rohit Ankush
(Factory Executive)

ZES's Zeal College of Engineering & Research Dept. of Mechanical Engineering Pune-41

Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering & Research, Pune-411041

ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA

DEPARTMENT OF MECHANICAL ENGINEERING

Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing Summary Report

Academic Year: 2019-20 **Semester: I**
Class: B.E.

Title of Activity/Event	Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing
Date of Activity/Event	07/01/2020 to 05/03/2020
Name of Expert/Trainer	Prof. M.R. Kalyanshetti
Objective	The objective of this workshop was to communicate different CNC Programming , Simulation & Manufacturing in Industry
Summary	To enhance student's expertise in the field of machining, Hands on training program on CNC Programming, Simulation & Manufacturing was scheduled at Department of Mechanical Engineering, Zeal College of Engineering and Research. The training was conducted in one batches for final year mechanical engineering students at Machining excellence center of zeal college of engineering and research Pune. During training program, class room sessions in which students were trained to write a program for manufacturing specified product drawing. Furthermore, session carried out with practical on Master CAM Software to enhance students expertise in file format, unit setting, 2D drawing generation for turning operation, Raw material setting & Tool parameters. Further in the third week of session students were exposed to DO-NC Simulator. Through these sessions they were able to work with simulators in Tool offset settings, Tool management, Tooling parameters and MPP generation. In the final week of training students work on CNC Machine to manufacture the job as per requirement. At the end a test was conducted to examine students' progress in CNC Machining. This program was conducted by Prof. Mahendra Kalyanshetti in the guidance of HOD Mechanical Engineering Department at Machining Excellence center of Zeal College of Engineering and Research Pune.

POs/PSOs Attained	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
	✓	✓	✓	✓	✓	✓						✓	✓	✓	✓	✓

ZES's Zeal College of Engineering & Research
Dept of Mechanical Engineering
Pune-41

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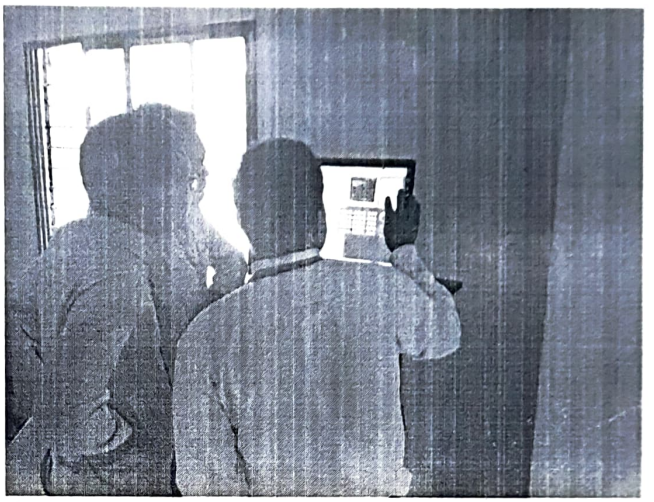
NARHE | PUNE -41 | INDIA

DEPARTMENT OF MECHANICAL ENGINEERING

Outcomes	The students got hands on experience through this program on CAM-CNC programming and simulation. Moreover, develops technical skills and produce industry ready CNC operators and product designers who are able to make any part you can imagine on your CNC Machine.
Photo Gallery	 *Photo 1 Students learning Coding on DoNC Simulator*  *Photo 2 Students practicing on on CNC Machine*

Course Coordinator

ZESS's Zeal College of Engineering & Research
Dept. of Mechanical Engineering
Pune-41

Head of the Department

ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA

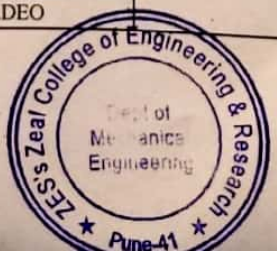
SE PBL Guide and Title List

Department: Mechanical Engineering **Academic Year: 2021 - 2022** **Sem : 1**
Class: SE Mechanical **Date : 01/10/2021**

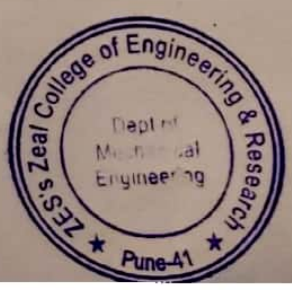
Project Gr No.	Roll No	Names of the students	Guide	Project Title
G1	S612045	VALKUNDE LALASO SANJAY	Prof.Godase S.M.	Material Aplication : Stainless steel
	S611030	GAMRE KARAN NARESH		
	S611026	GADHAVE VAISHNAVI NANASAHEB		
	S612003	KURUPKAR SAIEM MUSTAFA		
	S612009	MISAL PRASAD SUBHASH		
G2	S611010	BHESKE TEJAS DATTATRAY	Prof.Adewar S.S.	Material & Manf. Of Carbon Fiber
	S612050	WAGHMODE KIRAN PANDURANG		
	S612042	THOPATE ATHARVA RAHUL		
	S612036	SONTAKKE RAVINDRA SURESH		
	S612008	MISAL ANIKET BABANRAO		
G3	S611045	KHAMKAR APURVA TUKARAM	Prof.Borade S.S.	Buckling of column Structure
	S612018	PHUTAK CHINMAY SUNIL		
	S612020	PRAJAPATI SIDDHARTH SATYAPRAKA		
	S612049	WAGH AJAY DATTATRAY		
	S612010	MULE PRATHAMESH PRAMOD		
G4	S612052	WAKADE PRAJWAL RAMKISHAN	Prof.Borade S.S.	Temperature stress in composite material
	S612004	LAGAD OM SANDEEP		
	S612001	KSHIRSAGAR ONKAR SHRIKANT		
	S611001	ABDUL FAIZAL MOHIDEEN		
	S611040	JOSHI HARSH SANTOSH		
G5	S611009	BHABAL SANIKA PRAVINKUMAR	Prof.Borade S.S.	Natural deformation in metal due to change in temperature
	S611018	CHILE JAYDEEP ANANDA		
	S611050	KODAG UMESH DHANAJI		
	S611003	AIWALE SHREYAS MALHARI		
	S612005	LATAKE SOURAV SUDHIR		
G6	S612033	SHINDE PRADIP TANAJI	Prof.Deshmukh J.A	Case study of Gear Material
	S611034	GHARAL MUKUND PANDRINATH		
		DUDDOO PARTH PRASHANT		
	S612043	TIWARI ANURAG RAJESHKUMAR		
	S612029	SANAP DNYANESHWAR SAYAJI		
G7	S611014	CHANDEL DIGVIJAY KIRANSINGH	Prof.Deshmukh J.A	Case study of Glass & Steel with Application
	S612046	VILASAGAR ARYA VINAYAK		
	S611020	DANGI CHIRAG GHANASHYAM		
	S612051	WAGHUMBARE MAHESH BALASAHEB		
	S612025	SAGARE PRATISH RAMESH		
G8	S611008	BAWANE PAVAN BANDUJI	Prof.Deshmukh J.A	Material Application & Properties: Graphics & Fiber
	S611031	GANDEWAR SACHIN SANTOSH		
	S611013	BHOR YASH NARAYAN		
	S612047	VISHWAKARMA SHRIKANT		
	S611028	GAIKWAD DHAWAL VINOD		
G9	S612031	SATPUTE PRASHANT DILIP	Prof.Gadekar T.D.	Case Study on Rubber
	S612015	PATANKAR AYUSH ASHISH		
	S611027	GAIKWAD ABHISHEK GAUTAM		
	S611041	KADAM ABHISHEK HANUMANT		
	S612030	SATHE SUDIN ASHISH		

ZES's Zeal College of Engineering & Research
Dept of Mechanical Engineering

Project Gr No.	Roll No	Names of the students	Guide	Project Title
G10	S611011	BHINGARE AKASH PRAKASH	Prof.Gadekar T.D.	Conceptual model of BCC
	S611023	DHURVE DHAVAL SANJAY		
	S611032	GARUD PRATHMESH GORAKHNATH		
	S612012	NIKAM MANJUSH PANDURANG		
	S611042	KAKADE PRAJWAL PRADEEP		
G11	S612039	THAKARE DHANSING MAGAN	Prof.Gadekar T.D	Kevlar Fiber
	S611051	KOKITKAR SAHIL SHANKAR		
	S612016	PATHAN ASLAM RASUL		
	S612023	RANPISE BHUSHAN ANKUSH		
	S611016	CHAUHAN AKHILESH KANHAIYALAL		
G12	S612014	PARNERKAR SIDDHI JAGDISH	Prof.Adewar S.S	Crystal structure
	S611033	GAVALI RUSHIKESH VISHAL		
	S612027	SALEGAVE RANI ARVIND		
	S611039	JADHAV KHEMRAJ NAVNATH		
	S611022	DHOTRE SHUBHAM VIJAY		
G13	S612011	NAIK MANTHAN SANDEEP	Prof.Adewar S.S	Crystal structure on CBS & HCB
	S611007	BANDAL PRANAV SUNIL		
	S611012	BHOITE MAYURI MOHAN		
	S612037	SUTAR SANGRAM SITARAM		
	S611037	GHORPADE PRASAD RAJIV		
G14	S612053	WARKADE SUJEETKUMAR KANHAIYA	Prof.Karande A.V.	Material Aplication : Stainless steel(House hold application)
	S611029	GAIKWAD RAJ SHANTARAM		
	S611044	KARVE SHUBHAM SANJAY		
	S612032	SHINDE ABHISHEK DATTATRAY		
	S611005	ANDHALE ROHIT KISAN		
G15	S611019	DAFAL SANKET MAHADEV	Prof.Karande A.V.	Material : Epoxy resign
	S611024	EKAWADE SHUBHAM DNYANDEV		
	S612024	ROY PRADUMN		
	S612034	SHINDE VIKAS BHAGAWAN		
	S612035	SONAWANE RUSHIKESH UTTAMRAO		
G16	S611053	KOLI PRANAV MALLESHA	Prof.Karande A.V	Material : Ball Bearing
	S612013	PANCHAL RUTWIK DATTATRAY		
	S611049	KHULE HARSHAL SUNIL		
	S611004	AMBEDE KETAN KESHAV		
	S611015	CHAUDHARI PRAJWAL RAHUL		
G17	S612040	THAKUR NEERAJ SATYANARAYAN	Prof.Charthal S. M.	Process of Plastic Chair Manufacturing
	S612026	SAHIB SINGH RATTAN		
	S612038	SUTAR SHREENARAYAN CHANDRAKA		
	S611036	GHODNADIKAR GANESH SANDEEP		
	S611052	KOLE TEJAS ANIL		
G18	S611043	KALE VIVEK DADASAHEB	Prof.Charthal S. M	Material Testing & Properties of Ceramic
	S611021	DHOTRE DEVESH MALIK		
	S612002	KUDALE BHAVESH MAHENDRA		
	S612006	MAHAJAN BHARAT NAVNATH		
	S611048	KHEDEKAR CHETAN SANTOSH		
G19	S612041	THITE GANESH RAMCHANDRA	Prof.Charthal S. M	Material : Glass Application(Window Mirror)
	S612019	POONJA PRAJNESH UMESH		
	S612022	RAJVIR ABHISHEK SURESH		
	S611025	FRANCIS ANOSH		
	S611046	KHAN MOHAMAD ZAIDALI SAJIDALI		
G20	S612007	MANIYAR ARBAJ LATIF	Prof.Kulkarni S.S.	Material : Polymer Application
	S612017	PATIL PRAJWAL VIJAY		
	S611054	KORVEKAR CHINMAY CHANDRAKAN		
	S612044	TODKAR ATHARVA DEEPAK		
	S612048	WADKAR OMKAR MAHADEO		



Project Gr No.	Roll No	Names of the students	Guide	Project Title
G21	S612021	PUJARE VAIBHAV PRABHAKAR	Prof.Kulkarni S.S.	Plastic material Application : Pen
	S611006	BADE RAVI BANDU		
	S611047	KHARADE SAURABH SUKHDEV		
	S611017	CHAVAN AKSHAY RAMCHANDRA		
G22	S611035	GHATE SHANTANU SHANKAR	Prof.Kulkarni S.S.	Material Propertis of Plastic & Leather
	S611002	ADSUL AVIRAJ BHARAT		
	S611038	HADKAR SIDDHI SANDIP		
	S612028	SANADI SWATI SUBHASH		
G23	S613001	ATHARE NIKHIL BAPU	Prof.Godase S.M.	Materials Ball Point Pen And Pressure cooker
	S613002	AVHAD JYOTI MAHADEV		
	S613003	BABADE SAHIL SAMEER		
	S613004	BALLAL SANIDHYA PRASHANT		
	S613005	BHOSALE ARYAN RAJESH		
G24	S613006	CHAVAN SIDDHARTH SHIVAJI	Prof.Adewar S.S.	Materials Electric Iron
	S613007	CHAVAN VAIBHAV HANAMANT		
	S613008	DESHMUKH GAYATRI RAJESH		
	S613009	DHABALE OMKAR PRAKASH		
	S613010	DUDDOO PARTH PRASHANT		
G25	S613011	DUDHAL SHANTANU GANESH	Prof.Borade S.S.	Materials-Screw and Key
	S613012	DURGAD SHRUTI RAJENDRA		
	S613013	GAIKWAD VISHAL SHIVAJI		
	S613014	GONDHALE RITESH GAJANAN		
	S613015	GORE ABHIJEET SHIVAJI		
G26	S613016	GORE NIKHIL RAMHARI	Prof.Borade S.S.	Materials-Brass
	S613017	GOVEKAR VIVEK TANAJI		
	S613018	GURAV SNEHA SURESH		
	S613019	ILAMKAR ASHIK DILIP		
	S613020	INGALE SAMBHAJI RAMESH		
G27	S613021	JADHAV AKHILESH PRADIP	Prof.Borade S.S.	Materials-Spoon and Rubber
	S613022	JADHAV JITENDRA VIKAS		
	S613023	KADU SUYASH SUNIL		
	S613024	KAMBLE LATA BABASAHEB		
	S613025	KATE SURAJ DAGADU		
G28	S613026	KATOTE PRABHANJAN LOKNATH	Prof.Deshmukh J.A	Materials Laptop and Mobile
	S613027	KHARADE TRUPTI SAMPAT		
	S613028	KHOPADE DASHARATH P		
	S613029	KOLTE RUSHIKESH BAPURAO		
	S613030	KONGARI KUNAL GANESH		
G29	S613031	KUMBHAR SOHAM DEVIDAS	Prof.Deshmukh J.A	Materials Water Glass
	S613032	KURIL ABHISHEK SHIVDAS		
	S613033	LOHAR PRASHANT DNYANESHWAR		
	S613034	MAHAGAONKAR AASAWARI M		
	S613035	MANE MAKARAND VIJAY		
G30	S613036	MANE RUSHIKESH MAHESH	Prof.Deshmukh J.A	Materials Lead Pencil and Spring
	S613037	MARKAD RAVINDRA TATYABA		
	S613038	MASKE SANKET SURESH		
	S613039	MISHRA AKASH		
	S613040	MORE PRAFUL PRAMOD		



Project Gr No.	Roll No	Names of the students	Guide	Project Title
G31	S613041	NAIK KIRAN RAJAN	Prof.Gadekar T.D.	Material Dish hanger and Kelvar
	S613042	OVHAL SUMIT SUNIL		
	S613043	PARMEKAR DIGVIJAY		
	S613044	PATIL OMKAR ANANDRAO		
	S613045	PAWAR PRAJWAL MANOJ		
G32	S613046	PAWAR VISHAL BANDU	Prof.Gadekar T.D.	Materials-Water Heater
	S613047	POMAN PRATHAMESH BALASAHEB		
	S613048	RAUT OMKAR GAJANAN		
	S613049	RUPANVAR BHAGAWAN SHANKAR		
	S613050	SALUNKHE ANUP JAGANNATH		
G33	S613051	SAPKAL ONKAR SURESH	Prof.Gadekar T.D	Materials-Spark Plug
	S613052	SARALKAR WEDANT HEMANT		
	S613053	SHINDE AKASH SUHAS		
	S613054	SHINDE KISHOR PARASHURAM		
	S613055	SHINDE PRASAD RAMDAS		
G34	S613056	SONAVANE RAVIRAJ BHATU	Prof.Adewar S.S	Materials Belt and Plastic Chair
	S613057	SONWALKAR SONALI TANAJI		
	S613058	TAKALE PANKAJ GANESH		
	S613059	UJGARE MANOJ RATAN		
	S613060	ZADE PRITESH PRASAD		
G35	S613061	ZENDE SHREYAS ANAND	Prof.Adewar S.S	Materials Pen and Window Glass
	S613062	ZIRPE MAHESH NARAYAN		
	S614001	BHAGWAN TEJAS SANTOSH		
	S614002	BHAPSE MAHESH UDDHAV		
	S614003	DESHMUKH ASHUTOSH AVINASH		
G36	S614004	DESHMUKH PURUSHOTTAM R	Prof.Karande A.V.	Materials Cable Wire and Glass
	S614005	DHANNE CHAITANYA KAPIL		
	S614006	DUDHE GHANASHYAM M		
	S614007	GAIKWAD SUSHANT SATISH		
	S614008	GANGADHAR RAHUL PRAVIN		
G37	S614009	JADHAV YASH	Prof.Karande A.V.	Materials Pressure Cooker
	S614010	JANA PRANAV VINAYAK		
	S614011	KAGWADE ANANT KUMAR		
	S614012	KALAMBE MADHURA MILIND		
	S614013	KARANJKAR YASH SANTOSH		
G38	S614014	KARTIK DARWATKAR	Prof.Karande A.V	Materials-V belt
	S614015	KAZI RAHIL LIYAKAT		
	S614016	KHADASE ASHISH SUDHAKARRAO		
	S614017	KHOPATKAR AMIR ASHFAQ		
	S614018	MALI NAGESH DATTATRAYA		
G39	S614019	MANDAVKAR PAVAN SAMBHAJI	Prof.Charthal S. M.	Material & manufacturing process - compass and mars rover wheel
	S614020	MASKE SANTOSH SHANKARRAO		
	S614021	MORE PAWANKUMAR SANDIP		
	S614022	NAIKODI AVINASH BALWANT		
	S614023	NILESH PRABHAKAR GAVANE		
G40	S614024	PANSARE TUSHAR SAMBHAJI	Prof.Charthal S. M	Materials-Vernier And Alloy wheels
	S614025	PATIL HRUTVIJ AMARSINH		
	S614026	PAWAR OMKAR SURENDRA		
	S614027	PAWAR SHIVSAMB HARI		
	S614028	PUJARI LAXMI SHIVLINGAPPA		

Project Gr No.	Roll No	Names of the students	Guide	Project Title
G41	S614029	SALUNKE SWEEKAR HEMANT	Prof.Charthal S. M	Materials Glass and Synthetic Fibre
	S614030	SALUNKHE AJINKYA HANUMANTRAO		
	S614031	SASHTE SIDDHANT RAJESH		
	S614032	SHINDE ADITI SATISH		
	S614033	SHINDE TEJAS DASHRATH		
G42	S614034	SHINDE VISHWAJEET HEMANT	Prof.Kulkarni S.S.	Materials - Door Latch & Wind Mill Blade
	S614035	SINGH AMIT RANJEET		
	S614036	SIRSATH SUNIL VISHNU		
	S614037	SONAWANE ROHIT SHUKLESHWAR		
	S614038	SORATKAR RAKESH RAMESH		
G43	S614039	AHIRE ASHUTOSH SUBHASH	Prof.Kulkarni S.S.	Materials-Printer
	S614040	BULBULE KALPESH NARENDRA		
	S614041	DESHMUKH HIMANSHU SANJAY		
	S614042	DHAMALE ROHIT DEEPAK		
	S614043	GANDHI SANJOG SANJAY		
G44	S614044	JADHAV HARSHWARDHAN RAHUL	Prof.Kulkarni S.S.	Materials-Printer
	S614045	JADHAV PURUSHOTTAM ASHOK		
	S614046	KADAM AMULYA RAJESH		
	S614047	KADAM CHETAN RAJU		
	S614048	KAMBLE ASHITOSH SUNIL		
G45	S614049	KAMBLE VIKAS VILAS	Prof.Godase S.M.	Materials Vernier Caliper
	S614050	KEDARI SUKESHINI ARUN		
	S614051	KHADE HARSHADA ADIK		
	S614052	KHIRADE ROHIT RAJU		
	S614053	KULKARNI ARPITA MAHESH		
G46	S614054	KULKARNI PRATHMESH MANOJ	Prof.Adewar S.S	Materials PVC Pipes
	S614055	MOKAL SATYAJIT KESHAV		
	S614056	MOLWANE NIKHIL ANIL		
	S614057	NANAWARE OMKAR NARAYAN		
	S614058	PANCHESIL GULAB GAIKWAD		
G47	S614059	SAKUNDE SHUBHAM PRALHAD	Prof.Adewar S.S	Materials Glass and Synthetic Fibre
	S614060	SHAIKH AJIM YUNUS		
	S614061	SOGAM GANESH SANJAY		
	S614062	ZITRE SHUBHANKAR LAXMAN		
	S614063	ARDE ATHARVA BHARAT		
G48	S614064	AWARE KALYANI SATISH	Prof.Adewar S.S	Materials-V belt
	S614065	GAWADE PRATIK BABAN		
	S614066	HAGAWANE TANAYA SUBHASH		
	S614067	YADAV OMKAR NILESH		

Prof. Karande A. V.
PBL Coordinator

Prof. Godase S. M.
Head of the Department

ZES's Zeal College of Engineering & Research
Dept of Mechanical Engineering
Pune-41

List of Students with Mini Project Titles (AY 2021-22)

SN	Roll No.	Student Name	Mini-Project Title
1	T611009	Bovlekar Jay Santosh	Temperature stress in composite material
2	T611026	Jadhav Omkar Gorakhnath	Automatic Mechanical garage door opener
3	T611027	Jha Deepak Gunpati	Materials Electric Iron
4	T611030	Kaname Prajwal Sahebrao	Scissors lift
5	T611039	Moon Pritam Vasantrao	Automatic Mechanical garage door opener
6	T611040	Narayankar Omkar Uddhav	Automatic Mechanical garage door opener
7	T611041	Nikam Sumit Kantilal	Human powered threshing machine
8	T611044	Patil Shantanu Shivajirao	Materials Laptop and Mobile
9	T611057	Sutar Shivendra Vishnu	Dish hanger and Kelvar
10	T611058	Suthar Pravin Tilok	Dish hanger and Kelvar
11	T624019	Gaikwad Shreyash Sunil	Water Heater
12	T624031	Kumbhar Aniruddha S.	Water Heater
13	T612005	Chaus Faizan Hamid	Belt and Plastic Chair
14	T612011	Dhupkar Pranav Suhas	Belt and Plastic Chair
15	T612013	Doke Shubham Babasaheb	Scissors lift
16	T612029	Kompalwar Kiran Keshav	Pressure Cooker
17	T612040	Patil Sarvesh Santosh	compass and mars rover wheel
18	T612041	Pawar Ajinkya Sadashiv	Manual Parking system
19	T612042	Pawar Vaibhav Bapusaheb	compass and mars rover wheel
20	T612045	Shantanu Pradeep Akashe	Buckling of column Structure
21	T612048	Shinde Rushikesh Navnath	Buckling of column Structure
22	T612051	Sonawane Pranav Rajendra	Manual Parking System
23	T612054	Tudme Vinod Vitthalrao	Manual Parking System
24	T624040	Mulik Prajwal Pralhad	Human powered threshing machine
25	T612008	Chow Paliktan Mannoi	Scissors lift
26	T612010	Deshpande Sanket Keshav	Materials - Door Latch & Wind Mill Blade
27	T612011	Deshpande Yogesh Ganesh	Manual Parking System
28	T612012	Dhumal Kailas Shivshankar	Materials - Door Latch & Wind Mill Blade
29	T612028	Kharat Saurabh Suresh	Manual Parking System
30	T612039	Panchal Omkar Pandharnath	Materials Vernier Caliper
31	T612052	Shinde Vishal Dattatraya	Slider Crank Mechanism
32	T612055	Umaranikar Akshay D.	Manual Parking System
33	T612056	Vasave Rohit Dattatray	Buckling of column Structure
34	T613057	Bhore Karan	Buckling of column Structure
35	T624001	Agrawal Dhawal Lalit	Buckling of column Structure
36	T624002	Armewad Sairaj Pundlik	Case study of Gear Material
37	T624017	Dolare Saurabh Tukaram	Case study of Gear Material
38	T624018	Gaikwad Nikhil Narendra	Case study of Gear Material
39	T624020	Gaikwad Vaibhav Tukaram	Slider Crank Mechanism

40	T624023	Jeughale Prashant Ashok	Temperature stress in composite material
41	T624024	Kadam Sushilkumar S.	360 degree rotating conveyor best system
42	T624029	Kule Viraj Vilas	Human powered threshing machine
43	T624036	More Abhijeet Tanaji	Conceptual model of BCC
44	T624039	More Rahul Popat	Conceptual model of BCC
45	T624043	Patarphale Mahesh Sanjay	Touchless Door
46	T624046	Pedanekar Rahul Adesh	Conceptual model of BCC
47	T624047	Raut Ketan Kishor	Case study of Epoxy resign
48	T624049	Savale Sourabh Prakash	Touchless Door
49	T624053	Shinde Vinay Vijay	Case study of Epoxy resign
50	T624054	Telangwad Shivaraj Ramdas	Temperature stress in composite material
51	T624055	Vahadane Atul Dadapatil	Touchless Door
52	T624058	Walanj Rahul Shantaram	360 degree rotating conveyor best system
53	T624060	Yashvante Shrikant B.	Conceptual model of BCC
54	T612010	Dhumal Vinod Balaji	Slider Crank Mechanism
55	T612003	Bolegave Vikrant Baliram	Temperature stress in composite material
56	T612009	Darda Rushabh Shashikant	Case study of Epoxy resign
57	T612041	Patil Chandrashekhar Milind	Touchless Door
58	T625003	Badhe Omkar Dnyaneshwar	Touchless Door
59	T625004	Bansode Dinesh Bhagwat	Case Study on Rubber
60	T625007	Bidbag Shubham Vikram	Conceptual model of BCC
61	T625008	Chavan Manoj Vitthal	Case study of Glass & Steel
62	T625009	Chavan Pavan Kailas	Case study of Epoxy resign
63	T625011	Chougule Satej Popat	Case Study on Rubber
64	T625013	Dhamal Anushka Prashant	Case study of Epoxy resign
65	T625014	Dhumale Aniket Vijay	360 degree rotating conveyor best system
66	T625018	Hanamghar Soham D.	Human powered threshing machine
67	T625020	Jagtap Sushil Nilkanth	Material Properties of Plastic & Leather
68	T625021	Jana Shashank Narendra	Process of Plastic Chair Manufacturing
69	T625025	Kolhe Rohit Sanjay	Process of Plastic Chair Manufacturing
70	T625029	Lingayat Ankit Arvind	Case Study on Rubber
71	T625033	Maniyar Aftab B.	Slider Crank Mechanism
72	T625036	Nicholas Amit Eric	Process of Plastic Chair Manufacturing
73	T625038	Panchal Aniket Hemant	Material Properties of Plastic & Leather
74	T625039	Pasalkar Gaurav Appa	Material Properties of Plastic & Leather
75	T625041	Pawar Meghana Mahendra	Temperature stress in composite material
76	T625045	Rathod Akash Prabhakar	Case study of Glass & Steel
77	T625046	Rikibe Suraj Rama	Case study of Glass & Steel
78	T625049	Sawant Ajay Sanjayrao	Case study of Glass & Steel
79	T625054	Sonawane Mohan Suresh	Case Study on Rubber
80	T625055	Tengale Akash Pralhad	360 degree rotating conveyor best system
81	T625056	Ubhe Ritesh Rajendra	Slider Crank Mechanism
82	T625058	Waghela Vishal Dipak	Case Study on Rubber

Dr. Y. M. Bhamare
Mini Project Coordinator

Zeal College of Engineering
Dept. of Mechanical Engineering
Pune-41

Prof. S. M. Godase
Head of the Department

Department of Mechanical Engineering

Laboratory Training using Virtual Lab

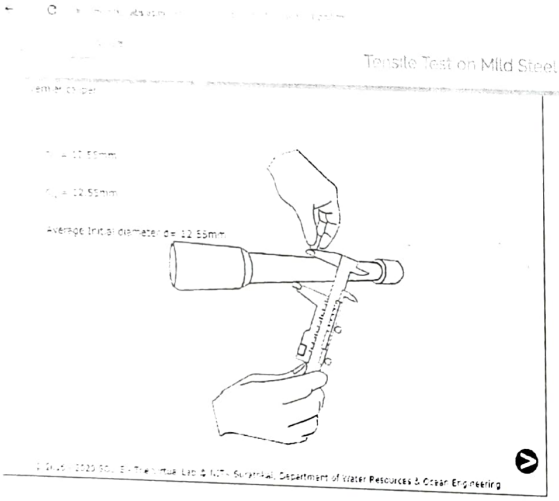
Faculty member and students are encouraged to use Virtual Laboratory. Few courses in the curriculum has incorporated the use of virtual laboratory, online learning, simulation, etc.

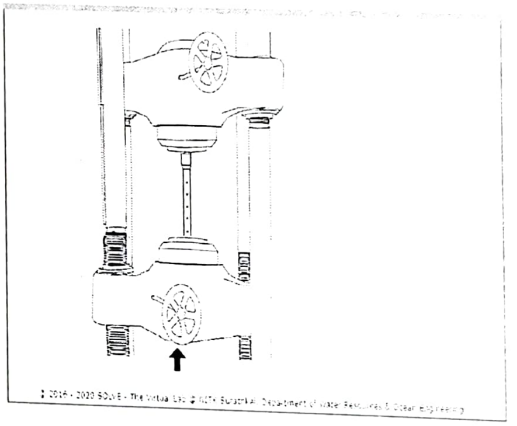
Name of the Laboratory- Strength of Material

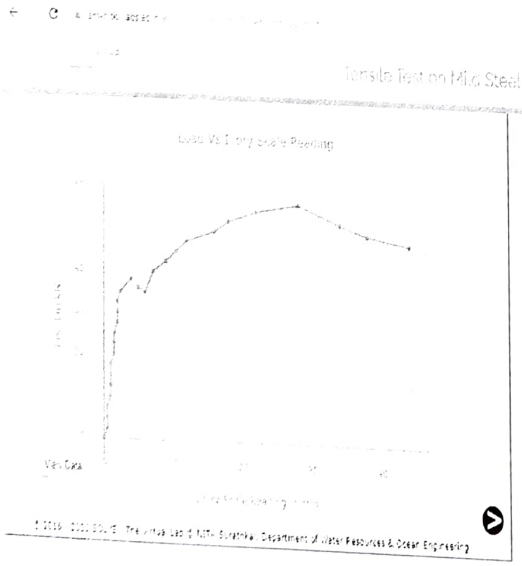
Class- SE Mechanical Academic Year- 2021-22 Semester- I

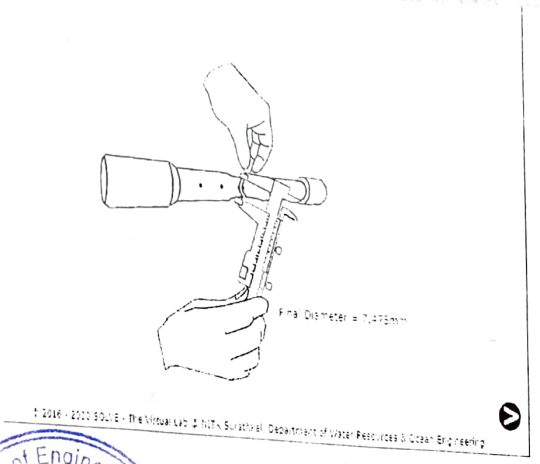
Name of the Experiment Conducted - To study the mechanical properties of Mild Steel

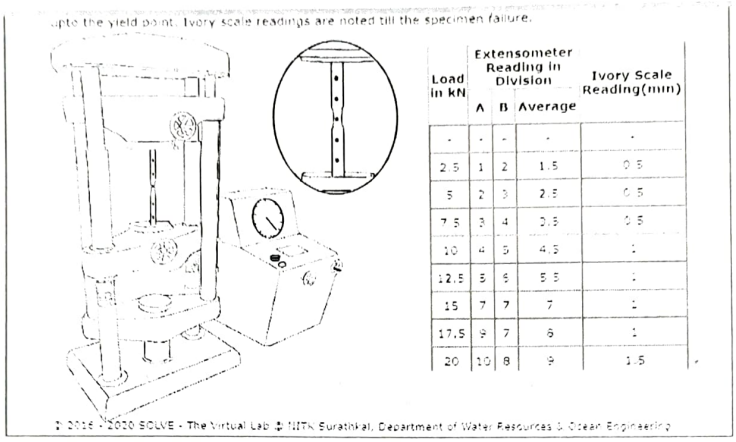
Faculty Name- Prof. Borade S.S.











upto the yield point. Ivory scale readings are noted till the specimen failure.

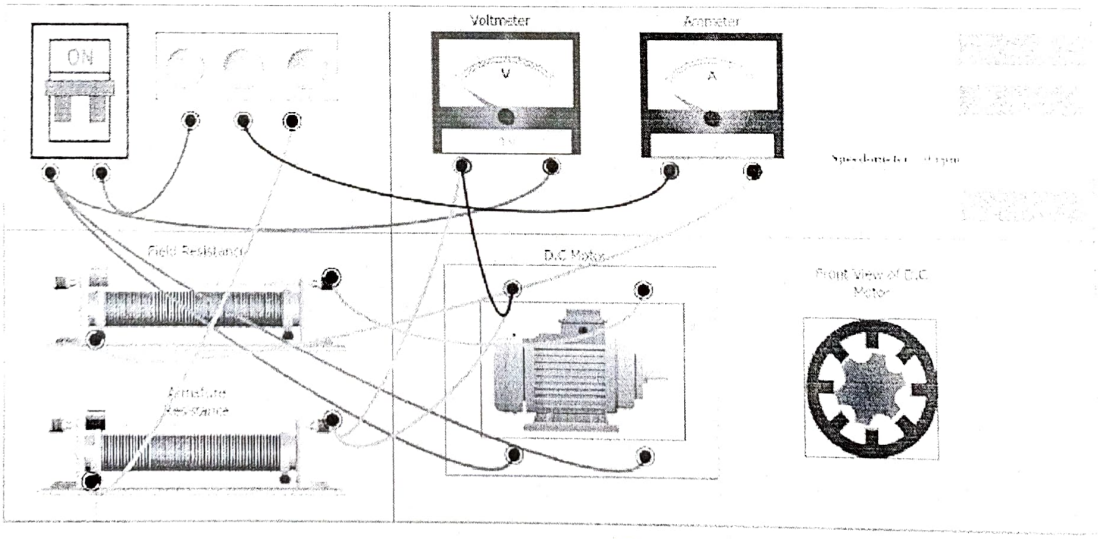
Load in kN	Extensometer Reading in Division A	B	Average	Ivory Scale Reading(mm)
-	-	-	-	-
2.5	1	2	1.5	0.5
5	2	3	2.5	0.5
7.5	3	4	3.5	0.5
10	4	5	4.5	1
12.5	5	6	5.5	1
15	7	7	7	1
17.5	9	7	8	1
20	10	8	9	1.5

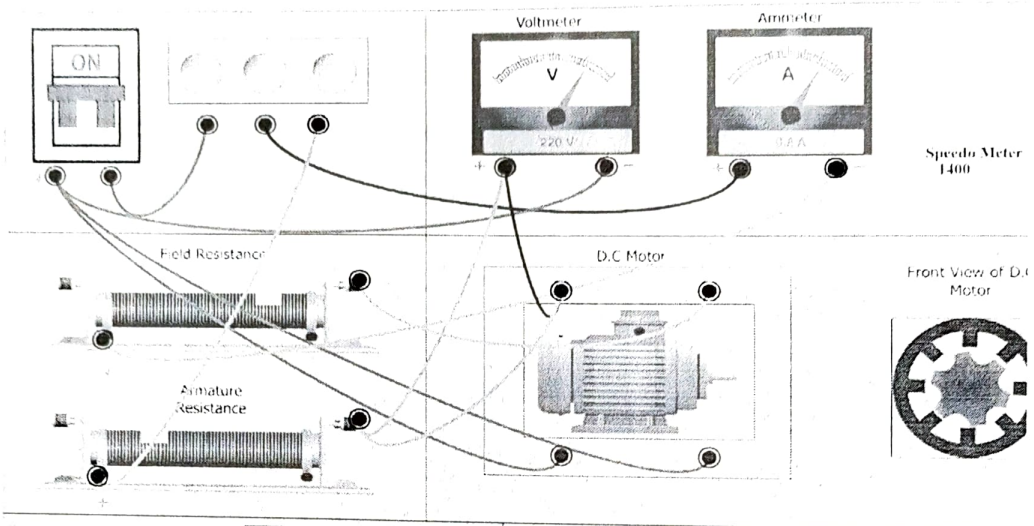
Name of the Laboratory- Electrical and Electronics Engineering

Class- SE Mechanical Academic Year- 2021-22 Semester- I

Name of the Experiment Conducted - Speed Control of DC motor by field resistance control

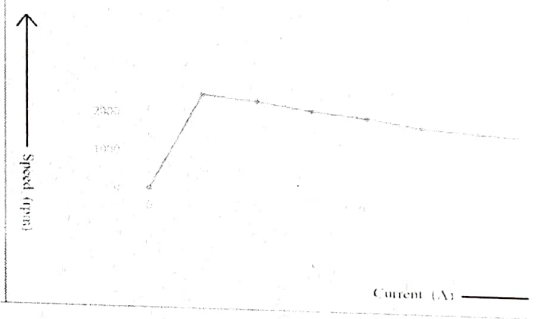
Faculty Name- Prof. Goyar D.J





OBSERVATION TABLE

Current (A)	Speed (rpm)
0	0
0.1	2500
0.2	2340
0.3	2100
0.4	1930
0.5	1700
0.6	1575
0.7	1480
0.8	1400



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Head of the Department