2.2.1 The Institution assesses the learning levels of the Students and organizes Special Programmes for Advanced Learners and Slow Learners

Meeting of Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering, Pandharpur

Discussion about slow learners in IQAC meeting dated 22/10/2016

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's

COLLEGE OF ENGINEERING, PANDHARPUR

ISO 9001-2000 Certified Institute & Accredited by Institute of Engineers, India,
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Pandharpur- 413 304,
Dist. Solapur (Maharashtra)
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
E-mail : coe@sveri.ac.in Website: www.sveri.ac.in

Date:- 08-10-2016

Notice

The meeting of the Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering, is scheduled on Saturday, 22-10-2016 @ 10.00 am in Board Room.

The agenda for the meeting is as given bellow:-

1- Confirmation of the Minutes of the last Meeting.
2- Review of work done in respect of functions of IQAC
3- Issue with the permission of the Chair.

B.P.Ronge

(Dr. B.P.Ronge)
PRINCIPAL

Note and Sign Please

1- All AQAC members.
2- Office copy.

SVERI's College of Engineering, Pandharpur

The meeting of Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering was held on Saturday, 22-10-2016 @ 10.00 am in Board Room

Following were present for the meeting.

Sr. No.	Name	signature
01	Prof. C.B. NADAGOUDA	
02	Mr. C.C. Patange	
03	Dr. P.S. Kachare	
04	Ms. V.D. Jadhav	
05	Mr. M.I. Bohari	
06	Mr N.D. Misal	
07	Dr. S.A. Lendave	
08	Dr. Madhav K Rao	
09	Ms. Manasi Kshirsagar	
10	Mr. R.G. Zarkar	
11.	Mr. S.R. Gavali	
12.	Pradnya B. Kadam	
13.	Mr. S.M. Shinde	
14.	Mr. A.G. Korke	
15	Mr. S.L. Utpat	
16	Ms. R.R. Bhosale	
17.	Ms. M.M. Bhore	
18	B.N. Chavan	
19	Dr. N.B. PAWAR	
20	Dr. S.M. Mulcane	
21	Mr. Y.M. Khedkar	
22	Mr. Mukund M. Pawar	
23	Mr. S.M. Bagal	
24.	B.P. Range	B.Range

Following business was transacted during the meeting

Item No. 1:- Confirmation of the minutes of the last meeting.

Resolution No. 1:- Minutes of the meeting held on 28-05-2016 were read and unanimously confirmed.

Proposed by:- Prof. Mrs V. D. Jadhav

Seconded by:- Mis P. B. Kadam.

Item No. 2:- Review of work done in respect of functions of IQAC.

Resolution No. 2:- It was brought to the notice of the meeting that functions of IQAC can be divided into three categories viz. Academy Task, Administrative Task and Financial Task.

I - Review of academic functions was taken in the meeting as follows;

i) Academic calender was put before the meeting.

ii) Teaching plan of all the subjects was put before the meeting.

iii) ISCs and chapter tests were conducted in the First semester of Academic Year 2016-17, as per Institute Policy.

iv) Slow learners were indentified and practice sessions were conducted.

v) Expert / guest lectures were arranged in the departments.

vi) GD and moodle sessions were conducted.

vii) Four types of feed backs viz. feed back by

Appropriate action also taken based on feedback.

II- Review of administrative task was taken in the meeting as follows;

i) Meetings of Local managing committee, Board of Governors, Students' council, Standing Committee, Deans and HODs meeting, General staff meeting, Grievance Redressal Committee, Women Grievance Redressel Committee, Academic Advisory Committee were conducted and minutes of these meetings were put before the meeting.

ii) Youth Festival was successfully organized by our college on 5-7 October, 2016.

iii) National Level Annual Technical Symposium - Olympus 2K16 was successfully organized on 15-16 September, 2016 for students.

iv) Functions like Teachers' Day, Engineers' Day, SVERI Foundation Day, Independance Day, Mahatma Gandi Jayanti were celebrated.

III → Review of financial task was taken in the meeting which is as follows;

i) Review of budget was taken regularly in Deans and HODs meetings. A special budget review meeting was also conducted by Dr. S.M. Mukane on 21-08-2016.

ii) Circulars related to financial assistance to students and staff were put before the meeting

VI - The Annual Quality Assurance Report (IQAR) for Academic Year 2015-16 was put before the meeting.

Thorough discussion was made and it was unanimously resolved as follows,

i) Minutes of above mentioned committees, Circulars, Office Orders were approved.

ii) Overall responsibility chart in addition to academic load be prepared by each HOD.

iii) Dean R&D will prepare IPR policy in respect of research improvement quality.

iv) Sub committe under the co-ordinatorship of Dr. P. M. Pawar will prepare plan for quality benchmark for next accreditation cycle. Members of the committee will be Dr. S. M. Mukane, Dr. Sridevi Dileep, Prof Mrs R. R. Bhosale, Dr. B. A Utpat and Prof Mrs M. M. Bhore.

v) There should be separate building for Library and R&D activities.

vi) To approve Annual Quality Assurance Report (IQAR) for Academic Year 2015-16 and be sent to NAAC.

Proposed by:- Prof. C.B. Nadagouda
Seconded by:- Dr. S. M. Mukane.

Item No.3:- Issues with the permission of the Chair.

Resolution No. 3:-

There being no further issue to discuss, meeting concluded with vote of thanks to the chair and all present.

S Mukane
Coordinator
Internal Quality Assurance Cell (IQAC)

B. Ranje
PRINCIPAL
College of Engineering,
PANDHARPUR

Meeting of Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering, Pandharpur

Discussion about practice sessions for difficult subjects in IQAC

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No. 54, Gopalpur - Ranjani Road, Gopalpur, **Pandharpur** - 413 304, Dist. Solapur (Maharashtra) **Tel.:** 7755990201.
Toll Free No.:- 1800-3000-4131, **E-mail:** coe@sveri.ac.in, **Website:** www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
Accredited by The Indian Institution of Engineers (India), Kolkata and TCS, Pune. ISO 9001:2008 Certified Institute

Ref.:-

Date:- 6/09/17

NOTICE

The meeting of the Internal Quality Assurance Cell (IQAC) is scheduled on Sunday, 24/09/2017 @ 10.00 am in the Institute Premises.

Agenda:

1. Confirmation of the minutes of the last meeting.
2. About Review of Quality Assurance Activities.
3. About AQAR 2016-17.
4. Issues with the permission of the Chair.

All the members are requested to make it convenient to attend the meeting.

B. Ronge

(Dr. B.P. Ronge)
PRINCIPAL

Copy to:-

1. All IQAC Members
2. Registrar

Minal Bhore <mmbhore@coe.sveri.ac.in>

IQAC Meeting Notice (24/09/2017) at 10.00 am

1 message

SVERI's College of Engineering Pandharpur <coe@sveri.ac.in> Sat, Sep 16, 2017 at 12:09 PM
To: aautpat@coe.sveri.ac.in, asvibhute@coe.sveri.ac.in, kbpatil@coe.sveri.ac.in, mkraul@coe.sveri.ac.in, mmpatil@coe.sveri.ac.in, nbpawar@gmail.com, pskachare@coe.sveri.ac.in, samudragupta.talukdar@tutelminds.com, srgavali@coe.sveri.ac.in, Chetan Patange <ccpatange@coe.sveri.ac.in>, "Dr. B. P. Ronge" <bpronge@sveri.ac.in>, jalindar gaikwad <jalindargaikwad999@gmail.com>, Minal Bhore <mmbhore@coe.sveri.ac.in>, Nadagouda Channabasava <cbnadagouda@gmail.com>, Navnath Khadake <nvkhadake@coe.sveri.ac.in>, Prashant Pawar <pawarpm@gmail.com>, "Prof. Bhaskar Gaikwad" <bdgaikwad@coe.sveri.ac.in>, Rajendra Zarkar <rgzarkar@coe.sveri.ac.in>, Rohini Bhosale <rrbhosale@coe.sveri.ac.in>, Sachidanand Kulkarni <kulkarni.sachidanand@gmail.com>, Sahadev Shinde <smshinde@coe.sveri.ac.in>, Satish Lendave <salendave@coe.sveri.ac.in>, Satyawan Bagal <smbagal@coe.sveri.ac.in>, Shailendra Mukane <smmukane@coe.sveri.ac.in>, Shrikrishna Utpat <slutpat@coe.sveri.ac.in>, Sridevi Seshabhattar <sri.ncsu@gmail.com>, Vanita Jadhav <vdjadhav@coe.sveri.ac.in>
Cc: ssgaikwad <ssgaikwad@cod.sveri.ac.in>

Dear Sir/Madam,

Please see the attachment on the subject mentioned above.

Thanks

--
Dr.B.P.Ronge
PRINCIPAL,
SVERI's College of Engineering,
Pandharpur

IQAC Meeting Notice.pdf
543K

The meeting of the Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering was held on Sunday, 24-09-2017 @ 10.00 am in the Institute Premises.

Following were present for the meeting.

Sr. No.	Name	Sign.
1.	Janmejaygupta Talukdar	[signature]
2	S. A. Lendave	[signature]
3	S. R. Gavali	[signature]
4	P. S. Kadare	[signature]
5	Abhay A Utpat	[signature]
6	Mr. R. G. Zankar	[signature]
7	C.B. Nadagouda	[signature]
8.	Dr. Prashant M. Pawar	[signature]
9.	Mrs. V. D. Jadhav	[signature]
10	Mr. P.G. Gaikwad	[signature]
11.	Mr. S. M. Bagal	[signature]
12.	Mr. C. C. Patange	[signature]
13	Dr. Madhav K. Raul	[signature]
14.	Dr. A. S. Vibhute	[signature]
15	Dr. S. M. Mukane	[signature]
16	Dr. N. B. PAWAR	[signature]

Following business was transacted in the meeting

Item No. 1. Confirmation of the minutes of the last

Resolution No. 1. Minutes of the last meeting held on 10-6-2017 were read and unanimously confirmed.

proposed by: Dr. S.A. Lendare
seconded by: Dr. P.S. Kachare

Item No. 2: About Review of Quality Assurance Activities.

Resolution 2: It was brought to the notice of the meeting that the following quality assurance activities were carried out.

i) To improve communication of faculty and staff two months Communication Improvement Programme was conducted.

ii) Practice sessions of typical subjects were conducted.

iii) Alongwith ISE, chapter tests & Lab tests were conducted.

iv) Annual technical symposium "Olympus 2K17" was successfully organized on 15th & 16th Sep. 2017 for students.

v) Training sessions to improve the soft skills, aptitude were organized for the students.

vi) Group Discussions, personal interview sessions were conducted for the students.

vii) Every department has inaugurated this years student Association activities.

viii)

proposed by: Dr. N.B. Pawar
seconded by: Dr. S.M. Mulgund

Item No. 3. About AQAR 2016-17

Resolution No. 3. It was brought to the notice of the meeting that after NAAC accreditation we have to submit Annual Quality Assurance Report (AQAR) every year to the NAAC. The AQAR for the academic year 2016-17 was put before the meeting.

Thorough discussion was made and it was unanimously resolved to approve the AQAR 2016-17 to send it to NAAC

Proposed by: Samudragupta Talukdar
Seconded by: Dr. Prashant Pawar

Coordinator
Internal Quality Assurance Cell (IQAC)
SVERI'S College of Engineering,
Pandharpur

COLLEGE OF ENGINEERING

PRINCIPAL,
College of Engineering,
PANDHARPUR.

Meeting of Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering, Pandharpur

Discussion about backlog sessions and practice sessions for difficult subjects in IQAC meeting dated 25/11/2017

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No. 54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413 304, Dist. Solapur (Maharashtra) Tel.: 7755990201.
Toll Free No.:- 1800-3000-4131, E-mail: coe@sveri.ac.in, Website: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
Accredited by The Indian Institution of Engineers (India), Kolkata and TCS, Pune. ISO 9001:2008 Certified Institute

Ref.:-

Date:- 11-11-2017

Notice

The meeting of the Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering, is scheduled on Saturday, 25-11-2017 @ 2.00 pm in the Institute Premises.

Agenda:

1. Confirmation of the minutes of the last meeting.
2. About Quality Assurance Activities.
3. Issue with the permission of the Chair.

All the members are requested to make it convenient to attend the meeting.

B. Ronge

(Dr. B.P.Ronge)
PRINCIPAL

Copy to:-

1. All AQAC members.
2. Registrar.

SVERI's College of Engineering, Pandharpur

The meeting of the Internal Quality Assurance Cell (IQAC) of SVERI's College of Engineering was held on Saturday, 25-11-2017 @ 2:00 p.m in the Institute Premises. Following members were present for the meeting.

Sr. No.	Name	Sign
1	Prof C.B. Nadagouda	
2	Mr. P.G. Gaikwad	
3.	Mr. R.G. Zarkar	
4.	Dr. S.A. Lendave	
5	S.R. Gavali	
6	S.A. Pawar	
7.	Dr. P.S. Kachare	
8.	Dr Abhay A Utpat	
9.	Dr. S.Mr Mutkane	
10.	Samudragupta Talukdar	
11	B.P Ranje	
12	J.B. Gaikwad	
13	Dr-N.V. Thombare	
14.	Dr. A.S. Vibhute	
15	Mr. S.M. Shinde	
16	Mrs J.L. Utpat	
17.	Dr. Prashant M. Pawar	
18.	M.M. Ghore	
19	Karan B. Patil	
20	DT. N.B. PAWAR	

Following business was transacted during the meeting.

Mr Sachidanand Kulkarni communicated his enability to attend the meeting. Meeting unanimously took the note of the same and accorded leave of absence to him.

Item No.1:- Confirmation of the minutes of the last meeting.

Resolution No.1:- The minutes of the last meeting held on 24-09-2017 were read and unanimously confirmed

Seconded by:- Dr. P. S. Kachare

Item No. 2:- About Quality Assurance Activities.

Resolution No. 2:- It was brought to the notice of the meeting that following Quality Assurance Activities are being carried out.

i) Backlog sessions: Backlog sessions are being organized for the subjects where the results are not upto the mark. The names of subjects for backlog sessions are decided in the Deans & HODs meeting.

ii) Practice sessions: Practice sessions for difficult subjects are being arranged. These subjects are decided in the Deans & HODs meeting.

iii) Training: Various trainings are being arranged for the students to improve their softskills & Technical skills and in turn to increase placement of students.

iv) HR Activities: Human Resource Development Trainings through Workshops, FDPs, STTPs, Seminars are being provided to teaching and non-teaching staff members.

v) Feedback sessions: Three different kinds of feedbacks are collected from the students and action is taken on the same. These feedbacks are as follows:

a) Feedback taken by Dean Academics once in a semester

b) Feedback taken by HOD from C.R. and two to three students of the class.

c) Suggestion box Opened weekly.

vi) Result Analysis is being carried out every semester and accordingly result targets are set.

Meeting unanimously took the note of the above and accorded its approval.

Item No. 3:- Issues with the permission of the Chair.

Item No. 3(i):- About Quality Benchmarks / Parameters.

Resolution No 3(i):- It was brought to the notice of the meeting that we have Quality Benchmarks / Parameters for various Academic and Administrative activities in the Institute.

Thorough discussion was made and it was unanimously resolved as follows:

a) Following sub committee for compilation of existing Quality Benchmarks / Parameters and suggesting additional Quality Benchmarks / Parameters for Academic, Administration, Students Activities, etc.

Sr. No.	Name	Designation
1	Dr. S. M. Mukane	NAAC Co-ordinator
2.	Dr. P. M. Pawar	Dean Academics
3.	Dr. M. K. Rawl	Dean TPII
4.	Dr. A. S. Vibhute	HOD, ENTC
5.	Dr. P. S. Kachare	HOD, Mech

b) This committee submit its report on or before 31-01-2018 to the Principal

Proposed by:- Dr. B. P. Ronge

Seconded by:- Mr. S. B. Gaikwad.

Item No. 3(ii) About Quality Culture in the Institute.

Resolution No 3(ii): It was brought to the notice of the meeting that we have been taking efforts on different fronts for building and maintaining Quality Culture in the Institute as per the details given below:

a) Academic front:

Pandharpur Pattern in Professional Education (PPPE) and related circulars are the guiding

Teaching learning process, students and staff development, co-curricular & extra curricular activity.

b) Admission front:

System Manual, HR manual and related circulars are guiding documents in maintaining Quality Culture on admission front.

The above documents were put before the meeting. Meeting unanimously took the note of the above.

Proposed by:- Dr. S.M. Mulgane

Seconded by:- Prof. S.R. Gaval;

S.M. Mulgane

Coordinator

Internal Quality Assurance Cell (IQAC)

SVERI'S College of Engineering,

Pandharpur

B. Parge

PRINCIPAL,

College of Engineering,

PANDHARPUR.

POLICY FOR SLOW AND ADVANCED LEARNERS

POLICY
FOR
SLOW AND ADVANCED LEARNERS

SVERI

SVERI's College of Engineering, Pandharpur

P. B. No. 54, Gopalpur-Ranjani Road, Gopalpur,
Pandharpur, Pin-413304, Dist.: Solapur
(Maharashtra)
Contact: 9545553888, 9545553737
Website: www.sveri.ac.in, Email ID: coe@sveri.ac.in

Introduction

The SVERI's College of Engineering is an academic institution for a higher level of knowledge generation and dissemination through teaching programs and effective research activities. The Institute offers graduation, post-graduation, and research programs to students from rural backgrounds from nearby villages to Pandharpur city. The students are admitted to the institute through the Central Admission Process (CAP) and Management Quota. The vital aim of the programs in the institute is to make all students admitted to the institute equipped and competent to face the challenges of life and contribute to societal development along with academic achievements. This is possible through the process of making the academics more needful and competent for the slow and advanced learners to achieve excellence in their academics and personal life.

Preamble

The policy for slow and advanced learners of the SVERI's College of Engineering, Pandharpur is made to make slow learners be better performers and advanced learners to be excellent achievers. The students have different learning attitudes and learning habits. Accordingly, the teaching-learning process has to be adapted so that the teachers do not lose the attention of the slow learners and turn off the advanced learners. This policy helps to improve the teaching learning approach and to decide action plans for the benefit of the slow and the advanced learners in the institute along with the students having moderate performance.

Objectives

The objectives of this policy are as follows:

i) To identify the slow learners and advanced learners.
ii) To provide remedial strategies for improving their academic performance and make them employable for building a successful career.
iii) To boost up the confidence of slow learners and to minimize the barrier.
iv) To develop significant strategies and scientific implementations for the benefit of advanced and slow learners through Outcome Based Education (OBE).
v) To implement modern pedagogical methods and ICT-enabled teaching-learning processes to promote teaching-learning.
vi) To encourage advanced learners to be excellent achievers through an innovative and creative mindset.
vii) To conduct expert lectures for strengthening Industry Institute Interaction.
viii) To conduct Advanced Technical Training for competitive examinations.

COLLEGE OF ENGINEERING PANDHARPUR

B. Range

Criteria

The Institute takes due care about not creating any psychological division and labeling them as particular types of learners. The teachers and mentors have close observation of students' learning styles and their academic performance for the identification of slow and advanced learners. It is also ensured that the slow learners are transferred to advanced learners' groups with improvement in their performance.

- Some of the learning styles including, field-dependent/independent, divergent/ convergent thinking, risk-taking/cautionary, reflective/impulsive, extroverted/ introverted, energetic/ lethargic are observed during lectures, practicals, fieldwork, project work, Proctor Sessions, participation in co-curricular/extra-curricular activities, etc.
- The types of learners are also identified on a time-to-time basis through academic results viz. S.S.C. H.S.C./MHT CET result, University result of each semester, Diploma results in case of Direct Second Year students, and In-Semester Examination result.

Action plan for slow learners

i) Conduction of remedial classes for students having backlog subjects
ii) Providing simplified and focused study material
iii) Assignments for clearing their concepts on regular basis
iv) Conduction of proctor session for counseling students to address their common or peculiar issues and to boost their confidence
v) Provision of three hours in the evening for self-study in the study hall facility
vi) University answer scripts of toppers are kept in the library for the ready reference of model answers

Action plan for advanced learners

i) Conduction of Advanced Technical Training (ATT) for competitive examinations
ii) Guidance sessions for research orientation and competitive examinations
iii) Motivation for extra and co-curricular activities
iv) Assignment questions as per the level of difficulty for maintaining consistency in high academic results
v) Involving students in Research
vi) Product Development and Consultancy activities
vii) Free book bank facility for toppers
viii) Felicitation in front of stakeholders
ix) Best Outgoing Student and Best Project Awards
x) Merit cash prizes and Medals for encouragement
xi) Media coverage of such students' achievements and sharing with their parents through social media

B. Range

Common strategies for all students

- Conduction of practice sessions for difficult subjects
- Organizing motivational speeches of renowned personalities from scientific and societal background
- Conduction of soft skill training programs
- Encouraging students to take up competitive exams like GATE, GRE, MPSC, UPSC, etc.
- Counselling of students by Counsellor for focusing on study, time management, concentration, peculiar issue, etc.
- Conduction of Pranayama for stress management

Expected Outcomes

- Enhancement in involvement in the classroom teaching-learning process of slow learners.
- Improvements in university examination results of identified slow learners
- Development of better and accurate sense of self with improved confidence
- Maintaining consistency in high academic performance by the advanced learners
- Enhancement in subject knowledge, research publications, quality projects, and participation and performance in competitive examinations of advanced learners
- Augmentation in soft skills to face the placement drives successfully
- Development and nurturing a deep understanding of personal motivation

COLLEGE OF ENGINEERING PANDHARPUR

B. Ronge

(Dr. B. P. Ronge)
PRINCIPAL

LIST OF SLOW LEARNERS IN MECHANICAL ENGINEERING DEPARTMENT

List of Slow Learners In Mechanical Engineering Department A.Y. 2021-22

Roll No.	Candidate Name	HSC Total Percentage	CET Percentile	Course Name	ESE EP (70)	EP/30	EP/EC (25)	ESE M-I (70)	M-I/30	M-I(25)	ESE BCME (70)	BCME/30	BCME(25)	ESE EM(70)	EM/30	EM(25)	UHV (50)	CS/25	CS(25)	CDT(50)	WS(50)	SGPA	Total	%	Status
A08	DUKALE DIPALI PANDIT	77.2	38.8	MECH	59	25	23	60	22	23	64	25	24	60	25	22	42	22	21	49	48	10	614	87.7	Pass
A13	BAGAL GANESH SAMADHAN	72	48.4	MECH	50	27	23	55	29	22	57	28	24	35	24	22	32	25	24	46	47	9.48	570	81.4	Pass
A22	GHADAGE SHRUTI RAMDAS	64.4	26.9	MECH	67	26	24	28	23	23	50	26	24	41	23	23	35	21	23	47	48	9.44	552	78.9	Pass
A23	GURAV AISHWARYA SAMBHAJI	71	8.81	MECH	64	19	24	28	25	21	52	24	24	46	23	24	35	23	24	49	49	9.22	547	78.1	Pass
A38	JADHAV SUSHANT DHARMRAJ	71.8	3.69	MECH	57	16	23	28	30	22	64	27	23	57	21	22	43	23	23	48	47	9.48	574	82	Pass
A39	KADAM PRATHMESH SANTOSH	75.2	3.19	MECH	60	29	23	38	27	22	60	28	23	28	23	23	33	24	22	47	48	8.96	558	79.7	Pass
A48	SHINGARE MANSI RAJKUMAR	68.2	72.1	MECH	69	29	24	60	30	24	63	29	24	38	28	24	42	24	24	48	48	9.83	628	89.7	Pass
A54	NAGANE VAIBHAV POPAT	68.5	8.54	MECH	64	20	22	35	17	16	50	20	22	31	17	21	25	23	21	46	47	8.22	497	71	Pass
A55	NETAKE YASH ABHAY	74.5	20.6	MECH	50	25	23	39	27	21	59	29	23	35	24	23	35	25	23	47	48	8.96	553	79.4	Pass
B41	JADHAV SHRIRAM ARUN	73.3	65.4	MECH	63	29	23	56	29	23	60	29	23	50	18	23	40	23	24	48	48	9.83	609	87	Pass
B50	PANCHAL SUMIT SHANKAR	71.7	20.6	MECH	62	27	22	42	30	22	66	27	22	20	26	22	40	24	23	46	46	8.09	567	81	ATKT
B54	SHINDE AVISHKAR RAGHU	74.3	15	MECH	53	29	24	38	28	24	53	29	24	56	26	24	38	24	24	49	49	9.74	592	84.6	Pass
B60	BHOSALE VIKAS NANDKUMAR	67	9.75	MECH	70	29	22	56	27	21	63	29	22	17	29	22	39	24	22	45	46	8.17	583	83.3	ATKT
C17	GAIKWAD PRASAD KISAN	74.8	1.48	MECH	42	29	23	48	20	23	50	26	24	43	29	24	43	24	23	49	49	9.48	569	81.3	Pass
C38	KANHERE PRUTHVIRAJ SATISH	69.5	55	MECH	67	19	22	49	14	22	57	13	23	48	21	22	40	22	22	46	45	9.26	552	78.9	Pass
C41	KOLEKAR TATYA YASHWANT	57.7	56.6	MECH	66	24	23	48	23	22	59	28	23	49	27	23	38	21	24	46	47	9.57	591	84.4	Pass
D38	LOKARE AMIT DIPAK	74.5	20.1	MECH	50	30	22	48	24	22	49	26	22	32	25	22	32	25	22	46	46	9.09	543	77.6	Pass
D56	PISE ANIL SUBHASH	73.5	69.7	MECH	56	29	24	46	26	24	57	27	24	20	28	24	35	25	23	47	47	8	562	80.3	ATKT
E11	ATKALE RAKESH RAJENDRA	69.7	60.9	MECH	56	28	24	52	29	24	59	28	24	49	29	24	42	23	23	47	47	10	608	86.9	Pass
E25	KHUNE VAISHNAVI SATISH	77.2	89	MECH	62	28	24	52	29	24	60	27	24	64	30	24	38	24	22	45	45	9.91	622	88.9	Pass
E57	TIKATE PRAKASH VIJAY	77.2	75.4	MECH	60	28	24	35	30	24	66	30	24	49	29	24	43	25	24	49	49	9.83	613	87.6	Pass
F02	BAHIRGONDE SUPRIYA YOGIRAJ	73.4	38	MECH	52	30	24	52	26	22	49	27	24	28	25	21	33	22	24	49	49	9.3	550	78.6	Pass
F57	PATIL SANDIP KISAN	71.8	23.6	MECH	38	24	22	20	13	20	28	20	23	20	19	23	19	18	22	47	47	4.65	423	60.4	ATKT
F60	SHELAKE KISAN DAGADU	73.3	65.9	MECH	66	30	24	39	30	24	55	30	24	62	27	23	41	25	24	49	49	9.83	622	88.9	Pass
G30	JAGTAP VIKRAMRAJE DATTATRAY	67.2	31.4	MECH	48	27	24	28	29	24	50	29	24	56	30	24	34	24	24	49	49	9.3	573	81.9	Pass
G34	KHAPALE MANGESH GANPAT	68	37.7	MECH	70	29	24	45	29	24	59	29	24	43	28	24	36	24	24	49	49	9.57	610	87.1	Pass
G40	RITOND SURAJ TUKARAM	73.8	48.4	MECH	69	30	24	48	27	24	62	29	24	52	29	24	42	24	24	49	49	9.83	630	90	Pass
G64	KHEDEKAR RUSHIKESH RAMCHAN	73.3	44.9	MECH	64	30	23	34	26	23	50	23	23	49	22	23	29	23	23	47	47	9	559	79.9	Pass

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C.O.E. Pandharpur

LIST OF ADVANCED LEARNERS IN MECHANICAL ENGINEERING DEPARTMENT

Lis of Advanced Learners In Mechanical Engineering Department A. Y. 2021-22

Roll No.	Candidate Name	HSC Total Percentage	Course Name	ESE EP (70)	EP/30	EP/EC (25)	ESE M-I (70)	M-I/30	M-I(25)	ESE BCME (70)	BCME/30	BCME(25)	ESE EM(70)	EM/30	EM(25)	CHN (50)	CS/25	CS(25)	CDT(50)	WS(50)	SGPA	Total	%	Status
D19	JADHAV VINAYAK SHANKAR	78.17	MECH	64	30	24	48	30	24	63	29	24	28	30	24	45	25	23	48	48	9.65	600	85.71	Pass
D62	SHINDE SUJIT MANOHAR	78.83	MECH	50	29	24	56	27	24	66	30	24	63	30	24	46	25	23	48	48	10	637	91	Pass
C33	GODSE SAMADHAN BALASAHEB	79	MECH	59	29	24	34	20	23	57	27	24	57	29	24	42	21	23	46	47	9.65	586	83.71	Pass
B47	MANE DESHMUKH RANVEER DHAIYARSHIL	79.33	MECH	56	28	20	38	28	18	55	26	20	63	24	20	37	23	22	41	42	9.57	561	80.14	Pass
C10	KALE TRUPTI KANTILAL	79.5	MECH	29	29	23	28	26	23	55	27	23	49	28	23	34	23	23	47	47	9.13	537	76.71	Pass
F37	KSHIRSAGAR ROHAN SHAMRAO	79.5	MECH	45	28	23	46	21	21	50	27	24	41	24	23	26	22	23	48	48	9.13	540	77.14	Pass
F53	NANAWARE AVINASH BHIMARO	80	MECH	66	30	24	56	22	20	63	30	24	63	18	24	43	23	24	48	47	9.83	625	89.29	Pass
G58	SURVE VIKRAM RAJENDRA	81.33	MECH	70	28	24	28	29	24	52	29	24	28	30	24	37	24	24	49	49	9.22	573	81.86	Pass
A11	ANKUSHRAO ONAKAR NAVNATH	82.17	MECH	66	29	22	46	27	22	59	28	23	32	25	23	31	25	24	46	47	9.3	575	82.14	Pass
C20	GIRE ABHIJIT PRAKASH	82.17	MECH	66	27	23	45	14	23	62	27	23	29	28	23	37	25	24	48	48	9.22	572	81.71	Pass
D36	KUMBHAR SHUBHAM AUDUMBAR	82.33	MECH	64	30	23	49	28	23	55	29	23	60	30	23	37	25	23	48	48	9.91	618	88.29	Pass
G36	KUMBHAR DNYANESHWAR GANPAT	82.33	MECH	53	30	24	34	28	24	57	28	24	18	26	24	42	24	24	49	49	7.91	558	79.71	ATKT
A42	KODAG PRUTHVIRAJ KRUSHANADEV	82.5	MECH	66	28	23	48	24	21	62	27	24	59	20	23	40	25	23	47	48	9.83	608	86.86	Pass
C32	PATHAN ABUTALHA SAJJANKHAN	83.17	MECH	43	25	23	39	24	23	50	26	24	15	29	24	39	25	23	47	46	7.65	525	75	ATKT
C05	DEVKAR RADHIKA MAHADEV	83.33	MECH	66	27	23	28	25	23	53	26	23	15	28	23	39	23	23	47	48	7.83	540	77.14	ATKT
B58	VYAVAHARE PRATHMESH LAXMAN	83.67	MECH	48	28	21	43	24	18	59	28	21	53	25	21	34	25	22	42	44	9.3	560	80	Pass
D42	MORE ROHIT HANUMANT	83.83	MECH	66	30	23	50	26	24	59	29	24	60	30	24	37	25	23	47	47	9.91	624	89.14	Pass
A36	INGALE JIVARAJ JANARDHAN	84	MECH	56	25	24	42	28	22	57	29	24	34	25	24	37	25	24	49	48	9.39	573	81.86	Pass
B51	PAWAR AKSHAY TANAJI	84.33	MECH	39	27	21	49	23	21	59	27	21	18	26	21	38	25	22	44	44	7.65	525	75	ATKT
B40	INGALE OM RAVIKIRAN	84.5	MECH	56	29	23	39	27	22	39	28	23	56	23	23	36	23	23	47	48	9.74	585	83.57	Pass
G11	BHUSANAR ADITYA ANKUSH	84.67	MECH	66	29	24	56	28	24	62	30	24	39	30	24	38	25	24	49	49	9.74	621	88.71	Pass
B05	BHAGARE AISHWARYA SHIVAJI	85	MECH	48	30	24	52	27	24	62	29	24	53	29	24	36	23	24	49	49	9.91	607	86.71	Pass
D35	KULKARNI MANDAR MANOJ	85	MECH	59	30	24	50	28	24	57	29	24	66	28	24	44	25	24	48	48	10	632	90.29	Pass
E59	WAYDANDE ADESH BHARAT	85	MECH	50	25	22	39	28	22	52	25	21	42	25	22	40	24	23	47	47	9.26	554	79.14	Pass
D33	KAMBLE PRAVIN DNYANESHWAR	85.17	MECH	48	28	24	42	28	23	56	29	23	34	30	23	34	25	24	47	47	9.3	565	80.71	Pass
F58	ZALATE AKASH CHANDRAKANT	85.17	MECH	69	30	24	57	26	21	62	28	24	32	26	21	37	24	24	48	48	9.57	601	85.86	Pass
A15	BUTE SHREYAS SANTOSH	85.5	MECH	66	30	24	43	29	23	66	28	24	28	27	24	43	25	24	48	47	9.48	596	85.14	Pass
C43	PATIL AISHWARYA VILAS	85.67	MECH	70	30	24	55	29	24	64	29	24	39	30	24	47	23	24	49	49	9.83	634	90.57	Pass
C61	SHINDE SURAJ TATYARAM	85.83	MECH	57	29	24	48	26	24	63	29	24	57	29	24	39	25	24	49	48	9.74	619	88.43	Pass

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Dept. of Mechanical Engg
C.O.E. Pandharpur

Lis of Advanced Learners In Mechanical Engineering Department A. Y. 2021-22

Roll No.	Candidate Name	HSC Total Percentage	Course Name	ESE EP (70)	EP/30	EP/EC (25)	ESE M-I (70)	M-I/30	M-I(25)	ESE BCME (70)	BCME /30	BCME(25)	ESE EM(70)	EM/30	EM(25)	UHV (50)	CS/25	CS(25)	CDT(50)	WS(50)	SGPA	Total	%	Status
A59	SHEMBADE BALAJI DAMODAR	86.17	MECH	55	22	22	28	25	18	35	29	23	46	17	21	30	22	23	46	47	8.35	506	72.29	Pass
D21	KADE SAMARTH NAVNATH	86.83	MECH	62	30	22	52	29	23	64	26	23	46	28	23	41	25	23	47	47	9.83	611	87.29	Pass
F29	PARADE PRANAV HANUMANT	87.17	MECH	60	30	24	62	28	24	62	28	24	60	28	24	42	25	24	49	49	10	643	91.86	Pass
E54	YADAV KUNAL VISHWAS	87.5	MECH	66	29	24	42	29	24	60	30	24	59	29	24	38	24	23	49	49	9.74	624	89.14	Pass
G53	SHAIKH AMAN MAKABUL	87.83	MECH	52	27	21	20	21	21	52	27	21	38	26	21	29	24	21	43	43	7.65	507	72.43	ATKT
F12	BHOSALE PRASAD DATTATRAY	88.33	MECH	AB	13	12	AB	13	12	AB	13	12	AB	13	12	AB	13	12	22	22	0.87	69	9.86	ATKT
G63	SHELAR SUPRIYA DADA	88.83	MECH	42	29	24	43	29	24	45	27	24	28	28	24	43	23	24	49	49	9.09	551	78.71	Pass
D16	GAVADE ASHISH RAVINDRA	89	MECH	62	30	24	49	30	24	59	30	24	43	28	24	38	25	23	48	48	9.74	609	87	Pass
B46	SONWANE AKSHATA PRAMOD	89.33	MECH	69	30	24	48	29	24	56	30	24	34	30	24	40	25	24	49	49	9.83	609	87	Pass
C09	KALE SAKSHI SANJAY	89.83	MECH	57	30	24	45	25	22	59	29	24	15	29	24	42	23	23	47	46	8.09	564	80.5	ATKT
D29	PARDESHI SANDHYA DNYANESHWAR	89.83	MECH	63	30	24	34	26	24	62	30	24	28	26	24	43	25	24	48	48	9.3	579	82.71	Pass
A44	PAWAR NUTAN MADHUKAR	90.5	MECH	67	30	24	59	30	24	66	29	24	48	28	24	42	25	24	48	48	10	640	91.43	Pass
B34	BURANGE SUYASH SHRIMANT	90.67	MECH	56	28	22	45	29	22	63	28	22	60	26	22	42	24	23	46	46	9.83	604	86.29	Pass
D06	HINGMIRE ANKITA ANIL	91.33	MECH	60	30	24	55	29	24	57	29	24	64	30	24	46	25	23	48	48	10	640	91.43	Pass
E56	SURVASE SUYASH SANJAY	91.33	MECH	64	30	24	48	29	24	60	29	24	48	29	24	45	24	24	49	49	9.83	622	88.86	Pass
G29	PATIL MRUNAL MAHADEV	92.5	MECH	67	28	24	53	29	24	60	29	24	34	30	24	38	24	24	49	49	9.74	610	87.14	Pass
C04	CHAUGULE ARTI RAMCHANDRA	93.5	MECH	63	29	24	53	26	24	62	28	24	45	30	24	45	25	24	49	49	9.83	624	89.14	Pass
G55	WAGHMARE ASHWINI BALU	93.83	MECH	67	30	24	63	30	24	64	30	24	53	30	24	38	25	24	49	49	9.91	648	92.57	Pass

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Dept. of Mechanical Engg
C.O.E. Pandharpur

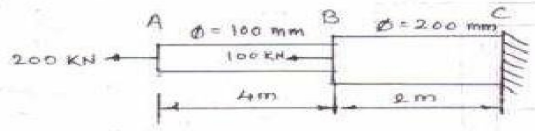
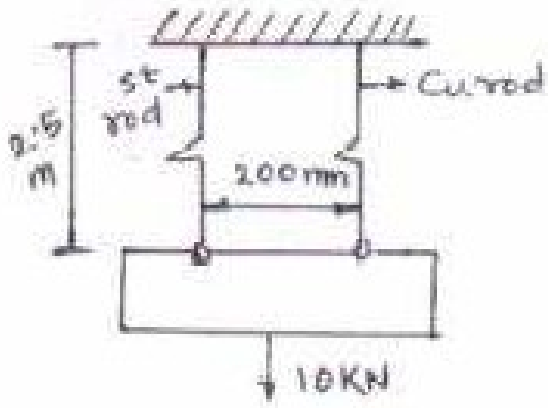
Action Plan for Slow Learners

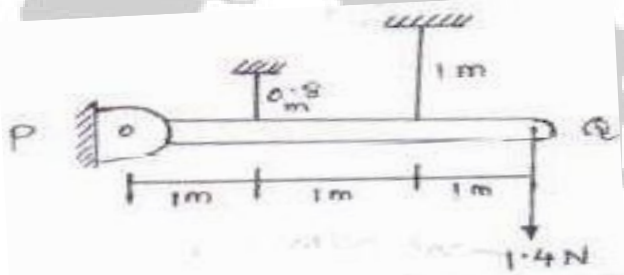
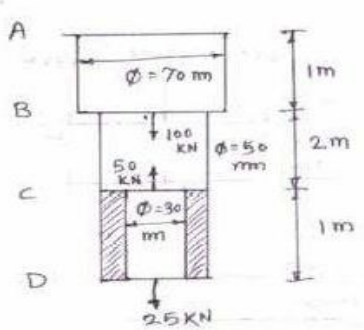
- Regular assignments for clearing their concepts
- About three hours are allotted to students in the evening for self-study in study hall facility.
- Practice sessions for difficult and backlog subjects
- Counselling
- University answer scripts of toppers are kept in library for the ready reference of model answers

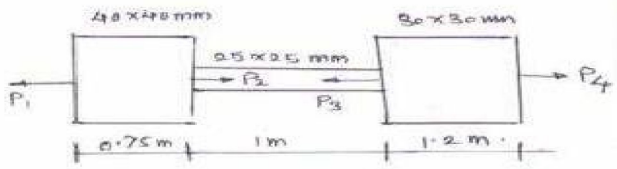
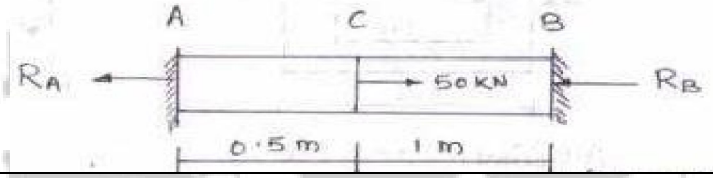
Regular assignments for clearing their concepts

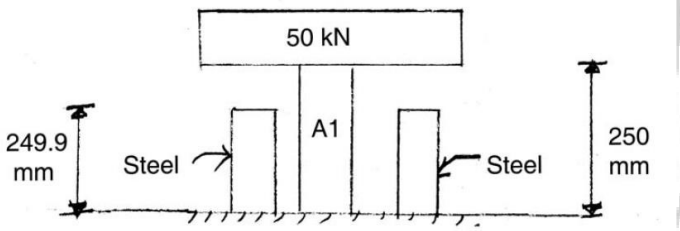
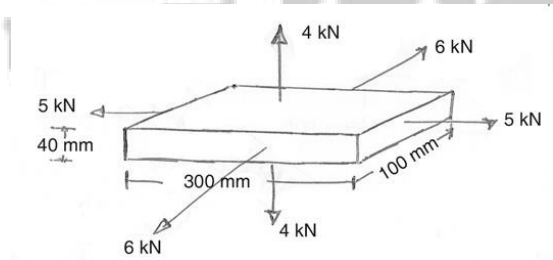
Mechanics of Material

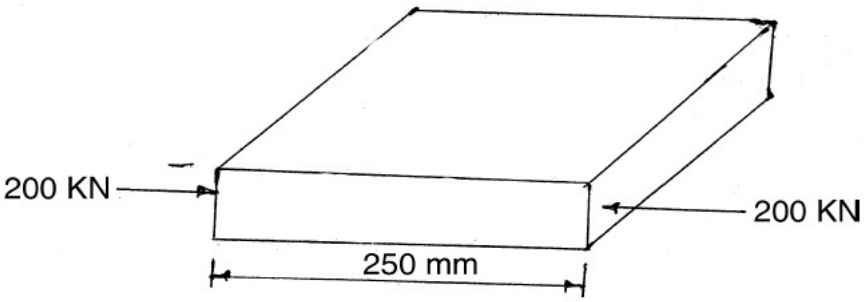
01. SIMPLE STRESSES AND STRAINS (Marks:12)

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
1.	A steel bar is centrally enclosed in an aluminum tube and is compressed between two rigid parallel palates at the ends by a force of 500 KN. The diameter of steel bar is 40 mm and the inner and outer diameter of the aluminum tubes are 60 mm and 100 mm respectively. The length of bar and the tube is 1.2 m. Determine the stresses induced in the steel bar aluminum tube. Take, E for steel = $2\ X\ 10^5\ N/mm^2$: E for Aluminum $=7\ X\ 10^4\ N/mm^2$.	08	May-2009	D
2.	Determine the total extension of bar loaded as shown in fig.(I-5). Take E =200 Gpa 	05	May-2009	C
3.	Derive the relationship $E = \frac{9KC}{3K+C}$ Where, E=Modulus of Elasticity, K=Bulk Modulus and C= Modulus of rigidity	06	Dec-2009	C
4.	Two vertical rods one of steel and other of copper are rigidly fastened at their upper end of horizontal distance at 200 mm as shown in figure I-2. The lower end support rigid horizontal bar, which carries a load of 10 kN. Both the rods are 2.5 m long and have cross sectional area of 12.5 mm^2 , where should be a load of 10 kN be placed on the bar, sso that it remains horizontal after loading? Also find the stress in the each rod. Take E_s = 200 GPa and E_c= 110 GPa. Neglect bending of cross bar. 	08	Dec-2009	D

Sr.No	Question/Numerical	Mark	Year	Diffculty Level
5.	Following data relate to a bar subjected to a tensile test: Diameter of the bar d = 30 mm Tensile load p = 54 kN Gauge length *l*= 300 mm Extension of the bar δl= 0.112 Change in diameter δd= 0.00366 mm Calculate: i) Poisson's ratio ii) The values of three modulii, E, K and C.	08	Dec-2010 May-2015	C
6.	A steel rod 15 m long is at a temperature of 15°C. Find the free expansion of the length when the temperature is raised to 65°C. Find temperature stress produced, when: i) The expansion of the rod is prevented. ii) The rod is permitted to expand by 6 nun. Take: α = 12 X 10^{-6} per °C and E == 200 GN/m^2	06	Dec-2010	C
7.	Define Hook's Law	01	Dec-2010 May-2014	A
8.	A rigid member PQ is hinged at P and is supported by steel rods A and B. Dia. of each rod is 10 mm and a vertical load of 1.4 kN is applied at free end Q as shown in Fig. I-a. After loading, PQ remains straight, find stresses developed in each steel  rod?	08	May-2011	D
9.	A circular steel rod ABCD of different cross sections is loaded as shown in figure. Find the maximum stress induced in the rod and its total deformation. 	06	May-2011	C

Sr.No	Question/Numerical	Mark	Year	Diffculty Level
10.	A member ABCD is subjected to point loads P1, P2', P3 and P4 as shown in Fig.I-1. Calculate the force P3, necessary for equilibrium if P1 =120kN, P2 = 220 kN and P 4 = 160 kN. Determine also the net change in length of the member. Take E = 2x105 N/mm2. 	06	Dec-2011	D
11.	Calculate the modulus of rigidity and bulk modulus of a cylindrical bar of diameter 30 mm and of length 1.5 m if the longitudinal strain in a bar during a tensile stress is four times the lateral strain. Find the change in volume, when the bar is subjected to a hydro static pressure of 100 N/mm2. Take E = $1x10^5$ N/mm2.	08	Dec-2011	D
12.	Fig. (1- a) shows a steel bar of cross sectional area 200 mm2 held firmly at the ends and loaded as shown. Determine. i) Reactions at the supports R_A and R_B ii) Extension at left portion AG Take, E =200 GPa. 	08	May- 2012	D
13.	What do you mean by thermal stresses and strains? State required expression.	04	May- 2012	B
14.	Derive the relation between Young's modulus and modulus of rigidity.	08	Dec-2012	C
15.	A steel bar is centrally enclosed in a brass tube and is rigidly held at its ends. The diameter of the steel bar is 30 mm and the inner and outer diameters of the brass tube are 40 mm and 50 mm respectively. The length of the bar and the tube is 1 m. If a tensile load of 600 kN is applied at the ends, determine the load shared by the bar and the tube. Also calculate the extension of the bar and the tube.Take, E for steel = 200 GPa, E for brass = 100 GPa.	08	Dec-2012	D
16.	Two vertical rods, one steel and other of bronze are rigidly fastened at upper ends at a horizontal distance of 760 mm apart. Each rod is 3 m long and 25 mm in diameter. A horizontal crosspiece connects the lower ends of the bar. Where should be a load of 4.5 kN be placed on the cross-piece so that it remains horizontal after being loaded ? Determine the stresses in each rod. Es = 210 GN/m^2 , Eb = 112.5 GN/m^2.	08	May- 2013	D
17.	Calculate the modulus of rigidity and bulk modulus of a cylindrical bar of diameter 25 mm and of length 1.6 m, if the longitudinal strain in bar during tensile testis four times the lateral strain. Find the change in volume', when bar is subjected to. hydrostatic pressure of 0.1 kN/mm^2. Take E = 1 x 105 N/mm^2.	08	May- 2013	C
18.	Derive an expression for total elongation of a bar due its own weight, when bar is fixed at its upper end and hanging freely at lower end.	06	Dec-2014	C

Sr.No	Question/Numerical	Marks	Year	Diffculty Level
19.	A bar of 20 mm diameter is tested in tension. It is observed that when a load of 37.7 kN is applied, the extension measured over the gauge length of 200 mm is 0.12 mm and contraction in diameter is 0.0036 mm. Find Poisson's ratio and Elastic constants E, K, G.	08	Dec-2014	C
20.	A rigid platform having negligible mass rest on aluminum bar as shown in Fig. The aluminum bar is 250 mm long and 1000 mm2 in area. The steel bars are 249.9 mm long having 2000 mm2. Find the stresses in aluminum and steel bar after a load of 50 kN is applied. Take Est = 200 GPa, EAl = 70 GPa 	08	May-2014 (New)	D
21.	A steel bar 40 mm in diameter 5 m long is heated through 60°C with its end clamped before heating. Calculate thrust exerted by bar on clamps if (i) clamp do not yield (ii) clamps yield by 0.5 mm.	08	May-2014 (New)	C
22.	A metallic bar 300 mm × 100 mm × 40 mm is subjected to external forces as shown in figure (2-b). Determine change in volume of the block. Take E = 2 × 105 N/mm2 and Poisson's ratio = 0.25. 	06	May-2015	C
23.	A reinforced concrete column of 40 cm diameter supports a load of 500 kN axially. The reinforcement consists of 8 steel rods each of 2 cm diameter. Find how much load is carried by the rods and concrete if the Youngs modulus of steel is 15 times that of concrete. If stress in concrete should not exceed 3 N/mm2, find the number of steel rods required for reinforcement so that the column can support a load of 800 kN.	10	Dec-2015	D
24.	At a point within the material, the minimum and maximum stresses are 30 MN/m2 and 90 MN/m2 respectively both tensile, determine the shearing stress on the plane passing through the point and making an angle of tan–10.25 with the plane on which the maximum stress acts.	04	Dec-2015	D
25.	Draw the stress-strain diagram for common mild steel and show the significant points on it.	03	Dec-2015	B
26.	Two vertical rods, one of steel & the other of copper are rigidly fixed at top & a 50 cm apart. The diaameter & the length of each rod are 2m & 4cm respectively. A cross-bar fixed to the rods at the lower ends carries a load of 5kN such that the cross-bar remains horizontal even after loading. Determine the stress in each rod & the position of the load on the cross-bar. Take E for Steel = 200GPa & E for Copper = 100GPa.	09	Apr-2016 (CGPA)	D

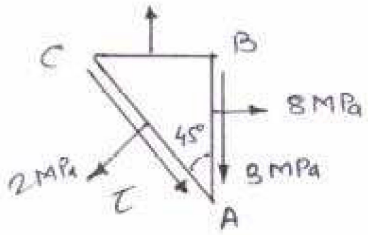
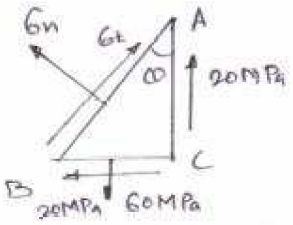
Sr. No	Question/Numerical	Mark	Year	Diffculty Level
27.	A bar of steel has cross section 80 mm × 50 mm and is 250 mm long. It is subjected to axial compressive force of 200 kN. Find i) Change in length ii) Change in volume iii) If lateral strain is prevented by applying equal stresses in other two directions, find change in length. Take Poisson's ratio = 0.3 and E = 200 GPa  	08	Dec-2016 (CBCS)	C
28.	A steel wire 2 m long and 3 mm in diameter is extended by 0.75 mm when a weight is suspended from it. If the same weight is suspended from a brass wire 2.5 m long and 2 mm in diameter, it is extended by 4.64 mm. Determine Young's modulus of brass if that of steel is 200 GPa	08	May - 2017 (CGPA)	C
29.	Explain the terms 'Factory of Safety' and 'Working Stress'	04	May - 2017 (CGPA)	A
30.	A compound tube consists of a steel tube with 140 mm and 160 mm internal and external diameters respectively surrounded by a 10 mm thick brass tube with 180 mm outer diameter. The compound tube is 140 mm long and carries an axial compressive load of 900 kN. Calculate the stress and the load in each material and compression of the compound tube. Take E for steel = 200 GPa and E for brass = 100 GPa.	08	Nov-2017 (CBCS)	C
31.	A steel rod ABCD has part AB with diameter 20 mm and 50 cm long, part BC with diameter 10 mm and part CD with diameter 15 mm and 40 cm long. The rod is subjected to an axial pull. If the maximum stress induced in the rod is 160 MPa and the total extension of the rod is 0.3 mm, determine the length of part BC. Take E = 200 GPa.	06	Nov-2018 (CBCS)	D
32.	Derive the relation between Young's Modulus and Modulus of rigidity.	08	Nov-2018 (CBCS)	C

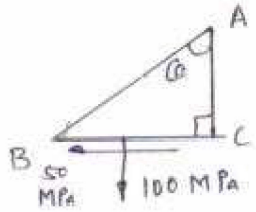
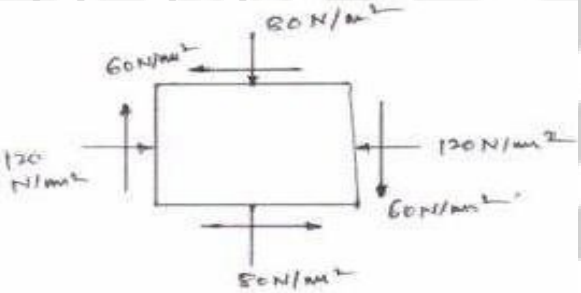
2. STRAIN ENERGY AND IMPACT LOAD (Marks:)

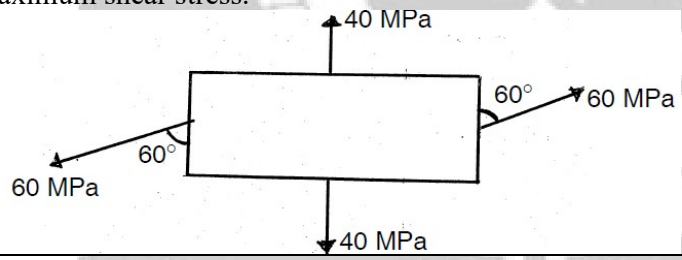
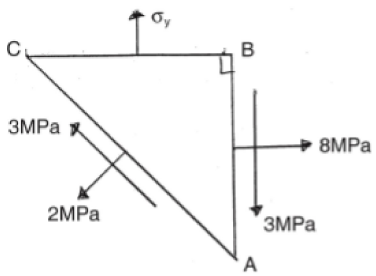
Sr.No	Question/Numerical	Marks	Year	Diffculty Level
1.	An unknown weight falls through 10 mm on a collar rigidly attached to, the lower end of a vertical bar 4 m long and 600 mm^2 in section. If the maximum instantaneous extension is known to be 2 mm, what are the corresponding stress and the value of unknown weight? Take E = 200 GPa.	08	May-2009	D
2.	An unknown weight falls through 10 mm on a collar rigidly attached to the lower end of a vertical bar 4 m long and 600 mm^2 in sections. If the maximum instantaneous extension is known to be 2 mm. What is corresponding stress and the value of unknown weight? Take E = 200 Gpa.	08	Dec-2010	D
3.	A crane-chain whose sectional area is 6.25 cm^2 carries a load of 10 kN. As it is being lowered at a uniform rate of 40 m per minute, the chain gets jammed suddenly, at which time the length of the chain unwound is 10 m. Estimate the stress induced in the chain due to sudden stoppage. Neglect weight of chain. Take E = 2.1 x 10^5N/mm^2.	08	May-2011	C
4.	A cage weighing 60 kN is attached to the end of a steel wire rope. It is lowered down a mine shaft with a constant velocity of 1 *m/s.* What is the maximum stress produced in the rope when its supporting drum is suddenly jammed? the free length of rope at the moment of jamming is 15 m, and its net cross sectional area 25 cm^2. Take E = 2 x 10^5 N/mm^2. The self weight of the wire rope may be neglected.	08	Dec-2011	D
5.	A lift weighing 25kN is to function at speed of 1.4 m/s. Length of rope connecting lift is 50 m. If field stress for rope material is 300 MPa. Find suitable diameter of rope assuming factor is safety as 2. Take E = 200GPa..	06	May-2012	C
6.	A tension bar 5 m long is made up of two parts, 3 m of its length has cross sectional area of 10 cm2 while the remaining 2 m has cross sectional area of 20 cm^2. An axial load of 80 kN is gradually applied. Find total strain energy produced in the bar.	06	May-2012	C
7.	A wagon weighing 35 kN is attached to a wire rope and moving down an incline at speed of 3,6 km/hr when the rope jammed the wagon is suddenly brought to rest. If the length of rope is 60 meters at the time of sudden stoppage, calculate maximum instantaneous stress and maximum instantaneous elongation produced, Diameter of rope = 30 mm, E = 200GN/m^2	05	Dec-2012	D
8.	Prove that $\sigma = \frac{P}{A}\left[1 + \sqrt{1 + \frac{2AhE}{PL}}\right]$ where, P= Load dropped, A = Cross sectional area H height through which load is dropped, L= Length of rod, E= Young's modulus σ= Stress induced in the rod due to impact	05	Dec-2012	D
9.	If a volume' dV' is subjected to simple shear 'τ' derive an expression for strain energy 'du' if modulus of rigidity is 'G'.	06	May-2013	C
10.	A cable is used to lower a load of 5 kN with the help of a cable hoist drum at a, unifom velocity of 1 *m/s.* If the area of cross-section of the cable Is 2cm^2, and the instantaneous stress induced in the cable if the hoisting drum is stopped instantaneously when the load is 8 m below the drum. Take E for the hoist cable material as 100 *GN/*m^2. Neglect mass of cable.	08	May 2013	C

Sr. No	Question/Numerical	Marks	Year	Diffculty Level
11.	Derive an equation for deducing the strain energy due to simple shear stress.	06	Dec-2014	C
12.	An unknown weight falls through 20 mm on a collar rigidly attached to the lower end of the vertical bar 2 m long and 800 mm^2 in cross-sections. If the maximum instantaneous extension is known to be 2 mm, what is their corresponding stress and the value of unknown weight. Take E = 200 GPa	07	Dec-2014	D
13.	A Wagon weighing 35 kN is attached to a wire rope and moving down an incline at a speed of 3.6 km/hr when the rope jams and the wagon is suddenly brought to rest. If the length of the rope is 60 m at the time of sudden stoppage. Calculate the maximum instantaneous stress and maximum instantaneous elongation produced. Diameter of rope = 30 mm, E = 200 GN/m2.	08	May-2014 (New)	D
14.	Define : i) Strain energy iii) Proof resilience ii) Resilience iv) Modulus of resilience	04	May-2014 (New)	C
15.	A hollow cast iron column whose outer diameter is 200 mm has thickness of 20 mm. It is 4.5 m long and is fixed at both ends. Calculate slenderness ratio.	07	May-2015	C
16.	A vertical bar of uniform cross sectional area 400 mm2 and 1.5 m long is fixed at the top end and is provided with the circular disc at the bottom. If the weight of 500 N falls on the disc from a height of 100 mm, determine a maximum stress set in the bar. Take E = 200 kN/mm2. Also determine strain energy absorbed, modulus of resilience and maximum instantaneous elongation of the bar.	09	Dec-2015	D
17.	Derive the expression for shear stress at a point in transverse section subjected to shear force F.	04	Dec-2015	C
18.	A bar 100 cm in length is subjected to an axial pull, such that maximum stress is 150 MN/m2. It's area of cross section is 2 cm2 over a length of 95 cm and for the middle 5 cm length, it is 1 cm2. If E = 200 GN/m2, calculate strain energy stored in bar.	08	Dec-2016 (CGPA)	C
19.	A metallic bar has a cross section of 7 cm2 and a length of 1.5 m. ts elastic limit is 160 MPa. Calculate the following : i) its proof resilience ii) maximum load which may be suddenly applied without exceeding the elastic limit. iii) the gradual load which will produce the same extension as produced by maximum suddenly applied load within the elastic limit.	08	May-2017 (CGPA)	D
20.	A metallic bar has a uniform cross sectional area of 700 mm2 and is 1.5 m long. It the stress at the elastic limit is 160 MPa, calculate its proof resilience. Also calculate the maximum load which may be applied suddenly exceeding the elastic limit. Take E = 200 GPa.	06	Nov-2017 (CBCS)	C
21.	Explain the following terms in brief : i) Equivalent length of a column ii) Slenderness ratio of a column.	04	Nov-2017 (CBCS)	C
22.	A steel bar 3 m long and 2500 mm2 in area hangs vertically which is securely fixed to a collar at its bottom end. If a weight of 15kN falls on the collar from a height of 10 mm, determine the stress induced in the bar. What will be the strain energy stored in the bar ? Take E = 200 GPa.	07	Nov-2018 (CBCS)	D

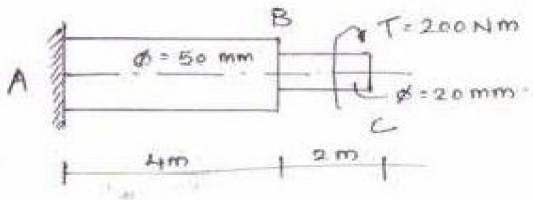
3. PRINCIPAL STRESSES AND STRAINS (Marks:)

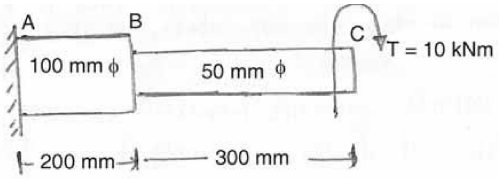
Sr. No	Question/Numerical	Mark	Year	Diffculty Level
1.	At a point in a stressed body. the state of stress on two planes 45° apart is as shown in fig. Detennine the tensile stress acting on plane BC. 	05	May-2009	D
2.	The stress at a point on two perpendicular planes is as shown in fig. (I - 4).Determine the position of plane AB such that the shear stress on this plane is zero. What will be the normal stresses on such a plane? 	06	May-2009	D
3.	An elemental cube is subjected to tensile stresses of 30 N/mm^2 and 10 N/mm^2 acting on two mutually perpendicular planes and a shear stress of 10 N/mm^2 on these planes. Draw the Mohr's circle of stresses and determine the Magnitude and directions of principal stresses and also the greatest shear stress.	10	Dec-2010	C
4.	Derive the expression for the major and minor principal stresses and the maximum shear stress when a body is subjected to the direct stresses in two mutually perpendicular planes.	08	May-2011	D
5.	When a certain thin walled tube is subjected to internal pressure and torque the stresses in tube walls are : i) 120 MN/m2 (tensile) ii) 60 MN/m2 (tensile) in a direction at right angles to (i) iii) Complementary shear stress of 90 MN/m2 in directions of (i) and (ii). A) Calculate the normal and tangential stresses on the two planes which are equally inclined to (i) and (ii)	06	Dec-2011	D
6.	What do you mean by Principal planes, principal stresses and maximum shear stress? state the expression for them.	04	May-2012	C
7.	At appoint in the strained material, the normal stresses on two perpendicular planes are 200 MPa and 300 MPa, both tensile along with simple shear stress of 100 MPa acting on these planes. Using Mohr's Circle only determine, the principal shear stresses and maximum shear stress	08	May-2012	C

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
8.	The stresses on two perpendicular planes are as shown in fig. (I-a). Determine the position of plane AS such that the shear stress on it is zero. What will be the normal stress on it ? 	06	Dec-2012	D
9.	Explain in brief the following terms and state the required expressions. i) Maximum principal strain ii) Minimum principal strain	04	Dec-2012	A
10.	The state of stress in a two dimensionally stressed body as shown in the Figure. Determine the principal planes, principal stresses, maximum shear stress and their planes. 	12	Dec-2014	C
11.	At a point in a strained material, the principal stresses are 180 MPa and 60 MPa respectively. Both stresses are tensile in nature. The plane inclined at 20° with major principal plane. Find normal, tangential and resultant stress on this plane along with angle of obliquity by using Mohr's circle method only.	06	May-2014 (New)	C
12.	Direct stresses of 120 MPa (tensile) and 90 MPa (compressive) exist on two perpendicular planes at a certain point in a body. They are also accompanied by shear stress on the planes. The major principal stress at the point due to these is 150 MPa. Find (i) shear stress on these planes (ii) maximum shear stress.	06	May-2014 (New)	C
13.	A plane element in a boiler is subjected to tensile stresses of 400 MPa on one plane along X-axis and 150 MPa on the other at right angle to former (Y-axis). Each of the above stresses is accompanied by a shear stress of 100 MPa such that when associated with major tensile stress tends to rotate the element in anticlockwise direction . Find a) Principal stresses and their directions. b) Maximum shearing stresses and directions of planes on which they act.	12	May-2015	D
14.	At a point in an elastic material under strain, there are normal tensile stresses of 50 MN/m2 and 30 MN/m2 respectively at right angles to each other with a shearing stress of 25 MN/m2. Find graphically the principal stresses, position of principal plane and maximum shear stress.	06	Dec-2015	C
15.	A rectangular block is subjected to the perpendicular tensile stresses of 110MPa & 47MPa alongwith a simple shear stress of 63MPa acting on these planes. Determine the direction & magnitude of principal stresses & the magnitude of maximum shear stress.	05	April 2016 (CGPA)	C

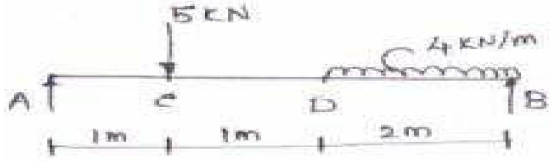
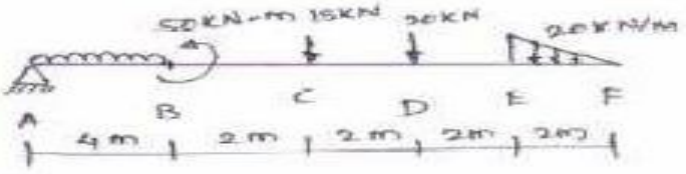
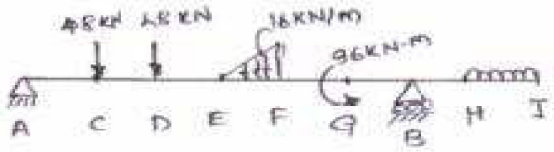
Sr. No	Question/Numerical	Mark	Year	Diffculty Level
16.	Show that every simple shear stress is always accompanied by a complementary shear stress acting on the planes normal to it.	05	Apr-2016 (CGPA)	D
17.	At a point in a strained material, the stresses acting on perpendicular planes are 600MPa & 300MPa both tensile. A shear stress of 450 MPa also acts such that it tends to rotate the element anticlockwise when associated with the plane of major stress. Determine the normal & tangential stresses acting on a plane equally inclined to both the given planes.	06	Apr-2016 (CGPA)	D
18.	The stresses at a point across two perpendicular planes are 75MN/m2 (tensile) and 35MN/m2 (tensile). Find the normal, tangential stresses, the resultant stress and its obliquity on a plane at 20° with the plane of major stress.	06	Dec-2016 (CGPA)	C
19.	An element carries the perpendicular stresses 50 MPa tensile and 30 MPa compressive. It also carries a shear stress of 30 MPa such that it tends to rotate the element anticlockwise when associated with plane of major stress. Calculate the principal stresses, maximum shear stress and the positions of their planes.	08	Apr-2017 (CGPA)	C
20.	An element carries the perpendicular stresses 50 MPa tensile and 30 MPa compressive. It also carries a shear stress of 30 MPa such that it tends to rotate the element anticlockwise when associated with plane of major stress. Calculate the principal stresses, maximum shear stress and the positions of their planes.	06	May-2017 (CGPA)	C
21.	For the object loaded as shown in fig. 2-b, determine the principal stresses and the maximum shear stress. 	06	Nov-2017 (CBCS)	D
22.	Explain in brief the following terms : 6 i) Principal stresses and principal planes. ii) Maximum shear stress and planes of maximum shear.	06	Nov-2017 (CBCS)	B
23.	A specimen under stress has a tensile stress of 600 MPa acting on the horizontal faces and a stress of 1000 MPa acting at 60° with the vertical faces directed outwards. Determine the principal stresses, maximum shear stress and the resultant stress acting on the horizontal plane.	06	Nov-2018 (CBCS)	C
24.	At a point in a stressed body, the state of stress on the two planes 45° apart is as shown in fig. 4.b. Determine the two principal stresses. 	06	Nov-2018 (CBCS)	D

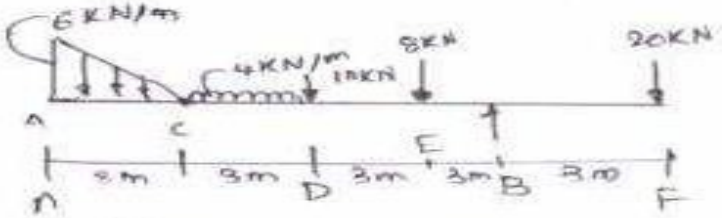
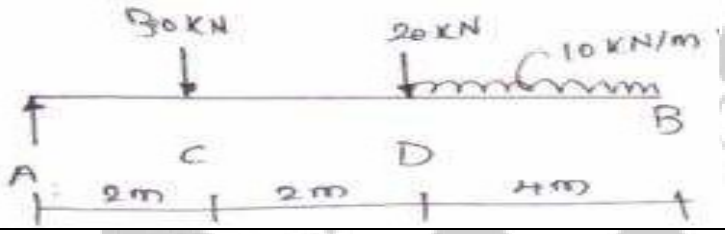
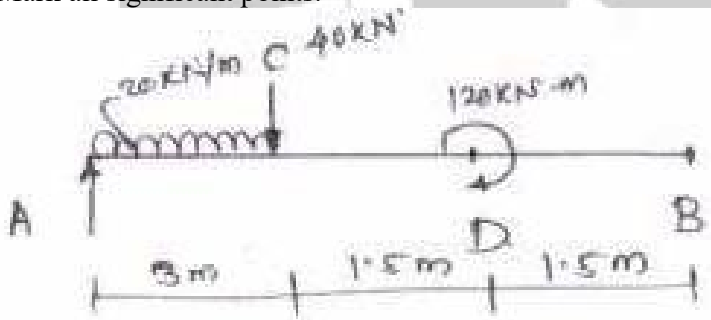
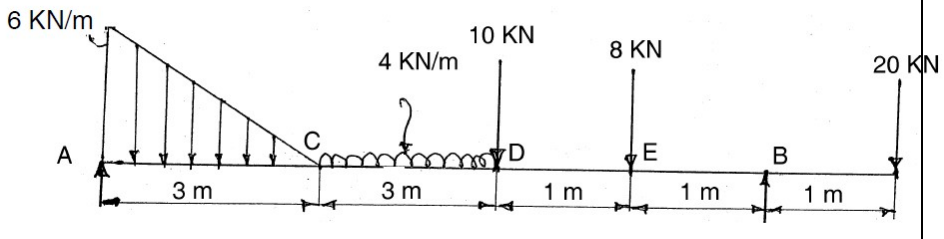
4. TORSION OF CIRCULAR SHAFTS (Marks: 8 to 10)

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
1.	Determine the total angle of twist for the stepped shaft as shown in fig. (1-2). Take G=8xl04 N/mm^2. 	08	May-2009	C
2.	Define the term : 1) Torsion 2) Torsional rigidity and prove that the torque transmitted by a solid when subjected to torsion is given by $T = \frac{\pi}{16} \tau . D^3$ where, D = Diameter of solid shaft t = Max. shear stress.	10	Dec-2010	D
3.	A hollow shaft is to transmit 300 kW at 80 rpm. If the shear stress is not to exceed 60 MN/m^2 and internal diameter is 0.6 of the external diameter, find the external and internal diameters assuming that the maximum torque is 1.4 times the mean.	08	May-2011	D
4.	Derive an expression for torque transmitted by a hollow circular shaft.	08	May-2011	C
5.	A circular shaft ABC has part AB 3m long with a diameter of 60mm and Part BC 2m long with, a diameter of 20mm.The shaft is fixed at the end A and a torque of 250 N-m acts at the free end C. Determine the total angle of twist for the stepped shaft, if modulus of rigidity for its material is 80 GPa.	08	May-2012	C
6.	State the assumptions made in the theory of torsion of circular shafts.	04	May-2015	A
7.	A hollow circular shaft has inner and outer diameters of 100 mm and 120 mm respectively. The shaft rotates at 600 rpm and the maximum torque is 20% than the mean torque. Determine the safe power the shaft can transmit if permissible shear stress is 90 MPa and the maximum angle of twist is 3° for 2 m length. Take modulus of rigidity = 80 GPa	06	Dec-2012	D
8.	A brass tube of external diameter 80 mm and internal diameter 50 mm is closely fitted to a steel rod of 50 mm diameters to form a composite shaft. If a torque of 6 kN-m is to be resisted by this shaft. Find the maximum stresses developed in each material and angle of twist in 2m length.	08	May-2013	D
9.	Define Torsional Rigidity	01	Dec-2014	A
10.	A hollow shaft of diameter ratio 3/8 is to transmit 375 Kw power at 100 rpm. The maximum torque is 20% greater than mean torque. The shear stress is not to exceed than 60 N/mm2 and twist in length of 4 m not to exceed 2°. Calculate its external and internal diameter which will satisfy both the above conditions. Assume modulus of rigidity as 0.85 × 105 N/mm2	12	May-2014 (New)	C

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
11.	Two shafts AB and BC are connected in series. The diameters of AB and BC are 100 mm and 50 mm respectively and their length are 200 mm and 300 mm respectively. Both the shafts are made of the same material having modulus of rigidity as 8 × 104 N/mm2. Determine : i) Shear stresses set up in each shaft and ii) The total angle of twist the torque applied at the one end is 10 kNm. 	08	May-2015	C
12.	Explain principle of shear stress.	04	May-2015	B
13.	A hollow shaft having an internal diameter 50% of its external diameter transmits 600 kW at 150 rpm. Determine the external diameter of the shaft if the shear stress is not exceed 65 N/mm2 and the twist in a length of 3m should not exceed 1.4 degrees. Assume maximum torque = 1.2 mean torque and Modulus of rigidity = 1×10^5 N/mm2	08	Dec-2015	D
14.	A composite shaft consists of a copper rod of 30mm diameter enclosed in a steel tube of external diameter 50mm & 10mm thick. The shaft is subjected to a torque of 1kNm. Determine the shear stress induced in both the materials if modulus of rigidity of Steel is twice that of Copper.	08	Apr-2016 (CGPA)	D
15.	A hollow shaft is to transmit 300 KW at 80 rpm. If the shear stress is not to exceed 60 MN/m2 and internal diameter is 0.6 of external diameter, find the external and internal diameters. Assume that maximum torque is 1.4 times the mean torque.	08	Dec-2016 (CGPA)	C
16.	A solid steel shaft with diameter 40 mm and length 6 m is fixed at both the ends. A torque of 1.25 kNm is applied to it at a section 2.4 m from the left end. Determine the shear stresses in the two portions and the angle of twist where the torque is applied. Take Modulus of rigidity = 84 GPa.	10	May - 2017 (CGPA)	D
17.	A shaft ABC with a part AB of aluminium 1.25 m long and a part BC of brass 1 m long is fixed at A. It has a uniform diameter of 60 mm. Determine the maximum safe torque that can be applied at the free end C if shear stresses in aluminium and brass are not to exceed 80 MPa and 60 MPa respectively and the total angle of twist is not to exceed 1°. Take G for aluminium = 30 GPa and G for brass = 35 GPa.	08	Nov-2017 (CBCS)	D
18.	A shaft ABC 500 mm long with 40 mm external diameter is bored for a part of its length AB to 20 mm internal diameter and for its remaining length BC to 30 mm internal diameter. If shear stress in shaft material is not to exceed 80 MPa, determine the maximum safe power the shaft can transmit at a speed of 200 rpm. If the angle of twist in sections AB and BC is the same, calculate the lengths of sections AB and BC.	08	Nov-2018 (CBCS)	D

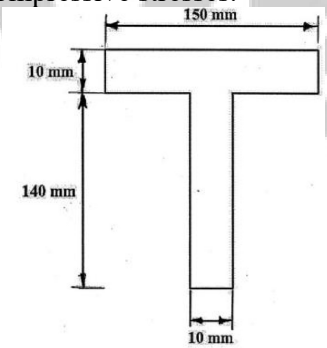
5. SHEAR FORCE AND BENDING MOMENT DIAGRAMS FOR BEAMS (Marks:08)

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
1.	Draw S.F.D. and B.M.D. for the beam as shown in Fig. (I - 1). Indicate all significant points. 	07	May-2009	C
2.	Draw S.F.D. and B.M.D. for a simply supported beam of length L carrying a symmetrical U. V.L. with intensity varying from zero at each support up to maximum w/m at the centre.	07	May-2009	D
3.	Define shear force and bending moment and draw the shear force and bending moment diagram for the beam loaded as shown in figure. Mark the values at salient points and determine position of point of contraflexture. 	12	Dec-2009	D
4.	A beam AB 10 meters long has supports at its ends A and B. It carries a point load of 5 kN at 3 meters from A and a point load of 5 kN at 7 meters from A and a uniformly distributed load of 1 kN per meter between the point loads. Draw SF and BM diagrams for the beam.	08	Dec-2010	C
5.	Define 1. Point of contraflexture. 2. SF and BM Diagram	02	Dec-2010	A
6.	Draw S.F.D. and B.M.D. for a simply supported beam carrying a udl of 'w' per unit run over the whole span.	06	May-2011	C
7.	A cantilever of length 2 m carries a ude of 2 kN/m length over the whole length and point load of 3 kN at the free end. Draw S.F.D. and B.M.D.	06	May-2011	C
8.	Figure 1-2 shows a beam 19 m long simply supported at left end and at 3 m from the right end. It is loaded as shown in Fig. Draw shear force and bending moment diagram for the beam showing all the salient values. 	14	Dec-2011	D

9.	Draw S.F .D. and B.M.D. for the beam as shown in fig. (I - b) and indicate all the significant values at respective points on the beam. 	08	May-2012	D
10.	A Cantilever, 8 m long is fixed at the left end. It carries a UDL of 1kN/m on its entire span along with a point load of 20 kN at the free end. It also carries an anticlockwise couple of 20 kN-m acting at its centre. Draw S.F.D. and B.M.D. and indicate all the important points.	08	Dec-2012	C
11.	A simply supported beam as shown in figure carries two concentrated loads and U.D.L Draw SFD and BMD. 	08	May-2013	C
12.	Explain the sign conventions for shear force and bending moment.	04	May-2013	B
13.	Draw shear force and bending moment diagram for the beam as shown in figure. Mark all significant points. 	10	Dec-2014	C
14.	Derive the relationship between shear force and bending moment.	06	May-2014 (New)	C
15.	Draw SFD and BMD for the beam shown in figure and indicate maximum bending moment. 	**08**	Dec-2016 (CGPA)	D
16.	Draw S.F.D. and B.M.D. for a cantilever of length l subjected to a U.D.L. of w/m on its entire span.	**06**	May - 2017 (CGPA)	C

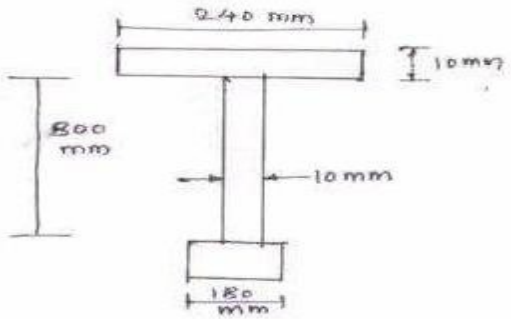
17.	A cantilever 6 m long is fixed at its left end. It carries a U.D.L. of 0.5 kN/m for a length of 4 m from the fixed end and a point load of 2 kN at the free end. Draw S.F.D. and B.M.D. indicating salient points.	**06**	May-2017 (CGPA)	C
18.	A simply supported beam AB of span 8 m carries a point load of 80 kN at 1 m from A. It also carries two clockwise couples of 60 kN-m and 120 kN-m at 3 m and 5 m respectively from end A. Draw SFD and BMD and indicate all the important points.	**10**	Nov-2017 (CBCS)	D
19.	Show that every simple shear stress is always accompanied by a complementary shear stress acting across the planes normal to it.	**04**	Nov-2017 (CBCS)	D
20.	An overhanging beam AE is 7 m long with supports at the left end A and at point B, 6 m from A. It carries two point loads of 6 kN each acting at point E and at point D, 4 m from A. It also carries an anticlockwise couple of moment 12 kN-m acting at point C, 2 m from A. Draw SFD and BMD for the beam and mark all the important values.	**08**	Nov-2018 (CBCS)	D

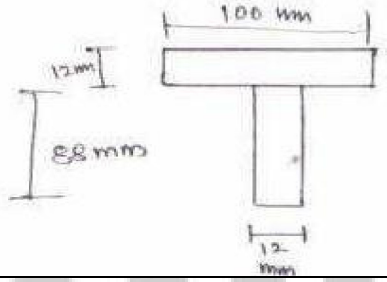
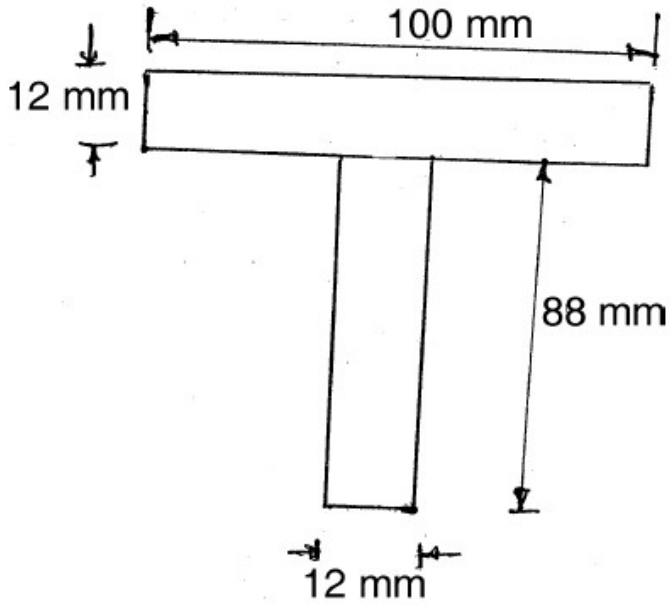
6 BENDING STRESSES IN BEAMS (Marks:12)

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
1	Write down assumptions made in theory of pure bending.	04	May-2014	A
2	A C.I. beam of I section is simply supported on a span of 6 m. The section consists of flange 60 mm × 20 mm, web 180 mm deep and 20 mm thick and bottom flange 160 mm × 40 mm thick. Find uniformly distributed load w on the beam, if the tensile stress shall not exceed 30 N/mm2. Also find the corresponding maximum compressive stress.	12	May-2014 (New)	C
3	Calculate the critical load of strut which is made of a bar of circular section and 5 m long and which is pin jointed at both ends. The same bar when freely supported gives mid span deflection of 10 mm with a load of 80 N at the centre.	08	May-2015	D
4	A beam is of T section as shown in figure. The beam is simply supported over a span of 4m and carries a uniformly distributed load of 1.7 kN/m run over the entire span. Determine the maximum tensile and maximum compressive stresses. 	07	Dec-2015	C
5	State the assumptions made in the theory of simple bending of beams	04	Apr-2016 Dec-2016	A

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
6	Two beams with the same length and allowable stress are subjected to the same bending moment. The cross sections of the beams are a square and a rectangle with depth twice the width. Determine the ratio of the weight of the square beam to that of the rectangular beam	08	May-2017 (CGPA)	D
7	Derive the complete bending equation M/I = σ/y = E/R.	06	Nov-2017 (CBCS)	D
8	A beam has I – Section with top flange (150 X 20)mm, bottom flange (250 X 30) mm and the web (200 X 25)mm. It is simply supported over a span of 3 m carrying a U. D. L. of 2kN/m on the entire span. Determine the maximum intensity of bending stresses and draw the bending stress distribution diagram.	08	Nov-2018 (CBCS)	C

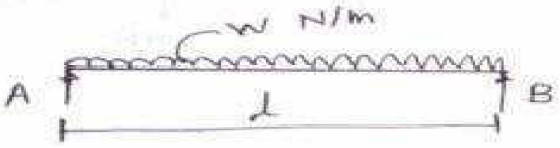
07. SHEAR STRESSES IN BEAMS (Marks:12)

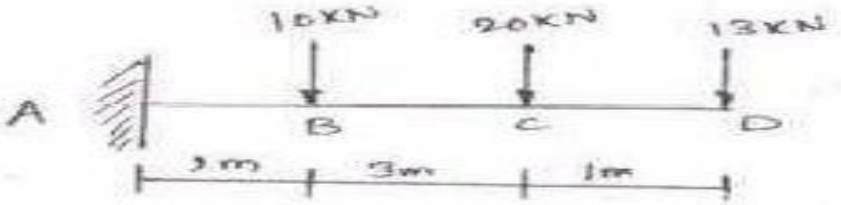
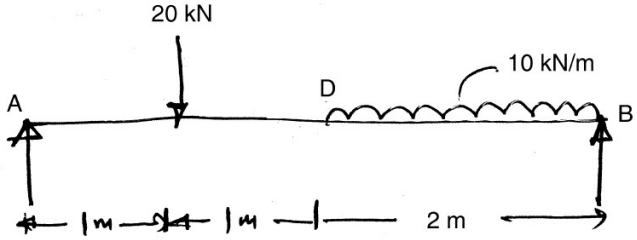
Sr.No	Question/Numerical	Mark	Year	Diffculty Level
1	A T-section has the flange 200 mm x 50 mm and the web 200 mm x 50 mm and is subjected to a vertical shear force of 200 kN, Determine the maximum intensity of shear stress and plot its distribution across the section.	09	May-2009	C
2	An I – Section beam 350 mm x 150 mm has a web thickness of 10 mm and a flange thickness of 20 mm. If the shear force acting on the section is 40 kN, determine the maximum intensity of shear stress and sketch its distribution across the section.	10	Dec-2010	C
3	I –Section with rectangular ends has the following dimensions: Flanges: 15cm x 2cm Web:30cm x 1cm Find the maximum shearing stress developed in the beam for a shearing force of 10 kN.	08	May-2011	C
4	A beam with I section has the top flange 150mm X 20 mm, the bottom flange 200 mmX20 mm and web 250 mmX15 mm. Determine the maximum shear stress and plot the distribution of shear stress along the section if it has to resist a shear force of 150 kN.	12	May-2012	D
5	A T section has the web 250 mm x 40 mm and the flange 200 mm x 40mm. A vertical shear force of 60 kN acts on it when web is held vertically. Determine the maximum intensity of shear stress and plot the shear stress distribution across the section.	08	Dec-2012	C
6	If a section as shown in the figure is subjected to shear force of 50 kN. Draw variation of shear stress across the depth. 	12	May-2013	D

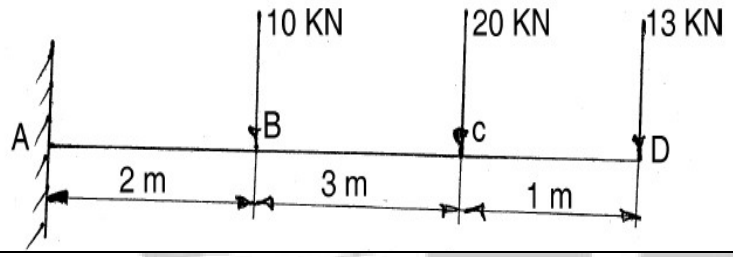
Sr. No	Question/Numerical	Mark	Year	Diffculty Level
7	Figure shows the cross-section of beam which is subjected to shear force of 20 kN. Draw shear stress distribution diagram across the depth marking values at salient points. 	08	Dec-2014	C
8	The SS beam of span 4 m is simply supported beam. It carries a central point load of 100 kN. The beam is I-section of unequal flanges. The top flange is 200 mm wide × 25 mm deep, web is 20 mm wide and 150 mm deep and bottom flange is 100 mm wide × 25 mm deep. Draw the shear stress distribution diagram across the depth marking value at salient points.	12	May-2015	D
9	A beam has a T-section with the flange (200 x 50)mm & the web (200 x 50)mm & it is subjected to a vertical shear force of 200kN. Determine the intensity of maximum shear stress & draw the shear stress distribution diagram	09	Apr-2016 (CGPA)	C
10	Figure shows the cross section of beam subjected to shear force 20 KN. Draw shear stress distribution diagram across the depth making values at salient points. 	08	Dec-2016 (CGPA)	C
11	A beam has a T-section with flange 200 mm × 50 mm and the web 200 mm × 50 mm. A shear force of 200 kN acts on it. Determine the intensity of shear stress induced at important points and plot its distribution diagram	08	May-2017 (CGPA)	C

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
12	Two beams with the same length and allowable stress are subjected to the same bending moment. The cross sections of the beams are a square and a rectangle with depth twice the width. Determine the ratio of the weight of the square beam to that of the rectangular beam	08	May-2017 (CGPA)	D
13	A beam has a T-Section with the flange 150 mm × 50 mm and the web 50 mm × 150 mm. Draw the shear stress distribution diagram if it has to resist a shear force of 240 kN.	08	Nov-2017 (CBCS)	C
14	An I-girder is 400 mm deep with 150 mm long and 20 mm thick flanges and 13 mm thick web. Calculate maximum intensity of shear stress and draw shear stress distribution diagram if shear force acting at the section is 160 kN.	06	Nov-2018 (CBCS)	D

08. SLOPE AND DEFLECTION OF BEAMS (Marks:)

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
1.	Derive the expression for the slope and deflection at the free end for a cantilever of length 'L' carrying a point load 'w' at its free end by using Double integration method.	08	May-2009	D
2.	Explain slope and deflection.	04	May-2009	A
3.	A beam of uniform rectangular section 200 mm wide and 300 mm deep is simply supported at its ends. It carries a uniformly distributed load of 9 kN/m run over entire span of 5 m. Find:i) The slope at supports. ii) Maximum deflection. Take E = 1 x 10^4 N/mm^2.	05	May-2009	C
4.	Obtain expression for the maximum slope and deflection of a simply supported beam of span '1'. ,i) with concentrated load 'w' at mid span ii) with udl 'w' over the whole span Use moment area method only.	12	Dec-2010	D
5.	Find slope at point A and maximum deflection for the beam as shown in Fig. (4. a). 	08	May-2011	C
6.	Simply supported beam of span 4 m is carrying a uniformly distributed load *2kN/m* over the entire span. Find the maximum slope and deflection of the beam. Take EI for the beam as 80 x 10^9 N-mm^2.	05	May-2011	C
7.	Explain Double Integration method for finding slope and deflection.	04	May-2011	D
8.	Explain moment area method for finding slope and deflection.	05	Dec-2011	C
9.	A simply supported beam AB of span 5 meters is carrying a point load of 30 kN at a distance 3.75 m from the left end A. Calculate the slopes at A and B and deflection the load. Take EI = 26 x 10^{12} Nmm^2.	06	Dec-2011 May-2014	D

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
10.	A cantilever beam of span 2.4 m carries a point load of 15 KN at a distance of 1.8 m from fix end. Determine slope and deflection at free end of cantilever (point at which no load is acting) by moment area method. Take flexural rigidity for the beam is 9 x 10^{12} N - mm^2.	06	May-2012	D
11.	Determine slope and deflection of at free end as shown in figure. Take EI = 10 x 10^4 kN$-m^2$. 	08	Dec-2012	C
12.	Using moment area method, for a cantilever beam of length 'L' with concentrated load 'P' at the fixed end, find. a) Maximum deflection b) Maximum slope c) Slope at distance 'x' from free end d) Deflection at distance 'x' from free end	08	May-2013	C
13.	Using moment area method, for a beam of length 'L', simply supported at ends and carrying UDL of 'w' per unit length, find a) the maximum deflection b) slope at ends c) slope at a distance 'x' from one end d) Deflection at a distance 'x' from one end.	08	Dec-2014	C
14.	Derive an expression for slope and deflection at free end for a Cantilever beam of length l subjected to point load W at free end by moment area method.	04	May-2014 (New)	C
15.	A beam AB of 4 m span is simply supported at the ends and loaded as shown in figure (5 – c) determine. a) Deflection at C and D b) Maximum deflection c) Slope at A and B, Take E = 200 × 106 kPa and I = 20 × 10–6 Mn 	12	May-2014 (New)	D
16.	Water under pressure 8 MPa is suddenly admitted on to a plunger of 80 mm diameter attached to a rod of 25 mm diameter and 2.5 m long. Find maximum instantaneous stress and deformation of the rod. Take E = 210 GPa.	08	May-2015	D
17.	A beam of length 5 m and of uniform rectangular section is supported at its ends and carries UDL over entire length. Calculate the depth of section if the maximum permissible bending stress is 8 N/mm2 and central deflection is not to exceed 10 mm. Take E = 1.2 × 104 N/mm2.	12	May-2015	D

Sr. No	Question/Numerical	Mark	Year	Diffculty Level
18.	A cantilever beam of length 3 m is carrying a uniformly distributed load of W kN/m. Assuming rectangular cross section with depth (d) equal to twice the width (b), determine the dimensions of beam, so that vertical deflection at the free end does not exceed 8 mm. Take maximum bending stress = 100 MPa and E = 200 GPa.	10	Dec-2015	D
19.	A beam 3m long is simply supported at its ends & it carries a point load at the centre. If the slope at the ends is not to exceed 1^0, determine the maximum deflection of the beam.	05	Apr-2016 (CGPA)	C
20.	A cantilever beam 120mm wide & 150mm deep carries UDL of 10kN/m on its entire span of 204m. Calculate the maximum slope & deflection. Take E = 180GPa.	06	Apr-2016 (CGPA)	C
21.	A Copper bar fixed at the top end with 12mm diameter gets stretched by 1mm under a gradual load of 4kN. What stress would be induced in the bar if a weight of 500N falls through 80mm on the collar rigidly attached at its bottom end? Take Youngs modulus for Copper as 100GPa.	08	Apr-2016 (CGPA)	D
22.	Determine slope and deflection at free end D for the beam as shown in figure. Take EI = 10 × 104KN – m2(Use moments area method only). 	06	Dec-2016 (CGPA)	C
23.	A cantilever beam of span 3 m is 15 cm wide and 25 cm deep. It carries a U.D.L.of 20 kN/m on its entire span and a point load of 25 kN at its free end. Calculate maximum slope and deflection	08	May-2016 (CGPA)	C
24.	A cantilever of span 2 m carries a UDL of 2.5 kN/m for a length of 1.25 m form the fixed end and a point load of 1 kN at the free end. It has a rectangular section 12 cm wide and 24 cm deep. Determine the deflection at the free end. Take E = 10 GPa.	06	Nov-2017 (CBCS)	D
25.	Using 'Moment-Area' method, determine the expressions for the maximum Slope and deflection for a cantilever carrying a point load W at its free end.	04	Nov-2017 (CBCS)	C
26.	A cantilever 2 m long carries two point loads of 20 kN each acting at the free end and at the centre. If E = 100 GPa and I = 1 X10^8 mm^4, determine the maximum slope and deflection using Moment-Area method.	08	Nov-2018 (CBCS)	C

About Three Hours are Allotted to Students in The Evening for Self-Study in Study Hall Facility

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
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Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

REF: COEPR/2021-22/0.0/11

Date: 10/05/2022

OFFICE ORDER

Following is the schedule for visit of faculty members at F.Y.B.Tech. Night Study from 12/05/2022. All the concerned are requested to note the same and act accordingly.

Venue: - Class-room Numbers (417, 418, 419, 423, 424) ENTC Dept.
Time: 8.00 pm to 11:00 pm.

Sr.No.	Name of theStaff	Dept.	Mobile No.	Date	Date	Sign
1	ANUSE UTTAM LAXMAN	MECH		12/05/22	07/06/22	
2	AHMED AMAD ABDUL	MBA		13/05/22	08/06/22	
3	ASABE POPAT BHANUDAS	MECH		14/05/22	09/06/22	
4	BABAR PRASAD DADASAHEB	F. Y. B. Tech.		17/05/22	10/06/22	
5	BHAGANAGARE PRASHANT BALU	CIVIL		18/05/22	11/06/22	
6	BHALERAO ANIL RAMDAS	MBA		19/05/22	13/06/22	
7	BHANAVASE SHANKAR UTTAM	F. Y. B. Tech.		20/05/22	14/06/22	
8	BHOSALE SACHIN DINESH	MECH		21/05/22	15/06/22	
9	BHOSALE SHRIKRISHNA BABASAHEB	MECH		23/05/22	16/06/22	
10	BIDKAR OMKAR SHRISH	CIVIL		24/05/22	17/06/22	
11	CHAVAN PRAMOD POPAT	F. Y. B. Tech.		25/05/22	18/06/22	
12	CHOUNDE AMOL BANDU	ENTC		26/05/22	20/06/22	
13	DAPHALE DHANRAJ DHARMARAJ	ELE		27/05/22	21/06/22	
14	JUNDALE KAPIL BALASAHEB	MECH		28/05/22	22/06/22	
15	FALMARI GIRISH GANESH	CIVIL		30/05/22	23/06/22	
16	GADADE BALASAHEB TUKARM	MECH		31/05/22	24/06/22	
17	GOSAVI SHRIKRISHNA AVINASH	CIVIL		01/06/22	25/06/22	
18	HALLUR JAGDISH SANGANNA	ENTC		02/06/22	27/06/22	
19	INAMDAR GURURAJ KUMAR	MECH		03/06/22	28/06/22	
20	INAMDAR SUJIT ASHOK	ENTC		04/06/22	29/06/22	
21	INGOLE TANAJI PRABHAKAR	F. Y. B. Tech.		06/06/22	30/06/22	
22	JADHAV CHETAN CHANDRAKANT	MECH		07/06/22	12/05/22	
23	JADHAV RAVIKIRAN PANDURANG	CIVIL		08/06/22	13/05/22	
24	JADHAV SHASHIKANT SUBHASH	MECH		09/06/22	14/05/22	

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Sr.No.	Name of theStaff	Dept.	Mobile No.	Date	Date	Sign
25	JAGADALE SATYAWAN DAGADU	CIVIL		10/06/22	17/05/22	
26	JARE PRASAD BHAGCHAND	F. Y. B. Tech.		11/06/22	18/05/22	
27	KADAM AMOL ACHUTRAO	ENTC		13/06/22	19/05/22	
28	KALE SACHIN MADHUKAR	MECH		14/06/22	20/05/22	
29	KALE SANDEEP PRAKASH	F. Y. B. Tech.		15/06/22	21/05/22	
30	KARVE SWAGAT MADHAV	ENTC		16/06/22	23/05/22	
31	KASHID DIGAMBAR TUKARAM	MECH		17/06/22	24/05/22	
32	KASTURE ANIL MAHADEO	ENTC		18/06/22	25/05/22	
33	KHEDKAR YASHPAL MARUTIRAO	MECH		20/06/22	26/05/22	
34	KHOMANE SACHIN MAHADEV	MECH		21/06/22	27/05/22	
35	KOKARE AVINASH BABASO	CIVIL		22/06/22	28/05/22	
36	KOSHTI GANESH KUMAR	CIVIL		23/06/22	30/05/22	
37	LIMKAR CHETAN RAMESH	CIVIL		24/06/22	31/05/22	
38	MALAGIMANI BASAVRAJ MALLAPPA	CIVIL		25/06/22	01/06/22	
39	MANE PRAMOD DAMODAR	CSE		27/06/22	02/06/22	
40	MORE NITIN DATTATRAY	CIVIL		28/06/22	03/06/22	
41	MORE PRAVIN SUDAM	MBA		29/06/22	04/06/22	
42	MORE SANJAY NIVRUTTI	MECH		30/06/22	06/06/22	
43	NAGANE RAHUL PANDURANG	F. Y. B. Tech.		12/05/22	07/06/22	
44	PADOLE SAMEER PRAKASH	CIVIL		13/05/22	08/06/22	
45	PARKHE AVINASH KAILAS	MECH		14/05/22	09/06/22	
46	PAWAR HEMCHANDRA RAMESH	CIVIL		17/05/22	10/06/22	
47	PAWAR RAHUL BANDOPANT	ENTC		18/05/22	11/06/22	
48	PUKALE KULDIP SURESH	MECH		19/05/22	13/06/22	
49	SALE VINAYAK MACCHINDRA	CSE		20/05/22	14/06/22	
50	SALOTAGI SHREEKANT CHANDRASHEKHAR	CSE		21/05/22	15/06/22	
51	SALUNKHE SANDIPRAJ YSHWANTRAO	MECH		23/05/22	16/06/22	
52	SARIK SAGAR DNYANESHWAR	MBA		24/05/22	17/06/22	
53	SATHE RAVIKANT SIDDHESHWAR	CIVIL		25/05/22	18/06/22	
54	SAWANT VIJAY ASHOK	ELE		26/05/22	20/06/22	
55	SHAIKH NISAR SHAUKAT	MECH		27/05/22	21/06/22	
56	SHINDE AMITKUMAR ASHOKRAO	MECH		28/05/22	22/06/22	
57	SOLANKI AMIT MADHU	ELE		30/05/22	23/06/22	
58	SURWASE MANGESH SURESH	CIVIL		31/05/22	24/06/22	
59	SURWASE YOGESH BALASAHEB	CIVIL		01/06/22	25/06/22	
60	SWAMI SHRISHAIL PRAKASH	ENTC		02/06/22	27/06/22	
61	TEKALE ANIL ARUN	ELE		03/06/22	28/06/22	
62	VHARE CHANDRAKANT KISAN	MECH		04/06/22	29/06/22	
63	ZAMBARE VAIBHAV VILAS	CSE		06/06/22	30/06/22	

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Additionally, following HODs/Faculty members will visit F.Y.B.Tech. Night Study as a squad during the said time period as per following details.

Sr.No.	Name of theStaff	Dept.	Mobile No.	Date	Sign
1	Dr.CHAUDHARI DHANANJAY SHIVAJI	F. Y. B. Tech.		12/05/22	
2	Mr.CHAVAN VIKRAM RAMDAS	MECH		14/05/22	
3	Dr.DESHMUKH MANIK GUNDERAO	CIVIL		18/05/22	
4	Dr.DHAVALE PRAVIN ARJUN	MECH		20/05/22	
5	Mr.GAIKWAD BHASKAR DHONDI	MECH		23/05/22	
6	Mr. GAVALI SACHIN RAMCHANDRA	MECH		25/05/22	
7	Dr.GIDDE RANJITSINH RAMKRISHNA	MECH		27/05/22	
8	Dr.PAWAR PRASHANT MARUTI	CIVIL		30/05/22	
9	Mr.JADHAV SUBHASH VENKATRAO	MECH		01/06/22	
10	Dr.KALE VAISHNAW GORAKHNATH	ENTC		03/06/22	
11	Dr.KULKARNI MILIND BALBHIM	MECH		06/06/22	
12	Dr.LENDAVE SATISH ABHANGA	F. Y. B. Tech.		08/06/22	
13	Dr.MATHPATI MAHESH SIDRAMYYA	ENTC		10/06/22	
14	Mr.MOTE AVINASH ANIL	F. Y. B. Tech.		13/06/22	
15	Mr.PATIL KARAN BABASO	MBA		15/06/22	
16	Dr.PAWAR HARIDAS HANMANT	F. Y. B. Tech.		17/06/22	
17	Dr.HARIDAS RANGANATH NANDKUMAR	F. Y. B. Tech.		20/06/22	
18	Dr.SONAWANE SACHIN ASHOK	MECH		22/06/22	
19	Dr.THIGALE SOMNATH BALASAHEB	CSE		24/06/22	
20	Dr.WANGIKAR SANDEEP SITARAM	MECH		27/06/22	
21	DESHMUKH MANOJ ASHOK	ENTC		29/06/22	

(Ms. A. V. Malge)
Night Study Coordinator

(Dr. M. S. Mathpati)
Dean- Students

(Prof. M.M. Pawar)
Campus Incharge

C.C

1) All Deans
2) All HODS
3) Chief Rector
4) Hostel Notice Board
5) For circulation among staff
6) College Notice Board
7) FTP
8) Office Copy

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
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Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

REF: COEPR/2022-23/ 11(A)

Date: 10/05/2022

REVISED OFFICE ORDER

Following is the schedule for visit of faculty members at F.Y.B.Tech. Night Study. All the concerned are requested to note the same and act accordingly.

Venue: - B. Pharmacy (Classrooms).

Time: 8.00 pm to 11:00 pm.

Sr.No.	Name of theStaff	Mobile No.	Date	Date	Date	Sign
1	GOVE HARSHADA MARUT		12/05/2022	30/05/2022	15/06/2022	
2	HONMUTE PRADNYA SURESH		13/05/2022	31/05/2022	16/06/2022	
3	JADHAV ROHINI BHAGWAN	7028527145	14/05/2022	01/06/2022	17/06/2022	Rohini
4	LACHYAN POOJA SHIVAANAND	9049898348	17/05/2022	02/06/2022	18/06/2022	Pooja
5	GODASE TEJASWINI DHANAJI		18/05/2022	03/06/2022	20/06/2022	
6	DHUMAL TRUPTI ARUN		19/05/2022	04/06/2022	21/06/2022	
7	BISWAS MOHUA S		20/05/2022	06/06/2022	22/06/2022	
8	PATIL VIDDULATA APPASAHEB	9975035677	21/05/2022	07/06/2022	23/06/2022	
9	JADHAV SANGITA SOMAPPA		23/05/2022	08/06/2022	24/06/2022	
10	PAWAR MADHURI KESHAV	9604349388	24/05/2022	09/06/2022	25/06/2022	
11	RAJMANE VAISHALI VIJAY		25/05/2022	10/06/2022	27/06/2022	
12	BARAVANI SHUBHA B		26/05/2022	11/06/2022	28/06/2022	
13	GULGHANE URMILA VITTHALRAO		27/05/2022	13/06/2022	29/06/2022	
14	SUDHAKAR AARATI		28/05/2022	14/06/2022	30/06/2022	
15	PATIL ROHINI HARIDAS		17/05/2022	03/06/2022	21/06/2022	
16	ZADBUKE SHITAL RAVINDRA		18/05/2022	04/06/2022	22/06/2022	
17	PATIL SONALI SUNIL		19/05/2022	06/06/2022	23/06/2022	

Archive

COLLEGE OF ENGINEERING PANDHARPUR

18	MAHAMUNI NISHIGANDHA V.		20/05/2022	07/06/2022	24/06/2022	
19	MOHITE ARTI AUDUMBAR		21/05/2022	08/06/2022	25/06/2022	
20	KADAM SANJIVANI SACHIN		23/05/2022	09/06/2022	27/06/2022	
21	DEVAL NIMISHA DINESH		24/05/2022	10/06/2022	28/06/2022	
22	JADHAV AKSHATA SUNIL		25/05/2022	11/06/2022	29/06/2022	
23	CHOUHAN KANCHAN ICCHARAM		26/05/2022	13/06/2022	30/06/2022	
24	ATOLE SEEMA ASHOK		27/05/2022	14/06/2022	23/05/2022	
25	LOTAKE ANUJA MAKARAND		30/05/2022	16/06/2022	15/06/2022	
26	JOSHI TEJAS SUNIL	9579065584	31/05/2022	17/06/2022	29/06/2022	
27	GAWADE SMITA SURESH		01/06/2022	18/06/2022	27/05/2022	
28	PATIL PRADNYA KISHOR		02/06/2022	20/06/2022	28/05/2022	

Additionally, following HODs/Faculty members will visit F.Y.B.Tech.Night Study as a squad during the said time period as per following details.

Sr.No.	Name of the Staff	Dept.	Mobile No.	Date	Date	Sign
1	MALGE ARCHITA VIJAYKUMAR	F. Y. B. Tech.		12/05/2022	06/06/2022	
2	JADHAV VANITA DNYANDEV	F. Y. B. Tech.		14/05/2022	08/06/2022	
3	AWATADE MAINA MACCHINDRA	F. Y. B. Tech.		17/05/2022	10/06/2022	
4	PAWAR MEENAKSHI MUKUND	ENTC		19/05/2022	13/06/2022	
5	TAMBOLI DIPTI AMOL	ELE		21/05/2022	15/06/2022	
6	KSHIRSAGAR VIDYARANI S.	CIVIL		24/05/2022	17/06/2022	
7	BUDHEWAR ANUPAMA S.	CSE		26/05/2022	20/06/2022	
8	PATIL SONALI PANDURANG	CIVIL		28/05/2022	22/06/2022	
9	PAWAR SWATI PRASHANT	CSE		30/05/2022	24/06/2022	
10	SATARKAR PRAJAKTA ABHISHEK	CSE		01/06/2022	27/06/2022	
11	KULKARNI NEETA PREMKUMAR	ENTC		03/06/2022	29/06/2022	

(Ms. A. V. Malge)
Night Study Coordinator

(Dr. M. S. Mathpati)
Dean- Students

COLLEGE OF ENGINEERING PANDHARPUR

(Prof. M. M Pawar)
CAMPUS INCHARGE

C.C:

1) All Deans
2) All HODS
3) Chief Rector
4) Hostel Notice Board
5) For circulation among staff
6) College Notice Board
7) FTP
8) Office Copy

RANGOLI
STUDENTS NOTE BOOK

SVERI'S

College of Engineering Pandharpur

MECHANICAL ENGINEERING DEPARTMENT

S. Y. B. Tech & T. Y. B. Tech Night Study File

A.Y. 2021-22 (Sem-II)

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur-Ranjani Road, Gopalpur, Tal - Pandharpur [illegible] Dist - Solapur (Maharashtra)
Tel: 02186-216063, 9503103757, E-mail: [illegible] Website: [illegible]
(Approved by A.I.C.T.E., New Delhi and affiliated to P. A. H. Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and NAAC Accredited Institute,
Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune. ISO 9001:2015 Certified Instit

Ref: COEP/2021-22 Date: 15.05.2022

All SY B. Tech and TY B. Tech students are herby informed to note that, **Night Study Sessions** is commencing from 17/05/2022 respectively. Also informed to note the following points in respect of Night Study Sessions:

1. Its Mandatory for all Hostelite students
2. Those who will remain absent for night study, strict action will be taken as per the polices of institute.
3. If any student will be out of station one day before holiday or in case of medical problem on any day, permission should be sought from concern CC/HOD for not reporting to night study on that day.
4. In Case of other genuine reason for not attending Night Study session, permission should be sought from Campus In Charge Prof. M. M. Pawar.
5. CCs are instructed to not to forward any kind of leave of those students who are irregular for Night Study and should not forward the names of such irregular students for getting the institute level financial benefits.

Time: 8.30PM to 11.00PM

Sr.No	**Class**	**Venue**	**Coordinators**
01	Boys (SY and TY Mech)	Respective Classes for SY Students and Computer labs for TY students at Respective Department	Mr. S M Kale
02	Boys (SY and TY Civil)		Mr. G K Kosti
03	Boys (SY and TY ENTC)		Mr. A M Kasture
04	Boys (SY and TY CSE)		Mr. V M Sale
05	Boys (SY and TY EE)		Mr. A A Tekale
06	All Girls of SY and TY	B. Pharmacy Class Room No. I and II	Ms. T D Godase-Coordinator Ms. M S Biswas-Cordinator

All the coordinators are hereby informed to prepare the time table Night Study session for faculty members of respective departments on or before 17/05/22 upto 1.00PM in consultation with HOD.

The concerned are hereby informed to take serious note of above activity and act accordingly

(Dr. M. S. Mathpati)
Dean Students'

(Prof. M. M. Pawar)
Campus In-Charge

Copy To:
1) All Deans 2) All HODs: For effective circulation 3) Chief Rector
4) Hostel Notice Board 5) College Notice Board 6) Office Copy

Circulate to SY & TY Students
17-5-22

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE'S
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal - Pandharpur- 413 304,
Dist. Solapur (Maharashtra) Ph.(02186)- 282223, 9503103892
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
ISO 9001-2000 Certified Institute & Accredited by Institute of Engineers, India,
E-mail : coe@sveri.ac.in Website: www.sveri.ac.in

Date: - 17/05/2022

NOTICE

As per the notice received from higher authority, all the S. Y. B Tech and T. Y. B. Tech Mechanical students are hereby informed to note that **Night Study** is going to start from **17th May 2022** i.e. from today. All are requested to attend the same sincerely and it will be compulsory to all hostelite students. Those who will fail to attend the night study, strict action will be initiated from department.

TIME: 08:30 P.M to 11:00 P.M

Venue: 1) S.Y. B. Tech (Mech-A) – MF 515

2) S.Y. B. Tech (Mech-B) – MF 516

1) T.E (Mech-A) – CAD CAM Lab-I

2) T.E (Mech-B) – CAD CAM Lab-II

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
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Date: 17/05/2022

OFFICE ORDER

The following is the schedule of staff supervision duty for **S.Y and T.Y Mechanical Night Study at MF515 (S. Y-A), MF 516 (S. Y-B), CAD CAM-I (T.Y-A) & CAD CAM-II (T.Y-B) at 8.30 pm to 11:00 pm**. All the concerned are requested to note the same and act accordingly.

Sr.	Name of Faculty	Contact No.	Visit Date			Sign
1	Mr. Khedkar Yashpal Marutirao	9545553691	08/06/22	28/06/22		
2	Mr. Khomane Sachin Mahadev	9049349429	07/06/22	27/06/22		
3	Mr. Kashid Digambar Tukaram	8208724266	06/06/22	25/06/22		
4	Mr. Salunkhe Sandipraj Yshwantrao	9657198329	05/06/22	24/06/22		
5	Mr. Anuse Uttam Laxman	9108655365	04/06/22	23/06/22		
6	Mr. Parkhe Avinash Kailas	9503632 6	03/06/22	22/06/22		
7	Mr. Shaikh Nisar Shaukat		02/06/22	16/06/22		
8	Mr. Gadade Balasaheb Tukaram		01/06/22	20/06/22		
9	Mr. Jadhav Chetan Chandrakant	8308689570	31/05/22	18/06/22		
10	Mr. Pukale Kuldip Suresh	7776070913	30/05/22	17/06/22		
11	Mr. More Sanjay Nivrutti	9822290900	28/05/22	21/06/22		
12	Mr. Jadhav Shashikant Subhash	8055836182	27/05/22	15/06/22		
13	Mr. Shinde Amitkumar Ashokrao	9922398765	26/05/22	10/06/22		
14	Mr. Inamdar Gururaj Kumar	9527212270	25/05/22	13/06/22		
15	Mr. Asabe Popat Bhanudas	7821004647	21/05/22	11/06/22		
16	Mr. Jundale Kapil Balasaheb	9370344980	23/05/22	29/06/22		
17	Mr. Vhare Chandrakant Kisan	8600641127	19/05/22	09/06/22		
18	Dr. Sonawane Sachin Ashok	9850959863	20/05/22			
19	Dr. Dhawale Pravin Arjun	8412053701	24/05/22			
20	Mr. Gaikwad Bhaskar Dhondi	9545553691	18/05/22			
21	Mr. Bhosale Shrikrishna Babasaheb	9890921661	17/05/22	—		
22	Mr. Jadhav Subhash Venkatrao	9767571857	14/06/22			
23	Mr. Sachin Madhukar Kale	9960118580	30/06/22			

(Mr. S. M. Kale)
Night Study Coordinator

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
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Additionally, following Faculty members will visit SY & TYMechanical Night Study during the said time perio as per following details.

Sr.No.	Name of the faculty	Contact No.	Visit Date		Sign.
1	Dr. Wangikar Sandeep Sitaram	9657720923	27/06/22	25/05/22	
2	Dr. Gidde Ranjitsinh Ramkrishna	9922607633	27/05/22	10/06/22	
3	Dr. Kulkarni Milind Balbhim		06/06/22	31/05/22	
4	Dr. Sonawane Sachin Ashok	9850959863	22/06/22	—	
5	Dr. Dhawale Pravin Arjun	8412053701	20/05/22	—	
6	Mr. Gaikwad Bhaskar Dhondi	9545553890	23/05/22	—	
7	Mr. Bhosale Shrikrishna Babasaheb	9890921661	16/06/22	—	
8	Mr. Jadhav Subhash Venkatrao		01/06/22	—	

(Mr. S. M. Kale)
Night Study Coordinator

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept

SVERI's College of Engineering, Pandharpur

DEPARTMENT OF MECHANICAL ENGINEERING

S. Y. B. Tech. (A- DIV) SEMESTER-II (2021-22)

Night Study Attendance Sheet

Roll No.	Name of Student	17/5	18/05	19/05	20/5	21/05	23/5	24/5	25/05	26/05	28/5	28/05	30/5	31/5	02/06	03/06	04/06	6/6	7/6	9/6	10/6	11/6	13/6	14/06	15/6	16/06
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
SA13	Abhishek Jadhav	P	P	.	P	P	P	P	P	P	P	P	P	P	P	P	P	.	P		P	P	P	P	P	
SA16	Autade Jagannath Parshuram	P	P	-	P	.	P	P	P	P	P	P	P	P	P	P	P	.	P		P	P	P	P	P	P
SA17	Babar Abhijeet Madhukar	P	P	.	P	P	P	P	P	P	P	P	P		P	P	.	.	P	P	P	P	P	P	P	P
SA18	Yallatikar Ravi Dilip	P	P	-	P	-	P	P	.	A	.	P	P	P	P	P	P	.	.	P	P		P	P	P	P
SA19	Bhad Vijay Dattatray	P	P	-	P	P	P	P	P	P	P	•A	.	P	P	P	.	.	.	P	P	P	P		P	P
SA21	Bugade Preetam Girmal	P	P	.	P	.	P	P	.	P	.	•A	.	.	.	•	.	.	.		P	P	P	P		
SA23	Dake Bhargav Ramdeep	P	.	.	P	P	.	P	P	P	P	P	.	P	P	P	P	P	P	P	P	P		P	P	
SA24	Dange Vishal Pampu	P	P	P	P	.	P	P	P	P	P	•A	.	P	P	.	.	.	.		P		P	P	P	P
SA26	Dhumal Pradip Baban	P	P	.	P	P	P	P	P	P	P	•A	P	P	P	P	P	P	P		P		P	P	P	P
SA27	Dubal Aniket Arun	P	P	.	P	P	P	P	P	P	P	P	.	.		P	P	.	P	P	P		P	P	P	P
SA28	Gajare Nagesh Bhaskar	P	P	P	P	P	P	P	P	P	P	•A	.	P	P	P	P	.	.		P	P	P	P	P	
SA29	Gavali Abhijit Tanaji	P	P	.	P	P	P	P	P	P		P	P	P	P	.	P	.	P		P	P	P	P	P	
SA30	Gavali Ganesh Chandrakant	P	P	P	P	I	P	P	P	P	P	P	P	P	P	P	.	P	.		P	P			P	P
SA31	Gavali Shubham Shashikant	A	P	.	P	P	P	P	P	P	P	•A	P	.	P	P	P	.	.		P	P	P	P	P	P
SA34	Ghutukade Sachin Somaji	P	P	.	P	P	P	A	P	P		•A	P	.	.	.	.	.	.		P		P	P	P	P
SA35	Gujare Sairaj Chandrakant	P	P	.	P	P	P	P	P	A	P	P	P	P	-	P	P	.	.	P	P			P	P	P
SA36	Ingale Arjun Rajendra	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	.	.	.	P	P	P	P	P	P	P
SA41	Jahagirdar Shadab Irfan	P	P	.	P	P	P	P	P	P	P	P	P	P		.	.	.	P		P	P	P	P	P	
SA42	Jankar Dnyanesh Anil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P	P	P
SA43	Waghmode Abhijit Nanasaheb	A	.	.	.	.	.	A	P	P	P	•A		.	.	.	.	.	.		P		P	P	P	
SA44	Kadam Shreyash Santosh	P	P	.	.	.	.	A		A		•A		.	.	.			.		P					
Sign of Faculty Member																										

NIGHT STUDY

Practice Session

RANGOLI

STUDENTS NOTE BOOK

SVERI's

College of Engineering Pandharpur

Mechanical Engineering Department

Practice Session Register

A. Y. 2021-22

SEM - II

SVERI's
COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT
Year 2021-22 SEM- II

Practice Sessions Notice &Time Table

w.e.f. 27/04/2022

All the students of S.Y. B. Tech & T. Y. B. Tech Mechanical are hereby informed to note that practice session is going to start from **28/04/2022.**
So, all students are requested to attend the practice session as per the time table given below.

Sr. No.	Subject	Name of Faculty	Class	Day	Time
1	M-III	/Ms. P. S. Honmute	SY-A (Roll No. 1 to 35)	Wednesday	5:20 PM to 7:20 PM
2	KTOM	Dr. R. R. Gidde	SY-A (Roll No. 36 to 74)	Wednesday	5:20 PM to 7:20 PM
3	M-III	/Ms. S. R. Zadbuke	SY-B (Roll No. 1 to 34)	Wednesday	5:20 PM to 7:20 PM
4	KTOM	Mr. S. Y. Salunkhe	SY-B (Roll No. 35-67)	Wednesday	5:20 PM to 7:20 PM
5	M-III	/Ms. P. S. Honmute	SY-A (Roll No. 36 to 74)	Thursday	5:20 PM to 7:20 PM
6	KTOM	Dr. R. R. Gidde	SY-A (Roll No. 1 to 35)	Thursday	5:20 PM to 7:20 PM
7	M-III	/Ms. S. R. Zadbuke	SY-B (Roll No. 35-67)	Thursday	5:20 PM to 7:20 PM
8	KTOM	Mr. S. Y. Salunkhe	SY-B (Roll No. 1 to 34)	Thursday	5:20 PM to 7:20 PM

Time Table DC

HOD

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

SVERI's
COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT
Year 2021-22 SEM- II

Practice Sessions Notice &Time Table

w.e.f. 27/04/2022

All the students of T. Y. B. Tech Mechanical are hereby informed to note that practice session is going to start from **28/04/2022.**
So, all students are requested to attend the practice session as per the time table given below.

Sr. No.	Subject	Name of Faculty	Class	Day	Time
1	MD-II	Dr. S. A. Sonawane	TY-A (Roll No. 1 to 35)	Monday	5:20 PM to 7:20 PM
2	HT	Mr. S. S. Jadhav	TY-A (Roll No. 36 to 70)	Monday	5:20 PM to 7:20 PM
3	MD-II	Dr. S. S. Wangikar	TY-B (Roll No. 1 to 32)	Monday	5:20 PM to 7:20 PM
4	HT	Dr. P.A. Dhawale	TY-B (Roll No. 33-63)	Monday	5:20 PM to 7:20 PM
5	MD-II	Dr. S. A. Sonawane	TY-A (Roll No. 36 to 70)	Tuesday	5:20 PM to 7:20 PM
6	HT	Mr. S. S. Jadhav	TY-A (Roll No. 1 to 35)	Tuesday	5:20 PM to 7:20 PM
7	MD-II	Dr. S. S. Wangikar	TY-B (Roll No. 33-63)	Tuesday	5:20 PM to 7:20 PM
8	HT	Dr. P.A. Dhawale	TY-B (Roll No. 1 to 32)	Tuesday	5:20 PM to 7:20 PM

Time Table I/C

HOD

HEAD.
Dept. of Mechanical Engg.
C.O.E. Pandharpur

SVERI's COLLEGE OF ENGINEERING PANDHARPUR
DEPARTMENT OF MECHANICAL ENGINEERING
A.Y. 2021-22 SEM: II
CLASS: S. Y. B. Tech (MECH) DIV: A
Roll Call List **WEF Date: - 16/04/2022**

Roll	Name of Student	Roll No.	Name of Student
SA01	/Abhangarao Mayuri Balbhim	SA41	Jahagirdar Shadab Irfan
SA02	/Ashwini Ananda Vasekar	SA42	Jankar Dnyanesh Anil
SA03	/Bhosale Asavari Anil	SA43	Waghmode Abhijit Nanasaheb
SA04	/Burungale Megha Appaso	SA44	Kadam Shreyash Santosh
SA05	/Chavan Manasi Nitin	SA45	Vibhute Mahesh Pandit
SA06	/Gore Dipali Anilkumar	SA46	Kambale Akash Hanumant
SA07	/Jankar Priyanka Hanumant	SA47	Kamble Abhishek Shivaji
SA08	/Kalel Rutuja Shivaji	SA48	Karande Shivprasad
SA09	/Khilare Komal Dattatray	SA49	Varma Ronak Kamlesh
SA10	/Pawar Pancharatna Murlidhar	SA50	Kole Yogesh Digambar
SA11	/Saravade Asmita Dhanaji	SA51	Vaibhav Gourishankar
SA12	/Wankhede Prerna Bhagwan	SA52	Udaysagar Adam Kamalapure
SA13	Abhishek Jadhav	SA53	Kulkarni Samarth Narayan
SA14	Aniket Anil Sank	SA54	Kulkarni Sangram Raghunath
SA15	Atkale Pratik Pandurang	SA55	Lavate Avinash Kashinath
SA16	Autade Jagannath Parshuram	SA56	Mahamuni Shridhar Ganesh
SA17	Babar Abhijeet Madhukar	SA57	Mahanavar Charan Ramesh
SA18	Yallatikar Ravi Dilip	SA58	Metkari Tushar Mohan
SA19	Bhad Vijay Dattatray	SA59	Metkari Vishal Rajaram
SA20	Bhosale Sangram Bandu	SA60	Tiwari Siyash Yashwant
SA21	Bugade Preetam Girmal	SA61	More Amit Dattatray
SA22	Chandanshive Sujal Balu	SA62	Narayankar Adarsh Shivdas
SA23	Dake Bhargav Ramdeep	SA63	Pangle Dattatriya Laxman
SA24	Dange Vishal Pampu	SA64	Patekar Shivraj Ramchandra
SA25	Devkar Onkar Annasaheb	SA65	Patil Ruthwick Anil
SA26	Dhumal Pradip Baban	SA66	Shinde Pavan Rajendra
SA27	Dubal Aniket Arun	SA67	Shaikh Arbaz Alim
SA28	Gajare Nagesh Bhaskar	SA68	Rode Rohit Nanasaheb
SA29	Gavali Abhijit Tanaji	SA69	Salagare Rahul Bhauso
SA30	Gavali Ganesh Chandrakant	SA70	Salunkhe Pranav Parshuram
SA31	Gavali Shubham Shashikant	SA71	Salunkhe Prathamesh Nagesh
SA32	Ghadage Saurabh Dhanaji	SA72	Saravade Shubham Shahir
SA33	Ghadage Sumit Anant	SA73	Saravade Tushar Sunil
SA34	Ghutukade Sachin Somaji	SA74	Sargar Tanaji Hariram
SA35	Gujare Sairaj Chandrakant		
SA36	Ingale Arjun Rajendra		
SA37	Irkal Prasad Pandurang		
SA38	Jadhav Aryash Sanjay		
SA39	Jadhav Vedant Dipak		
SA40	Jadhav Yashraj Sharad		

(Dr. S. S. Wangikar)
H.O.D., Mech Dept.

HEAD.
Dept. of Mechanical Engg.
C.O.E. Pandharpur

SVERI's COLLEGE OF ENGINEERING PANDHARPUR
DEPARTMENT OF MECHANICAL ENGINEERING
A.Y. 2021-22 SEM: II

Roll call &Contact List

CLASS: SY B.Tech. (MECH) DIV: B w. e. f. 16/4/2022

Roll No.	Name of Student	Roll No.	Name of Student
SB 01	/Asabe Avantika Mahesh	SB 38	Lamkane Swapnil Devidas
SB 02	/Bodake Ashwini Sanjay	SB 39	Mane Rohit Prakash
SB 03	/Bhosale Kalyani Kisan	SB 40	Mohite Raj Shrikant
SB 04	/Chavan Asawari Bhimrao	SB 41	Nagtilak Aviraj Vijaykumar
SB 05	/Dakshata Dinesh Khare	SB 42	Nakate Aditya Kantilal
SB 06	/Dange Pramila Dhanaji	SB 43	Patil Satyajit Patangrao
SB 07	/Dharmadhikari Shital Rajvardhan	SB 44	Pawar Akshay Baban
SB 08	/Gaikwad Kajal Sanjay	SB 45	Pawar Ashok Vijay
SB 09	/Gaikwad Pranali Lakshman	SB 46	Pawar Tejas Vikram
SB 10	/Jadhav Akanksha Saudagar	SB 47	Policepatil Shivarajgoud Mallinath
SB 11	/Jadhav Asavari Dhananjay	SB 48	Randive Gopal Madhu
SB 12	/Jagtap Aakanksha Umesh	SB 49	Raut Sudhir Rajkumar
SB 13	/Kadam Aditi Arun	SB 50	Rayban Vishal Tukaram
SB 14	/Kasbe Manisha Vilas	SB 51	Relekar Diptesh Vishal
SB 15	/Kasbe Tejal Vilas	SB 52	Ronge Abhay Dhanaji
SB 16	/More Sakshi Rajendra	SB 53	Ronge Raviraj Madhukar
SB 17	/Salunkhe Pragati Suresh	SB 54	Shinde Ganesh Dhananjay
SB 18	/Shelke Akanksha Bibhishan	SB 55	Sondage Akash Madhukar
SB 19	/Sutar Nilam Satish	SB 56	Tamtam Chetan Pramod
SB 20	/Deshmukh Swaranjali Dattatray	SB 57	Tate Sagar Dadasaheb
SB 21	Ambad Tukaram Manohar	SB 58	Thigale Yash Vishvas
SB 22	Aywale Alpesh Arun	SB 59	Vairagkar Sanket Narayan
SB 23	Bhise Prasad Ramesh	SB 60	Wale Ayush Ganesh
SB 24	Bhoyate Ramdas Gautam	SB 61	Yamgar Shhubham Uttam
SB 25	Bhumkar Parth Vaibhav	SB 62	Yash Devidas Yadav
SB 26	Chavan Shreehari Somnath	SB 63	Zadkar Vaibhav Tukaram
SB 27	Dange Yash Bhaurao	SB64	Shelake Prasad Ramchandra
SB 28	Dhekale Nilesh Krushndev	SB65	Kumbhar Lingeshwar Shashikant
SB 29	Gaikwad Suraj Pandurang	SB66	Rangat Dhanaji Vitthal
SB 30	Abhyankar Kedar Raghvendra	SB67	Ghadage Kunal Hanumant
SB 31	Ghadge Aadesh Shivaji		
SB 32	Gunje Vinayak Bhimashankar		
SB 33	Jadhav Aditya Siddheshwar		
SB 34	Katmore Yash Sanjay		
SB 35	Koli Prathmesh Sanjay		
SB 36	Kore Ajay Angad		
SB 37	Kumbhar Bhushan Bhalchandra		

HEAD
Dept. of Mechanical Engg.
C.O.E. Pandharpur

SVERI's COLLEGE OF ENGINEERING PANDHARPUR
DEPARTMENT OF MECHANICAL ENGINEERING
A.Y. 2021-22 SEM: II

Roll Call List

CLASS: TY B. Tech. (MECH) DIV: A w. e. f. 16/4/2022

Roll No.	Name of Student	Roll No.	Name of Student
TA 01	Pawar Saurav Subhash	TA 39	Mane Sujit Sudhakar
TA 02	Gandule Shubham Balaso	TA 40	Thengal Dnyaneshwar Bapu
TA 03	Khandalkar Gaurav Sunil	TA 41	Sarade Omkar Ashok
TA 04	Kukade Abhijit Madhukar	TA 42	Admile Diksha Dipak
TA 05	Gaikwad Rahul Vilas	TA 43	Yadav Kedar Sanjay
TA 06	Dongare Anil Vitthal	TA 44	Sontakke Bapendrakumar
TA 07	Bhusnar Shivraj Rajendra	TA 45	Nadvinangal Ajit Mallikarjun
TA 08	Yalasangi Rajkumar Bhimasha	TA 46	Edake Saurabh Dattatraya
TA 09	Bhandare Rohan Balasaheb	TA 47	Hetiya Akshay Pravin
TA 10	Sukale Ajay Shankar	TA 48	Deshmukh Karansinh B
TA 11	Nashte Suhas Nagnath	TA 49	Bandgar Sadashiv Subhash
TA 12	Rathod Tirth Sudhakar	TA 50	Patil Prathamesh Prashant
TA 13	Khadake Rahul Bhagavan	TA 51	Patil Viraj Vikas
TA 14	Jodmote Abhishek Ravishankar	TA 52	Ingale Sandip Ramesh
TA 15	Kapare Pooja Mohan	TA 53	Surve Vijay Hanumant
TA 16	Gangthade Komal Tanaji	TA 54	Chaudhari Rahul
TA 17	Deshmukh Rushikesh	TA 55	Awalekar Pramod Tanaji
TA 18	Sutar Sachin Shivaji	TA 56	Pise Balaji Rajendra
TA 19	Gaikwad Ajit Suryakant	TA 57	Shelake Mayur Balasaheb
TA 20	Khobare Prasanna Sanjay	TA 58	Karande Gaurav Vikas
TA 21	Kadam Rohit Manohar	TA 59	Nane Shivani Rameshwar
TA 22	Jadhav Suyog Prakash	TA 60	Shete Kunal Balasaheb
TA 23	Dhotre Sagar Pandurang	TA 61	Kharade Sainath Navnath
TA 24	Waghmode Sachin Balwant	TA 62	Kondubhairi Gorakhanath
TA 25	Patil Sambhaji Bajarang	TA 63	Mali Prashant Siddheshwar
TA 26	Jadhav Avinash Dnyandev	TA 64	Ghodake Rohit Dattatraya
TA 27	Kapase Rutuja Vinayak	TA 65	Chandole Pratik Rajkumar
TA 28	Patil Neha Govindrao	TA 66	Wagh Rushikesh Sunil
TA 29	Shende Saurabh Vishal	TA 67	Bandgar Mahesh Macchindra
TA 30	Birajdar Rakesh Prakash	TA 68	Muntasim Bhaijan
TA 31	Rajput Abhijeet Sameersing	TA 69	Gore Rutvuk Sunil
TA 32	Misal Shanaishwar Balaso	TA 70	Pawar Nikita Nagnath
TA 33	Shingan Shubham Shashank		
TA 34	Jundale Rohit Balasaheb		
TA 35	Overikar Soham Ganesh		
TA 36	Kale Ruturaj Yuvraj		
TA 37	Ghaytidak Gaurav Shivaji		
TA 38	Mulani Moajjam Salim		

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg.
C.O.E. Pandharpur

SVERI's COLLEGE OF ENGINEERING PANDHARPUR
DEPARTMENT OF MECHANICAL ENGINEERING
A.Y. 2021-22 SEM: II

Roll Call List

CLASS: TY B. Tech. (MECH) DIV: B w. e. f. 16/4/2022

Roll No.	Name of Student	Roll No.	Name of Student
TB 01	/Birajdar Vaishnavi Rajendra	TB 37	Kotgond Prathamesh Mallikarjun
TB 02	/Chougule Supriya Mahadev	TB 38	Londhe Suyash Nathaji
TB 03	/Dongare Tejashri Rajendra	TB 39	Mali Krushna Sunil
TB 04	/Kadam Dipti Santosh	TB 40	Mali Siddheshwar Krishna
TB 05	/Kalubarme Swapnali Dnyaneshwar	TB 41	Mashalkar Swapnil Basavraj
TB 06	/Lawate Divya Nagesh	TB 42	More Samadhan Appaso
TB 07	/Mamure Shraddha Chandrakanth	TB 43	Mulani Shoaib Adam
TB 08	/Naiknaware Madhuri Anil	TB 44	Nanaware Pratik Milind
TB 09	/Patil Jyoti Mahesh	TB 45	Natikar Mukesh Laxman
TB 10	/Suryawanshi Kranti Pradipkumar	TB 46	Nilgar Suryakant Bamaningappa
TB 11	/Terave Puja Baban	TB 47	Paul Kalyan Rameshwar
TB 12	Acharya Chaitanya Chandrakant	TB 48	Pawar Nikhil Rajkumar
TB 13	Bachate Vishwajeet Jyotirling	TB 49	Phatke Ajinkya Radhesham
TB 14	Badave Venugopal Abhay	TB 51	Ronge Vikram Vilas
TB 15	Bagal Prajwal Satish	TB 52	Sartape Dharmendra Rajendra
TB 16	Bansode Shankar Balasaheb	TB 53	Sathe Ashitosh Rajendra
TB 17	Bhosale Vaibhav Balasaheb	TB 54	Shaikh Shakil Salim
TB 18	Bichitkar Rushikesh Arun	TB 55	Shelake Anand Tatyaba
TB 19	Bidri Basaveshwar Rajendra	TB 56	Shinde Gorakh Uttareshwar
TB 20	Chavan Prem Govardhan	TB 57	Shingate Dadasaheb Aba
TB 21	Dabade Suraj Kushaba	TB 58	Tanagavade Rohit Tanaji
TB 22	Deshmukh Sagar Somnath	TB 59	Thakar Onkar Sham
TB 23	Dhanawale Shubham Prakash	TB 60	Thite Aditya Jeevan
TB 24	Dhotre Rohit Somnath	TB 62	Waghmode Ranjit Sunil
TB 25	Gavali Ajay Pandurang	TB 63	Yadav Prathmesh Dipak
TB 26	Gawali Mhahmaji Maruti	TB 64	Shinde Nikhil Babasaheb
TB 27	Goli Shrikant Ganesh	TB 65	Deshmukh Sushil Dhananjay
TB 28	Gour Revansiddha Shivachalappa		
TB 29	Gundeti Arun Ambadas		
TB 30	Jade Shantanu Udaykumar		
TB 31	Jadhav Karan Tanaji		
TB 32	Jadhav Revannath Brahamnath		
TB 33	Kale Saurabh Santosh		
TB 34	Kale Swapnil Haridas		
TB 35	Kasagavade Kiran Uttam		
TB 36	Katkar Shubham Shashikant		

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept.
Dept. of Mechanical Engg
C.O.E. Pandharpur

Students Attendance

Attendance

M-III

Class:- S.Y. B.Tech. Div-A.

Sr.NO.	Date	class	Absent Nos	Name & sign of subject teacher
1	28-4-22	SY A	41, 56, 62, 69. — (04)	
2	4-5-22	SY A	7, 12, 25, 30, 32 — (05)	
3	5-5-22	SY A	47, 53, 67, 72, 73 — (05)	
4	11-5-22	SY A	3, 13, 22, 27, 31, 33 — (06)	
5	12-5-22	SY A	39, 43, 50, 59, 71, 74 — (06)	
6	18-5-22	SY A	12, 17, 26, 32, 34 — (05)	
7	19-5-22	SY A	36, 49, 54, 66, 70 — (05)	
8	25-5-22	SY A	4, 15, 21, 29, 35 — (05)	
9	26-5-22	SY A	44, 56, 61, 63, 68 — (05)	

Attendance

Class: S.Y. ~~B.Tech~~ M.Sc. III Div. B

St No.	Date	Class	Absent No.	Name & sign of subject teacher
1.	28-4-22	SY B	35, 40, 41, 60 — (4)	
2.	4-5-22	SY B	9, 27, 34 — (3)	
3.	5-5-22	SY B	36, 38, 43 — (3)	
4.	11-5-22	SY B	1, 5, 13, 20, 28, 33 — (6)	
5.	12-5-22	SY B	37, 44, 55, 58, 67 — (5)	
6.	18-5-22	SY B	2, 10, 15, 19, 30 — (5)	
7.	19-5-22	SY B	39, 51, 56, 57, 61, 64 — (6)	
8.	25-5-22	SY B	3, 11, 17, 21, 22, 28, 32 — (7)	
9	26-5-22	SY B	39, 45, 46, 63, 64 — (5)	

Attendance

KTOM

Class: S.Y. B.Tech. Div-A

Sr NO.	Date	class	Absent No.	Name & sign of subject teacher
1.	28-4-22	SY A	1, 7, 14 — (3)	
2.	4-5-22	SY A	40, 41, 50, 72 — (4)	
3.	5-5-22	SY A	3, 12, 22, 23, 26, 28 — (6)	
4.	11-5-22	SY A	36, 37, 55, 71 — (4)	
5.	12-5-22	SY A	4, 6, 13, 14, 28, 29, 30 — (7)	
6.	18-5-22	SY A	38, 39, 47, 52, 63, 65, 71 — (7)	
7.	19-5-22	SY A	6, 10, 16, 17, 21, 23, 31, 33 — (8)	
8.	25-5-22	SY A	44, 47, 49, 60, 61, 73 — (6)	
9	26-5-22	SY A	6, 9, 17, 22, 24 — (5)	

Attendance

KTOM

Class: S.Y. B.Tech. Div-B

Sr No.	Date	class	Absent No.	Name & sign of subject teacher
1	28-4-22	SY B	1, 5, 7, 21, - (4)	
2	4-5-22	SY B	36, 46, 48 - (3)	
3	5-5-22	SY B	2, 3, 17, 19, 23 - (5)	
4	11-5-22	SY B	39, 40, 42, 46, 60, 62 - (6)	
5	12-5-22	SY B	20, 27 - (2)	
6	18-5-22	SY B	35, 38, 41 - (3)	
7	19-5-22	SY B	4, 9, 18, 19, 33 (5)	
8	25-5-22	SY B	36, 50, 52, 54 (4)	
9	26-5-22	SY B	6, 8, 13, 17, 33 (5)	

Attendance
MD - II

Class:- T.Y. B.Tech / A

Sr.No	Date	Class	Absent No.	Name & sign of Subject Teacher
1.	02/05/2022	TY A	2, 13, 24, 32 — (4)	SAS
2.	03/05/2022	TY A	38, 42, 56, 62, 68, 69 — (6)	SAS
3.	09/05/2022	TY A	3, 7, 11, 15, 20 — (5)	SAS
4.	10/05/2022	TY A	37, 43, 57 — (3)	SAS
5.	16/05/2022	TY A	4, 6, 14, 23, 27, 33 — (6)	SAS
6.	17/05/2022	TY A	39, 44, 58, 63, 64, 65, 66, 67 — (7)	SAS
7.	23/05/2022	TY A	5, 15, 22 — (3)	SAS
8.	24/05/2022	TY A	40, 45, 48, 50 — (4)	SAS

Attendence

~~Heat transfer~~ MD-II

TY B.Tech Div. B

No	Date	class	Absent No	name & sign of subject teacher
1	2/5/22	TY B	1, 4, 12, -③	
2	3/5/22	TY B	37, 45, 55, 62 -④	
3	9/5/22	TY B	3, 6, 10, 17, -④	
4	10/5/22	TY B	32, 45, -②	
5	16/5/22	TY B	3, 8, 17 -③	
6	17/5/22	TY B	37, 41, 53, 65, 68 -⑤	
7	23/5/22	TY B	2, 14, 20, 18 -④	
8	24/5/22	TY B	39, 41, 45, 49 -④	

Attendance

HMT

TY B.Tech Div B

Sr.No	Date	class	Absent No.	Name & sign of subject teacher.
1	2/5/2022	TY B	5, 7, 11, 19 — (4)	
2	3/5/2022	TY B	34, 41, 47 — (3)	
3	9/5/2022	TY B	2, 18, 22 — (3)	
4	10/5/2022	TY B	33, 44, 48, 50 — (4)	
5	16/5/2022	TY B	6, 9, 10, 15 — (4)	
6	17/5/2022	TY B	37, 46, 61, 62 — (4)	
7	23/5/22	TY B	3, 13, 22 — (3)	
8	24/5/2022	TY B	40, 44, 63 — (3)	

Attendence
Heat transfer
TY B. Tech Div. A

Sr.No	Date	class	Absent No.	Name & sign of subject teacher.
1	2/5/2022	TY A	36, 40, 70 — (3)	
2	3/5/2022	TY A	3, 6, 21, 35 — (4)	
3	9/5/2022	TY A	37, 45, 69 — (3)	
4	10/5/2022	TY A	4, 10, — (2)	
5	16/5/2022	TY A	41, 46, 56 — (3)	
6	17/5/2022	TY A	2, 17, 20, 25 — (4)	
7	23/5/2022	TY A	40, 47, 55 — (3)	
8	24/5/2022	TY A	1, 5, 16 — (3)	

Backlog Session

RANGOLI
STUDENTS NOTE BOOK

SVERI's

College of Engineering Pandharpur

Mechanical Engineering Department

Backlog Session Register

A. Y. 2021-22

SEM - II

SVERI's
COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT
Year 2021-22 **SEM- II**

Backlog Sessions Time Table

w.e.f. 11/03/2022

Sr. No.	Subject	Name of Faculty	Class	Day	Time
1	META	Prof. A. A. Shinde	TE	Thursday	8:00AM to 9:00AM 5.30PM to 6.30PM

As per above order, All Backlog sessions teachers are informed to conduct sessions seriously.

Sign of HOD

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

SVERI'S College of Engineering, Pandharpur

DEPARTMENT OF MECHANICAL ENGINEERING

Backlog List A.Y. 2021-22 SEM-II

TY Div-A & B

Roll No.	Name of Student	MD-I	CADCAM	META	IEOR	IHP	Sub. Backlog
TY-A 23	Dhotre Sagar Pandurang			20			1
TY-A 24	Waghmode Sachin Balwant			15			1
TY-B 07	Mamure Shraddha Chandrakanth			17			1
TY-B 23	Dhanawale Shubham Prakash			18			1
TY-B 26	Gavali Mahmaji Maruti			27			1
TY-B-54	shaikh shakil salim			24			1
TY-B-57	Shingate Dadasaheb Aba			17			1

HEAD.
Dept. of Mechanica
C.O.E. Pandhar

STUDENTS ATTENDANCE

SVERI's College of Engineering, Pandharpur
Department of Mechanical Engineering
A.Y.2021-22_SEM-II
Backlog Session Attendance Record

Class: T.Y. B.Tech. Mechanical Div-A and B

Name of Subject: Metallurgy
Name of Teacher: Prof. A.A. Shinde

Roll No.	Name of Student	Date	21/04/22	28/04/22	05/05/22	12/05/22	19/05/22	26/05/22	28/05/22	29/05/22							
		L. No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
TY-A 23	Dhotre Sagar Pandurang		P	A	P	P	P	P	P	P							
TY-A 24	Waghmode Sachin Balwant		P	P	A	P	P	P	P	P							
TY-B 07	Mamure Shraddha Chandrakanth		P	P	P	A	P	P	P	P							
TY-B 23	Dhanawale Shubham Prakash		A	P	P	P	P	P	P	P							
TY-B 26	Gavali Mahmaji Maruti		P	P	A	A	A	P	A	A							
TY-B-54	Shaikh Shakil Salim		P	P	P	P	A	A	A	A							
TY-B-57	Shingate Dadasaheb Aba		P	P	A	P	P	P	P	P							

Subject Teacher

HOD

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

University Result after Backlog Session

SVERI's College of Engineering, Pandharpur
Department of Mechanical Engineering
Result of A.Y.2021-22_SEM-II

Class: T.Y. B.Tech. Mechanical Div-A and B

Name of Subject: Metallurgy

Roll No.	Name of Student	Marks
TY-A 23	Dhotre Sagar Pandurang	28
TY-A 24	Waghmode Sachin Balwant	28
TY-B 07	Mamure Shraddha Chandrakanth	28
TY-B 23	Dhanawale Shubham Prakash	38
TY-B 26	Gavali Mahmaji Maruti	Absent
TY-B-54	Shaikh Shakil Salim	Absent
TY-B-57	Shingate Dadasaheb Aba	28

HOD

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

B.Tech.(with credits) - Regular - Choice Based Credit System(Mechanical Engineering)- B.Tech.-III - Sem-VI HELD IN MAR-2022
College of Engineering, Gopalpur

		ESE		ISE		ICA		POE		Tot								ESE		ISE		ICA		POE		Tot					
Code	AM	Min	Obt	Min	Obt	Min	Obt	Min	Obt	Max	Min	Obt	Gr	GP	EGP	Sts	Rmk	Code	AM	Min	Obt	Min	Obt	Min	Obt	Min	Obt	Max	Min	Obt	Gr	GP	EGP	Sts	Rmk
Seat No: 920780 PRN: 2019032500207804 ELIG: E Statement No: 6845128 College Code: COEP 210 Name: WAGHMODE SACHIN BALWANT (M/N :NAGUBAI)																															
197041501	TH	28	56	12	21	--	--	--	--	100	--	77	--	--	--	P	E,X	197041501	PR	--	--	--	--	10	22	--	--	25	--	22	--	--	--	P	E,X
197041501		--	--	--	--	--	--	--	--	125	--	99	A+	9.00	36.00	P	E,X	197041502	TH	28	46	12	21	--	--	--	--	100	--	67	--	--	--	P	E,X
197041502	PR	--	--	--	--	10	22	10	12	50	--	34	--	--	--	P	E,X	197041502		--	--	--	--	--	--	--	--	150	--	101	A	8.00	32.00	P	E,X
197041503	TH	28	$25+3	12	20	--	--	--	--	100	--	$45+3	--	--	--	P	E,C	197041503	PR	--	--	--	--	10	21	10	21	50	--	42	--	--	--	P	E,X
197041503		--	--	--	--	--	--	--	--	150	--	$87+3	A	8.00	32.00	P	E,C	197041504	TH	28	46	12	24	--	--	--	--	100	--	70	--	--	--	P	E,X
197041504	PR	--	--	--	--	10	22	--	--	25	--	22	--	--	--	P	E,X	197041504		--	--	--	--	--	--	--	--	125	--	92	A+	9.00	36.00	P	E,X
197041505	PR	--	--	--	--	20	45	--	--	50	--	45	--	--	--	P	E,X	197041505		--	--	--	--	--	--	--	--	50	--	45	O	10.00	30.00	P	E,X
197041506	PR	--	--	--	--	10	22	--	--	25	--	22	--	--	--	P	E,X	197041506		--	--	--	--	--	--	--	--	25	--	22	O	10.00	10.00	P	E,X
197041516	TH	20	31	--	--	--	--	--	--	50	--	31	--	--	--	P	E,X	197041516		--	--	--	--	--	--	--	--	50	--	31	A	8.00	16.00	P	E,X
197041508	TH	28	53	12	21	--	--	--	--	100	--	74	--	--	--	P	E,X	197041508	PR	--	--	--	--	10	22	--	--	25	--	22	--	--	--	P	E,X
197041508		--	--	--	--	--	--	--	--	125	--	96	A+	9.00	36.00	P	E,X																		
Sem-V Total Credit: 26.00 | EGP: 228.00 | SGPA: 8.77 | Status: Pass																															
197041604	TH	28	53	12	17	--	--	--	--	100	--	70	--	--	--	P	E,C	197041604	PR	--	--	--	--	10	23	--	--	25	--	23	--	--	--	P	E,C
197041604		--	--	--	--	--	--	--	--	125	--	93	A+	9.00	36.00	P	E,C	197041605	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C
197041605		--	--	--	--	--	--	--	--	25	--	14	B+	7.00	14.00	P	E,C	197041606	PR	--	--	--	--	10	18	10	13	50	--	31	--	--	--	P	E,C
197041606		--	--	--	--	--	--	--	--	50	--	31	A	8.00	8.00	P	E,C	197041607	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C
197041607		--	--	--	--	--	--	--	--	25	--	14	B+	7.00	7.00	P	E,C	197041601	TH	28	45	12	19	--	--	--	--	100	--	64	--	--	--	P	E,C
197041601	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C	197041601		--	--	--	--	--	--	--	--	125	--	78	A	8.00	32.00	P	E,C
197041602	TH	28	64	12	20	--	--	--	--	100	--	84	--	--	--	P	E,C	197041602	PR	--	--	--	--	10	17	--	--	25	--	17	--	--	--	P	E,C
197041602		--	--	--	--	--	--	--	--	125	--	101	O	10.00	40.00	P	E,C	197041603	TH	28	50	12	20	--	--	--	--	100	--	70	--	--	--	P	E,C
197041603	PR	--	--	--	--	10	20	10	18	50	--	38	--	--	--	P	E,C	197041603		--	--	--	--	--	--	--	--	150	--	108	A+	9.00	36.00	P	E,C
197041610	TH	28	50	12	21	--	--	--	--	100	--	71	--	--	--	P	E,C	197041610	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C
197041610		--	--	--	--	--	--	--	--	125	--	85	A	8.00	32.00	P	E,C	197041616	TH	20	31	--	--	--	--	--	--	50	--	31	--	--	--	P	E,C
197041616		--	--	--	--	--	--	--	--	50	--	31	A	8.00	16.00	P	E,C																		
Sem-VI Total Credit: 26.00 | EGP: 221.00 | SGPA: 8.50 | Status: Pass																															

Sem-V (Seat No: 920780 Exam Event: Mar-2022) Total Credit: 26.00| EGP: 228.00| SGPA: 8.77 | Status: Pass | Grade: --
B.Tech.-II (Seat No: 1920780 Exam Event: Mar-2021) Total Credit: 42.00| EGP: 366.00| SGPA: 8.71 | Status: Pass | Grade: --
B.Tech.-I (Seat No: 920780 Exam Event: Mar-2020) Total Credit: 47.00| EGP: 434.00| SGPA: 9.23 | Status: Pass | Grade: --

Grand Total: 1128+3/1600(One Thousand One Hundred and Thirty One) |Percentage: 70.69 % |ECA Marks: NA (Balance Marks: Nil) | $O.94(3 mark/s),
Total Credits Earned: 52.00 | Total Earned Grade Points: 449.00 |GPA/SGPA: 8.63 |Status: Pass |CGPA: -- |Final Grade: --

B.Tech.(with credits) - Regular - Choice Based Credit System(Mechanical Engineering)- B.Tech.-III - Sem-VI HELD IN MAR-2022
College of Engineering, Gopalpur

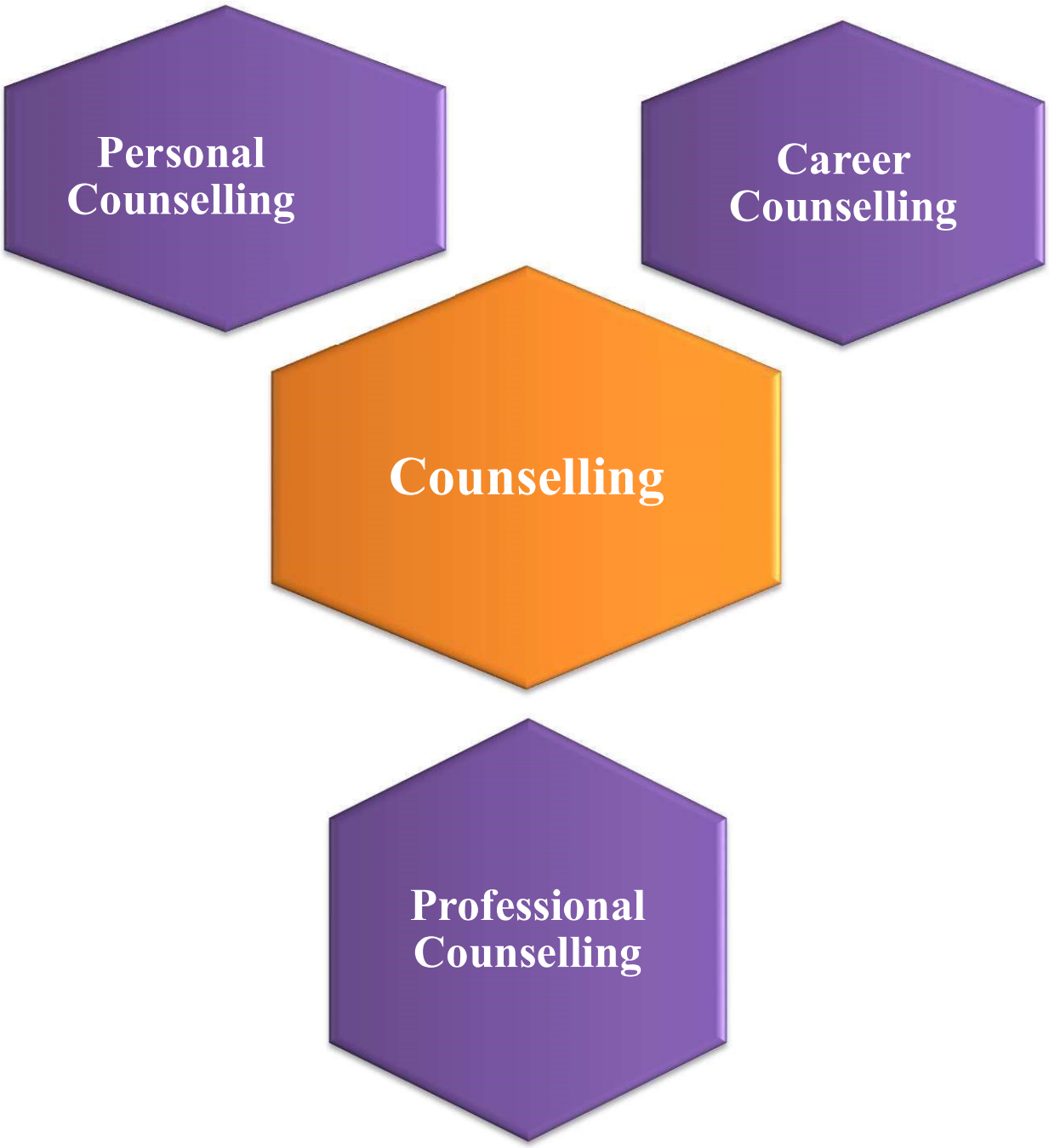
		ESE		ISE		ICA		POE		Tot								ESE		ISE		ICA		POE		Tot					
Code	AM	Min	Obt	Min	Obt	Min	Obt	Min	Obt	Max	Min	Obt	Gr	GP	EGP	Sts	Rmk	Code	AM	Min	Obt	Min	Obt	Min	Obt	Min	Obt	Max	Min	Obt	Gr	GP	EGP	Sts	Rmk
Seat No: 824362 PRN: 2018032500243621 ELIG: E Statement No: 6844941 College Code: COEP 184 Name: DHOTRE SAGAR PANDURANG (M/N :SHOBHA)																															
197041501	TH	28	56	12	21	--	--	--	--	100	--	77	--	--	--	P	E,X	197041501	PR	--	--	--	--	10	17	--	--	25	--	17	--	--	--	P	E,X
197041501		--	--	--	--	--	--	--	--	125	--	94	A+	9.00	36.00	P	E,X	197041502	TH	28	59	12	23	--	--	--	--	100	--	82	--	--	--	P	E,X
197041502	PR	--	--	--	--	10	17	10	13	50	--	30	--	--	--	P	E,X	197041502		--	--	--	--	--	--	--	--	150	--	112	A+	9.00	36.00	P	E,X
197041503	TH	28	*22	12	27	--	--	--	--	100	--	*49	--	--	--	P	E,C	197041503	PR	--	--	--	--	10	17	10	18	50	--	35	--	--	--	P	E,X
197041503		--	--	--	--	--	--	--	--	150	--	*84	A	8.00	32.00	P	E,C	197041504	TH	28	55	12	14	--	--	--	--	100	--	69	--	--	--	P	E,X
197041504	PR	--	--	--	--	10	18	--	--	25	--	18	--	--	--	P	E,X	197041504		--	--	--	--	--	--	--	--	125	--	87	A	8.00	32.00	P	E,X
197041505	PR	--	--	--	--	20	35	--	--	50	--	35	--	--	--	P	E,X	197041505		--	--	--	--	--	--	--	--	50	--	35	A+	9.00	27.00	P	E,X
197041506	PR	--	--	--	--	10	17	--	--	25	--	17	--	--	--	P	E,X	197041506		--	--	--	--	--	--	--	--	25	--	17	A	8.00	8.00	P	E,X
197041516	TH	20	42	--	--	--	--	--	--	50	--	42	--	--	--	P	E,X	197041516		--	--	--	--	--	--	--	--	50	--	42	O	10.00	20.00	P	E,X
197041508	TH	28	35	12	21	--	--	--	--	100	--	56	--	--	--	P	E,X	197041508	PR	--	--	--	--	10	17	--	--	25	--	17	--	--	--	P	E,X
197041508		--	--	--	--	--	--	--	--	125	--	73	B+	7.00	28.00	P	E,X																		
Sem-V Total Credit: 26.00 | EGP: 219.00 | SGPA: 8.42 | Status: Pass																															
197041604	TH	28	52	12	14	--	--	--	--	100	--	66	--	--	--	P	E,C	197041604	PR	--	--	--	--	10	22	--	--	25	--	22	--	--	--	P	E,C
197041604		--	--	--	--	--	--	--	--	125	--	88	A+	9.00	36.00	P	E,C	197041605	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C
197041605		--	--	--	--	--	--	--	--	25	--	14	B+	7.00	14.00	P	E,C	197041606	PR	--	--	--	--	10	18	10	15	50	--	33	--	--	--	P	E,C
197041606		--	--	--	--	--	--	--	--	50	--	33	A	8.00	8.00	P	E,C	197041607	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C
197041607		--	--	--	--	--	--	--	--	25	--	14	B+	7.00	7.00	P	E,C	197041601	TH	28	57	12	21	--	--	--	--	100	--	78	--	--	--	P	E,C
197041601	PR	--	--	--	--	10	14	--	--	25	--	14	--	--	--	P	E,C	197041601		--	--	--	--	--	--	--	--	125	--	92	A+	9.00	36.00	P	E,C
197041602	TH	28	67	12	16	--	--	--	--	100	--	83	--	--	--	P	E,C	197041602	PR	--	--	--	--	10	15	--	--	25	--	15	--	--	--	P	E,C
197041602		--	--	--	--	--	--	--	--	125	--	98	A+	9.00	36.00	P	E,C	197041603	TH	28	53	12	14	--	--	--	--	100	--	67	--	--	--	P	E,C
197041603	PR	--	--	--	--	10	18	10	18	50	--	36	--	--	--	P	E,C	197041603		--	--	--	--	--	--	--	--	150	--	103	A	8.00	32.00	P	E,C
197041610	TH	28	55	12	18	--	--	--	--	100	--	73	--	--	--	P	E,C	197041610	PR	--	--	--	--	10	13	--	--	25	--	13	--	--	--	P	E,C
197041610		--	--	--	--	--	--	--	--	125	--	86	A	8.00	32.00	P	E,C	197041616	TH	20	34	--	--	--	--	--	--	50	--	34	--	--	--	P	E,C
197041616		--	--	--	--	--	--	--	--	50	--	34	A	8.00	16.00	P	E,C																		
Sem-VI Total Credit: 26.00 | EGP: 217.00 | SGPA: 8.35 | Status: Pass																															

Sem-V (Seat No: 824362 Exam Event: Mar-2022) Total Credit: 26.00| EGP: 219.00| SGPA: 8.42 | Status: Pass | Grade: --
B.Tech.-II (Seat No: 1824362 Exam Event: Mar-2021) Total Credit: 42.00| EGP: 402.00| SGPA: 9.57 | Status: Pass | Grade: --
B.Tech.-I (Seat No: 824362 Exam Event: Mar-2020) Total Credit: 47.00| EGP: 349.00| SGPA: 7.43 | Status: Pass | Grade: --

Grand Total: 1106/1600(One Thousand One Hundred and Six) |Percentage: 69.13 % |ECA Marks: NA (Balance Marks: Nil) | *O.96(6 mark/s),
Total Credits Earned: 52.00 | Total Earned Grade Points: 436.00 |GPA/SGPA: 8.38 |Status: Pass |CGPA: -- |Final Grade: --

COUNSELLING

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur



Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Personal Counselling

1. Counselling through psychologist
2. Counselling through Mentor

Contract Agreement

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE, PANDHARPUR
(Regd.No.:Maharashtra/5131/94/Solapur[1860(21)]dated 28/12/94,F-4371 Solapur(1950 Mumbai-29)dated 06/03/95)

P.B..No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413 304,, Dist. Solapur (Maharashtra)
Tel. : 7755990201, **Toll Free No.** :- 1800-3000-4131 **E-mail** : coe@sveri.ac.in, **Website**: www.sveri.ac.in

Ref No: SVERI/2020-2021/47(E) Date: 01/01/20

Contract Agreement for Counseling Services

Between

1. Shri Vithal Education & Research Institute, Pandharpur (Here afterwards called as the SVERI) } Party No. 1

And

2. Dr. Sangeeta S. Patil, Homeopathic Consultant & Psychological Counselor (Here afterwards called as the Counselor) } Party No. 2

An Agreement is made on today i.e. Friday, 01/01/2021 between the SVERI and the Counselor on the following conditions.

1. That, the Counselor should render her services in the SVERI campus.
2. That, the Counselor shall be available in the SVERI campus once in a week i.e. on Monday for three hours from 11.00 A.M. to 2.00 P.M. However, if Monday is holiday or Counselor is not able to attend on some Monday, other day in that week can be decided for visit during that week in consultation with Registrar. The visits shall continue during teaching period of the semester. After teaching period gets over, visits may be continued, if required, as per the instruction from Institute side.
3. Counseling be made mainly for students, however, it shall be extended to staff also as per the requirement.
4. That, the SVERI shall provide the necessary Consulting Room with the required furniture, etc. in the campus.
5. That the SVERI shall pay an honorarium of Rs. 2,500/- (Rs. Two Thousand Five Hundred only) inclusive of all taxes per visit for three hours to the Counselor.
6. Counselor shall maintain the record of students branch wise and class wise and shall submit the same to Registrar at the end of every semester. However, record confidentially be maintained.
7. The agreement can be terminated by either party by giving one month's prior notice.
8. The above agreement shall automatically get terminated on 30/11/2021. However, the same can be further renewed with mutual consent.

The above agreement, with all its contents, is accepted by both parties and the agreement comes into the force from 01st January, 2021.

1. The SVERI:
   Sign B. Ronge
   Name Dr. B. P. Ronge
   Date : 01/01/2021

1. The Counselor:
   Sign Patil
   Name Dr. Sangeeta Shital Patil
   Date : 1/1/2021

Witness : 1. Sign :
Name : Mr. Zarkar A. G
Date : 01/01/2021

2. Sign : (Off)
Name : Mr. Gavali S. R.
Date : 01/01/2021

Counselling Session by Dr. Sangita Patil (Psychologist)

MENTOR REGISTER

A.Y. 2021-22

S.Y.B.Tech (MECH)

DIV- A

RANGOLI
STUDENTS NOTE BOOK

SVERI'S
COLLEGE OF ENGINEERING, PANDHARPUR
MECHANICAL ENGINEERING DEPARTMENT

MENTOR REGISTER

Academic Year: 2021-22

SEM: II

Class: S.Y. B.Tech. (MECH)

Div.: A **Batch: SA-2**

Name of Mentor: Mr. A. K. Parkhe

SVERI's College of Engineering, Pandharpur

Department of Mechanical Engineering

A.Y.2021-22_SEM-II

STUDENT LIST FOR MENTOR SESSION

Class: S.Y. (A-2)

Sr. No.	Roll No.	Name of Student
1.	SA26	Dhumal Pradip Baban
2.	SA27	Dubal Aniket Arun
3.	SA28	Gajare Nagesh Bhaskar
4.	SA29	Gavali Abhijit Tanaji
5.	SA30	Gavali Ganesh Chandrakant
6.	SA31	Gavali Shubham Shashikant
7.	SA32	Ghadage Saurabh Dhanaji
8.	SA33	Ghadage Sumit Anant
9.	SA34	Ghutukade Sachin Somaji
10.	SA35	Gujare Sairaj Chandrakant
11.	SA36	Ingale Arjun Rajendra
12.	SA37	Irkal Prasad Pandurang
13.	SA38	Jadhav Aryash Sanjay
14.	SA39	Jadhav Vedant Dipak
15.	SA40	Jadhav Yashraj Sharad
16.	SA41	Jahagirdar Shadab Irfan
17.	SA42	Jankar Dnyanesh Anil
18.	SA43	Waghmode Abhijit Nanasaheb
19.	SA44	Kadam Shreyash Santosh
20.	SA45	Vibhute Mahesh Pandit
21.	SA46	Kambale Akash Hanumant
22.	SA47	Kamble Abhishek Shivaji
23.	SA48	Karande Shivprasad Pandurang
24.	SA49	Varma Ronak Kamlesh
25.	SA50	Kole Yogesh Digambar

A/cp

Mentor Teacher

HOD

HEAD,
Dept. of Mechanical Engg.
C.O.E. Pandharpur.

Roll No.	Name of Student	Local Address	Permanent Address	Parent mobile No.	E-mail ID
26.	Dhumal pradip Baban	At. Post Laul. Tal. Madha. Dist. solapur.	At. Post Laul. Tal. Madha. Dist. Solapur.	9730007555	pradip.dhumal@coep.sveri.ac.in
27.	Dubal Aniket Arun	At Post- Phondshiras Tal- malshiras Dist- solapur	At. Post Phondshiras (markadwad) Tal.:- malshiras Dist:- solapur	8530354575	aniket.adubal@coep.sveri.ac.in
28.	Gajare Nagesh Bhaskar	At post shelave tal pandharpur Dist solapur	At post shelave tal. pandharpur Dist solapur	9096261973 9322090995	nageshbgajare@coep.sveri.ac.in
29.	Gavali Abhijit Tanaji	A/p:- Malinagar, Nandannagar malinagar, Tal. Malshiras Dist - Solapur - 413108	A/p:- Malinagar, Nandan-nagar Malinagar, Tal- Malshiras. Dist - Solapur - 413108	9665248586	abhijitgavali@coep.sveri.ac.in
30.	Gavali Ganesh Chandrakant	At: Post Laul tal. madha Dist. Solapur	At: Post Laul tal. madha Dist Solapur	9960181324 9673704855 (me)	ganeshcgavali@coep.sveri.ac.in
31.	Gavali Shubham Shashikant	A/p: Tandulwadi. Tal:-Madha Dist:- Solapur	A/p:. Tandulwadi Tal-Madha dist:- Solapur.	9767185207 9021772743	shubhamsgavali@coep.sveri.ac.in

Roll No.	Name of Student	Local Address	Permanent Address	Parent Mobile No.	E-mail ID.
32.	Ghadage Saurabh Dhanaji	At post Ranzani tal. Pandharpur Dist. Solapur	At post Ranzani tal. Pandharpur Dist. Solapur.	7020167405	saurabhdghadage@coep.sveri.ac.in
33.	Sumit Anant Ghadage	At post. Mundhewadi tal. phandharpur Dist. Solapur	At post. Mundhewadi tal phandharpur dist Solapur.	9325384115 9325405043(fmc)	Sumitghadage@1818gmail.com
34.	Ghutukade Sachin Somaji	At post Gherdi Tal. Sangola Dist. Solapur	At post. Gherdi Tal. Sangola Dist. Solapur	9192917398	sachinsghutukade@coep.sveri.ac.in
35.	Gujare Sairaj Chandrakant	At. Brambhpuri. Tal. Mangalwedha, Dist. Solapur.	At. Brambhpuri, Tal. Mangalwedha Dist. Solapur.	7755971929 9529575792	sairajgajare@coep.sveri.ac.in
36.	Ingale Arjun Rajendra	At Post Murum Tal: Omerga Dist: Osmanabad.	At Post Murum Tal: Omerga. Dist: Osmanabad	9960617639 9370619569	arjunringale@coep.sveri.ac.in
37.	Irkal Prasad Pandurang.	At post chandrama residensy, Pandharpur.	At post chandrama residensy, P.Pur.	9370400825 9604375154.	PrasadPirkal@coep.sveri.ac.in
38.	Aryash Sanjay Jadhav	Sangola - 413307. Shivaji nagar, Vasud road, Sangola, Dist. Solapur	Sangola - 413307 shivaji nagar, Vasud road, sangola. Dist. Solapur	9763808486 My :- 9011626665	aryashsjadhav@coep.sveri.ac.in

Roll No.	Name of Student	Local Address	permanent Address	parent mobile No.	E-mail - ID
39.	Jadhav Vedant Dipak	manisha nagar, link road, Pandharpur	Pandharpur	9322176251	vedantdjadhav@coep.sveri.ac.in
40.	Jadhav Yashraj Sharad	Shiv-parvatinagar pandharpur 413304	Pandharpur	7083410532	YashrajSJadhav@coep.in
41.	Jahagirdar Shadab Irfan	At- kandar Tal- karmala Dist - Solapur	At - kandar	8999218984	ShadabIJahagirdar@coep.sveri.ac.in
42.	Jankar Dnyanesh Anil	At post - shivane Tal - sangola Dist - solapur	At post- shivane	7499359797 8767880391	dnyaneshajankar@coep.sveri.ac.in
43.	Waghmode Abhijit Nana	At - Anjangaon (Che) Tal - Madha Dist - solapur.	At - Anjanguen	7219133545	abhijitnwaghmode@coep.sveri.ac.in
44.	Shreyash Santosh Kadam	At post. Suste Tal - Pandharpur Dist - Solapur.	At post - Suste.	7558287387 7709892999	shreyashskadam@coep.sveri.ac.in.
45.	Vibhute Mahesh Panditt	At post - Dharmgaon Tq - Mangalwedha D/t - solapur	At post - Dharmgaon	8999801802	Maheshpvibhute@coep.sveri.ac.in

Roll No.	Name of Student	Local Address	permanent Address	parent mobile No.	E-mail - ID
46.	Akash Hanumant Kambale	A/P vairag Tal. Barshi Dist. Solapur Pin - 413402	A/p vairag Tal- Barshi Dis- Solapur Pin- 413402	9145372204 9172399285	akashh.kambale@coep.sveri.ac.in
47.	Kambale Abhishek Shivaji	A/P- Kasalamb Tal - Pandharpur Dist - Solapur	A/p - Kasalamb Tal - P.pur Dist - Solapur		abhishekskamble@coep.sveri.ac.in
48.	Shivprasad Pandurang Karande	A/P Kole, Tal. Sangola Dist. Solapur Pin - 413314	A/P kole, Tal. Sangola Dist. Solapur Pin - 413314	9860604980 9168025173 (Me)	shivprasadpkarande@coep.sveri.ac.in
49.	Varma Ronak Kamlesh	A/p Pisangi, Tal- Pandharpur Dist. Solapur Pin - 413304	A/p Pisangi, Tal- Pandharpur Dis- Solapur.	9172150374 8390973696	~~varma~~ K Ronak K varma @ coep. sveri.ac.in.
50.	yogesh Digambar Kole	A/P. Narayan chincholi, Tal - pandharpur. dist - Solapur. pin - 413304.	A/P. Narayan chincholi Tal. pandharpur. dist. Solapur. Pin - 413304.	(9145412192) me 9665472412	yogeshdkole@coep.sveri.ac.in.

SVERI's College of Engineering, Pandharpur

Department of Mechanical Engineering

A.Y.2021-22_SEM-II

MENTOR SESSION PLAN

Class: S.Y. B.Tech. (A) Batch: SA-2

Sr. No.	Planned Date	Name Of the activity Planned	Activity conducted Date
1	20/5/22	Introduction of teacher and students	20/5/22
2	20/5/22	Importance of proctor	20/5/22
3	20/5/22	About PPPE and five sentences	20/5/22
4	23/5/22	Communication skills	30/6/22
5	26/5/22	Communication skills	30/6/22
6	27/5/22	Group Discussion	30/5/22
7	30/5/22	Essay writing	-
8	3/7/22	Puzzles	1/7/22
9	4/7/22	Reading skills	15/7/22
10	6/7/22	Newspaper Reading	4/7/22
11	9/7/22	Newspaper Reading	7/7/22
12	10/7/22	Newspaper Reading	8/7/22
13	13/7/22	Creating story from words	11/7/22
14	16/7/22	Creating story from words	14/7/22
15	17/7/22	Creating story from words	14/7/22
16	20/7/22	Searching information and delivering skills	20/5/22
17	23/7/22	Reading skills	15/7/22
18	24/7/22	Email writing	-
19	27/7/22	Personal interview | Test	28/5/22
20	30/7/22	Personal interview | Test	19/7/22
21		Personal counseling	
22		Personal counseling	
23		News creation	
24		News creation	
25		Aptitude	
26		Aptitude	
27		Logical reasoning	
28		Logical reasoning	
29		Logical reasoning	
30		Communication skills	
31		Communication skills	
32		Narration of a story	
33		Narration of a story	
34		Narration of a story	
35		Puzzles	

AICP

[Mentor Teacher]

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

36		Email writing	
37		Advertisement making	
38		Advertisement making	
39		Motivational video	
40		News creation	
41		Newspaper reading	
42		Debate	
43		Debate	
44		Puzzles	
45		Aptitude	
46		Extempore	
47		Extempore	
48		Seminar	
49		Seminar	
50		Technical interview	
51		News creation	
52		How to discuss in group-Video	
53		Group discussion	
54		Group discussion	
55		Newspaper words hunt	
56		Technical words game	
57		Creating story from words	
58		Searching information and delivering skills	
59		Reading skills	
60		Technical interview	
61		Creating story from words	
62		Motivational video	

Mentor Teacher

HOD

HEAD,
Dept. of Mechanical Engg.
C.O.E. Pandharpur.

SVERI's College of Engineering, Pandharpur
Department of Mechanical Engineering
A.Y.2021-22_SEM-II
MENTOR SESSION ATTENDANCE RECORD

Class: S.Y. (A-2)

Roll No.	Name of Student	Date	20/5/22	23/5/22	24/5/22	30/5/22	31/5/22	03/6/22	17/6/22	20/6/22	25/6/22	28/6/22	30/6/22	01/7/22	04/7/22	7/7/22	9/7/22	11/7/22	14/7/22	15/7/22	18/7/22	19/7/22																		
		M. No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
SA26	Dhumal Pradip Baban		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	·	·	17	·																		
SA27	Dubal Aniket Arun		1	2	3	L	4	5	6	L	7	8	9	10	11	12	13	14	15	16	17	18																		
SA28	Gajare Nagesh Bhaskar		1	L	L	2	L	L	3	4	L	5	6	7	8	9	·	·	10	11	12	·																		
SA29	Gavali Abhijit Tanaji		1	2	3	A	4	L	L	5	6	7	8	9	10	11	12	13	14	15	·	·																		
SA30	Gavali Ganesh Chandrakant		1	2	3	4	5	6	7	8	A	9	10	11	12	13	14	15	16	17	18	·																		
SA31	Gavali Shubham Shashikant		1	2	3	4	L	L	5	6	7	A	·	·	8	9	10	11	12	13	14	15																		
SA32	Ghadage Saurabh Dhanaji		1	2	3	4	5	L	6	7	8	9	10	11	12	13	14	15	16	17	18	19																		
SA33	Ghadage Sumit Anant		1	2	3	A	A	L	4	L	5	6	7	8	9	10	11	12	13	14	15	·																		
SA34	Ghutukade Sachin Somaji		1	2	L	3	L	L	4	5	L	6	7	8	9	·	·	10	11	12	13	14																		
SA35	Gujare Sairaj Chandrakant		1	2	3	4	5	6	7	L	8	9	10	11	·	12	13	14	15	16	17	18																		
SA36	Ingale Arjun Rajendra		1	2	3	4	5	L	6	7	8	9	10	11	·	12	13	14	15	·	16	17																		
SA37	Irkal Prasad Pandurang		A	A	A	A	L	L	1	2	3	4	5	6	7	8	9	·	·	·	10	11																		

Mentor Teacher

HOD

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

SVERI's College of Engineering, Pandharpur
Department of Mechanical Engineering
A.Y.2021-22_SEM-II
MENTOR SESSION ATTENDANCE RECORD

Class: S.Y. (A-2)

Roll No.	Name of Student	Date	20/1/22	23/1/22	24/1/22	30/1/22	31/1/22	03/02/22	17/6/22	20/6/22	25/6/22	28/6/22	30/6/22	1/7/22	4/7/22	7/7/22	8/7/22	11/7/22	14/7/22	15/7/22	18/7/22	19/7/22
		M. No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SA38	Jadhav Aryash Sanjay		1	2	3	4	5	L	L	6	7	8	9	10	11	L	L	12	D	13	15	16
SA39	Jadhav Vedant Dipak		1	2	3	A	5	A	6	L	7	8	9	10	11	R	13	14	15	L	L	A
SA40	Jadhav Yashraj Sharad		L	1	2	3	A	5	6	7	A	A	8	9	L	10	11	R	13	14	15	L
SA41	Jahagirdar Shadab Irfan		1	2	3	A	5	L	6	7	D	8	9	10	11	12	13	L	A	15	16	17
SA42	Jankar Dnyanesh Anil		1	2	3	4	5	6	7	8	9	10	11	12	D	A	15	R	17	18	19	20
SA43	Waghmode Abhijit Nanasaheb		L	1	2	3	A	5	6	7	A	L	8	9	10	11	12	13	L	14	15	16
SA44	Kadam Shreyash Santosh		1	2	L	3	A	5	6	7	L	L	8	9	10	11	12	13	L	14	15	16
SA45	Vibhute Mahesh Pandit		1	2	3	4	5	6	7	8	9	L	10	11	12	13	14	15	16	L	17	18
SA46	Kambale Akash Hanumant		1	2	3	4	A	5	L	6	7	8	9	10	11	12	13	14	A	A	15	16
SA47	Kamble Abhishek Shivaji		1	2	3	A	A	A	5	6	7	8	9	10	11	12	13	14	15	16	A	A
SA48	Karande Shivprasad Pandurang		1	2	3	4	5	L	L	6	7	8	9	10	11	12	L	13	14	15	16	17
SA49	Varma Ronak Kamlesh		1	2	3	A	A	L	L	4	5	6	7	8	9	10	11	12	13	14	A	A
SA50	Kole Yogesh Digambar		1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	17	18	L

Mentor Teacher

HOD
HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Daily Activity

Sr.No	Date	Name of the Activity	Name of Student	Sign of Students	Sign of M.T
1	20/5/22	About PPT presentation	Jadhav Vedant D	Jadhav	
2	23/5/22	preparation for GATE exam - Tech. subject.	kambale Abhishek S	Abhishek	
3	24/5/22	General knowledge Quiz.	Jadhav Avnish S	Avnish	
4	30/5/22	GD - Private Job Vs Govt. Job	Jankar Dnyanesh A	DA	
5	31/5/22	GD - Role of media in society	Vibhute Mahesh P	M.P.V.	
6	03/6/22	Aptitude Test	Jankar Dnyanesh	Dnyan	
7	17/6/22	Technical Test	Irkal Prasad.	Prasad	
8	20/6/22	Non-Tech. Test.	Dubal Anilrao	Anilrao	
9	27/6/22	Topic presentations	Ingale Arjun	Arjun	
10	28/6/22	Topic presentations	Jahagirdar Shadab.	Shadab	
11	30/6/22	comm. skill	Gavali Abhijit.	Gavali	
12	1/7/22	Puzzles	Dubal Pradip	Pradip	
13	4/7/22	News Paper reading	Iralal prasad	Prasad	
14	7/7/22	News paper reading	Gavali Abhijit	Gavali	
15	8/7/22	Newspaper reading	Kole Yogesh	Yogesh	
16	11/7/22	story creating	Waghmode Abhijit	Abhijit	
17	14/7/22	story creating	Kamanale Shivprasad	Shivprasad	
18	15/7/22	Reading skill	Soumitra Ghadage	Soumitra	
19	18/7/22	Puzzles	Kole Yogesh	Yogesh	
20	19/7/22	Aptitude Test.	Gavali Abhijit	Gavali	
21					
22					
23					
24					
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27					
28					
29					
30					

[Mentor Teacher]

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Sr.No	R.N.	Name of Student	Goal	Planning	Review
1	26	Dhumal pradip baban	To start your own buisness	start planning after completing B. Tech.	
2	27	Dubal Aniket Arun	International company job	Study of that subject	
3	28	Gajare Nagesh Bhaskar	Income tax officer	study of that subject.	
4	29	Gavali Abhijit Tanaji	core sector job	study of that subject	
5	30	Gavali Ganesh chandrakant	core sector job	Study core branch	
6	31	Gavali Shubham Shashikant	core job	Hard study, work Hard	
7	32	Ghadage Saurabh Dhanaji	IT Job	hard working	
8	33	Sumit Anant Ghadage	Public sector servics	Study core branch and GATE exam.	
9	34	Ghutukade Sachin Sanaji	IT job	Learning diffirent languages	
10	35	Gujare Sairaj Chandrakant	Enterpreneaur	~~to g~~ preparing for CAT exam to get admission for MBA in top colleges as possible. (IIM)	
11	36	Ingale Arjun Rajendra	Job on multi-nation -al companies	Prepare the Gate exam.	
12	37	Irkal Prasad Pandurang.	IT Job	Hard working For Gate exam :(	
13	38	Aryash Sanjay Jadhav.	To become best photo & video editor	I accept small projects of editing	
14	39	Vedant Dipak Jadhav	core sector job	studing for PSUs	
15	40	Yashraj sharad Jadhav.	Mechanical engineering body building	study hard work hard	

Sr.No	R.N.	Name of Student	Goal	Planning	Review
16	41	Jahagirdar Shadab Id Fair	Private job in It sector.	~~Study~~ preparation for Gate exam	
17	42	Dnyanesh Anil Jankar	Government job	Study competitive exam.	
18	43	Abhijit waghmode	Job in core industry.	studying Technical subject.	
19	44	Shreyash Santosh Kadam	To get good job in multi-national It company with highest salary.	Learn all thing to full fill my dream	
20	45	vibhute Mahesh pandit	Government job	study Gate exam	
21	46	Akash Hanumant kambale	Goverment job	learning Computer languages	
22	47	Akash S. Kamble	Govt. Job	preparing for competitive exams.	
23	48	Shivprasad Pandurang karande	IT Job	Learning computer languages	
24	49	Vayma Ronak Kamlesh	To get job in multi-national company	For Gate exam Learn IT languages.	
25	50	yogesh digambar kole.	Government job.	Study Gate exam.	

[mentor Teacher]

HEAD
Dept. of Mechanical Engg
C.O.E. Pandharpur

SWOC

R.N.	Name of Student	SWOC Analysis	Recommendations
26	Dhumal pradip baban.	Strength: Hard wocking,	
		Weakness: Lack of self confidence.	
		opportunities: Entrepeneur.	
		Challenges: private Jobs, Navy, Air force.	
27	Dubal Aniket Arun	Strength: Hard work, fast learner	
		Weakness: low stage dearing Poor communication	
		opportunities: Goverment Job	
		Challenges: I want become IES officer	
28	Gajare Nagesh Bhaskar	Strength: Hard work, belive in ourselves.	
		Weakness: inconsistancy in study	
		opportunities: Goverment Job	
		Challenges: I want become Income tax officior.	
29	Gavali Abhijit Tanaji	Strength: Hard work	
		Weakness: communicate in english low stage dearing	
		opportunities: private job	
		Challenges: want to becomes good engineear	
30	Gavali Ganesh Chandrakant	Strength: Hard work	
		Weakness: Communicate in english low stage dearing	
		opportunities: Goverement Job / private.	
		Challenges: want to become Good engineeer	

AICP

[Mentor Teacher]

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

SWOC

No	R.N.	Name of Student	SWOC Analysis	Recommendations
6	31	Gavali Shubham Shashikant	Strength: patience, fast learner.	
			Weakness: Stage daring,	
			opportunities: Want to goverment Job.	
			Challenges: A Good engineer.	
	32	Ghadage Saurabh Dhanaji	Strength: Easy to understand new concept,	
			Weakness: Lack of self confidence	
			opportunities: want to become expert in computer technology.	
			Challenges: want to become good engineer.	
8	33	Ghadage Sumit	Strength: Hard work	
			Weakness: communication	
			opportunities: A good Tech. Engg.	
			Challenges: Want to become good engg.	
	34	Ghatakade Sachin Somaji	Strength: Fast learner,	
			Weakness: lack of communication lack of self confidence	
			opportunities: want to become software engineer.	
			Challenges: want to become a good engineer.	
10	35	Gujare Sairaj Chandrakant	Strength: pateince, fast learner.	
			Weakness: poor communication, low stage deaming.	
			opportunities: become a good enterprenaur	
			Challenges: want to become enterprenaur	

[Mentor Teacher]

HEAD
Dept. of Mechanical Engg
C.O.E. Pandharpur

SWOC

Sr.No	R.N.	Name of Student	SWOC Analysis	Recommendations
11	36	Ingale Arjun Rajendra.	Strength: Hard working. Weakness: Poor communication, Poor self confidence. opportunities: Private Job / Gov. Job. Challenges: I want to become a RTO officier.	
12	37	Irkal Prasad	Strength: creative Weakness: Hard skill opportunities: Emotion drain Challenges: self designing	
13	38	Jadhav Aryash Sanjay	Strength: communication skill Weakness: Blunt opportunities: Dependency. Challenges: Ability to do the work in team.	
14	39	Jadhav Vedant Dipak	Strength: leadership skill Weakness: self sensitive opportunities: Low of involvent. Challenges: clear deadline of-wones the work expated.	
15	40	Jadhav Yashraj Sharad.	Strength: positive mindset Weakness: Impatient opportunities: continuity of work Challenges: Continuity of work	

AHP
[Mentor Teacher]

HEAD,
Dept. of Mechanical Engg.
C.O.E. Pandharpur.

SWOC

Sr.No	R.N.	Name of Student	SWOC Analysis	Recommendations
16	41	Jahagirdar Shadab Irfan	Strength: Hard working Weakness: ~~Sta~~ lack of communication opportunities: Gov. Job / private Job. Challenges: I want to becam an entrepreneur	
17	42	Jankar Dnyanesh Anil	Strength: Hard work Weakness: Stage dearing and communication opportunities: Government job Challenges: want to become IAS officer	
18	43	Waghmode Abhijit Nanasaheb	Strength: leadership quality. Weakness: stage daring. opportunities: I want to become good enterpreneure. Challenges: Want to become polite person.	
19	44	Kadam shreyash santosh.	Strength: Hard working. Weakness: Unable to speak in good English. opportunities: To learn English communication courses. Challenges: Improve english communication.	
20	45	Vibhute Mahesh parajit	Strength: Good stage clearing Weakness: low in technical opportunities: Goverment job Challenges: I want become RTO	

AHG
[Mentor Teacher]

HEAD
Dept. of Mechanical Engg
C.O.E. Pandharpur.

SWOC

Sr.No	R.N.	Name of Student	SWOC Analysis	Recommendations
21	46	Akash Hanumant Kambale	Strength: Hard working Weakness: Poor Communication opportunities: Gov. Job Challenges: ~~I~~ want become RTO	
22	47	Abhishek Shivaji Kambale	Strength: Good stage dearing Weakness: low in technical opportunities: Gov. Job Challenges: want to become IPS	
23	48	Shivprasad Pandurang Karande	Strength: Hard working Weakness: overthing opportunities: Job in MNC Challenges: I want become RTO. officer	
24	49	Vanma Ronak Kamlesh.	Strength: Good leadership quality. Weakness: poor communication. opportunities: Attend the courses of comm. Improve problem. Challenges: To become good mech. engg.	
25	50	yogesh Digambar Kole	Strength: Good stage Dearing Weakness: overthing opportunities: Job in DRDO Challenges: want Gov. ~~Job~~ Exam	

[mentor Teacher]

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Career Counselling

1. Soft skill training
2. Communication Skills and Pre-placement training

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , **NAAC**, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 19/07/2021

Training and Placement Office

All third year students are hereby informed to note that, Training and Placement office has arranged Campus Recruitment Training Sessions from 27th July onwards by APTECH Academy Kolhapur.

All the TY students of CSE, Mechanical, Electrical, ENTC and Civil Engineering are instructed to attend all sessions sincerely.

Attendance for all Training session is compulsory and it will be considered for upcoming campus drives.

Date:- 27th July to 10th August, 2021.
Time:-
Batch 01:- CSE and ENTC (9:30 to 11:30 AM)
Batch 02:- Electrical, Mechanical and Civil Engineering (11:30 to 01:30 PM)
Mode:- Online (Zoom Platform)

Note: - TPO co-ordinators will prepare plan for ensuring proper attendance with consent from HoD. All the departments will depute faculty members to ensure and record attendance for all sessions.

(Mr. Avinash Mote)
Dean Training & Alumni Affairs

Training & Placement Office
College of Engineering,
Pandharpur.

CC:-
HoD- MECH
HoD- ELEC
HoD-ENTC
HoD-CSE
HoD- CIVIL

APT-TECH APTITUDE CENTRE

Mob: +91 9561433516, Res: (0231) 2657786

R.S. No. 266, Plot No. C-27, E-27, E-ward, Opp. Ruikar Colony, Patolewadi,

Invoice Cum Delivery Challan

Mr.Sanir Kittur. APT - TECH Ploat No. 15/658, Kala Nagar, Ichalkaranji. Phone No.: 9561433516	Invoice No. 21/2021	Dated 17/08/2021
Buyer, **SVERI's College of Engineering, Pandharpur.**		

Sr. No.	Class	Training Duration (In Hours)	Number of Batches	Total Duration (In hours)	Total Amount
1.	Campus Recruitment training for Quantitative, Verbal, Logical, Softskills	30	2	30*2= 60 hours	Rs. 60,000/-
				Total	**60,000/-**
	(Amount in Rs. Sixty Thousand Only)				
	Name: APT-TECH APTITUDE CENTRE **Bank: HDFC BANK ICHALKARANJI, KOLHAPUR. A/c Number: 50200049087800** **IFSC CODE: HDFC0000736** **Pan Number: CBBPP4902L** **APT TECH APTITUDE CENTER** **Reg. No. 2031200313994236** **Ichalkarnji - 416 115**				
	For APT-TECH APTITUDE CENTRE **Authorized signatory**				
	Declaration We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct				

APT TECH APTITUDE CENTER
Reg. No. 2031200313994236
Ichalkarnji - 416 115

APT-TECH APTITUDE CENTRE

Mob: +91 9561433516, Res: (0231) 2657786

R.S. No. 266, Plot No. C-27, E-27, E-ward, Opp. Ruikar Colony, Patolewadi,

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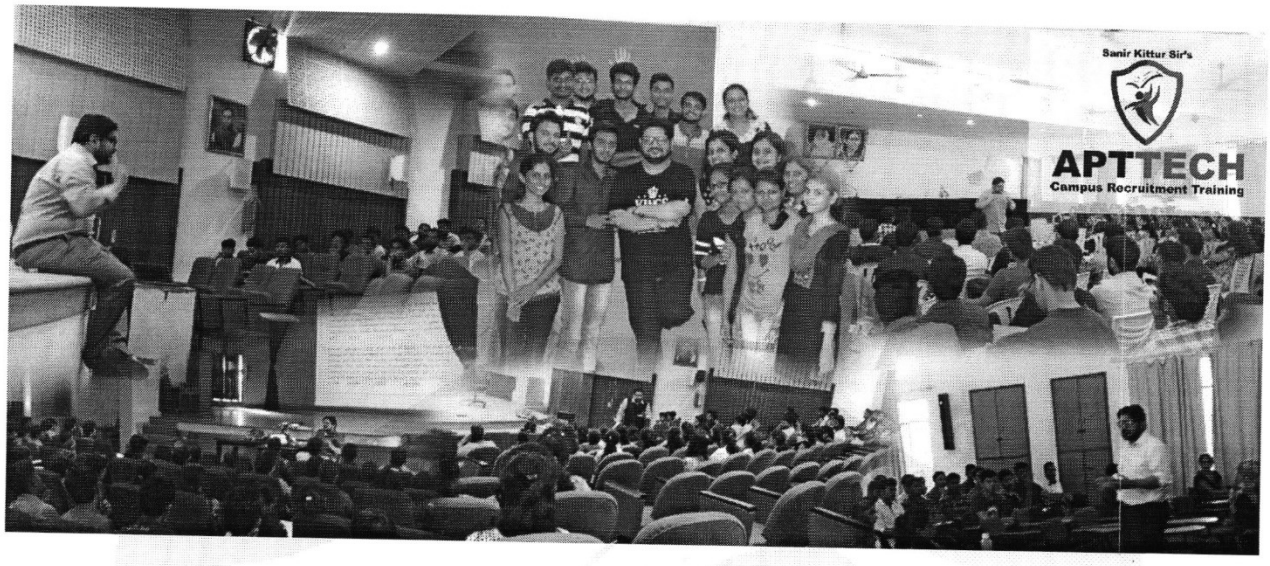
APT TECH APTITUDE CENTER
Reg. No. 2031200313994236
Ichalkarnji - 416 115



Mr. Sanir Kittur
Aptitude Trainer
Owner and Founder of APT-TECH

- Experience Over 13 Years.
- Ex Career Forum Employee.
- Has Trained 10,000 Students So Far.
- Strengths : Excellent speedy calculations techniques, Shortcuts, Vedic Maths, Calendar & Special Laddu method. These tricks & method are very effective in Saving time while solving sums.
- Proficiency in Company Specific workshops such as TCS, Cap Gemini, Jade Global, Persistent, Infosys, Wipro, Syntel, KPIT, Cocubes & eLitmus.
- Famous as 'AptiKing' a name given by his students because of his Excellent teaching, Motivational speeches & Mentor-ship programmes!

About APT TECH

- Formed in 2011 (28 May, 2011).
- Associated with 27 Colleges Till Now.
- 10 Colleges in Academic Year 2018.
- APT-TECH current area of operations encompasses training students for Campus Placement Training (Aptitude and Soft skills) according to various corporate
- Team of Fixed 7 Faculties, who work as a family more than a group and treat students as future of prosperous society and try to be a good mentor and motivator.
- Expertise in Company Specific workshop.
- 4500 Students Placed Thus Far.
- Excellent Placement Results.

Quotation for Training
(Final year)

College Name: - Shri Vithal Education & Research Institute, Pandharpur, Maharashtra.	**Enquiry: Telephonic** **Quote No: - SVERI/AST/2021-2022** **Date: - 20/07/2021**

Program	Description (2021-22)	Proposed Duration	Price per Hour
Aptitude Logical, Verbal and Soft Skills, Campus Recruitment Training	Online training for BE batch 2021-22 (zoom platform)	**2 batches (Online) 30 hours** + Company specific training as per requirement	**Rs. 1,000/-** (For per hour)

Terms and conditions:

1. This quotation is valid for 80-100 students per batch
2. Study Material in the form of classroom sheets to be provided along with the training program. APT-TECH will provide one set of study material in the form of workbook for college library.
3. Workshop will be conducted by deputing one trainer each per batch. Each Trainer will have 6 Hrs. of training session per day.
4. The schedule would be finalized on mutual agreement and trainers may change according to their specialized field.
5. If online lectures are conducted then they will be on Zoom platform.

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, **District**: Solapur (Maharashtra)
Tel.: (02186) 216063, 9503103757, **Toll Free No.**: 1800-3000-4131 **e-mail.**: coe@sveri.ac.in
Website.: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
NBA Accredited all eligible UG Programmes, **NAAC** Accreditated Institute,ISO 9001:2015 Certified Institute.
Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune.

Ref.:- COEP/2021-2022/148 (A) Date:- 23/07/2021

To

APT-TECH Academy

Patolewadi, behind, Zadakhali Wada,

Kolhapur-416005.

Dear Sir,

With reference to the proposal submitted by you dated 20/07/2021 & further telephonic discussion.

I am pleased to place the order for Aptitude Training in live online-webinar based mode; the details of the same are as follows:

Description of Training	Total amount (in RS.)
Online webinar based Instructor Led Training (ILT) **Campus Recruitment Training- 30 Hours/Batch:** Covering critical areas of MNC aptitude concepts, quantitative and analytical aptitude and verbal English as pre the proposal submitted (at the rate of Rs. 1000/hr) to COE, Pandharpur. **Special Note:** More than 450 final year Engineering students pursuing CSE, ENTC, Electrical, Civil and Mechanical engineering programs at our college (SVERI's college of Engineering, Pandharpur) will attend this training program of 30 hours. There will be two batches and 30 hrs must be engaged for each batch. Batch 01 :- CSE & ENTC Batch 02:- MECH, CIVIL, Electrical Engineering.	**60,000/-**
Price including of all taxes	
Grand Total Payable	**60,000/-**

Amount in words is Rs. Sixty thousands only.

Terms & Conditions:

- All the relevant and appropriate On-line classroom ppts will be provided to students during the course of the program.
- Appropriate assessments on aptitude will be conducted by APTECH Academy.
- Date for Training from 27th July to 10th August 2021, which may get changed, if any unavoidable circumstances occur.
- Training should be conducted minimum 2clock hours every day for every batch.
- Total amount is inclusive of all taxes.
- TDS will be applicable as per the rule.

B. Ronge

(Dr. B.P. Ronge)
PRINCIPAL

Date: 07/09/2021

Training report

To,
The Principal,
SVERI's College of Engineering,
Pandharpur.

Sub: Campus Recruitment Training report Apt-tech training academy (27th July to 10th August, 2021).

Respected Sir,

This is to inform you that, training program of Apt-tech training academy was conducted from 27th July to 10th August, 2021 and total 60 hours of training sessions (30 Hrs/Batch for 2 batches) conducted with respect to several specific topics for the preparation of upcoming campus drives and various competitive exams. More than 450 students from CSE, ENTC, Electrical, Civil and Mechanical Engineering attended the same and were the beneficiaries of the same.

This is for your kind consideration and further approval.

Yours truly,

(Mr. Avinash Mote)
Dean-Training and Alumni Affairs
Training and Placement office
SVERI's COE, Pandharpur

Training & Placement Office
College of Engineering,
Pandharpur.

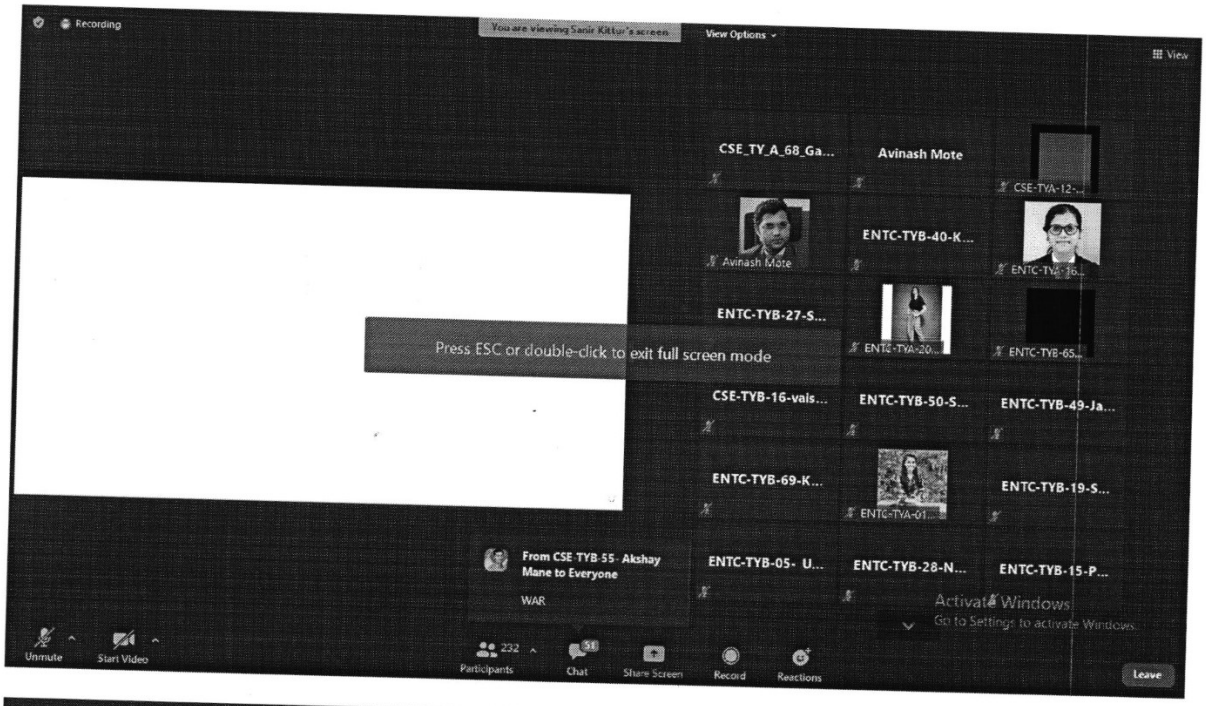
Syllabus for Quantitative, Logical & Verbal, Softskills.

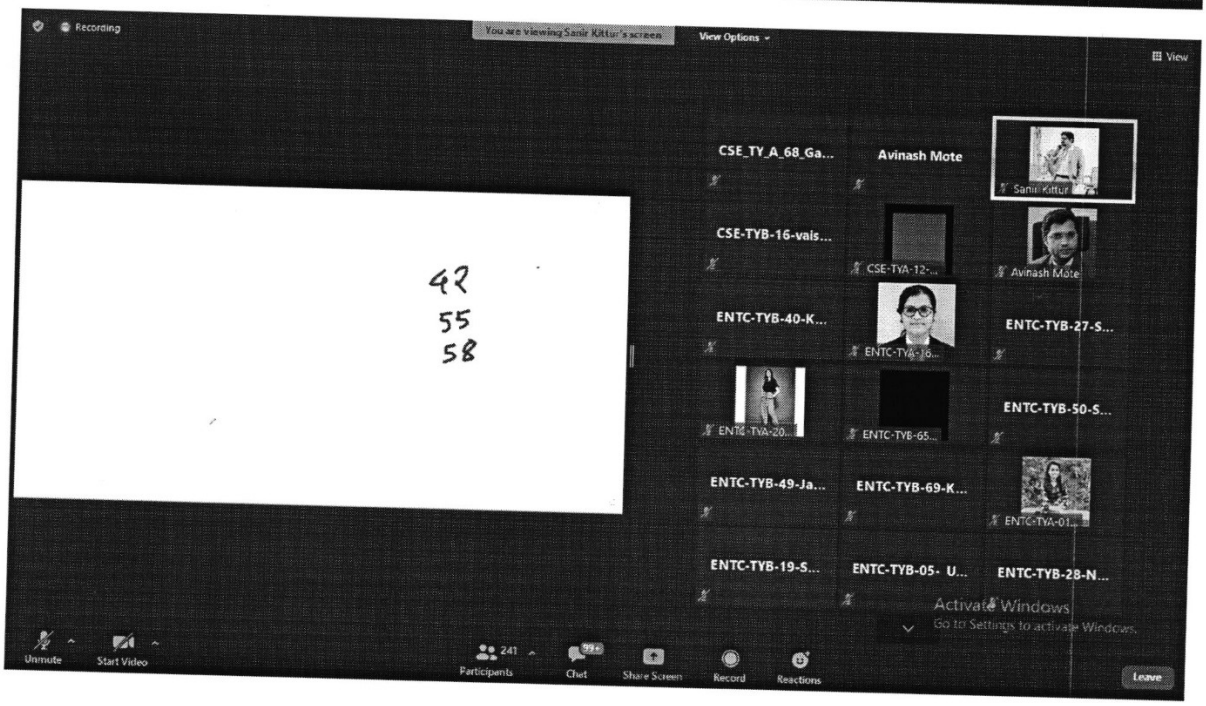
1. Vedic Mathematics
2. Calendar
3. Profit and loss
4. Time, Rate and Work
5. Pipes and tanks.
6. Trains and Boats
7. Speed, Time and Distance
8. Permutation and Combination.
9. Analytical Reasoning
10. Blood Relation and Direction
11. Data Interpretation
12. Data Sufficiency
13. Verbal reasoning
14. Group Discussion
15. Personal Interview
16. Resume writing

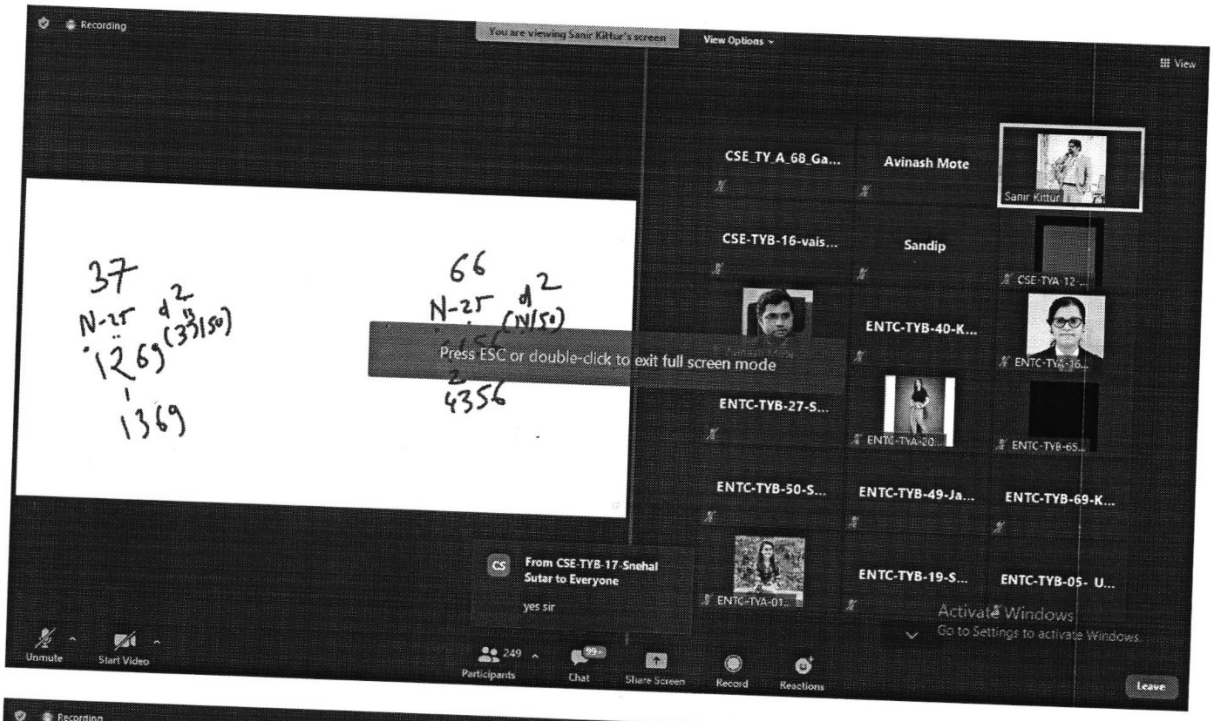
Training Session Snaps

28th July 2021 (9 to 11)

CSE and ENTC





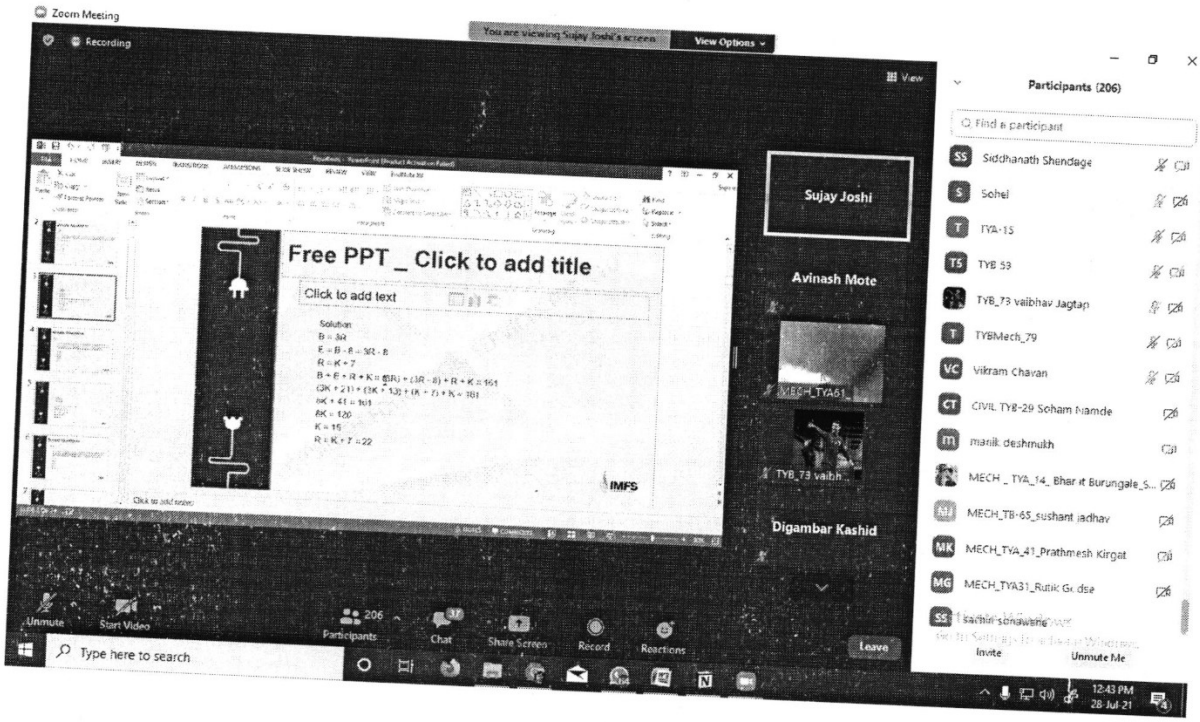

Recording
You are viewing Sanir Kittur's screen
View Options
View
37
N-25 d2
1269 (33/50)
1369
66
N-25 d2
4356
CSE_TY_A_68_Ga...
Avinash Mote
Sanir Kittur
CSE-TYB-16-vais...
Sandip
CSE-TYA-12 ...
ENTC-TYB-40-K...
ENTC-TYA-16...
Press ESC or double-click to exit full screen mode
ENTC-TYB-27-S...
ENTC-TYA-20...
ENTC-TYB-65...
ENTC-TYB-50-S...
ENTC-TYB-49-Ja...
ENTC-TYB-69-K...
From CSE-TYB-17-Snehal Sutar to Everyone
yes sir
ENTC-TYA-01...
ENTC-TYB-19-S...
ENTC-TYB-05- U...
Activate Windows
Go to Settings to activate Windows.
Unmute
Start Video
Participants
Chat
Share Screen
Record
Reactions
Leave


Recording
View
CSE-TYA-42- Kaj...
Avinash Mote
CSE_TY_B_75_Supri...
Sujay Joshi
ENTC-TYB-40-K...
ENTC-TYA-16-Rutuj...
CSE-TY-29-A-S...
CSE_TYB_51_Ak...
ENTC-TYA-04-Sona...
CSE-TYB-16-vais...
1/11
CSE_TY_A_68_Ga...
Press ESC or double-click to exit full screen mode
CSE-TYA-12-Vivita ...
Avinash Mote
ENTC-TYB-27-S...
ENTC-TYB-65-Prath...
ENTC-TYB-50-S...
ENTC-TYB-69-K...
ENTC-TYA-01-Aboli...
ENTC-TYB-19-S...
ENTC-TYB-05- U...
ENTC-TYB-28-N...
ENTC-TYB-15-P...
ENTC-TYB-18-P...
Activate Windows
Go to Settings to activate Windows.
Unmute
Start Video
Participants
Chat
Share Screen
Record
Reactions
Leave

28th July 2021 (11:30 to 1:30 PM)

Mech, Civil, Electrical


Zoom Meeting
Recording
Sujay Joshi
Avinash Mote
MECH_TYB06_D...
MECH_TYB30_H...
sachin sonawane
MECH_TYA28_Pr...
Avinash Mote
Civil- TYB- 23- S...
MECH_TYA73_T...
MECH_TYB02_Pr...
MECH_TYB50_...
MECH_TYB41_Y...
MECH_TYA56_R...
Mech_TYB43_An...
Participants (208)
Find a participant
Sohel
TYA-15
TYB 53
TYB_73 vaibhav Jagtap
TYBMech_79
Vikram Chavan
CIVIL TYB-29 Soham Namde
manik deshmukh
MECH_TYB-65_sushant jadhav
MECH_TYA_41_Prathmesh Kirgat
MECH_TYA31_Rutik Godse
MECH_TYB59_Pranav Bhandare
sachin sonawane
Unmute
Start Video
208
Participants
Chat
Share Screen
Record
Reactions
Leave
Invite
Unmute Me
Type here to search
12:36 PM
28-Jul-21


Zoom Meeting
Recording
You are viewing Sujay Joshi's screen
View Options
Free PPT _ Click to add title
Click to add text
Sujay Joshi
Avinash Mote
Digambar Kashid
Participants (206)
Find a participant
Siddhanath Shendage
Sohel
TYA-15
TYB 53
TYB_73 vaibhav Jagtap
TYBMech_79
Vikram Chavan
CIVIL TYB-29 Soham Namde
manik deshmukh
MECH_TYB-65_sushant jadhav
MECH_TYA_41_Prathmesh Kirgat
MECH_TYA31_Rutik Godse
sachin sonawane
Unmute
Start Video
206
Participants
Chat
Share Screen
Record
Reactions
Leave
Invite
Unmute Me
Type here to search
12:43 PM
28-Jul-21

Training and Placement Office SVERI <placement1@sveri.ac.in>

Resume Building workshop- Very Important

2 messages

SVERI TPO Office <placement1@sveri.ac.in> Tue, Aug 24, 2021 at 11:11 AM
To: cv18@coep.sveri.ac.in, mea18@coep.sveri.ac.in, meb18@coep.sveri.ac.in, navnathuanuse@coep.sveri.ac.in, prajaktasautade@coep.sveri.ac.in, saurabhababar@coep.sveri.ac.in, rahulsbandpatte@coep.sveri.ac.in, anilgbhoi@coep.sveri.ac.in, prashantgbhoite@coep.sveri.ac.in, gayatribbudhaner@coep.sveri.ac.in, ashwinischature@coep.sveri.ac.in, saurabhdchaure@coep.sveri.ac.in, poojadchavare@coep.sveri.ac.in, nayanachopade@coep.sveri.ac.in, poojamdahihande@coep.sveri.ac.in, rutujamdasawat@coep.sveri.ac.in, rasikamdeshmukh@coep.sveri.ac.in, akshaysdhekale@coep.sveri.ac.in, vaibhavadoiphode@coep.sveri.ac.in, abhijitmgaikwad@coep.sveri.ac.in, nitinmgaikwad@coep.sveri.ac.in, samadhanmgaikwad@coep.sveri.ac.in, sanjanasgaikwad@coep.sveri.ac.in, sanjaysgaikwad@coep.sveri.ac.in, sonalipgaikwad@coep.sveri.ac.in, truptiaghadage@coep.sveri.ac.in, bhaktiyghanti@coep.sveri.ac.in, prathameshrhajare@coep.sveri.ac.in, shamalrhingmire@coep.sveri.ac.in, pratikshasingale@coep.sveri.ac.in, pratikshasjadhav@coep.sveri.ac.in, sourabhajadhav@coep.sveri.ac.in, kundalikljamadade@coep.sveri.ac.in, savitabjawale@coep.sveri.ac.in, prajktacjoshi@coep.sveri.ac.in, sureshmkedar@coep.sveri.ac.in, prajaktaskhare@coep.sveri.ac.in, snehalskolekar@coep.sveri.ac.in, shitalpkondhubhairi@coep.sveri.ac.in, geetabkshirsagar@coep.sveri.ac.in, shraddhaakulkarni@coep.sveri.ac.in, swaranjaligmahamuni@coep.sveri.ac.in, dipalipmane@coep.sveri.ac.in, tejashrismisal@coep.sveri.ac.in, sarikasmore@coep.sveri.ac.in, swapnaligmore@coep.sveri.ac.in, vaibhavrmore@coep.sveri.ac.in, farukhrmulani@coep.sveri.ac.in, swatirnimangare@coep.sveri.ac.in, poojadpatil@coep.sveri.ac.in, rohitrpatil@coep.sveri.ac.in, vikrantcpatil@coep.sveri.ac.in, pratikshahpawar@coep.sveri.ac.in, vikramrpawar@coep.sveri.ac.in, rupalinphakade@coep.sveri.ac.in, radhikavpunekar@coep.sveri.ac.in, poojavrajput@coep.sveri.ac.in, sonammranadive@coep.sveri.ac.in, yogeshbraut@coep.sveri.ac.in, anushakadsalunkhe@coep.sveri.ac.in, sangramvsaradar@coep.sveri.ac.in, anandpsarate@coep.sveri.ac.in, rutujadsartape@coep.sveri.ac.in, snehaltsarvade@coep.sveri.ac.in, aishwaryaashembade@coep.sveri.ac.in, moharnaashiktode@coep.sveri.ac.in, digambardtad@coep.sveri.ac.in, niketanlupase@coep.sveri.ac.in, jayashrinvarpe@coep.sveri.ac.in, aishwaryayvirdhe@coep.sveri.ac.in, siddhanathhtad@coep.sveri.ac.in
Cc: vrchavan@coe.sveri.ac.in, sppatil@coe.sveri.ac.in, Pravin More <moreps@coe.sveri.ac.in>, kbpatil@coe.sveri.ac.in, Vidhyarani Kshirsagar <vskshirsagar@coe.sveri.ac.in>, "Dr. Prashant Pawar" <pawarpm@sveri.ac.in>, sswangikar@coe.sveri.ac.in, aajadhav@coe.sveri.ac.in, "Mr. Avinash Mote" <aamote@coe.sveri.ac.in>

Dear Students,

Register for the workshop, it is very useful.
Details are given below:

About Profile Building Workshop

With hundreds of resumes to analyze for a position, a recruiter spends less than 30 seconds on your Resume. Hence, the secret lies in knowing what the recruiter is looking for – to get YOU the chance to land on that dream job or internship. cvDragon brings to you a 90 minutes intensive workshop on how to conquer your resume to get that shortlist / interview call that you have been waiting for!
This workshop is specially designed for students and institutions.

Workshop - Profile Building Workshop (Resume & LinkedIn)
Date and Timing -

- **Wednesday, 25th August** 2021. Timings - 11-1 PM

Medium - Google Meet

Why Students should attend:

- Learn what is a strong resume and how it gets you a shortlist?
- Learn What constitutes a strong resume?
- Understand what are the different sections in a resume?

- How does a perfect resume look like?
- **Additional Benefit -** 7-day Premium Subscription for Free

About the Trainer:

This workshop will be conducted by Mr. Cherag Bachhawat. He is the founder-director of cvDragon.He is a finance graduate and did his master's in human resources and has done extensive research on resumes and social platforms like LinkedIn.
He has experience of more than 12 years in the corporate and educational industry. He has conducted more than a thousand corporate sessions and workshops and has interacted with 1 Lac + students across India.

Registration:

Please click the below link to register for the Workshop:
https://cvdragon.com/sessions/SVERI-CV-Workshop/register

About cvDragon

cvDragon is a NextGen Resume Builder exclusively created for students and Institutions across India. cvDragon's aim is to help students create professional resumes who are looking for a job or internship.

Overview

- Conducted 500 + workshops
- cvDragon has been associated with more than 200 Institutes across India
- 200+ Industry approved resume formats
- Helped over 1 Lac + Students create professional Resume
- Generated more than 4.5 Lacs Resumes
- cvDragon has received more than 5000 Positive Reviews
- cvDragon is the ONLY RESUME BUILDER which is available on all the platforms (Website + Android + iOS)
- Awarded as the Best 10 Startups in West Bengal 2020 by Silicon India

--

Thanks & Regards

Mr. Ashish Jadhav

Dean – Placement & Corporate Affairs

Mob No:- 8087534202

Mr. Avinash Mote
Dean- Training and Alumni Affairs
Mob no:- 8698303387

Training & Placement Department

SVERI's C.O.E. Pandharpur (PAH Solapur University)

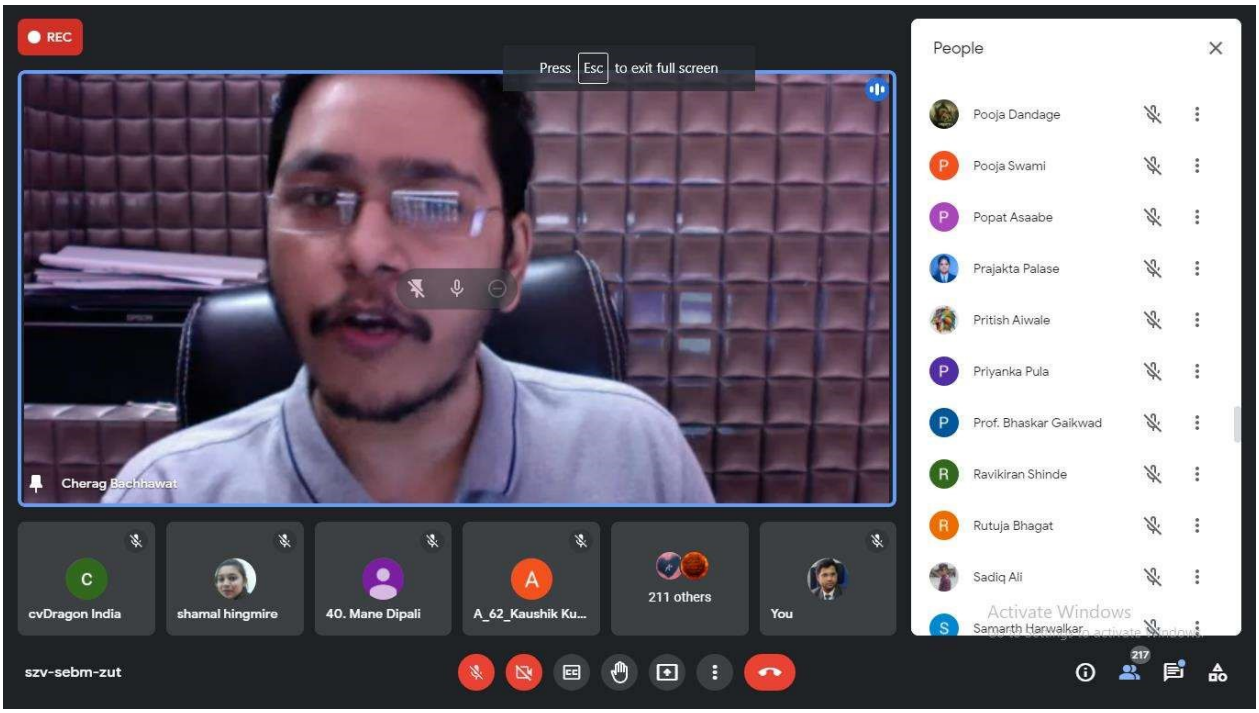
"Engineering for Excellence"

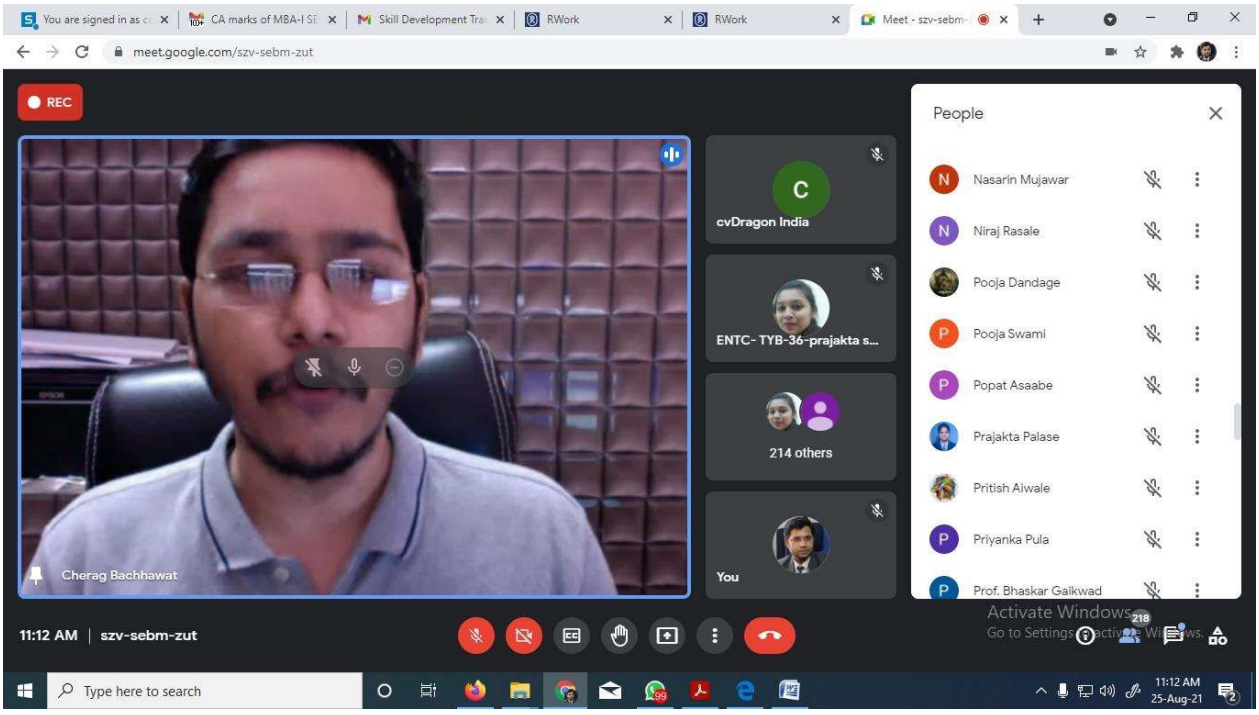
Web- http://www.sveri.ac.in
Mail – placement1@sveri.ac.in

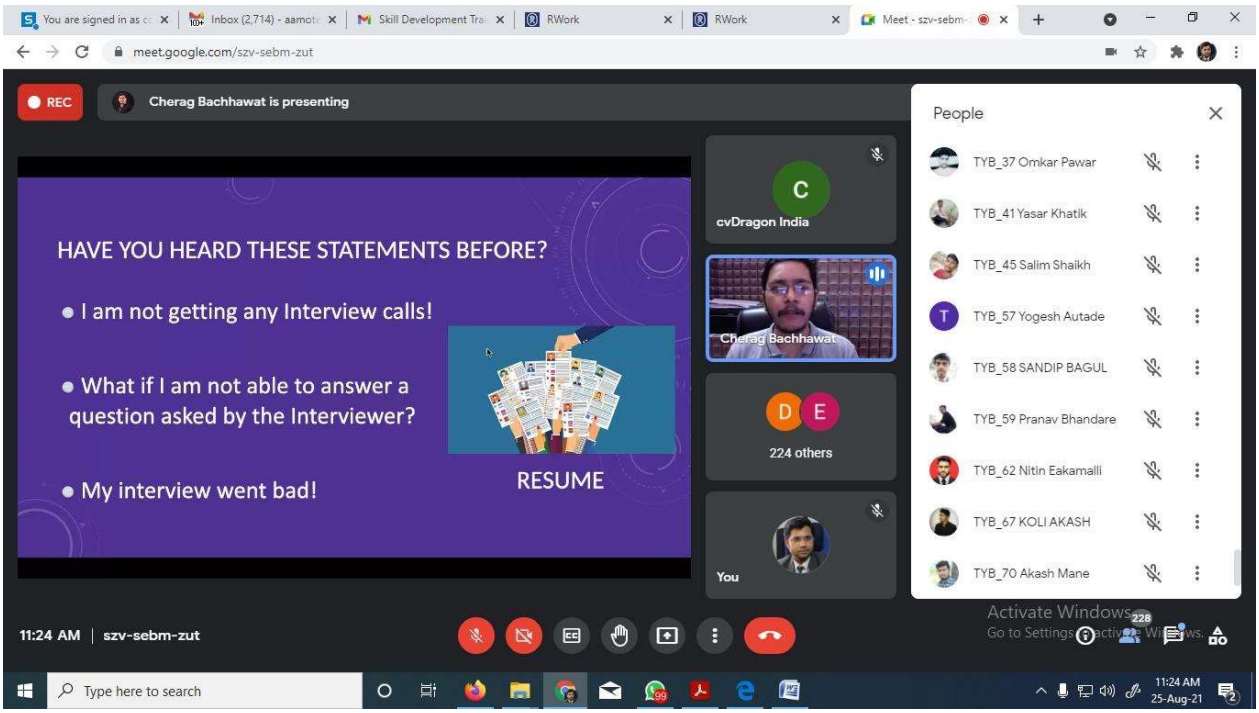
SVERI TPO Office <placement1@sveri.ac.in> Wed, Aug 25, 2021 at 9:37 AM
To: cv18@coep.sveri.ac.in, mea18@coep.sveri.ac.in, meb18@coep.sveri.ac.in, navnathuanuse@coep.sveri.ac.in, prajaktasautade@coep.sveri.ac.in, saurabhababar@coep.sveri.ac.in, rahulsbandpatte@coep.sveri.ac.in, anilgbhoi@coep.sveri.ac.in, prashantgbhoite@coep.sveri.ac.in, gayatribbudhaner@coep.sveri.ac.in, ashwinischature@coep.sveri.ac.in, saurabhdchaure@coep.sveri.ac.in, poojadchavare@coep.sveri.ac.in, nayanachopade@coep.sveri.ac.in, poojamdahihande@coep.sveri.ac.in, rutujamdasawat@coep.sveri.ac.in, rasikamdeshmukh@coep.sveri.ac.in, akshaysdhekale@coep.sveri.ac.in, vaibhavadoiphode@coep.sveri.ac.in, abhijitmgaikwad@coep.sveri.ac.in, nitinmgaikwad@coep.sveri.ac.in, samadhanmgaikwad@coep.sveri.ac.in, sanjanasgaikwad@coep.sveri.ac.in, sanjaysgaikwad@coep.sveri.ac.in, sonalipgaikwad@coep.sveri.ac.in, truptiaghadage@coep.sveri.ac.in, bhaktiyghanti@coep.sveri.ac.in, prathameshrhajare@coep.sveri.ac.in, shamalrhingmire@coep.sveri.ac.in, pratikshasingale@coep.sveri.ac.in, pratikshasjadhav@coep.sveri.ac.in, sourabhajadhav@coep.sveri.ac.in, kundalikljamadade@coep.sveri.ac.in, savitabjawale@coep.sveri.ac.in, prajktacjoshi@coep.sveri.ac.in, sureshmkedar@coep.sveri.ac.in, prajaktaskhare@coep.sveri.ac.in, snehalskolekar@coep.sveri.ac.in, shitalpkondhubhairi@coep.sveri.ac.in, geetabkshirsagar@coep.sveri.ac.in, shraddhaakulkarni@coep.sveri.ac.in, swaranjaligmahamuni@coep.sveri.ac.in, dipalipmane@coep.sveri.ac.in, tejashrismisal@coep.sveri.ac.in, sarikasmore@coep.sveri.ac.in, swapnaligmore@coep.sveri.ac.in, vaibhavrmore@coep.sveri.ac.in, farukhrmulani@coep.sveri.ac.in, swatirnimangare@coep.sveri.ac.in, poojadpatil@coep.sveri.ac.in, rohitrpatil@coep.sveri.ac.in, vikrantcpatil@coep.sveri.ac.in, pratikshahpawar@coep.sveri.ac.in, vikramrpawar@coep.sveri.ac.in, rupalinphakade@coep.sveri.ac.in, radhikavpunekar@coep.sveri.ac.in, poojavrajput@coep.sveri.ac.in, sonammranadive@coep.sveri.ac.in, yogeshbraut@coep.sveri.ac.in, anushakadsalunkhe@coep.sveri.ac.in, sangramvsaradar@coep.sveri.ac.in, anandpsarate@coep.sveri.ac.in, rutujadsartape@coep.sveri.ac.in, snehaltsarvade@coep.sveri.ac.in, aishwaryaashembade@coep.sveri.ac.in, moharnaashiktode@coep.sveri.ac.in, digambardtad@coep.sveri.ac.in, niketanlupase@coep.sveri.ac.in, jayashrinvarpe@coep.sveri.ac.in, aishwaryayvirdhe@coep.sveri.ac.in, siddhanathhtad@coep.sveri.ac.in
Cc: vrchavan@coe.sveri.ac.in, sppatil@coe.sveri.ac.in, Pravin More <moreps@coe.sveri.ac.in>, kbpatil@coe.sveri.ac.in, Vidhyarani Kshirsagar <vskshirsagar@coe.sveri.ac.in>, "Dr. Prashant Pawar" <pawarpm@sveri.ac.in>, sswangikar@coe.sveri.ac.in, aajadhav@coe.sveri.ac.in, "Mr. Avinash Mote" <aamote@coe.sveri.ac.in>

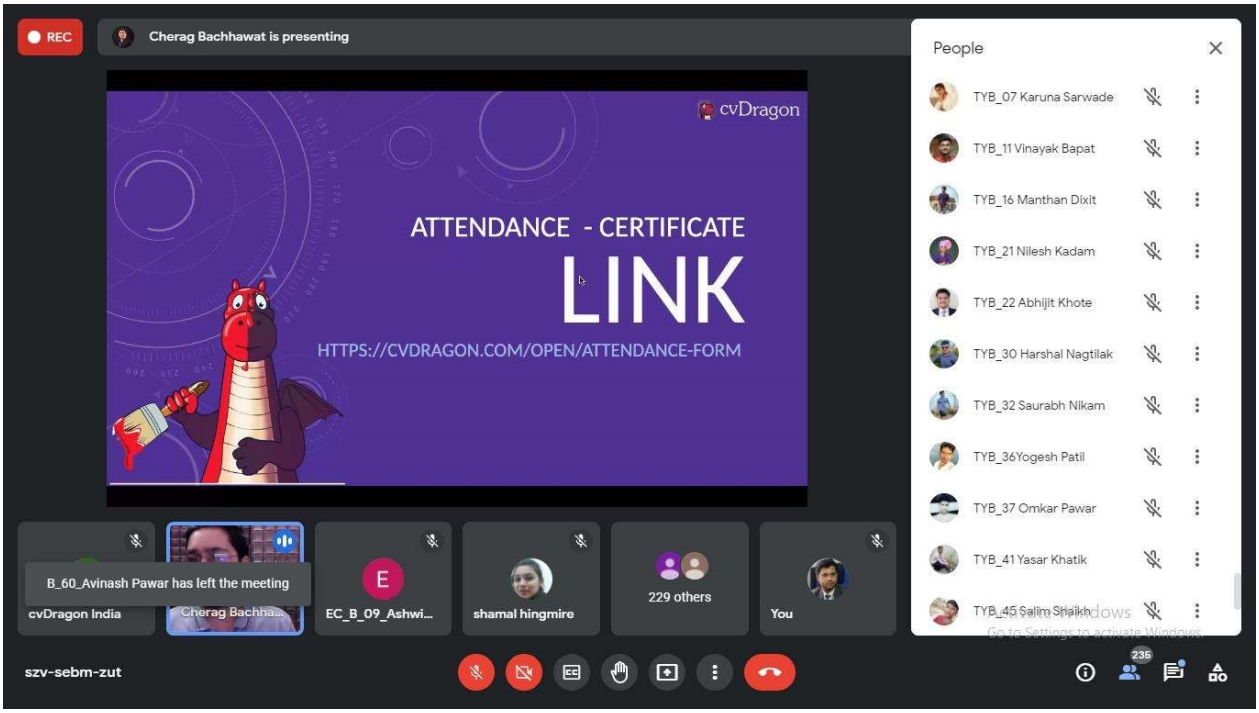
Reminder for Today's session at 11 AM

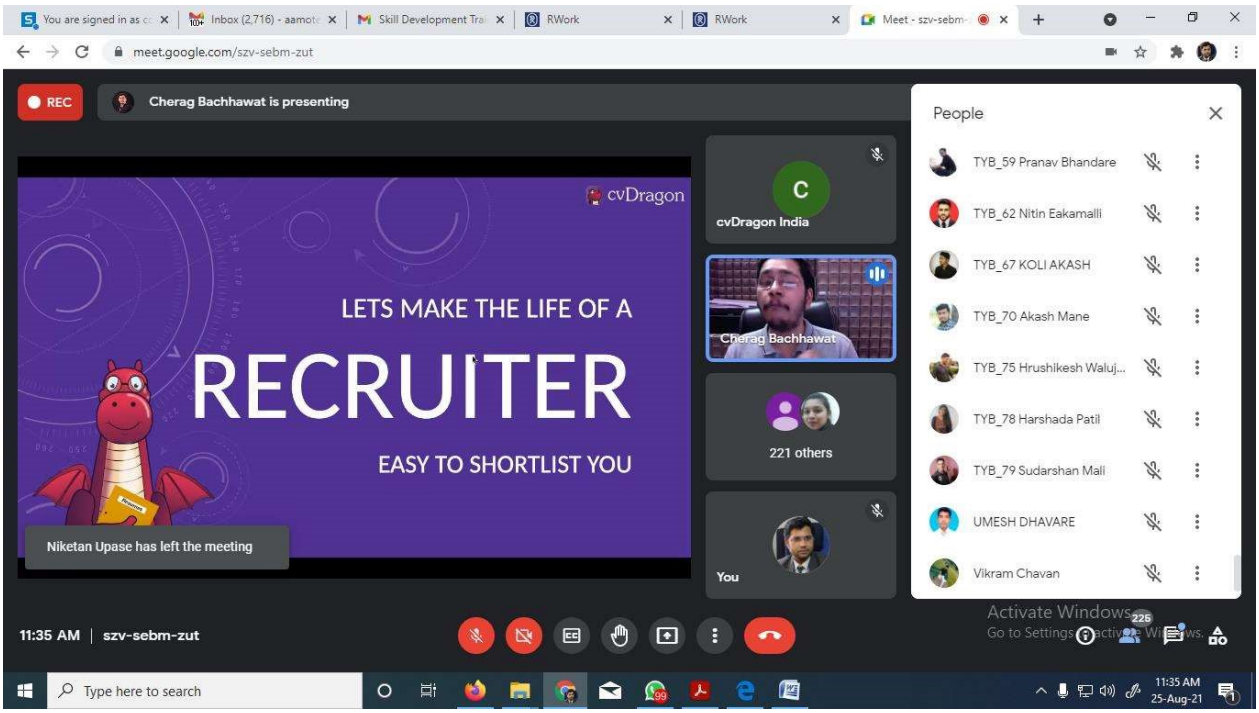
[Quoted text hidden]

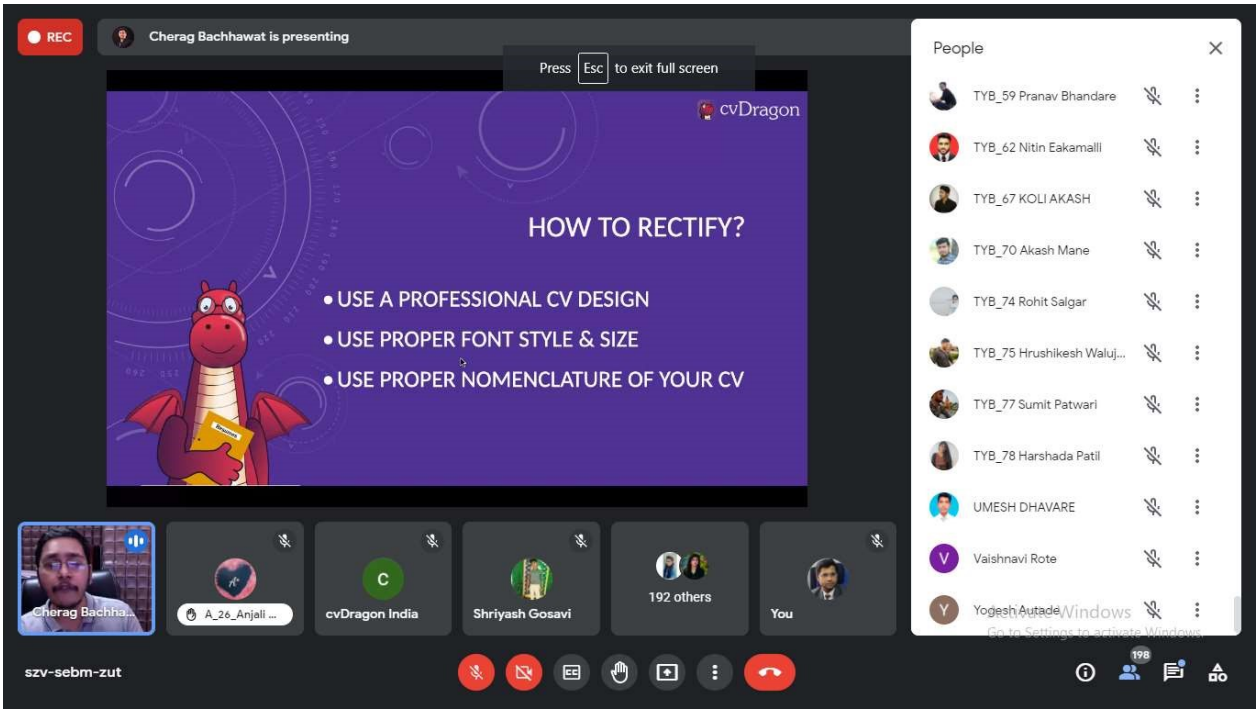

REC
Press Esc to exit full screen
People
Pooja Dandage
Pooja Swami
Popat Asaabe
Prajakta Palase
Pritish Aiwale
Priyanka Pula
Prof. Bhaskar Gaikwad
Ravikiran Shinde
Rutuja Bhagat
Sadiq Ali
Samarth Harwalkar
Cherag Bachhawat
cvDragon India
shamal hingmire
40. Mane Dipali
A_62_Kaushik Ku...
211 others
You
szv-sebm-zut
Activate Windows

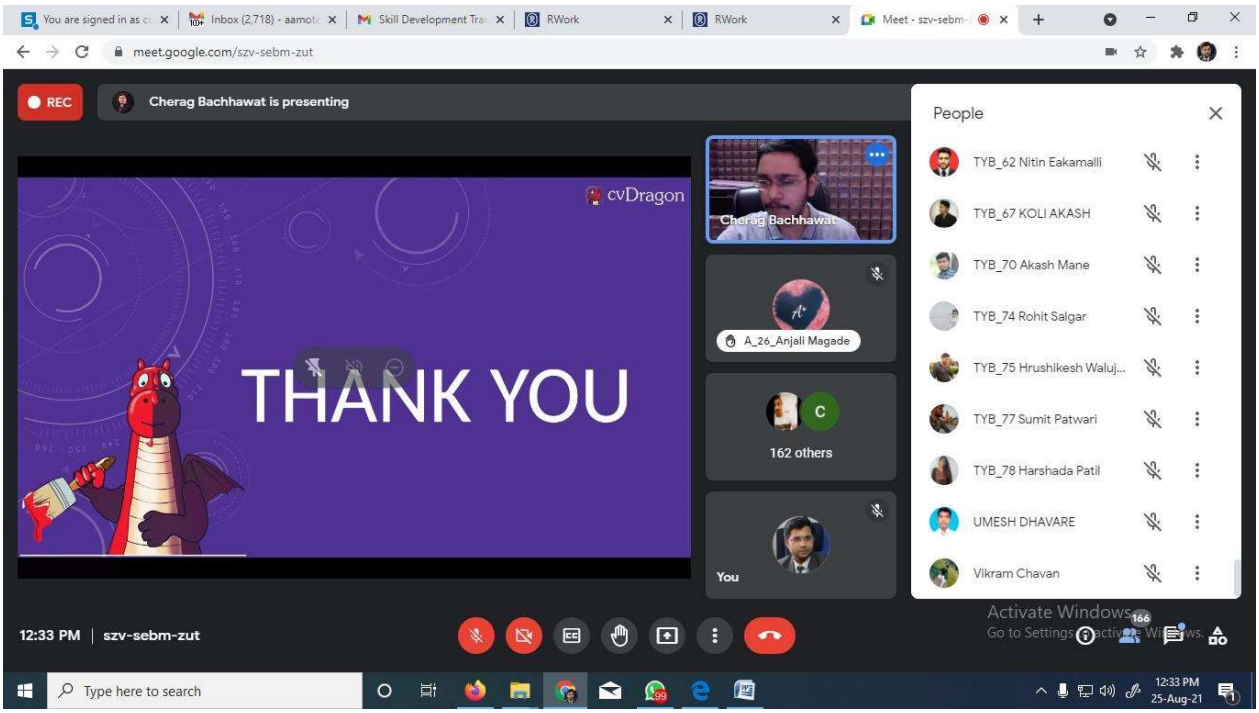

meet.google.com/szv-sebm-zut
REC
People
Nasarin Mujawar
Niraj Rasale
Pooja Dandage
Pooja Swami
Popat Asaabe
Prajakta Palase
Pritish Aiwale
Priyanka Pula
Prof. Bhaskar Gaikwad
Cherag Bachhawat
cvDragon India
ENTC- TYB-36-prajakta s...
214 others
You
11:12 AM | szv-sebm-zut
Activate Windows
Type here to search
11:12 AM
25-Aug-21

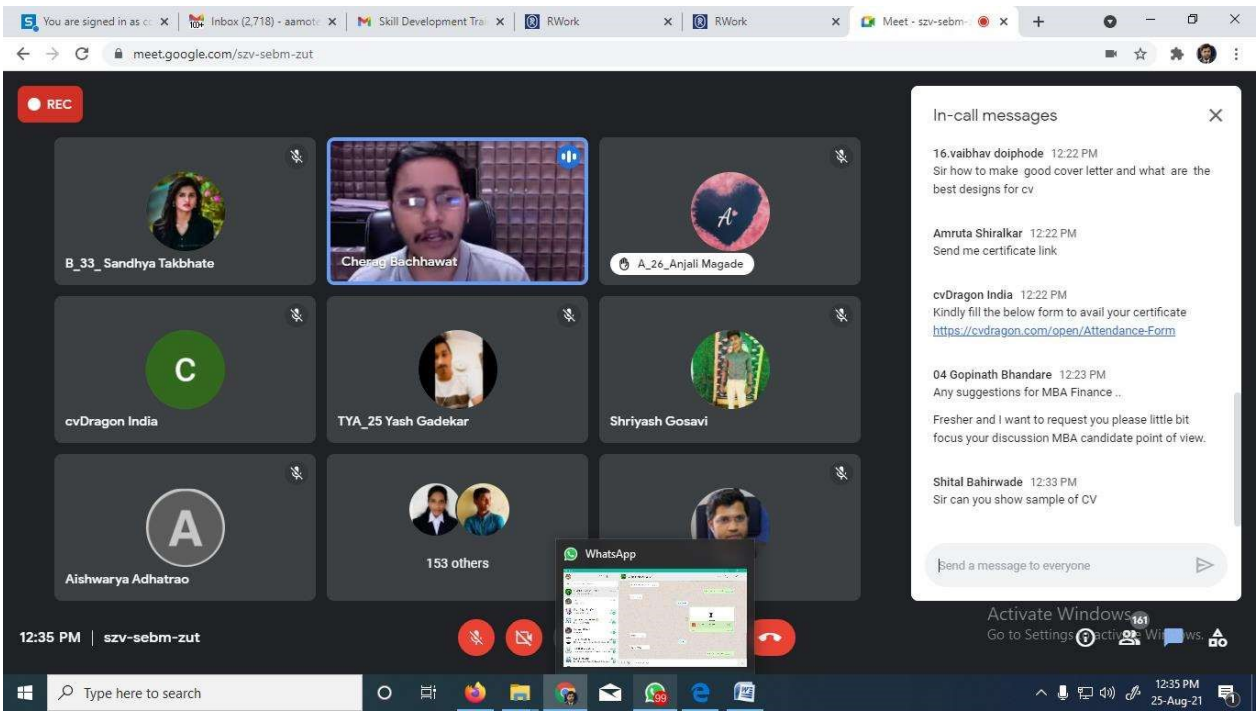

meet.google.com/szv-sebm-zut
REC
Cherag Bachhawat is presenting
HAVE YOU HEARD THESE STATEMENTS BEFORE?
• I am not getting any Interview calls!
• What if I am not able to answer a question asked by the Interviewer?
• My interview went bad!
RESUME
cvDragon India
Cherag Bachhawat
224 others
You
People
TYB_37 Omkar Pawar
TYB_41 Yasar Khatik
TYB_45 Salim Shaikh
TYB_57 Yogesh Autade
TYB_58 SANDIP BAGUL
TYB_59 Pranav Bhandare
TYB_62 Nitin Eakamalli
TYB_67 KOLI AKASH
TYB_70 Akash Mane
11:24 AM | szv-sebm-zut
Activate Windows
Go to Settings to activate Windows.
Type here to search
11:24 AM
25-Aug-21


REC
Cherag Bachhawat is presenting
cvDragon
ATTENDANCE - CERTIFICATE
LINK
HTTPS://CVDRAGON.COM/OPEN/ATTENDANCE-FORM
B_60_Avinash Pawar has left the meeting
cvDragon India
Cherag Bachha...
EC_B_09_Ashwi...
shamal hingmire
229 others
You
People
TYB_07 Karuna Sarwade
TYB_11 Vinayak Bapat
TYB_16 Manthan Dixit
TYB_21 Nilesh Kadam
TYB_22 Abhijit Khote
TYB_30 Harshal Nagtilak
TYB_32 Saurabh Nikam
TYB_36Yogesh Patil
TYB_37 Omkar Pawar
TYB_41 Yasar Khatik
TYB_45 Salim Shaikh
szv-sebm-zut


meet.google.com/szv-sebm-zut
REC
Cherag Bachhawat is presenting
cvDragon
LETS MAKE THE LIFE OF A
RECRUITER
EASY TO SHORTLIST YOU
Niketan Upase has left the meeting
cvDragon India
Cherag Bachhawat
221 others
You
People
TYB_59 Pranav Bhandare
TYB_62 Nitin Eakamalli
TYB_67 KOLI AKASH
TYB_70 Akash Mane
TYB_75 Hrushikesh Waluj...
TYB_78 Harshada Patil
TYB_79 Sudarshan Mali
UMESH DHAVARE
Vikram Chavan
11:35 AM | szv-sebm-zut
Activate Windows
Go to Settings to activate Windows.
Type here to search
11:35 AM
25-Aug-21


REC
Cherag Bachhawat is presenting
Press Esc to exit full screen
cvDragon
HOW TO RECTIFY?
• USE A PROFESSIONAL CV DESIGN
• USE PROPER FONT STYLE & SIZE
• USE PROPER NOMENCLATURE OF YOUR CV
Cherag Bachha...
A_26_Anjali ...
cvDragon India
Shriyash Gosavi
192 others
You
People
TYB_59 Pranav Bhandare
TYB_62 Nitin Eakamalli
TYB_67 KOLI AKASH
TYB_70 Akash Mane
TYB_74 Rohit Salgar
TYB_75 Hrushikesh Waluj...
TYB_77 Sumit Patwari
TYB_78 Harshada Patil
UMESH DHAVARE
Vaishnavi Rote
Yogesh Autade
Activate Windows
Go to Settings to activate Windows.
szv-sebm-zut


meet.google.com/szv-sebm-zut
REC
Cherag Bachhawat is presenting
cvDragon
THANK YOU
Cherag Bachhawat
A_26_Anjali Magade
C
162 others
You
People
TYB_62 Nitin Eakamalli
TYB_67 KOLI AKASH
TYB_70 Akash Mane
TYB_74 Rohit Salgar
TYB_75 Hrushikesh Waluj...
TYB_77 Sumit Patwari
TYB_78 Harshada Patil
UMESH DHAVARE
Vikram Chavan
12:33 PM | szv-sebm-zut
Activate Windows
Go to Settings to activate Windows.
Type here to search
12:33 PM
25-Aug-21


meet.google.com/szv-sebm-zut
REC
B_33_ Sandhya Takbhate
Cherag Bachhawat
A_26_Anjali Magade
C
cvDragon India
TYA_25 Yash Gadekar
Shriyash Gosavi
A
Aishwarya Adhatrao
153 others
WhatsApp
In-call messages
16.vaibhav doiphode 12:22 PM
Sir how to make good cover letter and what are the best designs for cv
Amruta Shiralkar 12:22 PM
Send me certificate link
cvDragon India 12:22 PM
Kindly fill the below form to avail your certificate
https://cvdragon.com/open/Attendance-Form
04 Gopinath Bhandare 12:23 PM
Any suggestions for MBA Finance ..
Fresher and I want to request you please little bit focus your discussion MBA candidate point of view.
Shital Bahirwade 12:33 PM
Sir can you show sample of CV
Send a message to everyone
12:35 PM | szv-sebm-zut
Activate Windows
Go to Settings to activate Windows.
Type here to search
12:35 PM
25-Aug-21

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , **NAAC**, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 12/01/2022

Notice

Training and Placement Department

Infosys Specific Training for Final Year Students

All the Infosys eligible students from Final Year classes are hereby informed to note that, Training and Placement office has arranged Infosys Specific Verbal Training by Shantadurga Tutelage from 13th January 2022.

These training sessions will help you to prepare upcoming campus drive of reputed MNC Infosys.
All the eligible students must attend training and actively participate for each session.

Details of training session are given below:-

Date: - 13th January to 25th January 2022
Time: - 10 AM to 11:30 AM
Mode: - Online (Zoom Platform)

Note: - All the TPO coordinators are informed to share details with all students and ensure 100% Participation of students

(Mr. Avinash Mote)
Dean Training & Alumni Affairs
Training & Placement office
SVERI's COE, Pandharpur

Training & Placement Office
College of Engineering,
Pandharpur.

CC:-
HoD- Mechanical HoD- Civil
HoD-ENTC HoD-CSE

Date: 03/02/2022

Report of Infosys Specific Training for final year students

To,
The Principal,
SVERI's College of Engineering,
Pandharpur.

Sub: Aptitude Training report of Shantadurga Tutelage (14th January to 25th January, 2022).

Respected Sir,

This is to inform you that, training program of Shantadurga Tutelage was conducted from 14th August, 2022 for 12 hrs (daily 1.5 hrs). Final year students from final year classes were participants for this training. More than 200 eligible students got the benefit of the same.

This training session were planned mostly to focus on verbal part of Infosys campus drive.

As per the latest count, we got 30+ shortlisting for interview round.

This is for your information.

Yours truly,

(Mr. Avinash Mote)
Dean-Training and Alumni Affairs
Training and Placement office
SVERI's COE, Pandharpur

Training & Placement Office
College of Engineering,
Pandharpur.

Let's Get Started!

When was the last time you studied English Grammar?

How many of you feel comfortable while conversing in English?

What are the problems you face while talking in English?

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NOUN

A noun is a word used to refer to people, animals, objects, substances, states, events, ideas and feelings.

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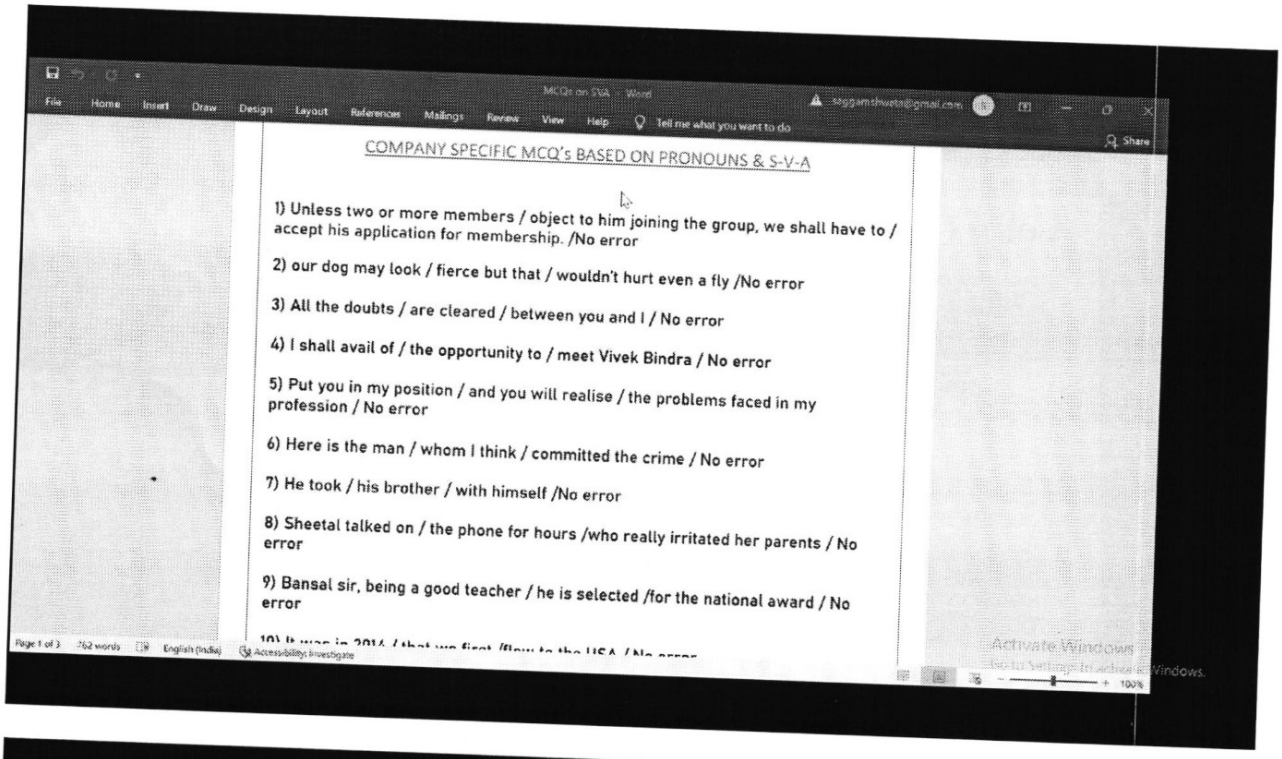


COMPANY SPECIFIC MCQ's BASED ON PRONOUNS & S-V-A

1) Unless two or more members / object to him joining the group, we shall have to / accept his application for membership. /No error

2) our dog may look / fierce but that / wouldn't hurt even a fly /No error

3) All the doubts / are cleared / between you and I / No error

4) I shall avail of / the opportunity to / meet Vivek Bindra / No error

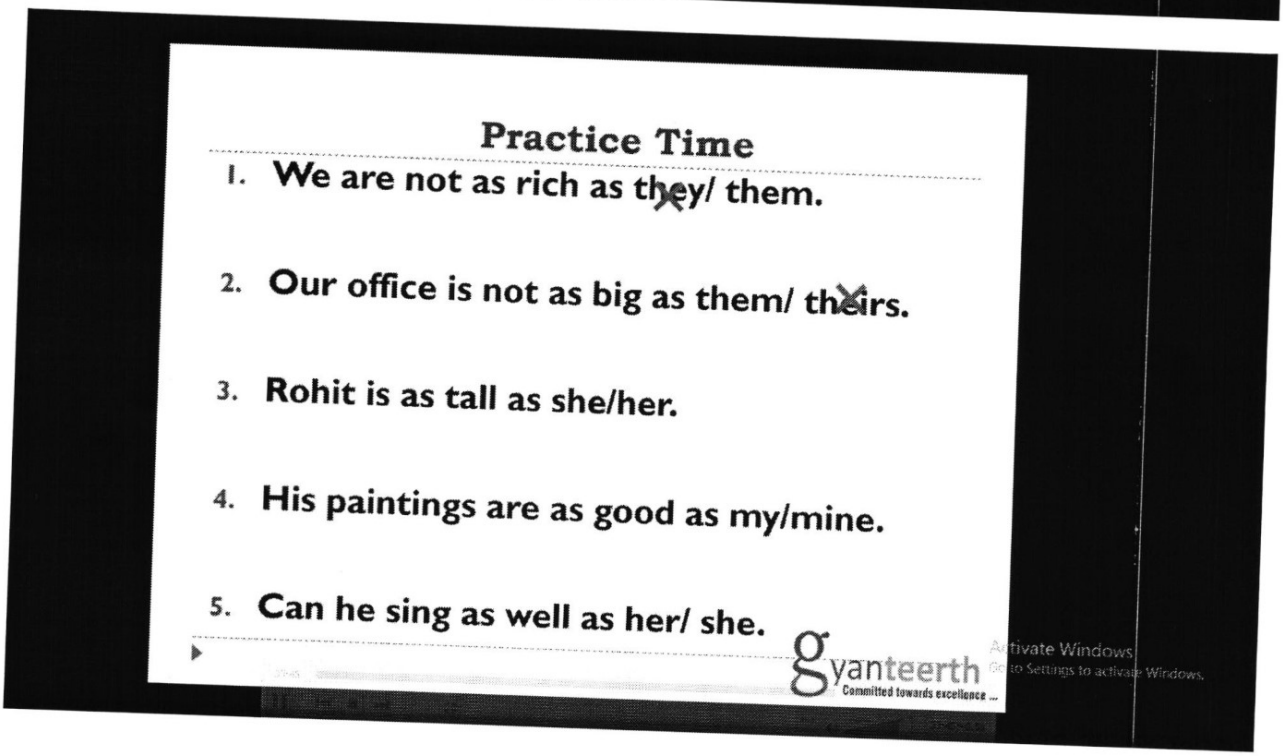
5) Put you in my position / and you will realise / the problems faced in my profession / No error

6) Here is the man / whom I think / committed the crime / No error

7) He took / his brother / with himself /No error

8) Sheetal talked on / the phone for hours /who really irritated her parents / No error

9) Bansal sir, being a good teacher / he is selected /for the national award / No error



Practice Time

1. We are not as rich as they/ them.
2. Our office is not as big as them/ theirs.
3. Rohit is as tall as she/her.
4. His paintings are as good as my/mine.
5. Can he sing as well as her/ she.

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gyanteerth
Committed towards excellence ...
B - 203 Sai Shree Society, Behind Swaraj Garden, Pimple Saudagar, Pune 411027.
Email id : vikrant_2484@yahoo.co.in | Cell : 9890067320.

To

Date – 4th Dec 2021

The Dean

Training & Placements

SVERI College of Engineering, Pandharpur

Sub: - "Employability Skills Training Module"

Dear Sir

As per our discussion following are the details of the training module designed for final year polytechnic students across all branches.

Module Details

Topic	Details
Arithmetic	Percentages, Profit & Loss, Ratios, Time & Work, time, Speed & distance
Numbers	Factors, LCM, HCF, Cyclicity, Remainders
Algebra	Linear & Quadratic Equations, Progressions
Reasoning	Verbal & Analytical
Data Interpretation	Types & Data & approximation techniques
Company Specific Sessions	Questions from mass recruiters papers

Please Note:

1. Sessions will be conducted Online or Offline as per the mutual discussion.
2. Study material will be provided in the form of PDF files if conducted online and in the form of booklets if conducted offline.
3. Timings will be as per the availability of students and trainer.
4. Remuneration details are as follows:
   INR 1000 per hour

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Committed towards excellence ...
B - 203 Sai Shree Society, Behind Swaraj Garden, Pimple Saudagar, Pune 411027.
Email id : vikrant_2484@yahoo.co.in | Cell : 9890067320.

Current Associations across India

1. Walchand College of Engineering, Sangli
2. MIT World Peace University & MIT Academy of Engineering, Pune
3. Vishwakarma Group of Institutes, Pune
4. JSPM Group of Institutes, Pune
5. Arya group of Institutes, Jaipur
6. Sinhgad Group of Institutes, Pune
7. Government College of Engineering, Karad
8. SVERI College of Engineering, Pandharpur
9. KLE Education Society, Hubli
10. S.G.G.S, Nanded
11. CDAC – Cochin & Thiruvananthapuram
12. ESD Training Partner – RPG Foundation (Zensar)

Warm Regards

Vikrant Sukhtankar

Shantadurga Tutelage

B-203, Sai Shree Society, Behind Swaraj Garden, Pimple Saudagar, Pune 411027
Email Id: vikrant_2484@yahoo.co.in ! Cell : 9890067320

INVOICE

	CLIENT DETAILS	INVOICE DETAILS	
Name	**SVERI College of Engineering, Pandharpur**	**Bill No**	16.00(2021-22)
Address	Pandharpur	**Date**	30th Jan 2022
GSTIN	NA	**PAN**	ABQFS4248F

SR NO.	PARTICULARS	AMOUNT (`)
	Infosys Specific Training Program - 13th Jan 2022 to 22nd Jan 2022	12,000.00
	12 hours @ INR 1000 per hour	

Name -	Shantadurga Tutelage		**SUB-TOTAL**	**12,000.00**
Account no -	051820110000177		**CGST**	**NA**
Bank Name	Branch	Bank of India,Pimple Saudagar	**SGST**	**NA**
IFSC -	Type of A/c -	BKID0000558 Current		
GSTIN - NA			**GRAND - TOTAL**	**12,000.00**

E.& OE.

Shantadurga Tutelage PUNE

For Shantadurga Tutelage

For Shantadurga Tutelage

Partner

(Partner)

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, **District**: Solapur (Maharashtra)
Tel.: (02186) 216063, 9503103757, **Toll Free No.**: 1800-3000-4131 **e-mail.**: coe@sveri.ac.in
Website.: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
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Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune.

Ref.:- COEPR/2021-2022/671(A) Date:- 7/12/2021

To

Shantadurga Tutelage,

Behind Swaraj Garden,

Pune-411027.

Dear Sir,

With reference to the proposal submitted by you dated 04/12/2021 & further telephonic discussion.

I am pleased to place the order for Aptitude Training in live online-webinar based mode for Engineering and MBA students. The details of the same are as follows:

Description of Training	Training Charges
Online webinar based Instructor Led Training (ILT) Covering critical areas aptitude, quantitative and analytical aptitude and verbal English as pre the proposal submitted to COE, Pandharpur. **Special Note:** Students from Final Year, Pre-Final Year and MBA will attend training. These training sessions should help students to appear for campus drives and various examinations like GATE, CAT, CET, IBPS etc. Trainer must cover all topics related to particular campus drive or examinations. Study material must be provided for the contents planned.	**Rs.1000/hour**
Price including of all taxes	
Grand Total Payable	**Rs. 1000/hour**

Amount in words is Rs. One thousand per hour only.

Terms & Conditions:

- All the relevant and appropriate On-line classroom ppts & other relevant study material will be provided to students during the course of the program.
- Appropriate assessments whenever required will be conducted by Shantadurga Tutelage.
- Period for Training will be decided as per the need, which may get changed, if any unavoidable circumstances occur.
- Training session schedule should be decided mutually.
- Total amount is inclusive of all taxes.
- TDS will be applicable as per the rule.

COLLEGE OF ENGINEERING PANDHARPUR

B. Ronge

(Dr. B.P. Ronge)
PRINCIPAL

Soft Skill Session

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Problem-solving, Critical thinking, Decision-making.

Shri Vithal Education & Research Institute's
College of Engineering, Pandharpur

Professional Counselling

1. Certificate / Add On course
2. Workshop / Seminar

SVERI's
College of Engineering, Pandharpur

Mechanical Engineering Department

Certificate Course

on

TATA Ready Engineer(RE)

Duration-15 Sep. 2021 to 31 Dec. 2021

Class: T.Y. Div:-A & B

Sem-I
A.Y.: 2021-22

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
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REPORT

The Department of Mechanical Engineering conducted a **Certificate course on *TATA Ready Engineer (RE) from* 01 Sep. 2021 to 31 Dec. 2021**. The resource person for this certificate course was Mr. D. T. Kashid from SVERI's COE, Pandharpur. In this certificate course the student got the detail knowledge about new trends and techniques in *Mechanical Engineering CATIA V5 R18 with* hands on practical and which are the new tools plans available in upcoming days for the Mechanical Engineer in the field of Mechanical Design and Modeling. Domestic and industrial applications of *CATIA V5 R18 with* practical on Mechanical Automotive parts have been covered in this certificate course. **Total 104 students of T. Y. B. TECH. Mechanical participated in this certificate course.** All the faculty members from Mechanical department worked actively for the successful completion of certificate course.

The Course outcomes for this course are:

1) **Student got the knowledge about which are the new opportunity available for job in Mechanical Engg. Sector.**
2) **Student understood the application of *TATA Ready Engineer (RE)*.**

Mr. C. C. Jadhav
Coordinator

Dr. S. S. Wangikar
Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

RESOURCE PERSONS

The resource persons include industry experts from TATA Technology Ltd. Pune.

1. Mr. Siddharth Yawalkar (Program Lead-Ready Engineer)
2. Mr. C. C. Jadhav (RE coordinator)

MAJOR TOPICS

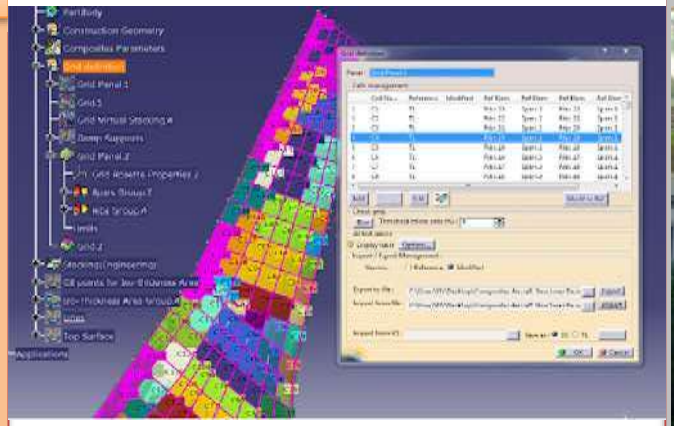
- Basics Introduction of CATIA V5 R18 and its Interfaces, Part Design, Assembly, Drafting, Sketcher. Sheet metal part, manufacturing.
- Importance of TATA RE Program.
- TATA RE - Usage in Academics and Industries.
- Formulation of undergraduate/ post graduate and consultancy projects using the software.

ABOUT THE PROGRAM

This training programme on "Ready Engineer Program" is being organized by SVERI's College of Engineering, Pandharpur & TATA Technology Ltd. Pune with an objective to provide a golden opportunity to students to learn about RE Programme and its various application in the field of academics, research & industry.

TATA TECHNOLOGIES

READY Engineer



SVERI

SVERI's College of Engineering, Pandharpur

Organizes Department of Mechanical Engineering & TATA Technology Ltd. Pune.

Organizes Training Programme on

"TATA Ready Engineer Program"

Date: 15 Sept. – 31 Dec. 2021

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
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Department of Mechanical Engineering

Ref.No: COEP/MECH/2021-22/TY /148(3) Date: 07/09/2021

Notice

It is hereby informed to all the TY Students that, Certificate Course on **TATA Ready Engineer (RE) Training Programme** is scheduled on 15 Sep. 2021 to 31 Dec. 2021; Students are informed to note attendance is mandatory and act accordingly.

(Prof. C. C. Jadhav)
Program Coordinator

(Dr. S. S. Wangikar)
HoD

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

Syllabus

PART 1: Fundamentals of Automobile Design

Session No.	Name of the Topic	Sub-Topics
I	Introduction to CATIA V5, iGET IT & Sketcher	1. Sketcher Overview, Toolbars 2. Sketch Creation 3. Sketch Constraining 4. Sketch Analysis 5. Basic Catia Overview(Software)
II	Part Design 1 (CATIA)	1. Sketch Based Features, Dress Up Features 2. Hole and Thread Creation, Pattern 3. Basic Reference - Plane Point, Line Creation 4. Apply material, Measure Tool 5. Practice Example
III	Part Design 2 and GSD 1 (CATIA)	1. Editing Features 2. Parametric Modelling 3. Transformation Features 5. Practice Example 4. Basic Overview of Surfacing Workbench
IV	GSD 2 (CATIA)	1. Revolved Surfaces, Offset Surfaces 2. Swept Surfaces 3. Fill Surface, Multi-section Surfaces 4. Split, Trim and Join 5. Practice Example




Syllabus

PART 1: Fundamentals of Automobile Design

Session No.	Name of the Topic	Sub-Topics
V	Assembly and Drafting (CATIA)	1. Assembly Overview 2. Top Down Approach 3. Bottom Up Approach 4. Editing Assembly
VI	Drafting (CATIA)	1. Drawing Overview 2. Generating Drawing Views 3. Part Level Drawing 4. Assembly Level Drawing 5. Annotations and Measurement
VII	Basics of Product Design and Styling	1. Introduction to Design 2. Typical Product LifeCycle 3. Automotive Design Process for Production Release 4. CAS Surfaces from Digital Clay Models
VIII	CAE Considerations	1. What is Computer Aided Engineering (CAE) 2. Finite Element Analysis(FEA) 3. NVH, Dura, Crash, Occupant Safety, CFD 4. Difference between implicit and explicit solvers 5. Pre-post and Solvers and types of solvers

Syllabus

PART 1: Fundamentals of Automobile Design

Session No.	Name of the Topic	Sub-Topics
IX	Formability	1. Simultaneous Engg. feasibility study 2. Sheet metal processes 3. Types of draw dies 4. Forming simulations 5. Various Material properties 6. Forming Limit Curve(FLD)
X	Die Design	1. Sheet Metal parts and their operation 2. Presses 3. Various elements used in die design 4. Process of die design 5. Functions of the elements required for each die
XI	Fixture Design	1. Correlation of types of joints for Fixture Design 2. Joining processes and their Applications Overview 3. Need Of Fixtures & Type Of Fixtures 4. Use of product GD&T in the Fixture design

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Ref. No.: COEPR/MECH/2021-2022 / 1481 2) Date:-10/09/2021

OFFICE ORDER

Following committee has been constituted for Design and Development of Curriculum for **Add on Course 'Fundamentals of Automobile Design under Ready Engineer Program'** for T.Y. B.Tech. (Mechanical Engineering) Semester-I of Academic Year: 2021-2022.

Sr. No.	Name of Faculty Member	Particular
1.	Prof. C. K. Vhare	Chairman
2.	Prof. K. S. Pukale	Member
3.	Prof. P. B. Asabe	Member
4.	Prof. K. B. Jundale	Member

The above members are requested to design the curriculum for the said Add on Course and submit final copy of the curriculum to the undersigned on or before 13/09/2021.

Please take a note of the same and act accordingly.

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

Copy to:
1. Prof. C. K. Vhare
2. Prof. K. S. Pukale
3. Prof. P. B. Asabe
4. Prof. K. B. Jundale
5. Principal
6. Dean Academics
7. Registrar
8. Office copy

SVERI's COLLEGE OF ENGINEERING PANDHARPUR
DEPARTMENT OF MECHANICAL ENGINEERING
A.Y.: 2021-22 SEM: I
List of Students Enrolled for
Certificate Course on TATA Ready Engineer (RE)
Duration: 15 Sep. 2021 to 31 Dec. 2021
CLASS: T.Y. (MECH) DIV: A & B

Sr. No.	First Name	Last Name	Username
75	Shanaishwar	Misal	shanaishwarbmisal@coep.sveri.ac.in
76	Shankar	Bansode	shankarbbansode@coep.sveri.ac.in
77	Shantanu	Jade	jadeshantanu@gmail.com
78	Shivani	Nane	shivanirnane@coep.sveri.ac.in
79	Shivraj	Bhusnar	shivrajrbhusnar@coep.sveri.ac.in
80	Shoaib	Mulani	shoaibamulani@coep.sveri.ac.in
81	Shrikant	Goli	golishrikant13@.com
82	Shrikant	Goli	golishrikant13@gmail.com
83	Shubham	Dhanawale	shubhampdhanawale@coep.sveri.ac.in
84	Shubham	Gandule	shubhamgandule0@gmail.com
85	Shubham	Katkar	shubham.katkar.5492@gmail.com
86	Shubham	Shingan	shubhamsshingan@coep.sveri.ac.in
87	Siddheshwar	Mali	siddheshwarkmali@coep.sveri.ac.in
88	Soham	Overikar	sohamgoverikar@coep.sveri.ac.in
89	Suhas	Nashte	suhasnnashte@coep.sveri.ac.in
90	Sujit	Mane	sujitsmane@coep.sveri.ac.in
91	Supriya	Chougule	Supriyamchougule@coep.sveri.ac.in
92	Suraj	Dabade	surajdabade2725@gmail.com
93	Suryakant	Nilagar	suryakantbnilagar@coep.sveri.ac.in
94	Sushil	Deshmukh	sushilddeshmukh@coep.sveri.ac.in
95	Suyash	Londhe	suyashlondhe15@gmail.com
96	Suyog	Jadhav	suyogpjadhav@coep.sveri.ac.in
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98	Swapnil	Mashalkar	Swapnilmashalkar@coep.sveri.ac.in
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101	VAIBHAV	BHOSALE	vaibhavb7755@gmail.com
102	Vaishnavi	Birajdar	vaishnavirbirajdar@coep.sveri.ac.in
103	Venugopal	Badave	venugopalabadave@coep.sveri.ac.in
104	Vikram	Ronge	vikramrongevr5046@gmail.com

(Prof. C. C. Jadhav)
Program Co-ordinator

(Dr. S. S. Wangikar)
Head, Mech.Engg. Dept

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

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DEPARTMENT OF MECHANICAL ENGINEERING
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Sr. No.	First Name	Last Name	Username
39	Nikhil	Shinde	nikhilbshinde@coep.sveri.ac.in
40	Nikita	Pawar	nikitanpawar@coep.sveri.ac.in
41	Omkar	Sarade	omkarasarade@coep.sveri.ac.in
42	Onkar	Thakar	onkarsthakar@coep.sveri.ac.in
43	Pooja	Terave	poojaterave4@gmail.com
44	Pramod	Awalekar	pramodtawalekar@coep.sveri.ac.in
45	Prathamesh	Kotgond	prathameshmkotgond@coep.sveri.ac.in
46	Prathamesh	Patil	prathameshppatil@coep.sveri.ac.in
47	Prathmesh	Yadav	prathmeshdyadav@coep.sveri.ac.in
48	Pratik	Chandole	pratikrchandole@coep.sveri.ac.in
49	Pratik	Nanaware	pratiknanaware101@gmail.com
50	PREM	CHAVAN	premgchavan@coep.sveri.ac.in
51	Rahul	Chaudhari	rahulsingh992122@gmail.com
52	Rahul	Gaikwad	rahulvgaikwad@coep.sveri.ac.in
53	RAHUL	KHADAKE	rahulkhadake2001@gmail.com
54	Rahul	Singh	rahulsingh705791@gmail.com
55	Rajkumar	Yalasangi	rajkumarbyalasangi@coep.sveri.ac.in
56	Rakesh	Birajdar	rakeshpbirajdar@coep.sveri.ac.in
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60	Rohan	Bhandare	rohanbbhandare@coep.sveri.ac.in
61	Rohit	Dhotre	rohitsdhotre@coep.sveri.ac.in
62	Rohit	Ghodake	rohitghodake7000@gmail.com
63	Rohit	Jundale	rohitbjundale@coep.sveri.ac.in
64	Rohit	Tanagavade	tanagavade@gmail.com
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68	Ruturaj	Kale	ruturajykale@coep.sveri.ac.in
69	Rutvik	Gore	rutvikgore200@gmail.com
70	Sachin	Sutar	sachinssutar@coep.sveri.ac.in
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73	Saurabh	Shende	saurabhvshende@coep.sveri.ac.in
74	Nikhil	Shinde	nikhilbshinde@coep.sveri.ac.in

(Prof. C. C. Jadhav)
Program Co-ordinator

(Dr. S. S. Wangikar)
Head, Mech.Engg. Dept

HEAD

SVERI's COLLEGE OF ENGINEERING PANDHARPUR
DEPARTMENT OF MECHANICAL ENGINEERING
A.Y.: 2021-22 SEM: I
List of Students Enrolled for
Certificate Course on TATA Ready Engineer (RE)
Duration: 15 Sep. 2021 to 31 Dec. 2021
CLASS: T.Y. (MECH) DIV: A & B

Sr. No.	First Name	Last Name	Username
1	Abhijeet	Rajput	rajputas202001@gmail.com
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4	Aditya	Thite	adityajthite@coep.sveri.ac.in
5	Ajay	Gavali	ajaypgavali@coep.sveri.ac.in
6	Ajinkya	Phatke	ajinkyarphatke@coep.sveri.ac.in
7	Ajit	Gaikwad	ajitsgaikwad@coep.sveri.ac.in
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9	Akshay	Hetiya	akshayphetiya@coep.sveri.ac.in
10	Anand	Shelake	anandtshelake@coep.sveri.ac.in
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33	Mayur	Shelake	mayurbshelake@coep.sveri.ac.in
34	Moajjam	Mulani	moajjamsmulani@coep.sveri.ac.in
35	Mukesh	Natikar	mukeshlnatikar@coep.sveri.ac.in
36	Muntasim	Bhaijan	muntasimb1999@gmail.com
37	Neha	Patil	nehagpatil@coep.sveri.ac.in
38	Nikhil	Pawar	nikhilpawar@coep.sveri.ac.in

(Prof. C. C. Jadhav)
Program Co-ordinator

(Dr. S. S. Wangikar)
Head, Mech.Engg. Dept.

HEAD,
Dept. of Mechanical Engg

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This is to certify that

Prathamesh Kotgond

from Shri Vithal Education & Research Institute, Pandharpur has undergone the
Ready Engineer
Program of Tata Technologies in the year 2021-22 covering Fundamentals of Automobile Engineering Design, Analysis & Manufacturing
and is awarded

as a Certified Ready Engineer

(Note: Certified Ready Engineer > 60% score; Certificate of Participation 40-59% score)

Mr. Vikrant Gandhe
Head – Corporate Sustainability & Company Secretary
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and is awarded

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and is awarded

as a Certified Ready Engineer

(Note: Certified Ready Engineer > 60% score; Certificate of Participation 40-59% score)

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Head – Corporate Sustainability & Company Secretary
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Webinar Details 2021-22

Sr. No	Date	Timing	Topic Name	Name and Designation of Resource/Expert Person	Alumini, Expert From Industry	No of Benifited students
1	14/08/2021	12.00 to 2.00	Online Internship Program " Opportunities and Challenges	Mr. Niranjan Shinde Director Arunoday Enterprises Kolhapur	Idustry Expert	122
2	16/10/2021	10.00 to 12.00	DRDO Flagship products for Naval and Defence applications	Dr. Vijay Nimbalkar Scientiost, naval Matyerials reserch laboratory, Ambarnath, DRDO, Ministry of deence, govt. of India	Idustry Expert	250
3	23/10/2021	11.00 to 12.30	Getting ready for High Flying Career	Ms. Pratibha Dixit Design Engineer at CAD Setup drafting and designing pvt. ltd. Pune.	Idustry Expert	120
4	31/12/2021	10.00 to 12.00	Advancements in Material Science and Career Prospects	Mr. Shriram Kakade Advance Simulation Engineer, Brose Automative India, Pune	Idustry Expert	100
5	44562	10.00 to12.00	Introduction to Finite Element analysis using SOLID WORKS	Mr. Shivkant D Tilekar Sr. Application Engineer Simulation Bset Engineering Aids and Consultancies pvt. ltd.	Idustry Expert	100
6	44805	10.00 to 12.00	Session on Entrepreneurship and innovation as careeer opportunity	Mr. Niranjan Shinde Director Arunoday Enterprises Kolhapur	Idustry Expert	100
7	28/02/2022	10.00 to 12.00	Sustainable Innovation	Mr. Divya Zinadani Asst. Prof. Mechanical Engg Dept. Sri	Idustry Expert	150
8	44684	3.30 to 5.00	Launch Your Career with ASHRAE	Mr. Tejash Bagul General Manager , Engineering and Buissness Development Analema group, Pune, India/ Dallas, Tx	Alumini	150
9	44745	10.00 to 12.00	Industrial Aspects of Power Plant Engineering	Mr. Jay Prakash Dy. Manager, Rashtriya Ispat Nigam Ltd. Vizag steel Plant Vishakhapattanam.	Idustry Expert	150
10	44776	10.00 to 11.00	Higher Eductaion Pathways and Career Opportunities in Design Engineering	Miss. Komal Kate M. S. At Hochschule Hof, Germany	Alumini	100

Dept. of Mechanical Engg

Sr. No	Date	Timing	Topic Name	Name and Designation of Resource/Expert Person	Alumini, Expert From Industry	No of Benifited students
11	44807	1.00 to 3.00	Advance Concepts in Piping system design for Industrial Applications	Mr. Pramod Deshmukh Learning and skill Development Head, Asian Academey of Professional Training , Pune	Idustry Expert	150
12	24/03/2022	3.30 to 5.00	Prototype/ Process Design and Development - Prototyping	Mr. Ashok Saraf Member , Institution Inovation Council, SVERI's COE, Pandharpur	Idustry Expert	150
13	19/05/2022	1.00 to 3.00	Future of Solar energy and its Applications	Mr. Vijay Gunge Director, TechnoTrend Innovations Pvt. Ltd. Pune	Idustry Expert	110
14	44702	1.00 to 2.00	Prerequisites for Placement in IT Companies	Mr. Rohit Adlinge System Engineer, TCS Pune	Alumini	110
15	44702	1.00 to 2.00	Prerequisites for Placement in IT Companies	Mr.Akshay Takale System Engineer, TCS Pune	Alumini	63
16	44715	10.00 to 11.30	Significance of Manufacturing Technologies in Industries	Mr. Santosh Garwar General Manager , Engg Nuclear Walchandnagar Industries Ltd. Walchandnagar	Idustry Expert	65
17	44715	10.00 to 11.30	Significance of Standards and codes in design	Mr. Amol Gengaje Deputy General Manager , Engg Nuclear Walchandnagar Industries Ltd.	Alumini	120
18	44724	10.00 to 12.00	Fundamental and Systematic Approach for Energy Management and Audit	Mr. Pravin S. Karande Industrial Radiographer Sanavi NDT and Engineering Pune	Idustry Expert	80

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

Participative Learning through Project Competition

Students participation Project Competition

A.Y. 2021-22

Sr. No.	Name of Students	Details of Achievement
1.	Amol Dhondiba Sul Atharv Santosh Joshi Prakash Bhimrao Ghadage Prathmesh Ramesh Kirgat	**Best Paper Presentation Award** in Mechanical Engineering Stream in National Conference on Relevance of Engineering and Science for Environment and Society – R{ES}^{2}, 2021.
2.	Madan K. Patil	**2nd Prize in ASHRAE Pune Chapter** - Student Design Competition - Paper presentation 02 Oct. 2021 and won prize of Rs. 2000/-.
3.	Pranay Disale	**Second Rank** for the project at National Level Project Competition (BVPROTECH-2022)
4.	Salena Mirajkar Vaishnavi Lakheri Madhuri Parchandrao	**2nd Prize** in National Level Paper and Project Competition

(Dr. S. S. Wangikar)
Head, Mech. Engg. Dept

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Affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere
Accredited with B++ Grade by NAAC

AiJR Publications

National Conference on

"Relevance of Engineering and Science for Environment and Society "

R{ES}^{2}, 2021

Certificate of Participation

This is to certify that, **Amol Dhondiba Sul** of **SVERI's College of Engineering, Pandharpur** has participated in National Conference on **R{ES}^{2}, 2021** organized by **Karmayogi Engineering College, Shelve, Pandharpur** on Sunday, 25th July 2021 and presented a research paper titled **"Fabrication of Micro-channels using CO2 LASER Machining & Soft Lithography for Lab on Chip Applications."** This paper has awarded as **Best Paper Presentation** in **Mechanical Engineering Stream.**

Ms. P. B. Jadhav	Ms. J. K. Hipparkar	Prof. Dr. Abhay A. Utpat	Prof . Dr. S. P. Patil
Sub-Coordinator	Sub-Coordinator	Convener	Principal

Shri Pandurang Pratishthan Pandharpur's

Karmayogi Engineering College, Shelve, Pandharpur

Approved by AICTE, New Delhi, Recognised by Govt. Maharashtra and Director of Technical Education, Mumbai
Affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere
Accredited with B++ Grade by NAAC

AiJR Publications

National Conference on

"Relevance of Engineering and Science for Environment and Society "

R{ES}^{2}, 2021

Certificate of Participation

This is to certify that, **Atharv Santosh Joshi** of **SVERI's College of Engineering, Pandharpur** has participated in National Conference on **R{ES}^{2}, 2021** organized by **Karmayogi Engineering College, Shelve, Pandharpur** on Sunday, 25th July 2021 and presented a research paper titled **"Fabrication of Micro-channels using CO2 LASER Machining & Soft Lithography for Lab on Chip Applications."** This paper has awarded as **Best Paper Presentation** in **Mechanical Engineering Stream.**

Ms. P. B. Jadhav	Ms. J. K. Hipparkar	Prof. Dr. Abhay A. Utpat	Prof . Dr. S. P. Patil
Sub-Coordinator	Sub-Coordinator	Convener	Principal

STUDENT DESIGN COMPETITION-PAPER PRESENTATION

02 OCT 2021

Student Design Competition (Paper Presentation) was organized on 02 Oct 2021(ONLINE).Presentation on various topics were done by students of Engg Colleges of Pune.

Based on psn, following prizes were given

1. First Prize (Rs 2500/-) – Mr Vicky K Nannaware – JSPM College of Engg, Hadapsar,Pune
2. Second Prize(Rs 2000/-)- Mr Madan K Patil – SVERI College of Engg, Solapur
3. Third Prize (Rs 1500/-) –Mr Sufal S Jain- MMCOE. Karvenagar, Pune
4. Consolation Prize(Rs 500/-) –Mr Kalpesh Ketkar- DYPCOE, Akurdi,Pune

First Prize winner will represent ASHRAE PUNE Chapter in Student Design Competition-Paper Presentation at **ASHRAE RAL (Region at Large/ 18 Countries/31 Chapters)** Level to be held on 23rd Oct 2021 online.

Congratulations to ALL!!!!!!!!!!!!!!!

(K K Ghosh)

Secretary & Student Activity Chair

BHARATI VIDYAPEETH
(DEEMED TO BE UNIVERSITY),
COLLEGE OF ENGINEERING, PUNE

Department of Mechanical Engineering

CERTIFICATE OF APPRECIATION

This is certificate is presented to **Pranay Disale** for securing the **Second** rank for the project entitled **Digital Device for Measurement of Geometrical Tolerances of Gear Blank of Planetary Gear Box** at **"National Level Project Competition (BVPROTECH-2022)"** held on *21st May 2022* organized by BV (DU), COE, Department of Mechanical Engineering in association with SVR InfoTech, Pune.

Dr. D. G. Kumbhar	**Dr. K. B. Sutar**	**Dr. V. S. Sohoni**
Coordinator, BVPROTECH-2022 Associate Professor, Department Mechanical Engg.	Conveyor, BVPROTECH-2022 Professor & Head, Department Mechanical Engg.	Chairman- BVPROTECH-2022 Principal BV (DU), COE, Pune.

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This is to Certify that Mr./Miss. Madhuri Pazchandrao

of S.V.E.R.I.S. Pandharpur has secured ~~First~~ / Second / ~~Third~~ prize in

National Level Project / ~~Paper~~ Presentation Competition held on

Saturday 18th June 2022, organized by TKIET, Warananagar.

Dr. D. M. Patil
Convener

Dr. S. V. Anekar
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This is to Certify that Mr./Miss. Vaishnavi Laheri

of S.V.E.R.I.S. Pandharpur has secured ~~First~~ / Second / ~~Third~~ prize in

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This is to Certify that Mr./Miss. Saleha Mirajkar

of S.V.E.R.I.S. Pandharpur has secured ~~First~~ / Second / ~~Third~~ prize in

National Level Project / ~~Paper~~ Presentation Competition held on

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Dr. D. M. Patil
Convener

Dr. S. V. Anekar
Principal

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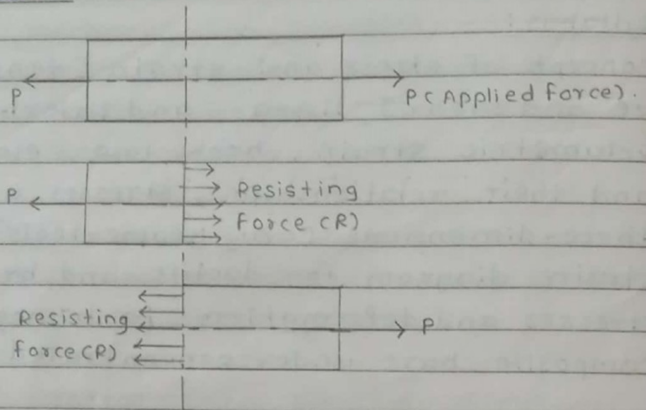
Focused Study Material

6 = sigma = सिग्मा

Stress :-



Def^n: When body subjected to external load 'P' then it undergoes some deformation then that body offers internal resistance force to avoid the deformation so internal resistance force per unit cross-sectional area is called stress.

∴ Applied force [P] = Resisting force [R]

$$\text{Stress} = \frac{\text{Applied force}}{\text{cross-sectional area}}$$

$$\sigma = \frac{P}{A}$$

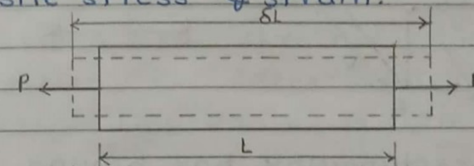
'change દર્શાવવા માટે' 'δ-ડેલ્ટા' ના ચિન્હોના ઉપયોગ કરતા.

δ - ડેલ્ટા.

Strain:

Def^n: The change in dimension to the original dimension is called strain.

* Tensile stress & strain:

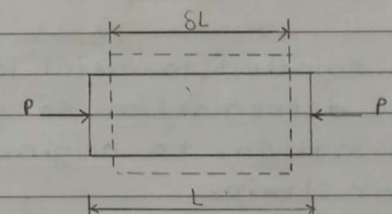


$$\left.\begin{aligned} \sigma_t &= \frac{P}{A} \\ e_t &= \frac{\delta L}{L} \end{aligned}\right\} +ve$$

When body subjected to two equal and opposite pulling forces the corresponding stress is called tensile stress.

The ratio of increase in length to original length is called tensile strain.

* Compressive stress & strain:



$$\left.\begin{aligned} \sigma_c &= \frac{P}{A} \\ e_c &= \frac{\delta L}{L} \end{aligned}\right\} -ve$$

When body is subjected to two equal and opposite pushing forces the correspondin[g] stress is compressive stress.

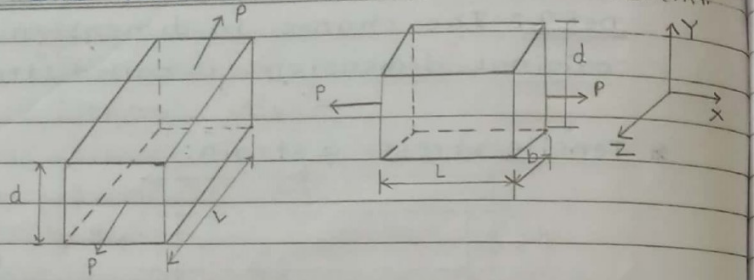
The ratio of decrease in length to the original length is called compressive strain.

* The tensile & compressive stresses are also called normal or direct stress. They are alway perpendicular to cross-sectional are[a]

Z is inclined axis.

axial deformation = load apply केलेल्या axis मधील असलेला जो parameter change होतो त्या axial deformation असतात.

IMP # Linear and lateral strain :



consider, a rectangular bar having length 'L', width 'b', and depth 'd' subjected to external load 'P'. Due to force in 'x' direction above parameter will get changed i.e.

δL = increase in length
δb = decrease in width.
δd = decrease in depth.

Linear strain :

when body is sujected to axial loading (कोणत्यातरी axis ला load apply करणे) their is axial deformation so ratio of axial deformation to original length is called linear strain.

OR

The strain induced in the direction of force is also called linear strain.

In above fig., load 'P' is in direction of 'x' and is in direction of 'L' so linear strain is developed in x-x axis.

$$\therefore \text{Linear strain} = \frac{\delta L}{L}$$

τ = टाऊ

Lateral strain -

The strain induced right angle to the direction of force is called lateral strain.

In above fig. 'b' and 'd' are in 'Y' and 'Z' direction so strain induced in Y and Z direction as force applied in 'x' the corresponding strain is called lateral strain.

$$\therefore \text{Lateral strain} = \frac{\delta b}{b} = \frac{\delta d}{d}$$

* Shear Stress (τ) :

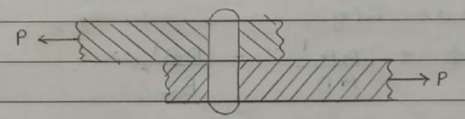


Fig. (a)

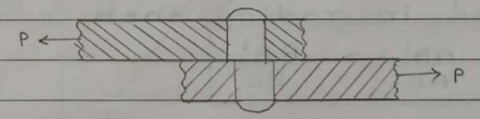


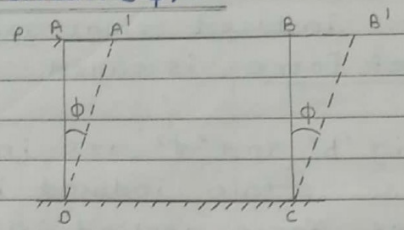
Fig. (b)

* When body subjected to two equal and opposite 'tangential forces' at that section the corresponding stress developed (at that section) is called shear stress.

$$\text{Shear stress} = \frac{\text{Shear Force}}{\text{Shear area}}$$

$$\tau = \frac{P}{A}$$

* Shear strain (ϕ) :-



when body subjected to shear stress the corresponding strain develope is called shear strain.

∴ Shear strain (ϕ) = Transverse distortion / original length

from above fig.,

$\tan\phi = \frac{\text{opposite side}}{\text{Adjacent side}}$ $\tan\phi = \frac{AA'}{AD} = \frac{BB'}{BC}$

As angle 'ϕ' is very small and it is measured in radian then

$$\phi = \frac{AA'}{AD} = \frac{BB'}{BC}$$

Elastic Constants - (Following are the material properties)

1) Young's Modulus or Modulus of elasticity [E] :

It is defined as ratio of linear stress upon linear strain is known as young's modulus.

$$\therefore E = \frac{\sigma}{e}$$

2) Modulus of rigidity or shear modulus [G]

It is the ratio of shear stress to shear strain is called modulus of rigidity.

$$\therefore G = \frac{\tau}{\phi}$$

3) Bulk Modulus [K] :

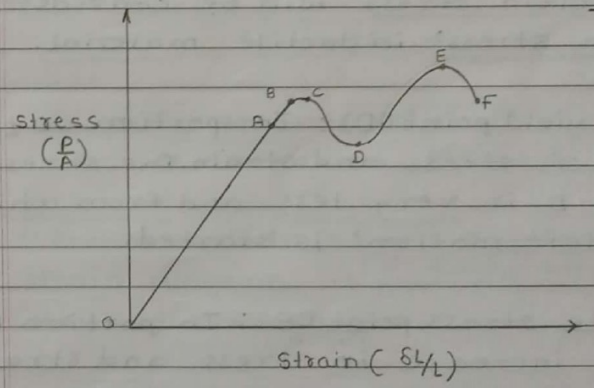
It is the ratio of volumetric stress to volumetric strain is called bulk modulus.

$$\therefore K = \frac{\sigma_v}{e_v}$$

where, e_v = volumetric strain = $\frac{\delta v}{v}$

= change in volume / original volume

IMP * Stress - strain diagram for ductile material : [Mild steel]



A - Proportional limit
B - Elastic limit
C - Upper yield point
D - Lower yield point
E - Ultimate stress point
F - Breaking stress point.

* Factor of safety [F.S.]

It is defined as the ratio of maximum stress to working stress.

$$F.S. = \frac{\text{Maximum stress}}{\text{working stress.}}$$

For ductile,

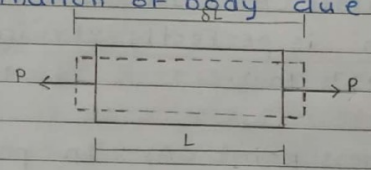
$$F.S. = \frac{\text{Yield stress}}{\text{Working Stress}}$$

For brittle,

$$F.S. = \frac{\text{Ultimate stress}}{\text{working stress.}}$$

The working stress is always less than maximum stress for both ductile and brittle material.

* Deformation of body due to external load:



consider, a body having length 'L' subjected to external load 'p' due to which deformation of body taking place.
As we know definition of young's modulus,

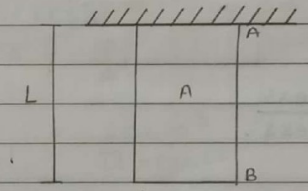
$$E = \frac{\text{stress}}{\text{Strain}} = \frac{\sigma}{e}$$

$$E = \frac{(P/A)}{(\delta l/l)}$$

$$\frac{\delta l}{l} = \frac{(P/A)}{E}$$

$$\therefore \boxed{\delta l = \frac{Pl}{AE}}$$

IMP * Deformation of body due to self weight:



L = length of bar
A = C/s area of bar
W = specific weight
E = Young's modulus.

Deformation of body due to self weight is given by,

$$\boxed{\delta l = \frac{WL^2}{2E}}$$

Type-1 Problems on stress and strain :

Formulae -

1) $\sigma = \frac{P}{A}$

2) $e = \frac{\delta l}{l}$

3) $E = \frac{\sigma}{e}$

4) $\delta l = \frac{PL}{AE}$

5) $\delta l = \frac{WL^2}{2E}$

6) F.S. = $\frac{\text{Maximum stress}}{\text{working stress.}}$

Conversion -

$1\,GPa = 10^9\ N/m^2 = 10^3\ N/mm^2$

$1\,MPa = 1\ N/mm^2.$

$1\,MN/m^2 = 10^6\ N/m^2$

* Conversion: 'N' & 'mm'

$1\,GPa = 10^9\ N/m^2$

$= \frac{10^9}{(10^3)^2}\ \frac{N}{mm^2}$

$= \frac{10^9}{10^6} = 10^9 \times 10^{-6}$

$1\,GPa = 10^3\ N/mm^2$

circle - cross-section area $= \frac{\pi}{4} \times d^2$

rectangle - cross-section area $= b \times d$

Prob.-1 A rod of 150 cm long and dia. 2cm subjected to axial pull of 20KN if elasticity of material is $2 \times 10^5\ N/mm^2$. Find stress, strain and elongation of rod.

Soln :-

Given:

$L = 150\,cm = 1500\,mm$ $\quad \sigma = ?$

$d = 2\,cm = 20\,mm$ $\quad e = ?$

$P = 20\,KN = 20 \times 10^3\ N.$ $\quad \delta l = ?$

$E = 2 \times 10^5\ N/mm^2.$

1) Stress

$\sigma = \frac{P}{A}$

$= \frac{20 \times 10^3}{\frac{\pi}{4} \times (20)^2} = \frac{20 \times 10^3 \times 4}{\pi \times (20)^2}$

$\therefore \boxed{\sigma = 63.66\ N/mm^2.}$

2) Strain,

$e = \frac{\delta l}{l}$

$\therefore \delta l = \frac{Pl}{AE}$

$\therefore = \frac{20 \times 10^3 \times 1500}{2 \times 10^3 \times \frac{\pi}{4} \times (20)^2} = \frac{20 \times 10^3 \times 1500 \times 4}{2 \times 10^3 \times \pi \times (20)^2}$

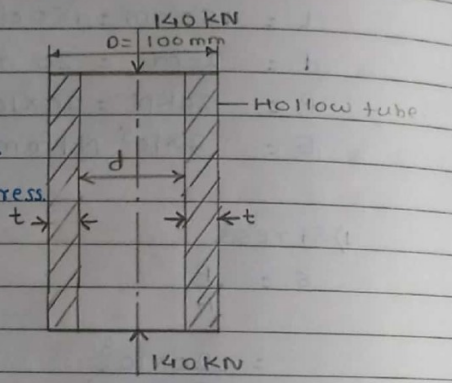
$\therefore \boxed{\delta l = 0.47\ mm}$

3) $e = \frac{\delta l}{l} = \frac{0.47}{1500}$

$\therefore \boxed{e = 3.13 \times 10^{-4}}$

Imp

Prob-1. A hollow steel tube with an external dia. is 100mm is used to carry an axial compressive load 140 KN the yield stress of steel 250 N/mm². Determine thickness of tube required using factor of safety as 2.



Soln:- Given:

D = 100 mm.

P = 140 KN = 140×10^3 N.

y_s = 250 N/mm² = max. stress

F.S. = 2

t = ?

As we know,

Factor of saftey [F.S.] = $\frac{\text{max. stress}}{\text{working stress}}$

$$F.S. = \frac{y_s}{\sigma}$$

$$2 = \frac{250}{\sigma}$$

$$\sigma = \frac{250}{2}$$

$$\therefore \sigma = 125 \text{ N/mm}^2$$

As we have,

$$\sigma = \frac{P}{A}$$

$$125 = \frac{140 \times 10^3}{\frac{\pi}{4} \times (D^2 - d^2)}$$

$$= \frac{140 \times 10^3 \times 4}{\pi \times (D^2 - d^2)}$$

$$125 = \frac{140 \times 10^3 \times 4}{\pi \times (100^2 - d^2)}$$

$$(100^2 - d^2) = \frac{140 \times 10^3 \times 4}{\pi \times 125}$$

$$100^2 - d^2 = 1.42 \times 10^3$$

$$100^2 - 1.42 \times 10^3 = d^2$$

$$8580 = d^2$$

$$d = 92.62 \text{ mm}.$$

Thickness (t) :-

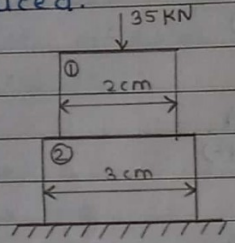
$$t = \frac{D - d}{2}$$

$$= \frac{100 - 92.62}{2}$$

$$\therefore t = 3.69 \text{ mm}$$

Imp
Prob-3] A stepped bar is shown in Fig. subjected to an axial compressive load 35 KN Find maximum & minimum stresses produced.

Soln:-



Given:

$P = 35\ KN = 35 \times 10^3 N$. max. stress = ?

$D_1 = 2\ cm = 20\ mm$ min. stress = ?

$D_2 = 3\ cm = 30\ mm$

Maximum stress -

The stress is maximum where area is minimum.

$$\sigma_{max} = \frac{P}{A_1}$$

$$= \frac{35 \times 10^3}{\frac{\pi}{4} \times 20^2}$$

$$= \frac{35 \times 10^3 \times 4}{\pi \times 20^2}$$

$$= 111.40\ N/mm^2.$$

Minimum stress -

Stress is minimum where area is maximum.

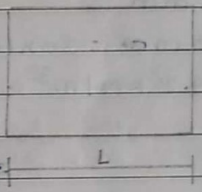
$$\sigma_{min} = \frac{P}{A_2} = \frac{P}{\frac{\pi}{4}(D_2)^2}$$

$$= \frac{35 \times 10^3 \times 4}{\pi \times 30^2}$$

$$\therefore \sigma_{min} = 49.51\ N/mm^2$$

Prob-4] A short timber of rectangular cross-section with one side of section is twice than other when it is loaded axially with 10 KN force and it contracts by 0.0521 mm for a length 1m. If young's modulus is 12 GPa. Calculate dimensions of timber.

Soln: Given:



$P = 10\ KN = 10 \times 10^3\ N$.

$\delta l = 0.0521\ mm$ (c)

$L = 1m = 1000\ mm$.

$E = 12\ GPa = 12 \times 10^3\ N/mm^2$

As per condition given, $L = 2b$.

$$\delta l = \frac{Pl}{AE}$$

$$0.052 = \frac{10 \times 10^3 \times 1000}{A \times 12 \times 10^3}$$

$$A = \frac{10 \times 10^3 \times 10^3}{0.052 \times 12 \times 10^3}$$

$$\therefore A = 16.02 \times 10^3\ mm^2$$

$$A = l \times b$$

$$16.02 \times 10^3 = 2b \times b$$

$$16.02 \times 10^3 = 2b^2$$

$$\therefore b = 89.49\ mm$$

$L = 2 \times b$

$L = 2 \times 89.49$

$\therefore L = 178.98 \text{ mm}$

Prob-5] A copper alloy of wire of 1.5 mm diameter and 30 m long is hanging freely from tower what will be its elongation due to self weight. take self weight is 89.2 KN/m^3 & $E = 90 \text{ GPa}$

Soln:- Given:

$D = 1.5 \text{ mm}$ $\quad \delta l = ?$

$L = 30 \text{ m} = 30 \times 10^3 \text{ mm}$

$W = 89.2 \text{ KN/m}^3 = \frac{89.2 \times 10^3}{10^9}$

$= 89.2 \times 10^3 \times 10^{-9}$

$W = 89.2 \times 10^{-6} \text{ N/mm}^3$

$E = 90 \text{ GPa} = 90 \times 10^3 \text{ N/mm}^2$

we have,

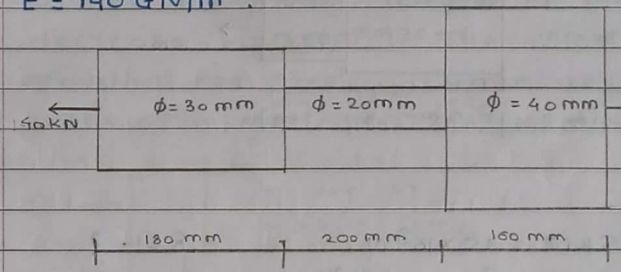
$$\delta l = \frac{WL^2}{2E}$$

$$= \frac{89.2 \times 10^{-6} \times (30 \times 10^3)^2}{(2 \times 90 \times 10^3)}$$

$$\therefore \boxed{\delta l = 0.446 \text{ mm}}$$

Type-2 Problems on bar of varing cross sections.

1) Find the total elongation of bar shown in fig. below for an axial pull of 40 KN. Take $E = 140 \text{ GN/m}^2$.



Given:

$P = 40 \times 10^3 \text{ N}$

$E = 140 \text{ GN/m}^2 = \frac{140 \times 10^9}{(10^3)^2} = 140 \times 10^3 \text{ N/mm}^2$

$\delta l = ?$

Total elongation;

$$\delta l = \delta l_1 + \delta l_2 + \delta l_3$$

$$\delta l = \frac{PL_1}{A_1 E} + \frac{PL_2}{A_2 E} + \frac{PL_3}{A_3 E}$$

$$= \frac{40 \times 180 \times 4 \times 10^3}{\pi \times 30^2 \times 140 \times 10^3} + \frac{40 \times 200 \times 4 \times 10^3}{\pi \times 20^2 \times 140 \times 10^3} + \frac{40 \times 160 \times 4 \times 10^3}{\pi \times 40^2 \times 140 \times 10^3}$$

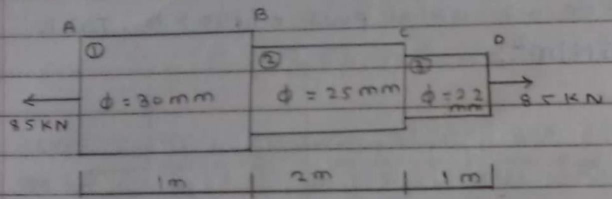
$$\delta l = \frac{40 \times 10^3}{140 \times 10^3} \left[\frac{180 \times 4}{\pi \times 30^2} + \frac{200 \times 4}{\pi \times 20^2} + \frac{160 \times 4}{\pi \times 40^2} \right]$$

$$= 0.2857 \left[0.2546 + 0.6366 + 0.1273 \right]$$

$$\therefore \boxed{\delta l = 0.2909 \text{ mm}} \text{ (T)}$$

इया गणितात पहिल्यांदा area काढून घ्यावा.

2] Find total elongation of bar AD shown in fig. below if subjected to 85 KN tensile take E = 200 GPa.



Soln: Given:-

$P = 85 KN = 85\times10^3 N$. $\delta l = ?$

$E = 200\times10^3 N/mm^2$

$(\delta l)_{AD} = \delta l_1 + \delta l_2 + \delta l_3$

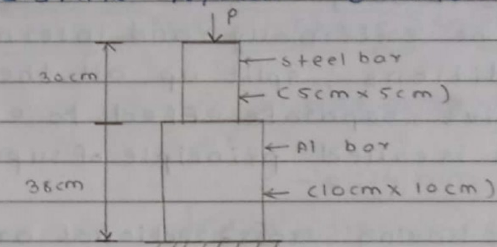
$(\delta l)_{AD} = \frac{P}{E}\left[\frac{L_1}{A_1} + \frac{L_2}{A_2} + \frac{L_3}{A_3}\right]$

$= \frac{85\times10^3}{200\times10^3}\left[\frac{1\times10^3\times4}{\pi\times30^2} + \frac{2\times10^3\times4}{\pi\times25^2} + \frac{1\times10^3\times4}{\pi\times22^2}\right]$

$= 0.425\left[1.4147 + 4.07 + 2.63\right]$

$(\delta l)_{AD} = 3.44$ mm (T)

3] A member formed by connecting steel bar to aluminium bar shown in fig assuming that bar is prevented from bukling calculate magnitude of force 'P' that will causes the total length of member to decrease 0.25 mm. The value of elastic modulus for steel & aluminium are $2.51\times10^5 N/mm^2$ & $7\times10^4 N/mm^2$.



Soln:- Given:-

For steel	For aluminium,
$L = 30 cm = 300 mm$	$L = 38 cm = 380 mm$
$A = 5 cm\times5 cm$	$A = 10 cm\times10 cm$
$= 50\times50 = 2500 mm^2$	$= 100\times100 = 10000$
	$= 10\times10^3$
$E = 2.51\times10^5 N/mm^2$	$E = 7\times10^4 N/mm^2$

$\delta l = 0.25 mm$

$P = ?$

$\delta l = (\delta l)_{st} + (\delta l)_{Al}$

$0.25 = P\left[\left(\frac{L}{AE}\right)\right]_{st} + \left[\frac{L}{AE}\right]_{Al}$

$= P\left[\frac{300}{2500\times2.51\times10^5}\right] + \left[\frac{380}{10\times10^3\times7\times10^4}\right]$

$= P\left[4.78\times10^{-7}\right] + \left[5.42\times10^{-7}\right]$

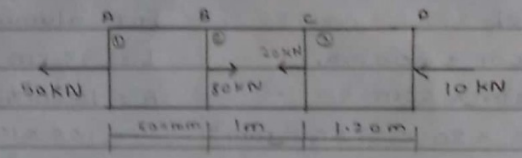
$$0.25 = P \times 1.02 \times 10^{-6}$$

$$\boxed{P = 245.09 \times 10^3 \text{ N.}}$$

Principle of superposition:-

IMP Type 3] Problems on principle of superposition: when body is subjected to number of forces may be externally and internally. In such conditions, split up all these forces and give separate effect to each section this is called principle of superposition.

Prob. 1] A brass bar having cross-sectional area 1000 mm^2 subject to axial force shown in fig. below. Find the elongation of bar.



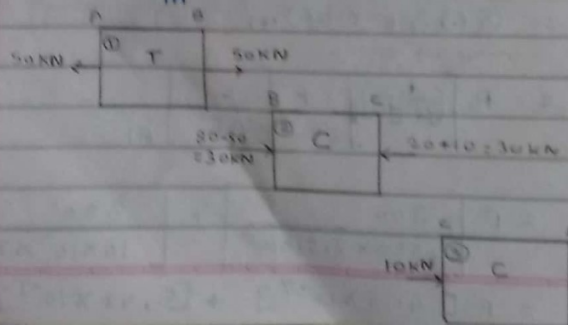
Soln: Given:

$A = 1000 mm^2$ Assume, $E = 1.05 \times 10^5 N/mm^2$

$L_1 = 600 mm$ $\delta l = ?$

$L_2 = 1m = 10^3 mm$

$L_3 = 1.20 m = 1.20 \times 10^3 mm$



Tensile eff deformation +ve

compression eff deformation -ve

$$\delta l_1 = \frac{PL_1}{AE} = \frac{50 \times 600 \times 10^3}{10^3 \times 1.05 \times 10^5} = 0.28 \text{ mm (T)}$$

$$\delta l_2 = \frac{PL_2}{AE} = \frac{30 \times 10^3 \times 10^3}{10^3 \times 1.05 \times 10^5} = 0.28 \text{ mm (T)}$$

$$\delta l_3 = \frac{PL_3}{AE} = \frac{10 \times 10^3 \times 1.20 \times 10^3}{10^3 \times 1.05 \times 10^5} = 0.114 \text{ mm (C)}$$

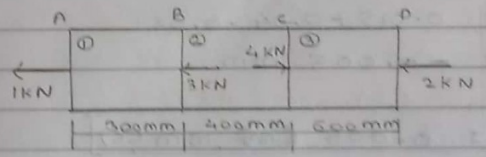
$$*\delta l = +\delta l_1 + \delta l_2 - \delta l_3$$

$$= 0.28 - 0.28 - 0.114$$

$$= -0.114 \text{ mm}$$

$$\therefore \boxed{\delta l = 0.114 \text{ mm (C)}}$$

Prob. 2] A bar of cross section 100 mm^2 subjected to force shown in fig calculate deformation of bar. Take $E = 2 \times 10^5 N/mm^2$.



Given:-

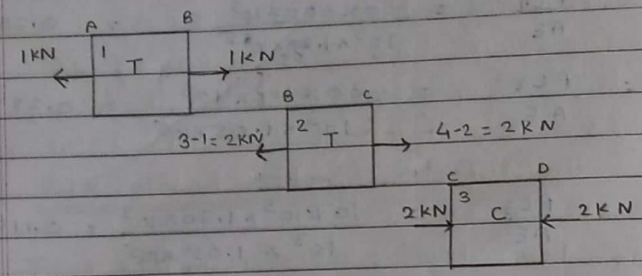
$A = 100 mm^2$ $\delta l = ?$

$E = 2 \times 10^5 N/mm^2$.

$L_1 = 300 mm$

$L_2 = 400 mm$

$L_3 = 600 mm$



$$\delta l_1 = \frac{PL_1}{AE} = \frac{1\times10^3\times300}{100\times2\times10^5} = 0.015 \text{ mm}$$

$$\delta l_2 = \frac{PL_2}{AE} = \frac{2\times10^3\times400}{100\times2\times10^5} = 0.04 \text{ mm}$$

$$\delta l_3 = \frac{PL_3}{AE} = \frac{2\times10^3\times600}{100\times2\times10^5} = 0.06 \text{ m}$$

$$\delta l = \delta l_1 + \delta l_2 - \delta l_3$$

$$= 0.015 + 0.04 - 0.06$$

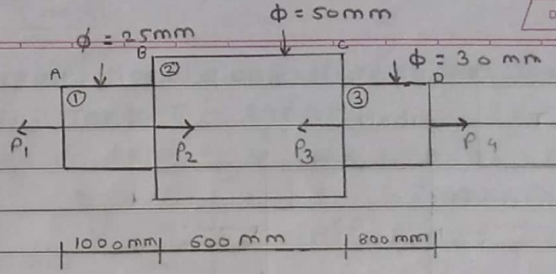
$$\therefore \delta l = -0.005 \text{ mm}$$

$$\therefore \boxed{\delta l = 0.005 \text{ mm (c)}}$$

Prob. 3] A member ABCD subjected to point loads shown in fig. calculate P_2 necessary for if $P_1 = 10$ KN, $P_3 = 40$ KN and $P_4 = 16$ KN take $E = 2.05\times10^5$ N/mm^2. Also determine total elongation of member.

$$\begin{cases} + & + \\ - & - \\ + & - \\ - & + \end{cases}$$

$\therefore \delta l = 0.152$ mm



Soln:- Given:

$L_1 = 1000$ mm $\quad A_1 = \frac{\pi}{4}\times25^2 = 490.87$ mm^2

$L_2 = 600$ mm $\quad A_2 = \frac{\pi}{4}\times50^2 = 1.96\times10^3$ mm^2

$L_3 = 800$ mm $\quad A_3 = \frac{\pi}{4}\times30^2 = 706.85$ mm^2

$E = 2.05\times10^5$ N/mm^2

$P_2 = ?$

$\delta l = ?$

$P_1 = 10$ KN

$P_3 = 40$ KN

$P_4 = 16$ KN

Sumation of all horizontal forces is equal 'zero'

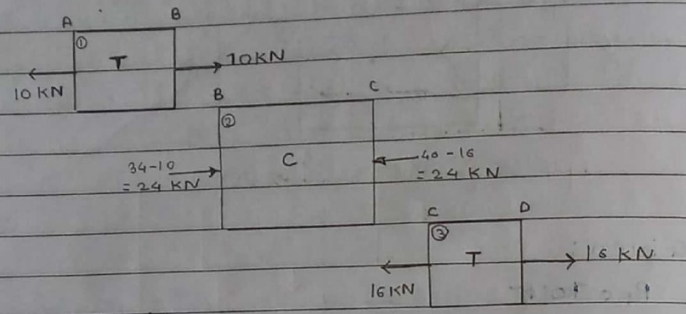
$\Sigma f_x = 0 \qquad \underset{(+)}{\rightarrow} \quad \underset{(-)}{\leftarrow}$

$$-P_1 + P_2 - P_3 + P_4 = 0$$

$$-10 + P_2 - 40 + 16 = 0$$

$$P_2 - 34 = 0$$

$$\therefore P_2 = 34 \text{ KN}$$



$$\delta l_1 = \frac{PL_1}{A_1E} = \frac{10\times10^3\times1000}{[490.87\times2.05\times10^5]} = 0.0993\ mm\ (T)$$

$$\delta l_2 = \frac{PL_2}{A_2E} = \frac{24\times10^3\times600}{[1.96\times10^3\times2.05\times10^5]} = 0.0358\ mm\ (C)$$

$$\delta l_3 = \frac{PL_3}{A_3E} = \frac{16\times10^3\times800}{[706.85\times2.05\times10^5]} = 0.0883\ mm\ (T)$$

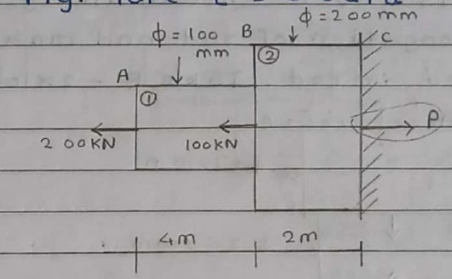
$$\delta l = \delta l_1 - \delta l_2 + \delta l_3$$

$$= 0.0993 - 0.0358 + 0.0883$$

$$\delta l = 0.1518$$

$$\therefore \boxed{\delta l = 0.1518\ mm\ (T)}$$

Prob. 4) Determine total elongation of bar loaded shown in Fig. Take: E = 200 GPa



Given:-

$E = 200\ GPa = 200\times10^3\ N/mm^2$

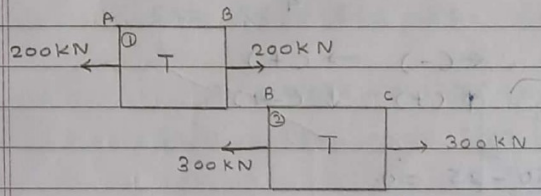
$A_1 = \frac{\pi}{4}\times100^2 = 7.85\times10^3\ mm^2$ $L_1 = 4m = 4000\ mm$

$A_2 = \frac{\pi}{4}\times200^2 = 31.41\times10^3$ $L_2 = 2m = 2000\ mm$

$\Sigma F_x = 0$ $\leftarrow(-)$ $\rightarrow(+)$

$-200 - 100 + P = 0$

$\therefore P = 300KN$



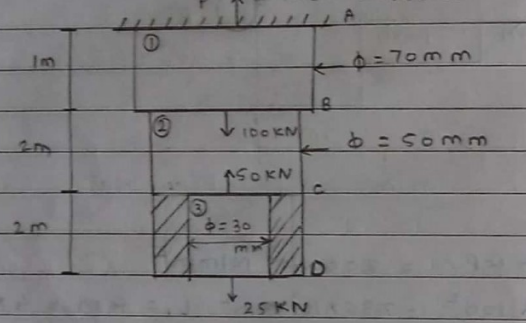
$$\delta l_1 = \frac{PL_1}{A_1E} = \frac{200\times10^3\times4000}{(7.85\times10^3\times200\times10^3)} = 0.5095\ mm\ (T)$$

$$\delta l_2 \quad \frac{PL_2}{A_2E} = \frac{300\times10^3\times2000}{(31.41\times10^3\times200\times10^3)} = 0.0955\ mm\ (T)$$

$$\delta l = \delta l_1 + \delta l_2$$

$$\therefore \boxed{\delta l = 0.605\ mm\ (T)}$$

VIMP
Prob-5) A circular steel rod ABCD of different cross-section is loaded shown in fig. Find total elongation of rod and maximum stresses induced in rod. Take $E = 2\times10^5$ N/mm².



Given -

$E = 2\times10^5$ N/mm²

$L_1 = 1m = 1000mm$ $A_1 = \frac{\pi}{4}\times70^2 = 3.84\times10^3$ mm²

$L_2 = 2m = 2000$ mm

$L_3 = 2m = 2000$ mm $A_2 = \frac{\pi}{4}\times50^2 = 1.96\times10^3$ mm²

$$A_3 = \frac{\pi}{4}\times(50^2-30^2) = 1.25\times10^3 \text{ mm}^2.$$

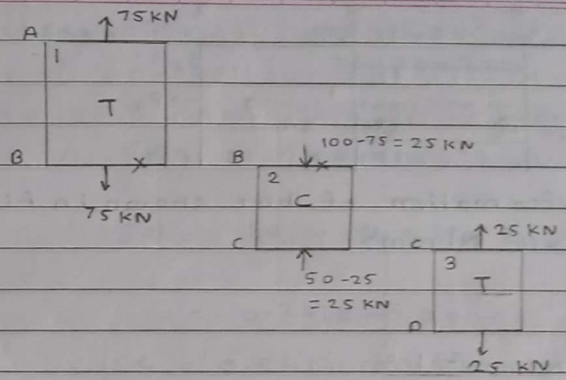
$\Sigma f_x = 0$ $\leftarrow(-)$ $\rightarrow(+)$

$\Sigma f_V = 0$ $\uparrow(+)$ $\downarrow(-V)$

$P - 100 + 50 - 25 = 0$

$P = 100 - 50 + 25$

$\therefore P = 75$ KN



$$\delta l_1 = \frac{PL_1}{A_1E} = \frac{75\times1000\times10^3}{3.84\times10^3\times2\times10^5} = 0.0976 \text{ mm (T)}$$

$$\delta l_2 = \frac{PL_2}{A_2E} = \frac{25\times10^3\times2000}{1.96\times10^3\times2\times10^5} = 0.1275 \text{ mm (C)}$$

$$\delta l_3 = \frac{PL_3}{A_3E} = \frac{25\times10^3\times2000}{1.25\times10^3\times2\times10^5} = 0.2 \text{ mm (T)}$$

$\delta l = \delta l_1 - \delta l_2 + \delta l_3$

$= 0.0976 - 0.1275 + 0.2$

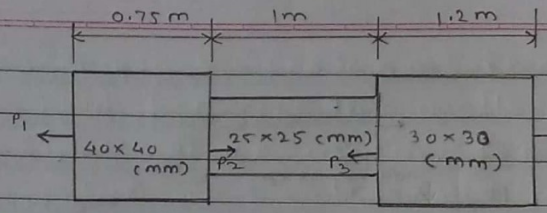
$\therefore \boxed{\delta l = 0.1701 \text{ mm (T)}}$

$$\sigma_{AB} = \frac{P_1}{A_1} = \frac{75\times10^3}{(3.84\times10^3)} = 19.53 \text{ N/mm}^2 \text{ (T)}$$

$$\sigma_{BC} = \frac{P_2}{A_2} = \frac{25\times10^3}{(1.96\times10^3)} = 12.75 \text{ N/mm}^2 \text{ (C)}$$

$$\sigma_{CD} = \frac{P_3}{A_3} = \frac{25\times10^3}{(1.25\times10^3)} = 20 \text{ N/mm}^2 \text{ (T)}$$

Prob-6]



Find the deformation of bar shown in fig above. Take $E = 2\times10^5$ N/mm^2.

Given :-

$E = 2\times10^5$ N/mm^2

$P_1 = 120$ KN — $L_1 = 0.75\times10^3$ mm

$P_2 = 220$ KN — $L_2 = 1\times10^3$ mm

$P_4 = 160$ KN — $L_3 = 1.2\times10^3$ mm

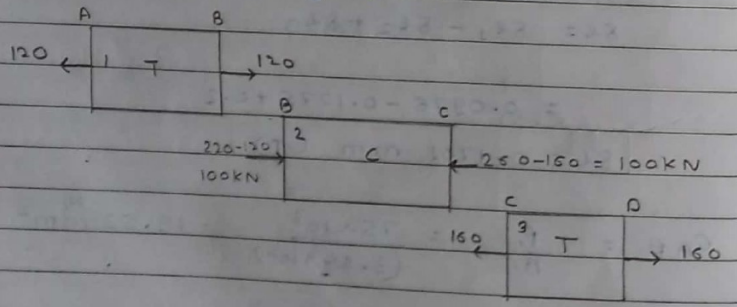
$P_3 = ?$

$d\ell = ?$

$\Sigma F_x = 0$ $\quad \leftarrow (-) \quad \rightarrow (+)$

$-120 + 220 - P_3 + 160 = 0$

$P_3 = 260$ KN.



$$\delta\ell_1 = \frac{PL_1}{A_1E} = \frac{120\times10^3\times0.75\times10^3}{40\times40\times2\times10^5} = 0.2812 \text{ mm (T)}$$

$$\delta\ell_2 = \frac{PL_2}{A_2E} = \frac{100\times10^3\times1\times10^3}{25\times25\times2\times10^5} = 0.8 \text{ mm (C)}$$

$\Sigma F_x = 0$

$-P_1 - P + P_2 = 0$

$P = P_2 - P_1 = -P$

$$\delta\ell_3 = \frac{PL_3}{A_3E} = \frac{160\times1.2\times10^3\times10^3}{30\times30\times2\times10^5} = 1.06 \text{ mm (T)}$$

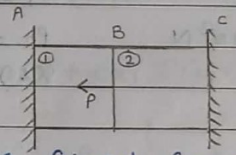
$\delta\ell_3 = 1.06$ mm (T)

$\delta\ell = \delta\ell_1 - \delta\ell_2 + \delta\ell_3$

$= 0.2812 - 0.8 + 1.06$

$\therefore \boxed{\delta\ell = 0.5412 \text{ mm (T)}}$

* Type-4] statistically (सहलग्न) intermediate structure : indeterminate



If body is fixed from both ends and subjected to load under such problems stresses can not be obtained directly like earlier problem but we have to use some assumption & based on that solution is obtained.

condition ①

$\rightarrow +$

$\leftarrow -$

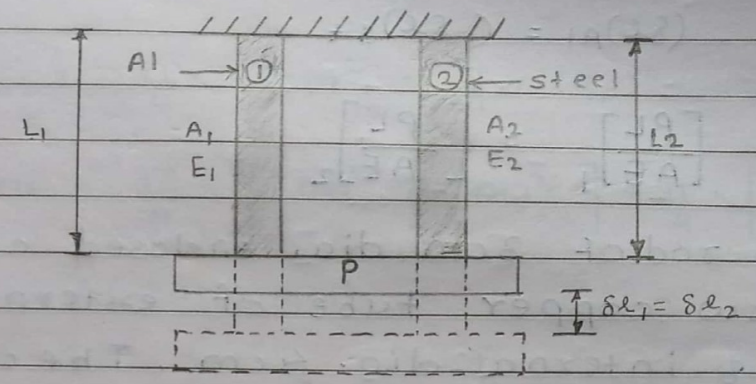
$P_1 - P_2 =$ force applied (P).

condition ②

As both ends are fixed $\delta\ell = 0$

$\delta\ell_1 + \delta\ell_2 = 0.$

VIMP Type-5> Analysis of composite bars.



where,

L_1 & L_2 = length of bar ① & ② resp.

A_1 & A_2 = Area of bar ① & ② resp.

E_1 & E_2 = Young's modulus of bar ① & ② resp.

P_1 & P_2 = load on bar ① & ② resp.

σ_1 & σ_2 = Stresses on bar ① & ② resp.

P = Total load on composite bar.

A bar made of two different bars having same length but different materials which are rigidly connected to each other due to which it behaves as single unit only & if subjected to load P due to which extension & compression are same called as composite bar.

In composite bar problems following two points are very important-

1> Total load on composite bar is equal to sum of load carried by each material.

2> The tension & compression will be same.

According to point ①

condition-1

Total load (P) = $P_1 + P_2 = P_{Al} + P_{st}$

According to point ②

condition-2

Rod = solid in cross section
Tube = Hollow in cross section

PAGE NO
DATE / /

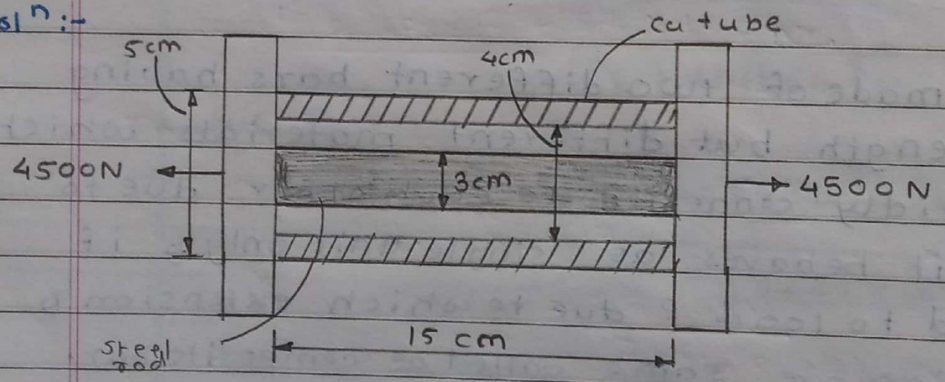
$\delta l_1 = \delta l_2$

$(\delta l)_{A1} = (\delta l)_{st}$

$$\left[\frac{PL}{AE}\right]_1 = \left[\frac{PL}{AE}\right]_2$$

Prob.-1] A steel rod of 3cm dia. enclosed centrally in hollow copper tube of external dia. 5cm & internal dia. 4cm. The composite bar is subjected to at axial pull of 45000 N if length of each bar is 15 cm. Determine stresses in each rod & load carried by each material. Take E for steel 2.1×10^5 N/mm² & E for copper is 1.1×10^5 N/mm²

Soln :-



Given:

For steel

D_{st} = 3cm = 30 mm

L_{st} = 15 cm = 150 mm

$E_{st} = 2.1 \times 10^5$ N/mm²

For copper tube,

$(D_o)_{cu}$ = 5cm = 50 mm

$(D_i)_{cu}$ = 4cm = 40 mm

$E_{cu} = 1.1 \times 10^5$ N/mm²

L_{cu} = 15 cm = 150 mm.

$P_{st} = ?$ $P_{cu} = ?$ $\sigma_{st} = ?$ $\sigma_{cu} = ?$

$$A_{st} = \frac{\pi}{4} \times (D_{st})^2 = \frac{\pi}{4} \times (30)^2 = 706.85 \text{ mm}^2.$$

$$A_{cu} = \frac{\pi}{4} \times \left[(D_o)^2_{cu} - (D_i)^2_{cu}\right] = \frac{\pi}{4} \times \left[(50)^2 - (40)^2\right]$$

$$A_{cu} = 706.85 \text{ mm}^2$$

condition ①

$$P = P_{st} + P_{cu}$$

$$45000 = P_{st} + P_{cu} \quad \text{---- ①}$$

condition ②

$$(\delta l)_{st} = (\delta l)_{cu}$$

$$\left(\frac{PL}{AE}\right)_{st} = \left(\frac{PL}{AE}\right)_{cu}$$

$$\frac{P_{st} \cdot L_{st}}{A_{st} \cdot E_{st}} = \frac{P_{cu} \cdot L_{cu}}{A_{cu} \cdot E_{cu}}$$

$$\frac{P_{st}}{E_{st}} = \frac{P_{cu}}{E_{cu}}$$

$$\frac{P_{st}}{2.1 \times 10^5} = \frac{P_{cu}}{1.1 \times 10^5}$$

$$P_{st} = \frac{P_{cu} \times 2.1 \times 10^5}{1.1 \times 10^5}$$

$$\therefore P_{st} = 1.90 \times P_{cu} \quad \text{---- ②}$$

From eqn ①,

$$45000 = 1.90 \times P_{cu} + P_{cu}$$

$$45000 = P_{cu}\,[1.91 + 1]$$

$$45000 = P_{cu}\,[2.91]$$

$$\therefore P_{cu} = 15.46 \times 10^3 \text{ N}.$$

$$45000 = P_{st} + P_{cu}$$

$$45000 = P_{st} + 15.46 \times 10^3$$

$$\therefore P_{st} = 29.54 \times 10^3 \text{ N}.$$

Then,

$$\sigma_{steel} = \sigma_{st} = \frac{P_{st}}{A_{st}}$$

$$\sigma_{st} = \frac{29.54 \times 10^3}{706.85}$$

$$\therefore \boxed{\sigma_{st} = 41.79 \text{ N/mm}^2}$$

$$\sigma_{cu} = \frac{P_{cu}}{A_{cu}}$$

$$= \frac{15.46 \times 10^3}{706.85}$$

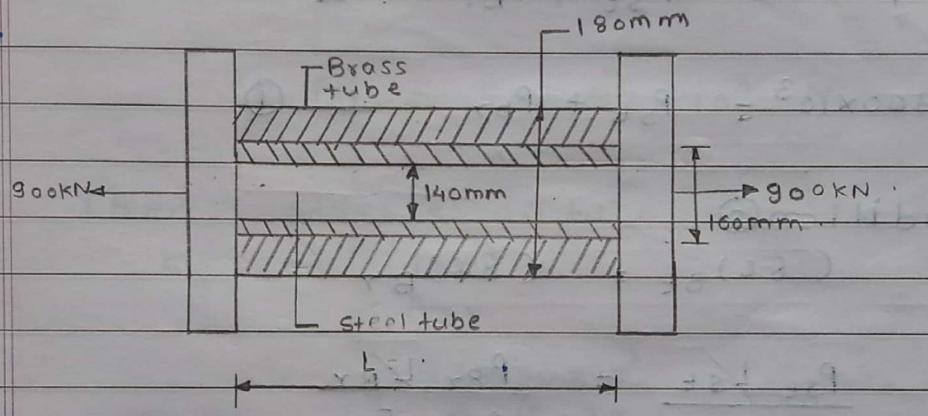
$$\therefore \boxed{\sigma_{cu} = 21.95 \text{ N/mm}^2}$$

PAGE No.
DATE / /

√IMP

Prob. 2] A compound tube consist of steel tube having 140 mm internal dia. and 160 mm external dia. and outer brass tube 160 mm internal diam. & 180 mm - external dia. The two tubes of same length the compound tube carries an axial load of 900 kN. Find stresses and load carried by each material. Take E for the steel 2×10^5 N/mm² & for brass 1×10^5 N/mm².

Soln:-



Given -

$P = 900\,kN = 900 \times 10^3\,N$

For steel

$(D_o)_{st} = 160\,mm$

$(D_i)_{st} = 140\,mm$

$E_{st} = 2 \times 10^5\,N/mm^2$

$P_{st} = ?$ $\sigma_{st} = ?$

For brass tube

$(D_o)_{Br} = 180\,mm$

$(D_i)_{Br} = 160\,mm$

$E_{Br} = 1 \times 10^5\,N/mm^2$

$P_{Br} = ?$ $\sigma_{Br} = ?$

$$A_{st} = \frac{\pi}{4} \times \left[(D_o)_{st}^2 - (D_i)_{st}^2\right]$$

$$= \frac{\pi}{4} \times \left[160^2 - 140^2\right]$$

$$= 4712.38\,mm^2$$

* Note - In compound tube ... in condition ①
do not consider it as negative
i.e. $P = P_1 + P_2$.

PAGE No.
DATE / /

$$A_{Br} = \frac{\pi}{4} \times \left[(D_o)_{Br}^2 - (D_i)_{Br}^2 \right]$$

$$= \frac{\pi}{4} \times \left[180^2 - 160^2 \right]$$

$$A_{Br} = 5340.70 \text{ mm}^2$$

Condition ①

(compressive force ... minus ...) $P = P_{st} + P_{br}$

$$900 \times 10^3 = P_{st} + P_{br} \quad \text{—— ①}$$

condition ②

$$(\delta l)_{st} = (\delta l)_{Br}$$

$$\frac{P_{st} \cancel{L_{st}}}{A_{st} E_{st}} = \frac{P_{Br} \cancel{L_{Br}}}{A_{Br} E_{Br}}$$

$$\frac{P_{st}}{4712.38 \times 2 \times 10^5} = \frac{P_{Br}}{5340.70 \times 1 \times 10^5}$$

$$P_{st} = \frac{P_{Br} \times 4712.38 \times 2 \times 10^5}{5340.70 \times 1 \times 10^5}$$

$$P_{st} = 1.76 P_{Br} \quad \text{—— ②}$$

Put eqⁿ ② in eqⁿ ①,

$$900 \times 10^3 = 1.76 P_{br} + P_{br}$$

$$900 \times 10^3 = P_{br} [1.76 + 1]$$

$900 \times 10^3 = 2.76 P_{br}$

$\frac{900 \times 10^3}{2.76} = P_{br}$

$P_{br} = 326.08 \times 10^3 \text{ N}$ ——— ③

Put in eqⁿ ③ in eqⁿ ②,

$P_{st} = 1.76 \times 326.08 \times 10^3$

$\therefore P_{st} = 573.90 \times 10^3 \text{ N}$

Then, stresses on tube,

$\sigma_{st} = \frac{P_{st}}{A_{st}}$

$= \frac{573.90 \times 10^3}{4712.38}$

$\sigma_{st} = 121.78 \text{ N/mm}^2$ (Tensile)

$\sigma_{Br} = \frac{P_{Br}}{A_{Br}}$

$= \frac{326.08 \times 10^3}{5340.70}$

$\sigma_{Br} = 61.05 \text{ N/mm}^2$ (Tensile).

$d = D - 2t$

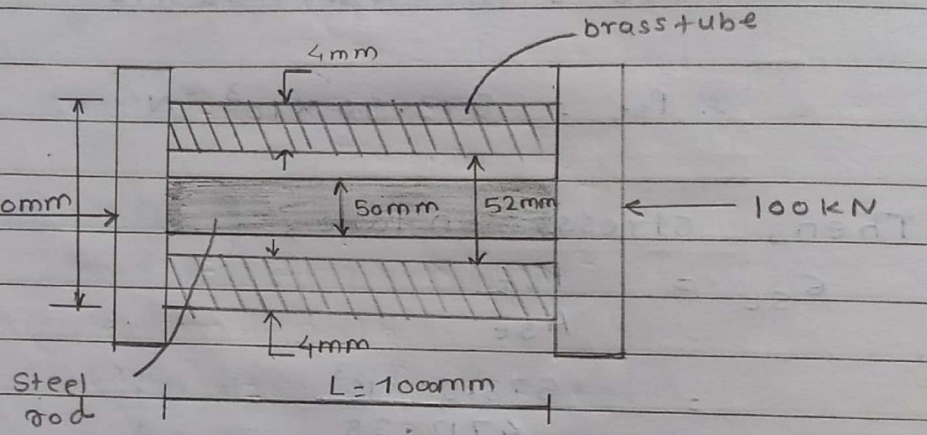
or

$D_i = D_o - 2t$

3] A steel rod of 50mm dia. and 1000 mm long is co-axially enclosed in brass tube of 60 mm external dia. and 4 mm thickness having same length. Determine stresses induced in each material & change in length if assembly is subjected to axial compressive force of 100 kN.

E for steel is 200 GPa & for brass is 100 GPa

Soln:-



$P = 100 \times 10^3$ N & $D_i = D_o - 2t = 60 - (2 \times 4) = 52$ mm.

For steel rod,

$D = 50$ mm

$E_{st} = 200 \times 10^3$ N/mm^2.

for brass tube,

$(D_o)_{br} = 60$ mm

$(D_i)_{br} = 52$ mm

$E_{br} = 100 \times 10^3$ N/mm^2

$A_{st} = \frac{\pi}{4} \times 50^2 = 1963.49$ mm^2

$A_{br} = \frac{\pi}{4} \times (60^2 - 52^2) = 703.71$ mm^2

condition ①

$P = P_{st} + P_{br}$

$100 \times 10^3 = P_{st} + P_{br}$ ——— ①

condition ②

$(\delta l)_{st} = (\delta l)_{br}$

$$\frac{P_{st} L_{st}}{A_{st} E_{st}} = \frac{P_{br} L_{br}}{A_{br} E_{br}}$$

$$\frac{P_{st}}{1963.49 \times 200 \times 10^3} = \frac{P_{br}}{703.71 \times 100 \times 10^3}$$

$$P_{st} = \frac{P_{br} \times 1963.49 \times 200 \times 10^3}{703.71 \times 100 \times 10^3}$$

$$P_{st} = P_{br} \times 5.58 \quad \text{——— ②}$$

Put eqⁿ ② in eqⁿ ①,

$100 \times 10^3 = P_{br} \times 5.58 + P_{br}$

$= P_{br} [5.58 + 1]$

$100 \times 10^3 = 6.58 P_{br}$

$15.19 \times 10^3 = P_{br}$

$\therefore \boxed{P_{br} = 15.19 \times 10^3 \text{ N}}$ ——— ③

Put eqⁿ ③ in eqⁿ ②,

$P_{st} = 15.19 \times 10^3 \times 5.58$

$\therefore \boxed{P_{st} = 84.76 \times 10^3 \text{ N}}$

stresses on rod & tube,

$$\sigma_{st} = \frac{P_{st}}{A_{st}}$$

$$= \frac{84.76 \times 10^3}{1963.49}$$

$\therefore \boxed{\sigma_{st} = 43.16 \text{ N/mm}^2 \text{ (compressive)}}$

$$\sigma_{br} = \frac{P_{br}}{A_{br}}$$

$$= \frac{15.19 \times 10^3}{703.71}$$

$\therefore \boxed{\sigma_{br} = 21.58 \text{ N/mm}^2 \text{ (compressive)}}$.

change in length

$$(\delta l)_{st} = \frac{P_{st} L_{st}}{A_{st} E_{st}}$$

$$= \frac{84.76 \times 10^3 \times 1000}{[1963.49 \times 200 \times 10^3]}$$

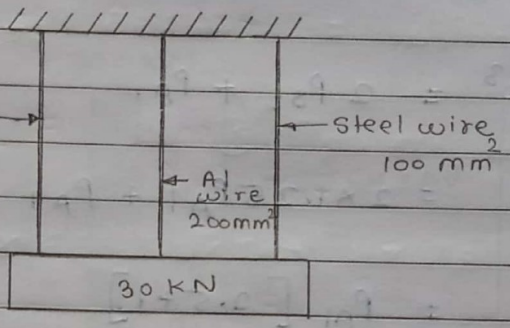
$\therefore \boxed{(\delta l)_{st} = 0.2158 \text{ mm (c)}}$.

E = material property.

PAGE No.
DATE / /

VIMP

4) A block shown in fig. when 30 kN supported by 3 wires. The outer two wires are steel having area 100 mm² each while middle wire is of aluminium with area 200 mm². Calculate stresses induced in both wires. Take E for the steel 200 GPa & for alu. 80 GPa.



Given :-

$P = 30kN = 30 \times 10^3 N$.

$A_{st} = 100 mm^2$ $\quad$ $A_{Al} = 200 mm^2$.

$E_{st} = 200 GPa$ $\quad$ $E_{Al} = 80 GPa$

$= 200 \times 10^3 N/mm^2$ $\quad$ $= 80 \times 10^3 N/mm^2$.

$\sigma_{st} = ?$ $\quad$ $\sigma_{Al} = ?$

condition ①

$P = P_{st} + P_{Al} + P_{st}$

$30 \times 10^3 = 2P_{st} + P_{Al}$ ——— ①

condition ②,

$(\delta l)_{st} = (\delta l)_{Al}$

$\frac{P_{st} L_{st}}{A_{st} E_{st}} = \frac{P_{Al} L_{Al}}{A_{Al} E_{Al}}$

$\frac{P_{st}}{100 \times 200 \times 10^3} = \frac{P_{Al}}{200 \times 80 \times 10^3}$

Advanced Learners

- Merit cash prizes and Medals for encouragement
- Motivation for extra and co-curricular activities
- Guidance sessions for research orientation and competitive examinations
- Free book bank facility for toppers
- Felicitation in front of various stakeholders
- Best Outgoing Student
- Guidance session arranged for student participation in National and International Conferences
- Self-learning through Online Certification Courses
- Training Programme arranged for students related to TCS Placement
- Guidance Session for Paper Publication in National &International Journals

Merit cash prizes and

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COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Pandharpur- 413 304,Dist. Solapur (Maharashtra)
e-mail: coe@sveri.ac.in Website: www.sveri.ac.in
ISO 9001-2000 Certified Institute & Accredited by Institute of Engineers, India,
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)

REF:COEPR/2016-17/ 102 Date:-03/03/2017

Circular for Merit Prizes

Circular

All the Students & Staff members of our Institute are hereby informed to note the following important points for the selection of toppers for the award of merit prizes with effective from Academic Year 2016-17;

1. Aggregate percentage of marks in the previous Academic Year University Examination will be considered for deciding ranks in the class.
2. If as per 1) above, two or more students get equal top aggregate percentage then that many students be considered for merit prizes subject to maximum six students for 120 intake & three students for 60 intake.
3. For last eligible rank if more than one student become eligible then award be equally distributed amongst them.
4. For deciding toppers, eligible for merit prizes at SE level, basic branch of that student(s) in FE is to be considered.

All are requested to take note of the same and act accordingly.

B.P.Ronge

(Dr. B.P. Ronge)
PRINCIPAL

CC:
1. All Deans
2. All HODs- for Circulation among Students
3. FTP
4. Registrar
5. College Notice Board.

Circular for Merit Prizes

COLLEGE OF ENGINEERING, PANDHARPUR

P.B.No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, **District**: Solapur (Maharashtra)
Tel.: 7755990201 **Toll Free No.**: 1800-3000-4131 **e-mail.**: coe@sveri.ac.in **Website.**: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
Accreditated by The Indian Institution of Engineers (India), Kolkata and TCS, Pune.
NAAC Accreditated Institute, **NBA** Accredited All UG Programmes,
ISO 9001:2008 Certified Institute.

Ref.:- COEPRP2017-18/193 Date:- 26/03/2018

Circular

All the Students and Staff of SVERI's College of Engineering, Pandharpur are hereby informed to note that , as per the resolution made in the BoG meeting dated 25/03/2018, MBA Students will get merit Prizes from the academic year 2016-2017 as per the following details;

1) Maximum up to 03 Students taking admission to MBA program will be given a cash prize of Rs.10,000 each, if they are in first ten ranks of the University in their graduation.
2) Maximum up to 03 students, securing more than 70% marks in aggregate for MBA-I examination be given a cash prize of Rs.10,000/-each.
3) Maximum up to 03 Students passing MBA will be given a cash prize, if they are University rankers as per following guidelines.
   i) If student secures Rank 1 in the University, he/she will get a cash prize of Rs.15,000/-.
   ii) If student secures Rank 2 in the University, he/she will get a cash prize of Rs.12,000/-.
   iii) If Student secures Rank 3 in the University, he/she will get a cash prize of Rs.10,000/-.

The earlier circular bearing no. COEPR/2015-16/Circular/139(A) dated 18/01/2016 in this respect is stand cancelled herewith.

All the concerned should note the same and act accordingly.

B-Ronge

(Dr. B. P. Ronge)
PRINCIPAL

C.C.

1) All Deans
2) All HODs
4) Ftp-to upload
5) Office Copy

Shri Vithal Education & Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No. 54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413 304, Dist. Solapur (Maharashtra) Tel.: 7755990201.
Toll Free No.:- 1800-3000-4131, E-mail: coe@sveri.ac.in, Website: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
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Ref.:- COEPR/ 2017-18/OR/ 83(B) Date:- 03/03/2018

Circular for Merit Prizes

CIRCULAR

As per the resolution of Board of Governors in its meeting dated 17/12/2017, Gold Medal will be awarded to the student studying in TE classes as per following details:

1. Gold Medal and Certificate will be awarded to the student from our College who will stand first in SE University Examination amongst all departments every year. In case of Tie, medal will be given to the person having more marks in semester – I of SE. However, certificate will be given to all the concerned.
2. The award is with the title "Late Prabhakar Mengar Gold Medal".

This policy will came into force from the Academic Year 2017-18.

All the concerned should note the above and act accordingly.

B. Ronge

(Dr .B. P. Ronge)
PRINCIPAL

Copy to :

1. All SVERI
2. Registrar

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR

F. Y. B. TECH. (A. Y. 2019-20)

Merit Prizes

Merit No.	New Roll No.	Candidate Name	HSC Physics	HSC Math	Course Name	PM	%	Prize Amount in Rs.	Bank Name	Branch	Bank Account No.	IFSC Code
1	B05	BHAGWAT NIKITA VITTHAL	79	90	CIVIL	169	84.5	7000	Bank of India	Mandrup	071510510004816	BKID0000715
1	B08	DONGARE AMRUTA KAMRAJ	89	95	CSE	184	92	15000	Bank of Maharashtra	Pennur	60139834589	MAHB0000580
2	E05	KALLUR KHUSHI NARESH	87	88	CSE	175	87.5	10000	Bank of Maharashtra	Twin Solapur	68028723230	MAHB0001128
3	D65	SHUBHAM GORAKH SHENDE	84	89	CSE	173	86.5	10000	Union Bank of India	Duvvada, Vishakhapatnam	606402120000779	UBIN0560642
4	D01	ABHANGRAO VAISHNAVI MILIND	84	88	CSE	172	86	10000	Bank of Maharashtra	Pandharpur	60094533442	MAHB0000237
5	A05	KATKAMWAR TRUPTI SUNIL	73	94	CSE	167	83.5	7000	IDBI Bank	Pandharpur	0540104000112321	IBKL0000540
1	D10	KEDAR SHITAL CHANDRAKANT	78	89	ENTC	167	83.5	7000	Bank of India	Temburni	074118110000106	BKID0000741
2	A36	PATANE AISHWARYA RAVSAHEB	72	90	ENTC	162	81	7000	Bank of India	Kurul, Mohol	072118210007819	BKID0000721
3	A40	SAVALKAR VISHAKHA VIJAYKUMAR	77	85	ENTC	162	81	7000	Bank of India	Pandharpur	071710510009485	BKID0000717
1	C46	NADVINANGAL AJIT MALLIKARJUN	75	86	MECH	161	80.5	7000	Bank of India	Mandrup	071518210005529	BKID0000715
							TOTAL:	87000				

(Dr. S. A. Lendave)
F. Y. B. TECH.
HEAD
Dept. of First Year Engg.,
C.O.E. Pandharpur.

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR

F.Y.B.Tech. Department

List of Eligible Students for Merit Prize (A. Y. 2018-19)

CIVIL ENGINEERING

Sr.No.	Roll Number	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	A33	NAGTILAK MONALI ARJUN	95	95	95	20000	State Bank of India	Pandharpur	SBIN0000446	35946528902	26/02/19
2	A30	LENDAVE TEJASHRI BHARAT	92	95	93.5	15000	Bank of Maharashtra	Mangalwedha	MAHB0001914	68033113794	28/2/19
3	A57	PATIL HARSHAD DEVIDAS	89	90	89.5	10000	State Bank of India	Korti	SBIN0016288	35980090238	28/2/19
4	B33	KAVADE AARAVI RAJESH	86	90	88	10000	State Bank of India	Pandharpur	SBIN0000446	35875787682	28-2-19
5	A21	JADHAV KEDAR RAJENDRA	85	82	83.5	7000	Bank of Baroda	Pandharpur	BARB0PANDHA	04380100034866	28-2-19
6	A31	MANE NISHA VIKAS	77	89	83	2333	State Bank of India	Mangalwedha	SBIN0007156	36989162256	26/2/19
	D41	SAKHARE MADHURI NEMINATH	71	95	83	2333	Bank of Maharashtra	Vairag	MAHB0000573	25039900581	28/2/19
	G24	KAKADE SWAPNIL SUDHIR	82	84	83	2333	Bank of India	Barshi	BKID0000714	071410110032508	28/2/19

HEAD
Dept. of First Year Engg.
C.O.E. Pandharpur.

COMPUTER SCIENCE AND ENGINEERING

Sr.No.	Roll Number	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	F16	DESHPANDE PRATIK SUBHASH	92	98	95	20000	Bank of Baroda	Pandharpur	BARB0PANDHA	04380100037300	Pratik
2	D01	BADAVE SHRUTI SHRINIVAS	92	95	93.5	15000	Canara Bank	Pandharpur	CNRB0002676	2676127000286	Shruti 28-2-19
3	D44	NIKATE VIVEK MAHESH	85	99	92	15000	Bank of India	Solapur	BKID0000709	070910510003252	V.M.N 28-2-19
4	B21	KAGADE SONIYA SHARAD	89	93	91	11250	Bank of Maharashtra	Pandharpur	MAHB0000237	68033537281	26/02/2019
5	C07	KATE POOJA ABASAHEB	92	90	91	11250	Bank of India	Sangola	BKID0000749	074910510011528	P.A.Kate 28/2/2019
6	D52	WAGHULE SOURABH RAJESH	85	97	91	11250	IndusInd Bank	Pandharpur	INDB0000892	100054762003	28/2/19
7	F29	JALGIRE PRASHANT JAGANNATH	85	97	91	11250	Bank of India	Laxmi Dahiwadi	BKID0000726	072610110002260	28-2-19

HEAD
Dept. of First Year Engg.,
C.O.E. Pandharpur.

ELECTRICAL ENGINEERING

Sr.No.	Roll Numb	Candidate Name	HSC Physics Percent	HSC Math Percent	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	A40	LAMKANE KIRAN EKNATH	91	92	91.5	15000	Bank of Maharashtra	Pandharpur	MAHB0000237	60293115226	Lamkane 28-12-18
2	B52	KUMAR SURESH KRISHAN	81	98	89.5	10000	State Bank of India	Chenani	SBIN0017251	37786058384	Suresh
3	C04	EKATPURE GAYATRI RAJENDRA	80	94	87	10000	Bank of India	Akluj	BKID0000707	070710510008410	Ekatpure 28/2/19

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Sr.No.	Roll Numb	Candidate Name	HSC Physics Percent	HSC Math Percent	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	B23	KURNAWAL KSHIPRA VIDHYADHAR	95	97	96	20000	Bank of Baroda	Pandharpur	BARB0PANDHA	04380100034649	26/2/19
2	C39	SURVASE VAISHNAVI ZUMBAR	89	94	91.5	15000	Bank of Maharashtra	Vairag	MAHB0000573	25039900648	28/02/19
3	B19	JADHAV RUTUJA RAJESH	87	95	91	15000	Bank of Baroda	Pandharpur	BARB0PANDHA	04380100037039	26/2/19
4	B03	AWATADE PRAJAKTA PANDURANG	89	92	90.5	15000	State Bank of India	Jule Solapur	SBIN0012485	36134601403	26/02/19
5	C09	KHOBARE PRATIKSHA SANJAY	85	94	89.5	10000	Bank of India	Shirwal Akalkot	BKID0000734	073410510001787	26/02/19
6	G05	DESHPANDE KETAKI BHASKAR	88	91	89.5	10000	Bank of India	Pangari Barshi	BKID0000732	073218210005344	28/2/19

HEAD
Dept. of First Year Engg.
S.O.E. Pandharpur

MECHANICAL ENGINEERING

Sr.No.	Roll Numb	Candidate Name	HSC Physics Percent	HSC Math Percent	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	C34	NAGTILAK HARSHAL RAJENDRA	94	98	96	20000	Canara Bank	Pandharpur	CNRB0002676	2676101017258	28-2-19
2	D45	PAWAR OMKAR SANTOSH	92	95	93.5	15000	Bank of Baroda	Akluj	BARB0AKLUJX	08858100003321	
3	E23	PARVAT NAMRATA RAJU	91	94	92.5	15000	Bank of India	Pandharpur	BKID0000717	071710510004098	28-2-19
4	F26	GUND SURAJ BALKRUSHNA	94	88	91	11250	Bank of India	Kurul	BKID0000721	072110510003888	28.2.19
5	G14	ROHIT DATTATRY CHATAGE	90	92	91	11250	Bank of Maharashtra	Murum Umarga	MAHB0000146	68033579425	28-2-19
6	F42	VIDHATE ROHIT DATTATRAYA	88	94	91	11250	Bank of Baroda	Barshi	BARB0BARSHI	35770100001913	26-2-2019
7	G39	PARMAR RIDHAM GIRISH	87	95	91	11250	Bank of India	Barshi	BKID0000714	071418210018967	

NOTE: *FOR* ***Bank of Baroda*** *in* ***IFSC*** *code fifth character is* ***Zero*** *digit.*

(Dr. S. A. Lendave)
HoD F.Y. B. Tech.

SVERI'S COLLEGE OF ENGINEERING, PANDHARPUR

FIRST YEAR ENGINEERING

List of Eligible Students for Merit Prize (A. Y. 2017-18)

CIVIL ENGINEERING

Sr. No.	Roll No.	Candidate Name	HSC Physics %	HSC Math %	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	D13	BADGUDE ROHIT RAMESH	92	86	89	10000/-	Bank of India	Shelgaon (R)	BKID0000742	074210510003721	
2	D23	KAVITA BHIMRAO PARSE	87	90	88.5	10000/-	State Bank of India	Mandrup	SBIN0012484	37043697643	
3	D41	SHAIKH AMIR SHILAVAR	82	84	83	7000/-	Bank of India	Shelgaon (R)	BKID0000742	074210110005677	

COMPUTER SCIENCE AND ENGINEERING

Sr. No.	Roll No.	Candidate Name	HSC Physics Percentage	HSC Math Percent	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	D07	JADHAV PRATIMA SUNIL	88	93	90.5	10000/-	Canara Bank		CNRB0006242	6242101000700	
2	A36	PHUTANE MAHESH DILIP	88	86	87	10000/-	Bank of Maharashtra	Pandharpur	MAHB0000237	60226513522	
3	D64	RAJAT GUPTA	72	91	81.5	7000/-	Central Bank of India	Amritpur-Punjab	CBIN0281645	3959849124	
4	D01	AWATADE SAYALI DATTATRAY	70	92	81	7000/-	State Bank of India	Mangalwedha	SBIN0007156	33100039280	
5	D05	GAIKWAD RAJSHREE PANDURANG	70	91	80.5	7000/-	Bank of India	Shelgaon-Barshi	BKID0000742	74210410000166	
6	B20	JAWANJAL ASHUTOSH SANTOSH	80	80	80	3500/-	Bank of Maharashtra	Pandharpur	MAHB0000237	60230421532	
	A11	PADMAJA SANJAY SHETE	80	80	80	3500/-	Union Bank of India	Madha	UBIN0547093	470902010130803	

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Sr. No.	Roll No.	Candidate Name	HSC Physics Percentage	HSC Math Percent	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	B46	DHAYGUDE ADITYA ANIL	88	83	85.5	10000/-	Bank of India	Pandharpur	BKID0000717	71710110010660	
2	C09	RUTUJA SHIVAJI CHAVAN	78	91	84.5	7000/-	Bank of Maharashtra	Mangalwedha	MAHB0001914	60284623401	

MECHANICAL ENGINEERING

Sr. No.	Roll No.	Candidate Name	HSC Physics Percentage	HSC Math Percent	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number	Sign.
1	D32	JUNDALE RAHUL RAJKUMAR	81	93	87	10300/-	Bank of India	Laxmi-Dahiwadi	BKID0000726	7261821000949	
2	A20	PRANIL PRAKASH NAGRAS	87	81	84	7000/-	State Bank of India	Karkamb	SBIN0004684	37345898430	
3	B49	SHUBHAM JAIMILIND KADAM	81	79	80	7000/-	State Bank of India	Pandharpur	SBIN0000446	33196951978	

FE Topper 2016-17 All Branch (Mrs. Kirti Mengar Gold Medal)

1	A02	JADHAV PRANITA SUNIL	ENTC	93.79%			State Bank of India	Yerwada Pune	SBIN0017345	34930996838	

Received 7/3/18

Dept. of First Year Engg.,
C.O.E. Pandharpur.

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR

FIRST YEAR ENGINEERING

List of Eligible Students for Merit Prize (A. Y. 2016-17)

CIVIL ENGINEERING

Sr.No.	Roll Number	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number
1	A29	PATIL RUTUJA NAGESH	85	95	90	15,000/-				
2	E52	SHAIKH SHOAIB SALIM	78	82	80	7,000/-	Bank of India	Station Road, Pandharpur	BKID0000717	071710510013481

COMPUTER SCIENCE AND ENGINEERING

Sr.No.	Roll Number	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number
1	E05	JAGALPURE MANSI DNYANESHWAR	73	88	80.5	7,000/-	IDBI	Navi Peth, Pandharpur	IBKL0000540	0540104000097893

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Sr.No.	Roll Number	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number
1	B03	CHAVAN SAYALI DILIP	76	87	81.5	7,000/-	Corporation Bank	Bhosale Ck. Pandharpur	CORP0001815	181500101003269

MECHANICAL ENGINEERING

Sr.No.	Roll Number	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Prize Amount	Name of the Bank	Bank Address	IFSC code	Account Number
1	B35	KAWALE CHAITANYA MUKUND	88	96	92	15,000/-	Bank of Maharashtra	Pandharpur	MAHB0000237	60229793366
2	E12	BHAGWAT RUSHIKESH MANOJ	86	92	89	10,000/-	Bank of India	Akluj	BKID0000703	070310110005148
3	D50	DESHMUKH SHRINATH JAYAVANT	81	94	87.5	10,000/-	Bank of Maharashtra	Atpadi	MAHB0001171	60252774912
4	B12	DEVMARE AVINASH ARJUN	78	91	84.5	7,000/-	Bank of Maharashtra	Pandharpur	MAHB0000237	60186257004
5	D06	PATIL SHRUTI ANIL	77	84	80.5	7,000/-	Bank of Maharashtra	Solapur	MAHB0001128	60188185579
6	A12	BHOSALE ONKAR SHASHIKANT	80	80	80	7,000/-	State Bank of India	Korti	SBIN0016288	36022084559
	F24	PATIL DHANRAJ TUKARAM	74	86	80		State Bank of India	Kalamb	SBIN0011448	36479907585

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Dept. of First Year Eng
C.O.E. Pandharpur.

Received 8/3/17

Received

Eligible Student List for prize HSC PM Group A.Y. 2015-16

Sr.No.	Roll Numbar	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Course Name	Prize Amount
1	E33	SURYAWANSHI SMITA RAMDAS	87	80	83.5	Civil Engineering	7000/-
2	C41	BHOSALE MONIKA MADHUKAR	74	88	81	Civil Engineering	7000/-

Sr.No.	Roll Numbar	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Course Name	Prize Amount
1	C48	SOMSHETTE SHRUSHTI RAMAKANT	91.33	98	94.665	Computer Science and Engineering	15,000/-
2	A45	KOLI SHRUTI SHANKAR	90	84	87	Computer Science and Engineering	10,000/-

Sr.No.	Roll Numbar	Candidate Name	HSC Physics Percentage	HSC Math Percentage	PM %	Course Name	Prize Amount
1	A33	DEEPAK BALIRAM CHOUDHARI	95	85	90	Mechanical Engineering	15,000/-
2	C50	BANKAR ROHIT DATTATRAY	87	88	87.5	Mechanical Engineering	10,000/-
3	C20	SURWASE BALAJI ZUMBAR	79	89	84	Mechanical Engineering	7,000/-

Div-A- Chet 2 students.

IAVM

1BVS

RNY D-Div

SAL

HEAD
Dept. of First Year Engg.,
C.O.E. Pandharpur.

Received 29/2/16

Free Book Bank Facility

for Toppers

Circular for Book Bank facility

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e-mail: coe@sveri.ac.in **Website: www.sveri.ac.in**
ISO 9001-2000 Certified Institute & Accredited by NAAC & Institute of Engineers, India, (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)
All UG Programs accreditated by NBA

Ref.No. COEPR/2017-18/ 94. Date: 26/03/2018

CIRCULAR

All the students and staff members are hereby informed to note that following policy has been resolved in the meeting of Deans and HoDs dated 07/03/2018, in respect of Book Bank facility for students scoring 10 out of 10 SGPA:

1. In addition to the Free Book Bank facilty to the first six(for intake of 120) and three (for intake of 60) Class toppers,students those secure 10 out of 10 SGPA marks in the University Examination will get Free Book Bank facility in the following semester.
2. This policy be implemented from the results of Nov/Dec. 2017 University examination.

All the concerned should note the above and act accordingly

S.M.Mukane

(Prof. Dr. S.M. Mukane)
Dean, Administration

Cc: 1) Vice- Principal
2) All Deans and HoDs
3) Librarian
4) Chief Rector
5) Registrar
6) Ftp

Best Outgoing Student

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to P. A. H. Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , NAAC, Accredited Institute,
Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 02/08/22

Notice

As per the tradition of SVERIs College of Engineering, it is decided to give the best outgoing student award to one final year student for the academic year 2021-22. In view of this the following committee has been constituted for the final interview of the students.

Sr. No.	Name of Member	Designation	Member Status	Sign
1.	Dr. B. P. Ronge .	Principal	Chairman	
2.	Dr. N. B. Pawar	Principal, Shri Sant Damaji college, Mangalwedha	Educationalist	
3.	Dr. P. M. Pawar	Dean Academics and HOD	Member	
4.	Mr. Dattatraya S. Ghodke	Director Krushivardhan Agro Tech	Industrialist	
5.	Dr. Sangeeta Shital Patil	B.H. M.S M.S. (Counseling) Pandharpur	Psychologist	
6.	Mr. Vinayak Vithal Haridas	Sub Editor Dainik Sanchar, Pandharpur	Journalist	
7.	Dr. M. S. Mathpati	Dean Students'	Member	

All the committee members are hereby requested take a note of above and make free to available on the following date for conducting interviews of students.

Date: 05/08/222 @2.00PM

Venue: Board Room, SVERIs College of Engineering, Pandharpur

B Ronge

(Dr. B. P. Ronge)
Principal

COLLEGE OF ENGINEERING PANDHARPUR

Copy to: 1) Campus In charge 2) Dean Academics 3) Dean Administration
4) All HODs 5) Registrar

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SVERI's COLLEGE OF ENGINEERING, PANDHARPUR

NAAC A+

SVERI 25 रौप्य महोत्सवी वर्ष 2022-23

BEST OUTGOING STUDENT AWARD - 2022

This is to certify that Mr.Akshay Namdev Mane a student of Final Year B. Tech. from the Department of Computer Science and Engineering is recognized as the Best Outgoing Student from the SVERI's College of Engineering, Pandharpur for the Academic Year 2021-22.

Dr. M. S. Mathpati
Dean Students

Dr. B. P. Ronge
Principal

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR

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SVERI 25
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2022-23

BEST OUTGOING STUDENT AWARD - 2022

This is to certify that Mr.Prashant Vijay Mali a student of Final Year B. Tech. is recognized as the Best Outgoing Student from the Department of Civil Engineering for the Academic Year 2021-22.

Dr. P. M. Pawar
HOD Civil

Dr. M. S. Mathpati
Dean Students

Dr. B. P. Ronge
Principal

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2022-23

BEST OUTGOING STUDENT AWARD - 2022

This is to certify that Miss. Kshipra Vidhyadhar Kurnawal a student of Final Year B. Tech. is recognized as the Best Outgoing Student from the Department of Electronics & Telecommunication Engineering for the Academic Year 2021-22.

Dr. Mrs. M. M. Pawar
HOD ENTC

Dr. M. S. Mathpati
Dean Students

Dr. B. P. Ronge
Principal

SVERI's COLLEGE OF ENGINEERING, PANDHARPUR

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ACCREDITED WITH GRADE A+ NAAC

SVERI 25 रौप्य महोत्सवी वर्ष 2022-23

BEST OUTGOING STUDENT AWARD - 2022

This is to certify that Miss. Dipali Balkrushna Metkari a student of Final Year B. Tech. is recognized as the Best Outgoing Student from the Department of Electrical Engineering for the Academic Year 2021-22.

Dr. Mrs. D. A. Tamboli
HOD EE

Dr. M. S. Mathpati
Dean Students

Dr. B. P. Ronge
Principal

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BEST OUTGOING STUDENT AWARD - 2022

This is to certify that Mr.Sachin Ashok Kshirsagar a student of Final Year B. Tech. is recognized as the Best Outgoing Student from the Department of Mechanical Engineering for the Academic Year 2021-22.

Dr. S. S. Wangikar
HOD Mech. Engineering

Dr. M. S. Mathpati
Dean Students

Dr. B. P. Ronge
Principal

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BEST OUTGOING STUDENT AWARD - 2022

This is to certify that Mr.Akshay Namdev Mane a student of Final Year B. Tech. is recognized as the Best Outgoing Student from the Department of Computer Science and Engineering for the Academic Year 2021-22.

S. P. Pawar

Dr. Mrs. S. P. Pawar
HOD CSE

Dr. M. S. Mathpati
Dean Students

B. Ronge

Dr. B. P. Ronge
Principal

Best Project Award

SVERI's

College of Engineering, Pandharpur
Department of Mechanical Engineering

Best Project Award

Academic Year: 2021-22

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Gopalpur -Ranjani Road, Gopalpur, P.B. No. 54, Tal - Pandharpur- 413 304,
Dist. Solapur (Maharashtra) Ph.: (02186) 225083, Fax: (02186) 225082.
(Approved by AICTE, New Delhi and affiliated to Solapur University, Solapur)

Ref No: COEPR/2017-18/ए/185 Date: 03/03/2018

CIRCULAR

All the BE students and Project guides of SVERI Family are hereby informed to note that, "Best Project Award 2018" Competition will start from the 1st April 2018.

Process of Award :

1st Level : Department Level

1 Department Level Best Project selection process be conducted from 1st April to 4th April 2018.
2 Department level evaluation be conducted by the team of three members committee which must include the head of department, one faculty member of same department and one faculty member from other department.
3 Selected group from each department will go to 2nd level.

2nd level: College Level

1 One best project from all the department will be selected.
2 The selection committee for college level includes all HOD's, all Deans under the Chairmanship of Dean R&D.
3 Students & Guide of selected group will receive certificate & Medal.

Note : 1. For Selection follow the rubrics attached with this notice.

2.Each Project group should not be more than 4 students.

All the Concerned are informed to take the note of above and act accordingly.

Dr.Prashant M. Pawar
(Dean R&D)

C.C.

1 All Deans
2 All HOD's(Circulation to classes)
3 College Notice Boards
4 Workshop
5 Library
6 TPO
7 Registrar
8 Boy's Hostel Notice Boards
9 Girl's Hostel Notice Boards
10 Transport Section
11 ftp
12 Office Copy

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Dist. Solapur (Maharashtra) Ph.: (02186) 225083, Fax: (02186) 225082.
(Approved by AICTE, New Delhi and affiliated to Solapur University, Solapur)

Ref No: COEPR/2017-18/D.D./84 Date: 03/03/2018

CIRCULAR

All the BE students and Project guides are hereby informed to note that, "Best Project" award 2018 will be given by our Institute for the final year projects.

Nature of award:

1. One best project per department will be selected by the team of three member (including and headed by HOD) using the rubrics given below. Out of these three members one should be from other departments. Students and Guide of selected group will receive certificate.
2. Best project of the year will be selected from amongst the best projects of all departments, based on evaluation done by the committee consisting of all Deans and HOD's headed by Dean R&D. Students and Guide of selected group will receive certificate.
3. The rubrics used for evaluation is attached herewith.

All the concerned are informed to take the note of above and act accordingly.

Dr.Prashant M. Pawar
(Dean R&D)

C.C.

1 All Deans
2 All HOD's(Circulation to classes)
3 College Notice Boards
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6 TPO
7 Registrar
8 Boy's Hostel Notice Boards
9 Girl's Hostel Notice Boards
10 Transport Section
11 ftp
12 Office Copy

Sr. No	Project Title	Problem Analysis(10)				Design (10)			Project Management(10)					Individual and team work(8)				Impact on Society(6)			Communication skills (6)		
		Background and Context	Identification and Problem Formulation	Depth of Analysis	Conclusion	Complexity of Design Problem	use of engineering design tools & technics	Quality of design solutions	Goals Identifications	Task brakdown	schedule	Resources(e.g human,material,financial,etc)	Budget	Individual Contribution to the team	problem solving	Collaboration	Focus & Punctuality	Health and safety consideration	Environmental consideration	Cultural consideration	Project Report	powerpoint presentation	oral presentation
		2	3	3	2	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Digambar T. Kashid <dtkashid@coe.sveri.ac.in>

Fwd: Best Project Award-2022

1 message

Mr. Shrikrushna Bhosale <sbbhosale@coe.sveri.ac.in> Thu, Jul 14, 2022 at 12:32 PM
To: "Digambar T. Kashid" <dtkashid@coe.sveri.ac.in>

---------- Forwarded message ---------
From: **Dr. Ranjitsinha R. Gidde** <rrgidde@coe.sveri.ac.in>
Date: Thu, Jul 14, 2022 at 12:01 PM
Subject: Best Project Award-2022
To: Prashant Bhaganagare <pbbhaganagare@coe.sveri.ac.in>, Avinash Parkhe <akparkhe@coe.sveri.ac.in>, Shubha Baravani <sbbaravani@coe.sveri.ac.in>, Mohua Biswas <msbiswas@coe.sveri.ac.in>, Pravin More <moreps@coe.sveri.ac.in>, Prajakta Satarkar <pasatarkar@coe.sveri.ac.in>, Vanita Jadhav <vdjadhav@coe.sveri.ac.in>
Cc: Dr. Prashant Pawar <pawarpm@sveri.ac.in>, Avinash Kokare <abkokare@coe.sveri.ac.in>, Vidhyarani Kshirsagar <vskshirsagar@coe.sveri.ac.in>, Dr.Sandeep Wangikar <sswangikar@coe.sveri.ac.in>, Mr. Shrikrushna Bhosale <sbbhosale@coe.sveri.ac.in>, Meenakshi Pawar <mmpawar@coe.sveri.ac.in>, Sujit Inamdar <sainamdar@coe.sveri.ac.in>, Dipti Tamboli <datamboli@coe.sveri.ac.in>, Dhanraj Daphale <dddaphale@coe.sveri.ac.in>, Karan Patil <kbpatil@coe.sveri.ac.in>, Anil Tekale <aatekale@coe.sveri.ac.in>

Dear R &D Coordinators,

You are hereby informed to select the best project in your department for A.Y. 2021-22.

The Department Level Best Project process will be conducted from 25/07/2022 to 27/07/2022.
The Best Project Selection Committee includes members as follows:
1) HOD
2) One Faculty Member from Dept
3) One Faculty Member from Other Dept

Please refer to the evaluation sheet attached with this mail.

Please submit the name of the project and contact details of the students.

Regards,

Dr. Ranjitsinha R. Gidde

Dean, R & D

SVERI's COE, Pandharpur

Email: rrgidde@coe.sveri.ac.in

Tel. : +91-9130295599
Cell : +91-9922607633

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Prof. Shrikrushna B. Bhosale
Assistant Professor
Mechanical Engg. Dept.
SVERI's College of Engg. Pandharpur
Ph- +91 9545553814 9890921661

BEST PROJECT EVALUTION SHEET.docx
15K

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , NAAC, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 14/07/2022

NOTICE

All the Final Year Mechanical Engineering Students are here by informed to note that, ***"Best Project Award 2022"*** will be given by our institute for Academic year 2021-2022. All the interested project groups are informed to submit/mail their applications to ***Prof. D. T. Kashid on or before 19/07/2022 up to 6:00pm.***

The presentation for ***"Best Project* Award"** will be held on ***20/07/2022 in Board room from 10:00am onwards (Online/Physically).***

NOTE:

1. *Come along with-*
   - *i. one hardcopy of final project report.*
   - *ii. project setup if any.*
2. *All the project group members must be present for the respective presentation.*

Process of Award:

1st Level : Department Level

1 Department Level Best Project selection process be conducted from 25/07/2022 to 27/07/2022.
2 Department level evaluation be conducted by the team of three members committee which must include the head of department, one faculty member of same department and one faculty member from other department.
3 Selected group from each department will go to 2nd level.

2nd level: College Level

1 One best project from all the department will be selected.
2 The selection committee for college level includes all HOD's, all Deans under the Chairmanship of Dean R&D.
3 Students & Guide of selected group will receive certificate & Medal.

(Prof. D.T. Kashid)
Project-coordinator

Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
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(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , NAAC, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 14/07/2022

Office Order

Our college has decided to give ***"Best Project Award 2022"*** for Academic Year 2021-2022 to the final year projects. For the selection of Best Project from Mechanical Engineering Department, following faculty members are appointed as a selection team.

Sr. No.	Name of Faculty Member	Role
1.	Prof. S. B. Bhosale	Coordinator
2.	Dr. S. V. Jadhav	Member
3.	Dr. P. A. Dhavale	Member
4.	Prof. M. A. Deshmukh	Member

The presentation for ***"Best Project Award 2022"*** will be held on ***20/07/2022 in Board room from 10:00am onwards (Online/Physically).*** You are requested to take the note of the same & act accordingly.

(Prof. D.T. Kashid)
Project Coordinator

Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

Digambar T. Kashid <dtkashid@coe.sveri.ac.in>

Application about participating in "Best Project Award 2022" competition

1 message

Pranay Pradip Disale <pranaypdisale@coep.sveri.ac.in> Fri, Jul 15, 2022 at 2:06 PM
To: "Mr. Digambar Kashid" <dtkashid@coe.sveri.ac.in>
Cc: bdgaikwad@coe.sveri.ac.in, ganeshstodkar@coep.sveri.ac.in, saurabhcchavan@coep.sveri.ac.in

Respected sir,
I am Pranay Disale studying in Final year Mechanical Engg. and as project leader of "Project Group No.1" writing an application for participating in College level "Best Project Award 2022" competition.
Our project is entitled as "Electromechanical Device for Geometrical Tolerance Measurement of ring gear blank". We have done our project under guidance of Prof .B. D. Gaikwad sir and our group consists of following members:
1)Pranay Disale 2)Sourabh Chavan 3)Ganesh Todkar 4)Bharat Burungale. Here also i am sending you project report copy describing our project.
So, please consider our application and allow us to participate in it. Our group is really grateful for providing such an opportunity.
Attachment :
1)Project Report
Thank you.....

Yours Obediently,
Pranay Disale
{Final Year Mechanical }

final report 2.pdf
2343K

Digambar T. Kashid <dtkashid@coe.sveri.ac.in>

Application about participating in "Best Project Award 2022" competition

1 message

BE_04 vaishnavi Lakheri <vaishnavimlakheri@coep.sveri.ac.in> Fri, Jul 15, 2022 at 4:54 PM
To: "Digambar T. Kashid" <dtkashid@coe.sveri.ac.in>

Respected sir,
I am vaishnavi lakheri studying in Final year Mechanical Engg. and as project leader of "Project Group No.21" writing an application for participating in College level "Best Project Award 2022" competition.
Our project is entitled as "Design and development of microchannel for milk protein detection using color sensor ". We have done our project under guidance of Prof .S. M. Khomane sir and our group consists of following members:
1)vaishnavi lakheri 2)Madhuri Parchandrao 3)Saleha mirjkar. Here also i am sending you project report copy describing our project.
So, please consider our application and allow us to participate in it. Our group is really grateful for providing such an opportunity.
Attachment :
1)Project Report
Thank you.....

Yours Obediently,
Vaishnavi lakheri
{Final Year Mechanical }

final project.pdf
9912K

Digambar T. Kashid <dtkashid@coe.sveri.ac.in>

Application about participating in "Best Project Award 2022" competition..

1 message

BA_42 Sachin Kshirsagar <sachinakshirsagar@coep.sveri.ac.in> Sun, Jul 17, 2022 at 8:37 PM
To: "Digambar T. Kashid" <dtkashid@coe.sveri.ac.in>
Cc: kspukale@coe.sveri.ac.in, shreeyashrchavan@coep.sveri.ac.in, ridhamgparmar@coep.sveri.ac.in, Pruthvirajsdeshmukh@coep.sveri.ac.in

Respected sir,
I am Sachin Ashok Kshirsagar studying in Final year Mechanical Engg. and as project leader of "Project Group No.09" writing an application for participating in College level "Best Project Award 2022" competition.
Our project is entitled as "Design and Development of Onion Segeration Machine ". We have done our project under guidance of Prof.Dr.B.P.Ronge sir and Co-guide Prof.K.S.Pukale and our group consists of following members:
1)Sachin Ashok Kshirsagar
2)Shreeyash Rajaram Chavan
3)Ridham Girish Parmar
4) Pruthviraj Somnath Deshmukh.
Here also I am sending you project report copy describing our project.
So, please consider our application and allow us to participate in it. Our group is really grateful for providing such an opportunity.
Attachment :
1)Project Report
Thank you.....

Yours Obediently,
Sachin Ashok Kshirsagar
{Project Leader}
{Final Year Mechanical }

2 attachments

FINAL 1ST 4 PAGES.pdf
200K

VERY LAST REPORT.pdf
2143K

SHRI VITHAL EDUCATION & RESEARCH INSTITUTE's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B. No. 54, Gopalpur -Ranjani Road, Gopalpur, Tal.- Pandharpur- 413 304,Dist.- Solapur (Maharashtra)
Tel.: 02186-216063, 9503103757, E-mail : coe@sveri.ac.in, Website: www.sveri.ac.in
(Approved by A.I.C.T.E., New Delhi and affiliated to Solapur University, Solapur)
NBA Accredited all Eligible UG Programmes and , **NAAC**, Accredited Institute,
Accredited by the Institute of Engineers (India), Kolkata and TCS, Pune ISO 9001-2015 Certified Institute

Date: 21/07/2022

To,
Dean R&D,
SVERI's College of Engineering, Pandharpur.

Subject: - "Best Project Award-2022" from Department of Mechanical Engineering

Respected Sir,

As per your instructions, for giving **"Best Project Award 2022"** for Academic Year 2021-2022 from Mechanical Engineering Department, selection team has taken presentations of different project groups. After evaluation, two project groups are selected for **Best Project Award -2022** from Mechanical Engineering Department. The details of the same are as shown below:

Project Group No.	Name of Student	Name of Guide	Project Title
1	Pranay P. Disale	Prof. B. D. Gaikwad	Electromechanical Device for Geometrical Tolerance Measurement of Ring Gear Blank
	Bharat D. Burungale		
	Ganesh S. Todkar		
	Saurabh C. Chavan		
21	Vaishnavi Mahesh Lakheri	Prof. S. M. Khomane	Design and Development of Micro-channel for Milk Protein Detection using a Color Sensor
	Saleha Salim Mirjkar		
	Madhuri V. Parchandrao		

Faculty Members of the Selection team is as follows:

Sr. No.	Name of Faculty	Role	Sign
1.	Prof. S. B. Bhosale	Coordinator	
2.	Dr. S. V. Jadhav	Member	
3.	Dr. P. A. Dhavale	Member	
4.	Prof. M. A. Deshmukh	Member	

This is for your kind information and further process.

(Prof. D.T. Kashid)
Project Coordinator

Head, Mech. Engg. Dept.

HEAD,
Dept. of Mechanical Engg
C.O.E. Pandharpur.

DEPARTMENT OF MECHANICAL ENGINEERING

Academic Year – 2021-2022

"Best Project Award" Evaluation Sheet

Date:-20/07/2022

Sr. No.	Project Title	Problem analysis(10)				Design (10)			Project management (10)					Individual and team work (8)				Impact on society (6)			Communication skills (6)			Total (50)
		Background and context	Identification and problem formulation	Depth of analysis	conclusion	Complexity of the design problem	Use of the engg. design tools and techniques	Quality of design solution	Goals identification	Task breakdown	schedule	Resources (e.g. human, material, financial, etc.)	Budget	Individual contribution to the team	Problem solving	collaboration	Focus and punctuality	Health and safety considerations	Environmental considerations	Cultural considerations	Project report	PowerPoint presentation	Oral presentation	
		2	3	3	2	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
1.	Electromechanical Device for Geometrical Tolerance measurement of ring gear blank.	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	45
2.	Design & development of micro-channel for milk protein detection using colour sensor.	2	2	2	2	2	4	3	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	45
3.	Design & development of onion segregation m/c.	2	2	2	2	2	3	2	2	1	1	2	1	2	1	2	1	1	2	2	2	2	2	38

Name & Sign of Evaluator

DEPARTMENT OF MECHANICAL ENGINEERING

Academic Year – 2021-2022

"Best Project Award" Evaluation Sheet

Date:-20/07/2022

Sr. No.	Project Title	Problem analysis(10)				Design (10)			Project management (10)					Individual and team work (8)				Impact on society (6)			Communication skills (6)			Total (50)
		Background and context	Identification and problem formulation	Depth of analysis	conclusion	Complexity of the design problem	Use of the engg. design tools and techniques	Quality of design solution	Goals identification	Task breakdown	schedule	Resources (e.g. human, material, financial, etc.)	Budget	Individual contribution to the team	Problem solving	collaboration	Focus and punctuality	Health and safety considerations	Environmental considerations	Cultural considerations	Project report	PowerPoint presentation	Oral presentation	
		2	3	3	2	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
1.	Electromechanical Device for Geometrical Tolerance measurement of ring gear blank.	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	45
2.	Design & development of micro-channel for milk protein detection using color sensor.	2	2	2	2	2	4	3	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	45
3.	Design & Development of onion segration machine.	2	2	2	2	2	3	2	2	1	1	2	1	2	1	2	1	1	2	1	2	2	2	38

Dhawak

Dr. Dhawak. P.A.

Name & Sign of Evaluator

DEPARTMENT OF MECHANICAL ENGINEERING

Academic Year – 2021-2022

"Best Project Award" Evaluation Sheet

Date:-20/07/2022

Sr. No.	Project Title	Problem analysis(10)				Design (10)			Project management (10)					Individual and team work (8)				Impact on society (6)			Communication skills (6)			Total (50)
		Background and context	Identification and problem formulation	Depth of analysis	conclusion	Complexity of the design problem	Use of the engg. design tools and techniques	Quality of design solution	Goals identification	Task breakdown	schedule	Resources (e.g. human, material, financial, etc.)	Budget	Individual contribution to the team	Problem solving	collaboration	Focus and punctuality	Health and safety considerations	Environmental considerations	Cultural considerations	Project report	PowerPoint presentation	Oral presentation	
		2	3	3	2	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
1)	Electromechanical Device for Geometrical Tolerence measurement of ring gear blank	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	43
2)	Design & development of microchannel for milk protein detection using colour sensor	2	2	2	1	3	3	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	43
3)	Design & development of onion segregation machine	2	2	2	1	2	2	2	2	2	2	2	2	1	2	2	2	1	1	2	2	2	2	40

S. V. Jadhav

Name & Sign of Evaluator

DEPARTMENT OF MECHANICAL ENGINEERING

Academic Year – 2021-2022

"Best Project Award" Evaluation Sheet

Date:-20/07/2022

Sr. No.	Project Title	Problem analysis(10)				Design (10)			Project management (10)					Individual and team work (8)				Impact on society (6)			Communication skills (6)			Total (50)
		Background and context	Identification and problem formulation	Depth of analysis	conclusion	Complexity of the design problem	Use of the engg. design tools and techniques	Quality of design solution	Goals identification	Task breakdown	schedule	Resources (e.g. human, material, financial, etc.)	Budget	Individual contribution to the team	Problem solving	collaboration	Focus and punctuality	Health and safety considerations	Environmental considerations	Cultural considerations	Project report	PowerPoint presentation	Oral presentation	
		2	3	3	2	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
1)	Electromechanical Device for Geometrical Tolerance measurement of ring gear Blank.	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	✓	1	1	1	✓	✓	✓	43
2)	Design & development of microchannel for milk protein detection using color sensor	2	2	2	2	2	3	3	2	2	2	2	1	1	2	2	2	1	2	2	2	2	2	43
3)	Design & development of onion segregation machine	2	2	2	2	2	3	2	2	1	1	2	1	2	1	2	1	1	2	1	2	2	2	38.

Name & Sign of Evaluator (Mr. Bhosale S.B.)

GUIDANCE SESSION ARRANGED FOR STUDENT PARTICIPATION IN NATIONAL AND INTERNATIONAL CONFERENCES

Conference Publications
A.Y. 2021-22

Conference Publications				
Sr. No.	**Title of Paper**	**Name of Authors**	**Name of Conference**	**National / International**
1.	Fabrication of Micro-channels using CO_2 LASER Machining & Soft Lithography for Lab-on-Chip Applications	Avinash K. Parkhe, Amol Dhondiba Sul, Prathmesh Ramesh Kirgat, Atharv Santosh Joshi, Prakash Bhimrao Ghadage, Vijay Rahane	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National
2.	Brick Manufacturing Machine	Chetan C Jadhav, Nilesh Sanjay Kadam, Abhijeet Sunil Khote, Santosh Hanamant Patil, Akshay Balasaheb Pansare	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National
3.	Thermal Analysis of Battery Module	Akash Prasad Ajgar, Avinash Sandipan Londhe, Avinash Basavraj Dhabade, Paras Mahavir Mule, Digambar T. Kashid, Subhash V. Jadhav	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National
4.	Parametric Influence Study for Laser Cutting on Acrylic	Manthan M Dixit, Saurabh G Wadekar, Dipak P Shinde, Harshal R Nagtilak, Sandeep S. Wangikar, Nitin D. Hingmare	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National
5.	Development of a Compact Solar Vegetable Dehydrator	S. V. Jadhav, S. S. Wangikar, A. M. Kulkarni, M. K. Patil, A. A. Bansode, A. A. Mulani	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National
6.	Development and Analysis of Refrigerator using Peltier Effect	Praduya K. Bhuse, Abhijeet A. Shinde, Pavan S. Parkam, Rohan A. Pandhare, Pratiksinh S. Mandwale	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National

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Dept. of M...

Sr. No.	Title of Paper	Name of Authors	Name of Conference	National / International
7.	Study of different Positions of Sprinklers for Irrigation System	Aditya Motewar, Rushikesh Patil, Rohit Khandagale, Dnyaneshwar Bansode, Sandeep S. Wangikar	National Conference on Relevance of Engineering and Science for Environment and Society-R{ES}^{2} 2021	National
8.	Design and Development of Micrchannel for Milk Protein detection using CO2 Laser Machine	S. M. Khomane, Sneha Mirajkar, Vaishnavi Lakheri, Madhuri Parchandrao	International Conference on Joint Modernistic & Innovation Technology (ICJMIT-22)	International
9.	Experimental setup and Study of Solar Operated Chaff Cutter	S. R. Gavali, Avinash K. Parkhe, Kiran Hambirrao, Milind S. Jagadale, Omkar Dandge, Yasar Y Khatik	National Virtual Conference on Advanced Research in Science Engineering and Technology (ARSET-2022)	National
10.	FU-EL (Fuel and Electricity) Powered Two Wheeler	Mangesh Misal, Harshvardhan Ubale, Aniket Sarawale, Suraj More, A. A. Mote	International E-Conference on Innovation and Emerging Trends in Engineering, Science and Management	International
11.	Arduino based Accident Alert System using GPS, GSM and Accelerometer	Sanjay N. More, Abhinay R. Gaikwad, Aftab B. Shaikh, Pratik P. Deshmukh, Jaydev D. Nanaware	International E-Conference on Innovation and Emerging Trends in Engineering, Science and Management	International
12.	Brick Manufacturing Machine	Chetan C. Jadhav,Nilesh Sanjay Kadam, Abhijeet Sunil Khote, Santosh Hanamant Patil, Akshay Balasaheb Pansare	International E-Conference on Innovation and Emerging Trends in Engineering, Science and Management	International
13.	Development of Log making Machine for Kitchen Food Waste	Sandeep S.Wangikar, Manthan Milind Dixit, Saurabh Ganesh Wadekar, Dipak Pandurang Shinde, Harshal Rajendra Nagtilak	International E-Conference on Innovation and Emerging Trends in Engineering, Science and Management	International
14.	Design and Fabrication of Compact Paper Recycling Machine	M. B. Kulkarni, Atharv Kulkarni, Madan Patil, Aniket Bansode, Aman Mulani	International E-Conference on Innovation and Emerging Trends in Engineering, Science and Management	International

15.	Design and Analysis of Compact Bore Well Motor Lifting Machine	Uttam Anuse, Saurabh Kadasare, Samarth Chavan, Sumeet Chavare, Yuvraj Shelar	International E-Conference on Innovation and Emerging Trends in Engineering, Science and Management	International
16.	Development of auto feeder mechanism for cricket ball throwing machine	Chandrakant K. Vhare, Admane Dhananjay, Chavan Yogesh, Kale Ayush, Waghmare Sachin	National Conference on Recent Trends in Science and Advances in Engineering	National
17.	Development of Driving Guidance System for Automobile Driver	Chandrakant K. Vhare, Arati Lale, Dhanashree Sonawane, Namrata Parvat, Gayatri Joshi	National Conference on Recent Trends in Science and Advances in Engineering	National
18.	Design and Fabrication of Sugarcane Lifting Machine	Shashikant D. Thorat, Pranav M. Bhandare, Yogesh S. Autade, Vinayak S. Gawali, K.S.Pukale, B. P. Ronge	National Conference on Recent Trends in Science and Advances in Engineering	National
19.	Design of Multi-Powered Solar Boat	Yogesh Patil, Amol Mali, Salim Shaikh, Avinash Madane, Digambar Kashid	National Conference on Recent Trends in Science and Advances in Engineering	National
20.	Multipurpose Fertilizer Spreading Machine: Design and Fabrication	Sushant Jadhav, Akash Mane, Sandip Bagul, Omkar Jagtap, Rambhajee Nagargoje, Digambar Kashid	National Conference on Recent Trends in Science and Advances in Engineering	National
21.	Design and Development of Onion Segregation Machine	Sachin A. Kshirsagar, Shreeyash R. Chavan, Ridham G. Parmar, Pruthviraj S. Deshmukh, K.S.Pukale	National Conference on Recent Trends in Science and Advances in Engineering	National
22.	Hydraulic Spring Stiffness Testing Machine	Kanhaiya Sudarshan Vairagkar, Chaitanya Dattatray Wadekar, Thomas Ashley A,	National Conference on Recent Trends in Science and Advances in Engineering	National
23.	Design & Manufacturing of Water Jar Cleaning Machine	Chandragupt Parchandrao, Ghanasham Chitari, Rahul Satapute, P. A. Dhawale	National Conference on Recent Trends in Science and Advances in Engineering	National

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Sr. No.	Title of Paper	Name of Authors	Name of Conference	National / International
24.	Design and Development of Solar Operated Peanut Harvesting Machine	Irfan R. Mulani, Nitin T. Eakmalli, Nihal Y. Mujawar, Saurabh S. Gaikwad, P.K. Patil	National Conference on Recent Trends in Science and Advances in Engineering	National
25.	Experimental Investigation & Optimization of Wire Electrical Discharge Machining (WEDM) Parameters for Surface Roughness & Material removal rate in Machining of AISID3 Tool Steel	Shailesh Pawar, Onkar Phalake, Pravin Somdale, Omkar Patil, Sachin Sonawane	National Conference on Recent Trends in Science and Advances in Engineering	National
26.	Advanced Cardan Propeller Shaft Joint	Vinayak Bapat, Vaibhav Bhosale, Saurabh Dhotre, S. S. Jadhav	National Conference on Recent Trends in Science and Advances in	National
27.	Design of Underwater Remote Operated Vehicle (UW-ROV) with Camera, Temperature and Depth Sensor in Optimum Cost	Komal Achugatla, Shraddha Gajakosh, Deepjyoti Sathe, Dr. R. R. Gidde	National Conference on Recent Trends in Science and Advances in Engineering	National
28.	Design and Fabrication of Exhaust Gas Power Generation Machine	Omkar Mashalkar, Vaibhav Londhe, Rohit Chatage, Dr. R. R. Gidde	National Conference on Recent Trends in Science and Advances in Engineering	National
29.	Vibration Analysis and Fault Diagnosis of Vertical (Rotary Table) Insert-moulding machine and Press Machine (with Feeder)	Omkar Pawar, Dhondiram Waghmode, Nanasaheb Shinde, Dnyaneshwar Shitole, Sandipraj Salunkhe	National Conference on Recent Trends in Science and Advances in Engineering	National

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Dept. of Mechanical Engg
C.O.E. Pandharpur

Fabrication of Micro-channels using CO_2 LASER Machining & Soft Lithography for Lab-on-Chip Applications

Avinash K. Parkhe[1*], Amol Dhondiba Sul[2], Prathmesh Ramesh Kirgat[2], Atharv Santosh Joshi[2], Prakash Bhimrao Ghadage[2], Vijay Rahane[3]

[1]Assistant Professor, Department of Mechanical Engineering, SVERI's College of Engineering, Pandharpur, India

[2]UG Students, Department of Mechanical Engineering, SVERI's College of Engineering, Pandharpur, India

[3]Production Head, Dynamic Laser Pvt. Ltd., Chikhali, Pune-411062, Maharashtra, India

*Corresponding author

doi: https://doi.org/10.21467/proceedings.118.13

ABSTRACT

Microchannels are one of the most significant parts for the Lab-on-Chip applications. The microchannels fabrication is a crucial task. The Soft Lithography is one of the most favored methods of microchannel fabrication. The use of CO_2 LASER machining for microchannel fabrication using Acrylic sheet is studied in this paper. The experimentation is carried out to see the effect of LASER scanning speed and laser power on the depth of the microchannel mold. It has observed that the channel depth is increasing linearly with increasing LASER power and decreasing with increase in speed. The straight microchannel configuration with Y shaped inlet having circular & elliptical obstacles has been fabricated using CO_2 laser machining on acrylic sheet. Also, the fabricated molds are used to prepare the further microchannel molds using the Soft Lithography technique and then the microchannels prepared from Soft Lithography are used as a mold for the lab-on-chip applications like check the mixing length & mixing phenomenon etc.

Keywords: CO_2 LASER, Soft Lithography, Acrylic Sheet, Micro-Channel, Molds, Lab-on-chip.

1 Introduction

Now a day's micro total analysis systems (μTAS) play significant role in many of the applications and Microchannel is one of the prominent part of these systems. The Microchannels are having applications in various fields like medical, diagnostics, chemical, biological, etc. [1][2]. The Microchannels can be fabricated by using the Acrylic material more economically and efficiently as compared to other materials like Polymers, Silicon, and Glass. Due to low cost and straight forward fabrication these Microchannels are mostly used in Engineering and Medical applications [3] [4] [13] [15]. There are various methods to fabricate the Microchannels such as hot-embossing [5][6][14] injection molding [7] micro milling [8] infrared laser ablation [9] Photo chemical machining [10] [11] [12].

The CO_2 laser machining is mostly suitable for fabrication of Microchannels or molds of it [16]. The use of CO_2 laser machining not only speeds up the fabrication process, also there is flexibility to change the channel design as per the requirements. The CO_2 laser machining is very more useful for micromachining [17]. The use of CO2 LASER machining for microchannel fabrication using Acrylic sheet is studied in this paper. The experimentation is carried out to see the effect of LASER scanning speed and laser power on the depth of the microchannel mold. It has been observed that the channel depth is increasing linearly with increasing LASER power and decreasing with increase in speed. The transparent acrylic sheet is used for the fabrication of molds using LASER machining. The straight Microchannel configuration with Y shaped inlet having circular & elliptical obstacles has been fabricated using CO_2 laser machining on an acrylic sheet. Also, the fabricated channel molds are used to prepare the microchannel using the Soft Lithography method

and then the microchannels prepared from Soft Lithography are used as a mold for the lab-on-chip applications like check the mixing length & mixing phenomenon etc.

2 Materials and Methods

The acrylic sheet is commonly used material for various applications. We have used this material (an acrylic sheet) in transparent shown in figure 1 below from for fabrication of microchannel molds or directly microchannels. The channels fabricated from this material will be used for lab-on-chip applications. The CO_2 LASER machining process is used for fabrication of molds using acrylic sheet and. The Soft Lithography is also one of the techniques used for the fabrication of channels or molds. The molds fabricated from laser machining are also be used in the Soft Lithography techniques based on requirement of channel in lab-on-chip applications. As per the requirement we can use any mold or channel fabricated from LASER machining and the Soft Lithography.

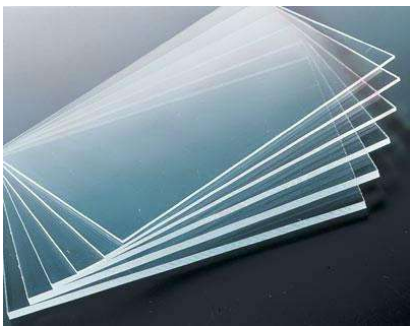

Figure 1: Acrylic Sheet

3 Fabrication of Micro-channels or Molds using LASER Machining

In the Laser cutting technology laser is used to cut the materials and mostly used in industrial applications. Laser machine works by giving high laser power as an output through computer and then it cuts the material as per design. The melting of material taking place and leaving the edges with a high surface finish. This machine can cut the various materials like acrylic, paper, pressboard, rubber, fiberglass wood, plastic, cloth, leather etc.

Thus, the CO_2 LASER machining is mostly useful for micromachining. The use of CO2 LASER machining for microchannel fabrication using Acrylic sheet is studied in this paper. Then, the detailed experimentation is carried out to check the effect scanning speed and laser power on its depth. It is observed that there is increase in depth of channel or molds, when laser power increases and vice-versa.

Figure 2: CO_2 LASER Machine

The above figure 2 indicates the CO_2 LASER machine used for the microchannels or molds fabrication. The acrylic sheet will keep cutting or engraving area of machine. The input will be

given through computer as image or Auto-CAD or CATIA drawing. We have to set required cutting laser power and travel speed through same computer and the fabrication is carried out as per given inputs and molds or channels are fabricated.

3.1 Design of Micro-channel or Molds

The following figure 3 indicates the drawings (with dimensions in mm) of microchannels with different configurations (Y type channel with Circular & Elliptical obstacles). This drawing will be given as a input to the machine and accordingly the fabrication will be carried out on acrylic sheet.

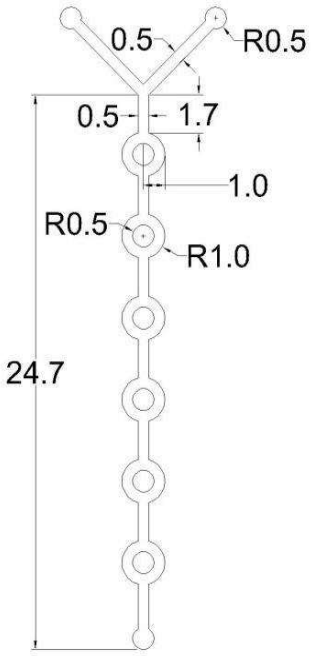

Figure 3: Microchannel with Circular Obstacles

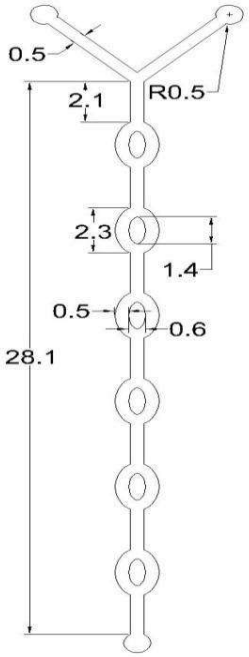

Figure 4: Microchannel with Elliptical Obstacles

3.2 Fabrication of Micro-channels or Molds using LASER Machine

Laser machine works by giving high laser power as an output through computer and then it cuts the material as per design. The following micro-channels shown in figure 5 & figure 6 with Circular & Elliptical obstacles are fabricated using LASER machining process and using following selected parameters on LASER machine.

Table 1: Performance Parameters of LASER Machine

Width of Channel	Scanning Speed	Laser Power	Depth of channel Achieved
0.5	100	60	0.516
	100	40	

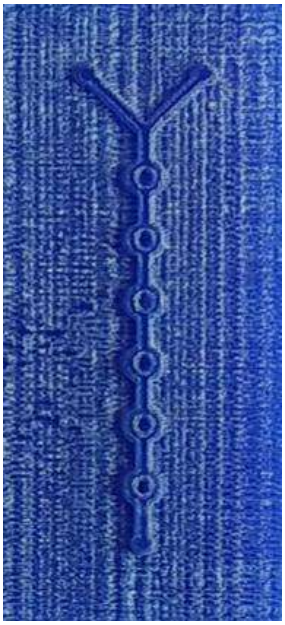

Figure 5: Fabricated microchannel or mold with Circular Obstacles

Figure 6: Fabricated microchannel or mold with Elliptical Obstacles

4 Fabrication of Micro-channels or Molds using the Soft Lithography

The Soft Lithography process includes fabrication channel or mold using Polydimethylsiloxane (PDMS). After the CO_2 fabrication of channel or mold it is filled by PDMS and then degassed in vacuum designator to remove the sir bubbles. Then, the PDMS solution is cured at room temperature or by baking in oven. After cooling, the PDMS mold can be peeled off from the mold and it will be used for micro molding. The detailed soft lithography process used for fabrication of channels is shown by following figures 7 & 8.

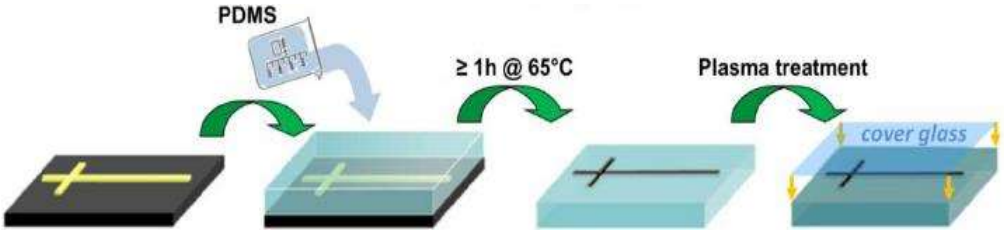

Figure 7: Soft Lithography Process for Microchannels fabrication

Figure 8: Pouring of PDMS during fabrication of Microchannels using Soft Lithography

5 Conclusions

The Microchannel is one of the essential components for Lab-on-Chip applications like biological, medical and chemical applications. The fabrications of Y-shaped micro-channels are carried out using Laser machining with circular & elliptical obstacles is straight microchannel or molds. The fabrication is carried out for given dimensions. The depths recorded as around 0.5 mm. The fabricated molds from laser machining are used the soft lithography process for fabrication of PDMS micro-channels.

The Y-shape micro mixers with two different geometries such as circular and elliptical have designed. CO_2 Laser Machining is used for mold making of micro mixer. The Y-shape PDMS channel with circular and elliptical obstacles will be used for further experimental analysis or testing in Lab-on-Chip applications.

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Thermal Analysis of Battery Module

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ABSTRACT

The rate of development of Electric Vehicles has gained momentum in the recent times. The factors like cost, lifetime and safety of the battery are becoming very important. One of the most important components, which are presently in one way deciding the cost and also very important hurdle in the development of the EVM is the battery. Thermal management of vehicle battery plays important part in deciding the battery performance and therefore the proper analysis of the battery thermal management system (BTMS), it is very essential for proper functioning. Analysis of the BTMS can be done in three ways; analytically by solving equations, numerical simulations using ANSYS FLUENT and on MATLAB/Simulink. In this work, simulations are done using ANSYS to understand the amount of heat produced and cooling required for the battery. This work focuses on analysis of lithium-ion battery cell using ANSYS FLUENT in order to study the flow characteristics of air flowing overbattery module. It is observed that such a battery module is prone to overheating and therefore, requires proper cooling arrangement to ensure it efficient operation. Here we mainly focused on finding heat transfer rate and it is observed that optimum air flow rate has to be maintained to ensure maximum cooling and better performance.

Keywords: Electric Vehicle, BTMS Cooling, Heating, ANSYS, Battery Module.

1 Introduction

There are so many blending methods of hybrid EV and 100% EV in vehicle Industry. As per the mixing level, different size and shape, type and numeral of cooling types are fixed in Electric Vehicles. Disparate conventional vehicles, battery cells as source of energy have severe requirement on running environment. They are particularly responsive to temperature. To make sure proper thermal working surroundings, a BTMS will usually be included with battery cells. It mostly consists of following systems: liquid cooling system, air cooling system, phase change material, direct refrigerant cooling system, thermo-electric heating and cooling and last but most simple heat pipe. Therefore, understanding of the suitable working necessities of battery is essential and simulation is done to know how much air and cooling required, and what kind of management systems are capable of meeting these demands in an adequate and efficient manner, as discussed in [1]. The performance and durability of a battery pack in an electric vehicle can be maximized with this cornerstone. Furthermore, due to the battery's limited capacity, the vehicle's electric range is limited. Finding the electric energy usage of BTMS and looking for potential savings is really useful. This discovery will aid battery performance by reducing EV energy usage and electric range.

2 Literature Review

Focus on EVs with other hybrid EVs, semi hybrid EVs and battery EVs have rapidly growth has been found in market, as condition of global warming over world has been 21st century most difficult issue and

the environmental challenge of greenhouse gas production have been increased. The key challenge for EVs is to discover a reliable and long-lasting energy source, which aids in the development of innovative energy storage systems capable of supporting high mileage, rapid charging, and high-performance driving. Because of higher energy to density ratio, higher specific power to weight ratio, lighter weight, lower time for self-discharge rates, higher recyclability and re - usability, and longer cycle life than other reusable batteries such as lead-acid, nickel–cadmium, and nickel–metal hydride batteries, reusable lithium-ion batteries were previously recorded as the most and common sustainable energy storage tool for EVs. They also have the benefit of having no memory effect. To avoid harmful consequences of lithium-ion batteries, room temperature and maximum temperature differential between cells should be no more than 4–5 °C, as discussed in [2-4]. The energy to density ratio of lithium-ion batteries is better than every last challenging batteries, nonetheless, today's EVs must test at higher energy density batteries than ever before, and more cells in the module must be supported to extend the discharge time. This strategy boosts the batteries' self-heat production and heat accumulation, putting the BTMS at the pinnacle of its utility. The thermal and overall behaviors of the battery were tested at the module level, with total heat generation, heat transfer types, and thermal boundary conditions checked, while various BTMS were investigated at the module level. and tested over fixed period with battery conditions sensors. They examined the capacity of the air-based battery thermal system and the direct liquid-based battery thermal system, respectively, based on cell kinds (serial, parallel, and mixed) and indirect liquid cooling system categories (tube cooling and plate cooling utilizing small channels)., as in [5]. The preceding simulation review studies were mostly concerned with heat transfer methods or materials. In comparison to all other subject study on battery thermal difficulties, there is very little research on the battery thermal management system. As a result, each BTMS has been thoroughly studied in terms of thermal cycle possibilities, and a portion of simulation has been described further in this work. Also, the study has done on battery power capacity calculation so during numerical analysis the capacity has been given and helps solving. All pervious simulation mostly focuses on MATLAB/Simulink based battery simulation but in this we have been tried in ANSYS FLUENT. Density based solver is gives highest most accurate solution and can be compared with analytical solution.

3 Theory and Calculation

Cooling - Battery cells will create electricity and heat due to their inefficiency. When the battery temperature reaches the ideal level, and even before that, this heat must be removed from the battery pack. As a result, thermal control necessitates pack cooling.

Heating - The temperature of the battery pack drops below the lower temperature range in colder climates. As a result, a heating device, such as a PTC heater, is required to get the battery pack to the right temperature in a shorter amount of time.

Insulation – The temperature difference between the inside and outside of the battery pack is significantly greater in cold or hot weather than in normal weather. As a result, the temperature of the battery will rapidly fall or climb outside of the acceptable range. To avoid this, good insulation can reduce the rate at which the battery temperature drops or rises, especially when the car is stopped on the road.

Ventilation - To eliminate the toxic substances from the battery pack, ventilation is essential. This function is integrated with cooling and heating functions in various systems, such as air systems.

Battery capacity Calculations

Charge (C) = Current (A) * Time(s)

and

Charge (C)*Voltage (V) = Energy (J)

Since Amp hour (Ah) is measure of charge and Joules is measure of energy you can't convert mAh to joule without knowing Voltage at which charge is transferred

So,

mA means 1/1000 of an Amp for an hour and there are 60 * 60 = 3600 sec per hour,

1mAh = 0.001*3600 = 3.6 coulombs of charge.

Choosing 1 volts for voltage can convert mAh to joule

3.6 (C) * 1(V) = 3.6(J)

According to example if we have 2V battery it stores twice energy than 1 V battery

Methods for heating and cooling battery pack, as discussed in [3].

4 Methodology

So, for battery thermal management system simulation we use ANSYS R21 model and the geometry has been drawn in Solid work 2020 version. First for all these simulations we make space for air and 10 cell battery modules. When we combine all battery modules, we get pack so we can install. Analysis of battery pack is difficult so we make model of 10 cell pack and simulate in steady, density based standard k epsilon turbulence model.

To bring model into space claim we have to import it into IGES format. After importing we can close space claim tab and go further. Next is meshing, here we can discretize model into small no of part so whatever equation solver solve with high accuracy. More number of meshing means highest time for mesh and closest to actual value of cell temperature. For next setup we have to give some names like inlet, outlet condition also solid cell, fluid air space and material condition here in meshing. After completion of cell and boundary condition setup we can go for setup of physical conditions. Here we can set steady and density-based solver with five process precision and in this we turned on single energy source. Importing of new plots done, for volume-temperature plot mainly done. Addition of lithium-ion material also done here and after applying pre-processing condition one can close tab move to next for solution and result after calculated up to 500 iterations. In result we analyzed various condition and rendering of planes and volume rendering condition for temperature, mass flux, velocity and cell temperature can be closely monitored for single source of energy. Following are some methods to calculate temperature and cooling rate for battery pack out of which we used ANSYS FLUENT simulation.

1 Analytical Method

2 ANSYS FLUENT

3 MATLAB/Simulink

5 Modelling and Analysis

Following figures 2 & 3 show the lithium-ion battery cells module containing 10 cells is analyzed under steady and viscous and in SST k-omega turbulence model. Total here 141328 meshed cells having air as main fluid having density 1.225 kg/m^3

We know that for thermal analysis we have to draw geometry and below geometry is given. Here are some details about geometry

Cell Diameter = 10 mm

Cell Length = 50 mm

No. of Cells = 10

Module Volume = 25*25*50

Consecutive Distance between Cells = 1 mm.

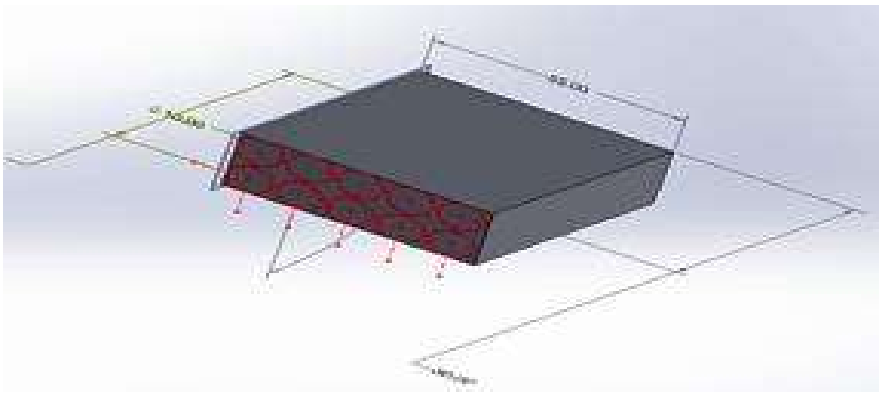

Figure 1: *Geometry*

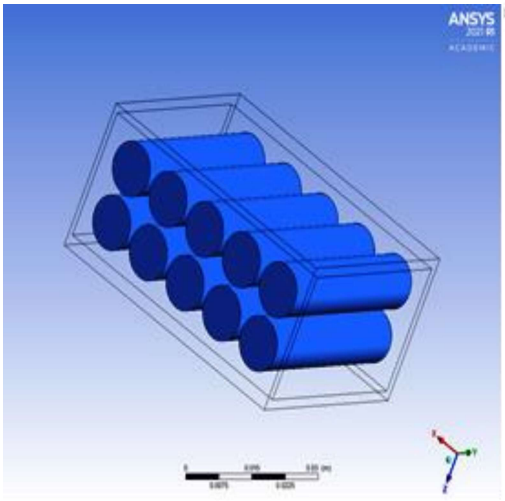

Figure 2: *Cells*

Figure 3: *Module*

After Meshing of Cell Module, we can make discrete cell so equation is solved with high quality and accuracy. Meshing converts large block area into small number of element and nodes so during simulation time it gives large number and percentage of accuracy. After meshing, we setup physical conditions and further result is analyzed which shows for single energy source temperature plot is being constant or very small changes occurs and after increase of air flow rate the drop can be seen in simulation over period of time. The meshed image of model is below having different mesh for fluid and air part as per design as shown

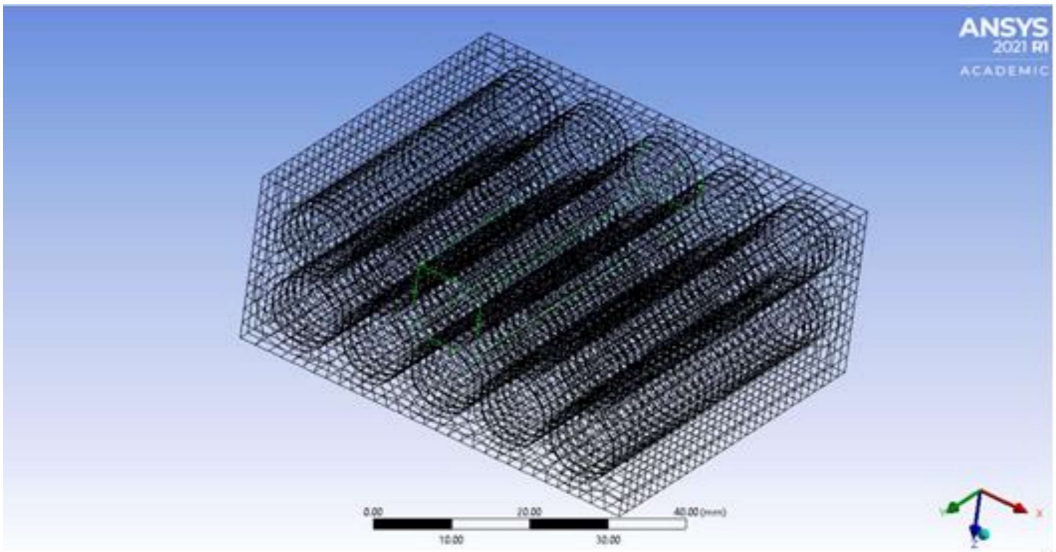

Figure 4: *Meshing*

So here after meshing we setup above mentioned conditions and part of meshed result is shown below for analyzed and flow of air around cells and heat carried out side of channel first, we had velocity analysis and temperature analysis in volume rendering. Due to Cell the gap between them is not cooled and we can easily find this. We have made conclusion on this is to cool down all cell of modules cross side cooling required cause small change in temperature of cell affect badly to battery pack health condition.

5.1 Case 1

We know that as the mass flow rate and velocity of air rise, the cell temperature decreases. To obtain this we done velocity and temperature analysis and get at 3 m/s air we had 307.4 °k temperature. Here volume rendering shows result. If you once look at both profiles you can find easily that the first cells cool down more cause lower temp of cooling air so henceforth the reddish yellow cells are hot with compare them

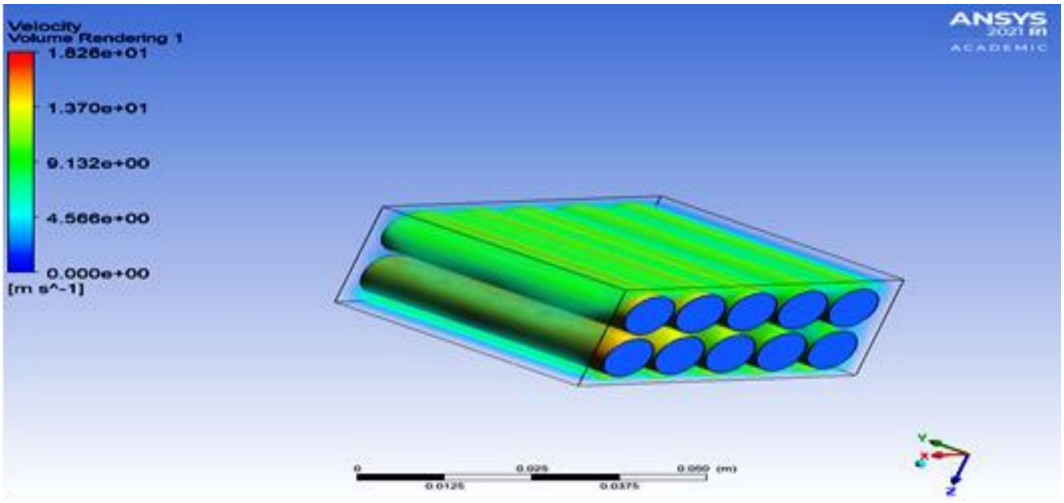

Figure 5: *Velocity Render*

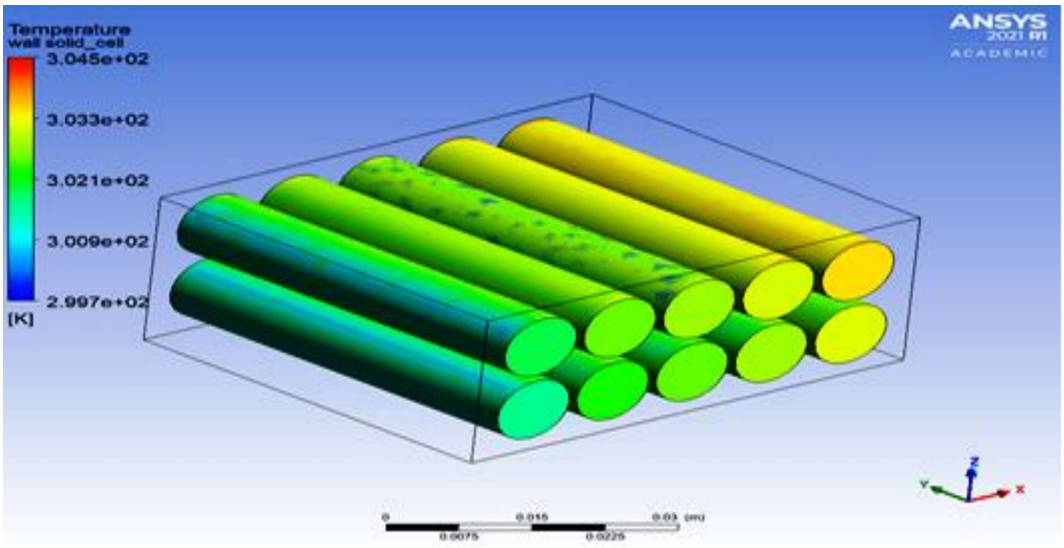

Figure 6: *Temperature Render*

5.2 Case 2

To obtain more cooling we here try with increasing of air flow rate to 9 m/s and we found that the temperature we get in previous analysis is quiet more so here we get 302.5 °k. So, the analysis part is shown below. If you look closely at case 1 and case 2 data the increase in air flow rate had significant effect on temperature of cell. Temperature drop is quickly shown in result. The analysis is same with only inlet parameter change.

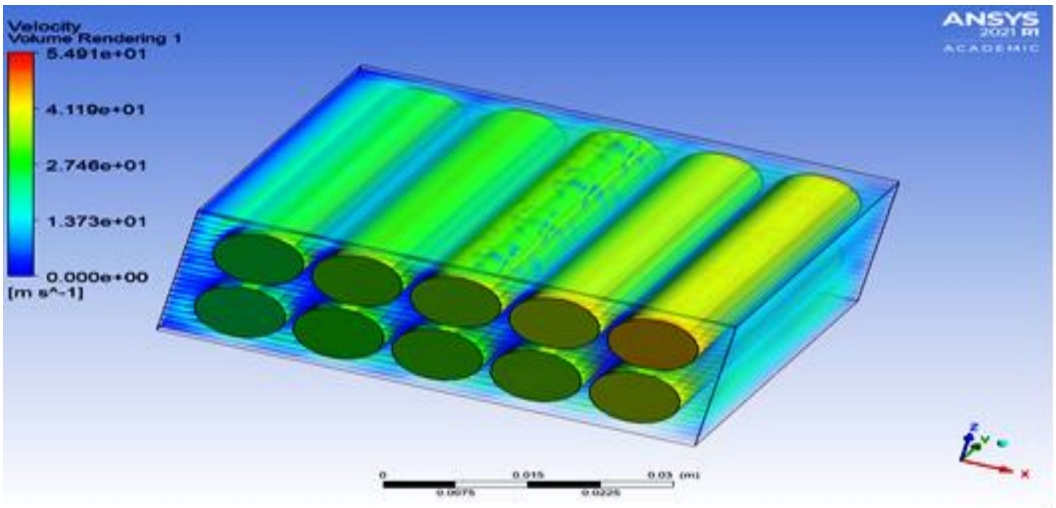

Figure 7: *Velocity Render*

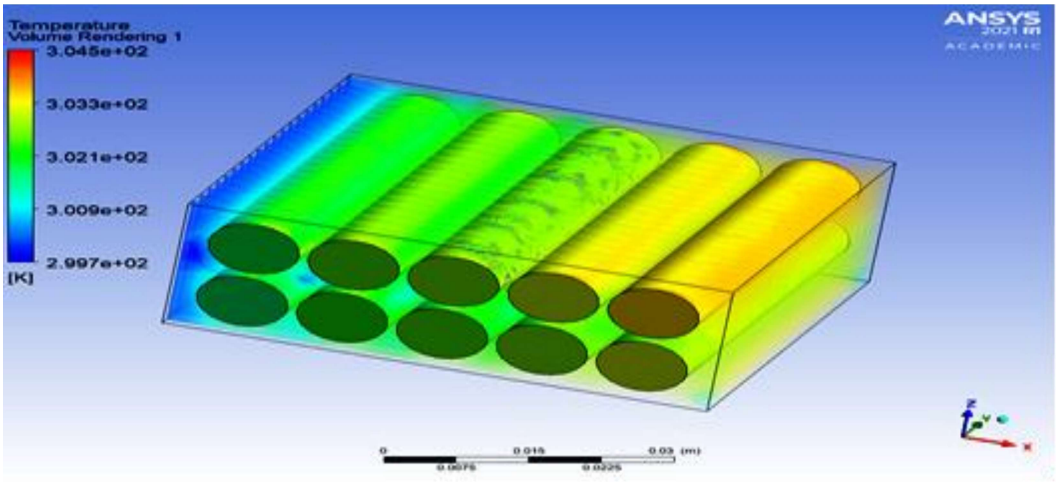

Figure 8: *Temperature Render*

5.3 Case 3

In this last case we add utmost air flow rate 15 m/s and we get temperature very close our inlet air temperature 300.04 °k and our inlet temperature condition is 300 °k. So, if we had air flow rate, we had significant temperature drop in module cell and the purpose of our analysis comes to end as we achieve decrease in temperature of cell. This all things conclude their solution to find battery capacity and depend on battery capacity battery thermal management system control.

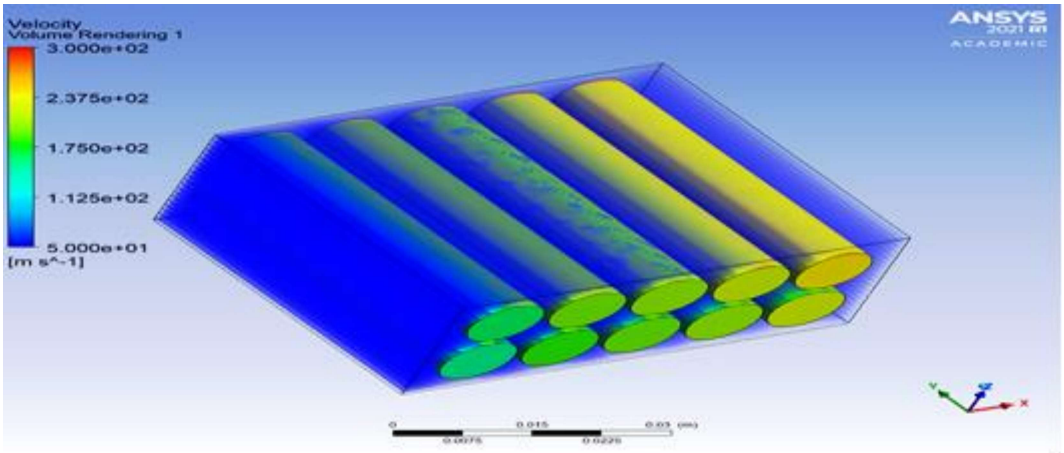

Figure 9: *Velocity Profile*

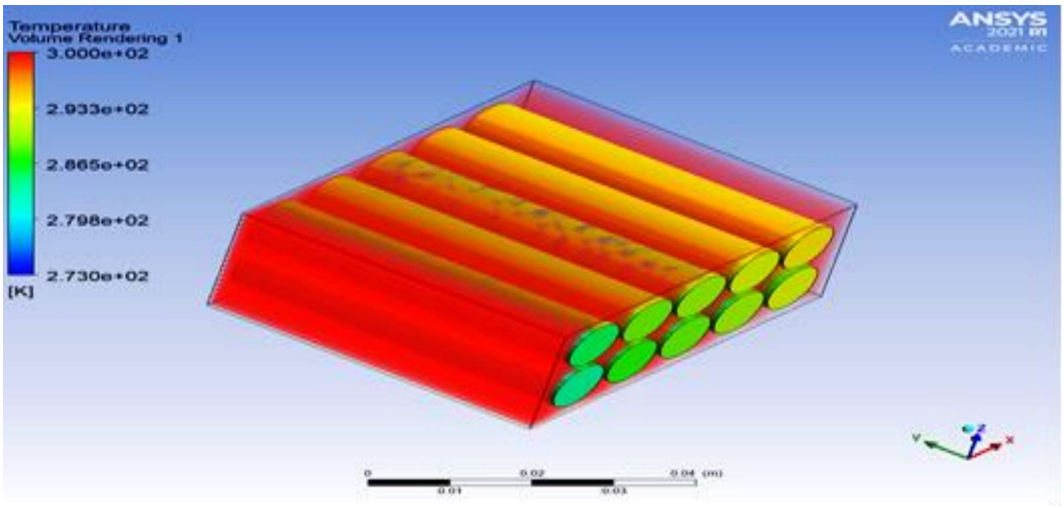

Figure 10: *Temperature Profile*

So, in this case you can easily see due to more air rate the highest heat transfer takes place at module and the cooling of cells are takes place. Due to more heat transfer time required to cool down reduced so much. We did simulation and modelling for almost 7 air flow rates and based on it draw table below comparing velocity and outlet air temperature.

Table 1: *Variation of Outlet Air Temperature with respect to Velocity change*

Sr. No.	Velocity (m/s)	Outlet Air Temperature (°k)
1	3	307.4
2	5	305.25
3	7	304.85
4	9	302.5
5	11	301.75
3	13	301.13
7	15	300.4

5.4 Mathematical Expressions and Symbols

Heat Transfer Rate is calculated by,

$Q = mCp\Delta T$

Q is Heat Transfer Rate [in kW]

m is Mass Transfer Rate [in Kg/s]

Cp is Specific Heat at constant pressure [in joule per kelvin per kilogram]

ΔT is Approximate mean temperature difference [in kelvin]

So, from this we can calculate q and to find q we need to find m

$m = \varrho . A . V$

Here is example when velocity of air 3 m/s find heat transfer rate

m = 1.225*0.5*.0.25*3 = 0.45 Kg/s

and

Q = 0.45*1*7.4 = 3.33 kW

(Note: Assume at 300 Degree Kelvin, Cp = 1 kJ/kg.k)

Based on this calculation, we had found heat transfer rate with respect to velocity as mentioned in table 2.

Table 2: *Variation of Heat Transfer Rate with respect to Velocity change*

Sr. No.	Velocity (m/s)	Heat Transfer Rate (kW)
1	3	3.33
2	5	4.01
3	7	5.18
4	9	3.47
5	11	2.83
6	13	2.24
7	15	0.91

6 Result and Discussion

After modelling and analysis, we got results through simulation of battery module of thermal management system. We have studied first plot of velocity verses temperature, in which we got result that, as we increase air flow rate the cell temperature goes below. The heat around cells is being carried out to outside the channel and the healthy condition for battery maintain. The air flow rate had significant role in cooing down temperature parameter. Analysis shows that if we had more flow rate the time required for cooling down reduced and hence it benefits battery capacity calculation.

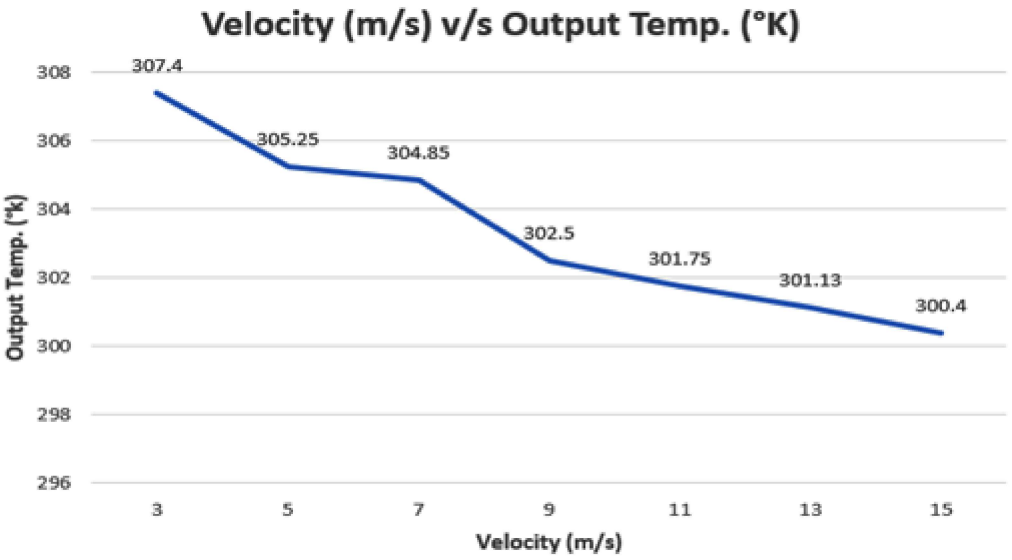

Figure 11: *Graph of* Velocity *Vs Output Temperature*

The second parameter which we have considered is Mass Flow Rate of air and here also we got helpful result. As we increase the flow rate significant drop in cell temperature can be easily shown. The mass flow rate mainly depends upon density of fluid and we had constant density value of air. The graph shows that mass flow rate is also a important parameter to reduce cell temperature and helps in maintain battery thermal management operations.

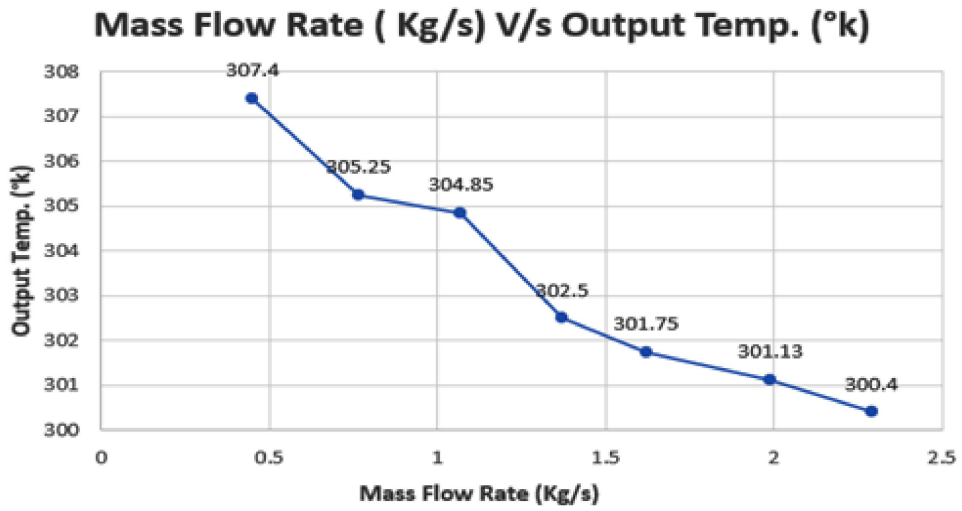

Figure 12: *Graph of Mass Flow Rate Vs Output Temperature*

During battery module design the heat transfer rate takes key role to remove heat from system depend upon fluid used in it. We know that for heat transfer rate first need to calculate heat transfer coefficient and them q can be calculated. We calculated Q and when graph is plotted, we get that after a certain velocity the amount of heat transferred in certain volume reduces as more volume of air is gone through over it. The decrease in fall states that we are successful in our operation to cool down cells and the finally we get small heat cause temperature automatically reduces to certain value near to which we provide intake air. So, we find that heat transfer rate is main key to design battery thermal management operations and analysis gives more correct result.

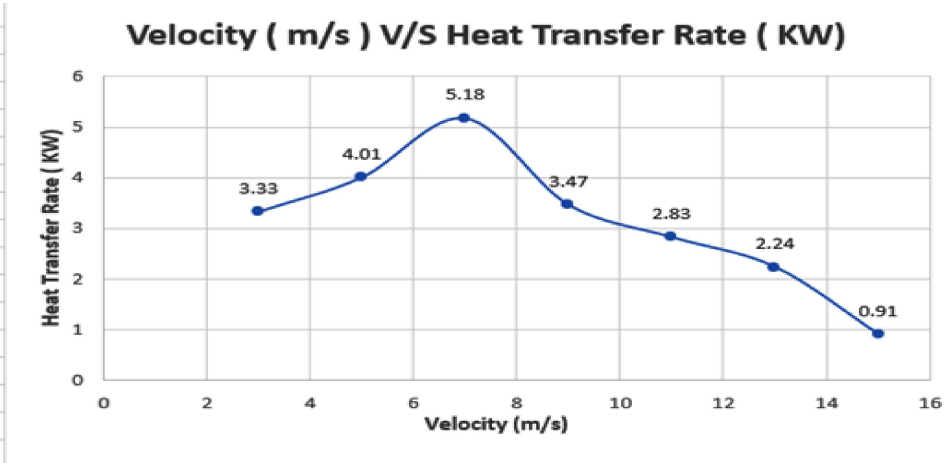

Figure 13: *Graph of Velocity Vs Heat Transfer Rate*

7 Conclusion

Because of high energy density and long cycle life, lithium-ion batteries are commonly utilized in electric vehicles. Temperature has a big impact on the performance and life of lithium-ion batteries, therefore it's crucial to keep them in the right range. Therefore, a numerical study of the heat generation phenomena and important thermal concerns of lithium-ion batteries is carried out. In a battery thermal management system, the velocity of the air and the mass flow rate of the air are two critical characteristics that determine the cooling performance. Furthermore, it has been observed that a 7 m/s air velocity provides the optimum cooling results. In future there is lot of chances to simulate model numerically and calculate

proper temperature suitable for battery charging and discharging. The analysis can be also done for complete battery stack used in the electric vehicles.

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FU-EL (Fuel and Electricity) Powered Two Wheeler

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ABSTRACT

With growing oil prices and escalating environment worries, cleaner and supportable energy solutions are demanded. Present transportation contributes large amount of energy consumption and emission of pollutants. We mostly use the vehicles like scooter, moped scooter, car etc. due to this the air pollution also get increased. Due to pollution the diseases are also increased. The petroleum product such as petrol is non-renewable sources. It gets exhausted in future, so to prevent environment from pollution and to save fuels like petrol the electric vehicles are introduced. But in a rural region the number of charging stations are very less (probably no) and people are not that much aware about electric vehicles. So, the hybrid vehicle is the proper and sustainable solution. Any vehicle is a hybrid, when it combines two or more source of power. Hybrid electric vehicles are admired because of their ability to achieve related performance to a standard automobile while prominently improving fuel efficiency and tailpipe emissions. In this paper, hybrid vehicle technology has been manufactured, with Power split configuration having internal combustion engine and battery as the secondary running source. In this project we make a hybrid scooter which runs in two mode.

Keywords: *Battery, BLDC motor, combined throttle valve, controller, DC-DC convertor.*

1.INTRODUCTION

An emphasis on green technology is greatly demanded of modern cities. The significant growth of today's cities has led to an increased use of transportation, resulting in increased pollution and other serious environment problems. Gases produced by vehicle should be controlled and proactive measures should be taken to minimize these emissions. The automotive industry has introduced hybrid bike that minimize the use of combustion engines by integrating them with electric motors. Such technology has a positive effect on the environment by reducing gas emission. The greatest challenge in research activities today is developing near zero- emission powered vehicles. Hybrid vehicles rely on two or more energy converters for generating propulsion. Each energy converter is fed by an appropriate on-board energy reservoir. A hybrid electric vehicle (HEV) is comprised of an internal combustion engine together with one or more electric machines. The engine converts fossil fuel from the fuel tank into mechanical power while the electric machine converts electric energy from an electric energy storage system, such as a battery, into mechanical power. There are some problems on previous hybrid bike, the charging stations are not available at large amount so there is main disadvantage. This factor, we tried to solve in this project. In this project the bike will run in two modes.[1][2]

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2. LITERATURE SURVEY:

In India, very few technologies are implemented as compared to other countries, also we are using BS – 4 and slowly moves towards BS-6 for future automobile life. Also, there are much more prices of petrol and diesels in India and that increases and decreases daily and also may increase in future. So, reservoirs of petrol and diesel are diminishing, hence we need to use this petrol and diesel very carefully. Also, high use of petrol and diesel leads to pollution in the environment and there are many gases from exhaust like NOx, CO2 and PM Etc. For this reason, many countries have started working with electric vehicles and hybrid vehicles and also started implementing this technology. Hybrid technology is the best way to save the fuel and also reduce the pollution and easy to implement in India, because there are many electric vehicles are available; but there are no more charging stations are available in India; but still India is working on charging stations. There are few hybrid bikes are available in the market and are not implement with high and new technology; but our aim is to make the hybrid bike that implemented with all new and high technologies that make it unique. For this we take survey on prices of petrol and diesel by going on petrol pumps and ask the public about the petrol and diesel rate and also take reaction of petrol pump employees and also public about the increasing and decreasing the price of petrol and diesel. Also, we discuss about electric bikes with people and take reactions of peoples and that reactions are such positive reaction and they said if the requirement of people had successfully completed about electric bikes, then they also happily accept electric bikes in future.[3]

3. OBJECTIVE:

3.1 To determine the specifications of BLDC motor, Battery, Controller.

3.2 To determine the solution without disturbing the petrol system.

3.3 To provide a sustainable solution on the problems of petrol bike and electrical bike*:*

By considering the disadvantages of petrol bike and electrical bike we decided to find out the golden mean to this problem by Adding the electrical driving system in the existing petrol bike.

4. METHODOLOGY:

following steps are followed while making Hybrid Bike:

4.1 Research:

Initially we did study on Electric vehicles. Form that we come to know about how electric vehicle works, its principle and different components used in electric vehicles to drive it. Along with that we did study of cost analysis of petrol bike to determine the running cost of it.

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4.2 Selection of components:

On the basis of above study of electric vehicle, we selected the components required to drive the electric system like motor, controller, battery, combined throttle valve etc. Further we worked on the selection of specification of components which are required to drive our system

4.3 Preparation of circuit diagram:

After selecting components and their specification we made a circuit diagram. It helped us in the fabrication and attachments of the components on the petrol bike. It gave us a basic idea about installation of components.

4.4 Fabrication and Attachments:

Here we made a space in an existing petrol bike for the attachments of selected components. We make a provision to install a battery and controller and other accessories like motor, combined throttle valve.

4.5 Assembly:

After finalizing the positions for the components, we started assembling it. We fitted motor at the right side of the rear wheel of bike. Then we go for fitting of battery under the seat and controller. And here after assembling all the components in the bike our final Hybrid bike is ready for the analysing and testing.

4.6 conclusion and results:

Here we carried out many trials of the hybrid bike to find out its performance parameters like average, running time, battery charging time and discharge time etc.

5. ELECTRICAL COMPONENTS AND THEIR SPECIFICATION:

Here to convert the existing petrol bike into hybrid bike by adding the electrical components in it following components are used:

5.1 BLDC Half Hub Motor:

Brushless DC motor is used to drive the system. Half hub motor is used to fit at the rear wheel of the scooter.[4][5]

Parameters	Specification
Voltage	60V
Power	1800 watt

5.2 Lithium Ion Battery:

To store the electrical energy while driving on the electrical mode the battery is used.

.

Parameters	Specification
Type	Rechargeable
Voltage	60v
Weight	5kg
Power	1800 watt

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5.3 BLDC Controller:

A motor controller may be a device or group of devices that serves to control in some predetermined manner the performance of an electrical motor. A motor controller might include a manual or automatic means for starting and stopping the motor, selecting forward or reverse rotation, selecting and regulating the speed, regulating, or limiting the torque, and protecting against overloads and faults. Motor controllers are often manually, remotely, or automatically operated. A motor controller is connected to an influence source like A battery pack or power supply, and control circuitry within the sort of analog or digital input signals.[6]

6. CALCULATIONS:

Motor specification and calculation	Battery Calculation
Rpm = 3000, Volt = 60 V, Power = 1800 W Power equation: Power = I *V Where, V = 60 V, P = 1800 W, I = 1800/60 = 30 A To find torque of the motor P = 2x3.14xNxT/60 T = Px60 / 2x3.14xN T = 1800*60 / 2*3.14*900 T = 19.10 N-m Torque of the wheel hub motor T = 19.10 N-m	To find the current Watt = 1800 W Volt = 60 V P = V x I 1800 = 60 x I I = 30 Amps

RESULTS AND CONCLUSIONS:

- Battery cost - 48000 /-
- Fuel cost (1 Full charge Battery) - 15 /=
- Mileage (1 Full charge Battery) – 45(approx50) Km
- Running cost of the vehicle per Km - /=
- Speed of the vehicle-Max speed 55-60 Km/hr.

The below table shows the comparison between petrol bike, electric bike and hybrid bike tested under normal conditions.

Sr. No	Mode	Person's weight(kg)	Price (Rs)	Distance (KM)	Price Per Unit Distance (Rs)
1.	Petrol	60	120	30	4
2.	Battery	60	15	50	0.3
3.	Hybrid Bike	60	125	80	1.5

The project discloses a hybrid system consisting of an electrical and combustion (IC) based power drives. The rear wheel is being propelled by battery and also powered by electric DC hub motor, i.e., it includes one

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cylinder, air cooled combustion engine and a BLDC motor based electrical power drive used for hybrid powering of the vehicle. The controller is meant to vary the speed of hub motor. it's great advantages over the previously used internal-combustion engine that's driven solely from gasoline. This hybrid combination makes the vehicle dynamic in nature and provides its owner a far better fuel economy and lesser environmental impact over conventional automobiles.

HEV is a vehicle that uses two sources of power- petrol and battery. In heavy traffic and inside the city there is no chance for moving fast. At that time, if vehicle is run by IC engine, more fuel is wasted due to variation of acceleration. If the vehicle is run electric hub motor through battery, the consumption of power is reduced. The technology of hybrid petrol electric bikes is an emerging field in now a day and the total turn one on these types of vehicles very profitable for the future and solves the issue of natural resources scarcity and is an eco-friendly bike. This type of vehicle is very cost effective for middle-class families. As this hybrid vehicle emits 50% less emission than normal vehicle it plays an important role for reducing pollution to certain extent without compromising with efficiency. The project focuses on constructing a hybrid bike with a minimal additional weight that is capable of greater efficiency through its use of regenerative motor and various other mechanisms.

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Development of Log making Machine for Kitchen Food Waste

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ABSTRACT:

In every kitchen, left-over organic matter is required to be recycled because it can be hazardous and further, the waste should be stored in a certain way. Tons of kitchen wastes are produced daily in highly populated areas.The trash heaps are usually left open to the environment and the elements. Landfill, recycling, animal feed, biological reprocessing, incineration, composting are the basic methods used in India. To overcome this, a machine that disposes your catering and food business with comprehensive kitchen waste is developed. In this project, the waste food from dumping yard or from different municipality bins in the city is collected. Further, the collected food from different bins is needed to dry in sunlight, and the dried food waste is put into the mixture which makes it uniform and chop. After this mixture falls in the hopper by gravity it falls into drum. Drum consists of screw conveyor, the main function of screw conveyor is to transfer and compress this food to the end of die. The end die is a square in shape so that the log shape will be as a bricks. By checking the nutrition value of this log, it can be sent for cattle feeding and/or by checking burning value, it can be used as burning material. So, this project is useful for the kitchen waste management.

Keywords: Compositing, Kitchen Waste, Log, Recycling, Screw Conveyor.

1. INTRODUCTION:

Food waste management in India is becoming a critical problem due to the continuous increase of the Indian population. Indians waste the maximum amount of food as much as the whole of the UK consumes – a data point which will not be most indicative of our love of surfeit, because it is of our population. Most of the food is wasted in weddings, canteens, hotels, social and family functions, and households. Still, food wastage is a horrendous issue, so is food waste management in India. Our streets, garbage bins, and landfills are spoiling our environment and have sufficient evidence to prove it. This specific project deals with an early problem. i.e.

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food/ kitchen waste. As we are from the Pandharpur city, situated in Maharashtra. We get this idea by analysing/observing our city. City Pandharpur, also famous as South Kashi of Maharashtra. Around 1.2 million pilgrims visited the Pandharpur city during the "Wari" period. In one year 4 major Waari held that attracts the lots of pilgrims. The arrived Pilgrims take a stay around 1-2 days under the umbrella of Lord Vitthala.The pilgrims who are coming in Pandharpur for them a lot of food made and near about 30-40% food gets waste, that waste food gets dumped in to the dumping yard. Lots of Pilgrims throw the food into dustbins, some at the side of roads, so it's getting hard to collect separately the food waste. And due to the rush time municipality did not get enough time to separate it, so they dumped it all waste/garbage.We are proposing an Idea to collect the food waste separately and start working on it to make the billets/logs from it.

2. OBJECTIVES

2.1. To study the different food waste techniques.

2.2. To developed a model of Log making machine by using software.

2.3. To fabricate the developed model of Log making machine for Kitchen waste.

2.4. To analyse the performance of fabricated model.

3. METHODOLOGY

3.1. Study of food waste management system.

3.2. Analysis of problem and find solution.

3.3. Make final design of log making machine.

3.4. Developing model using Catia.

4. DESIGN & WORKING PROCEDURE

4.1. PARTS DETAIL

4.1.1. Mixer

Mixer is used to chop the food waste and make it into uniform, the mixer situated above the hopper in such a way that food waste coming out of the outlet of the mixer will fall into the hopper.

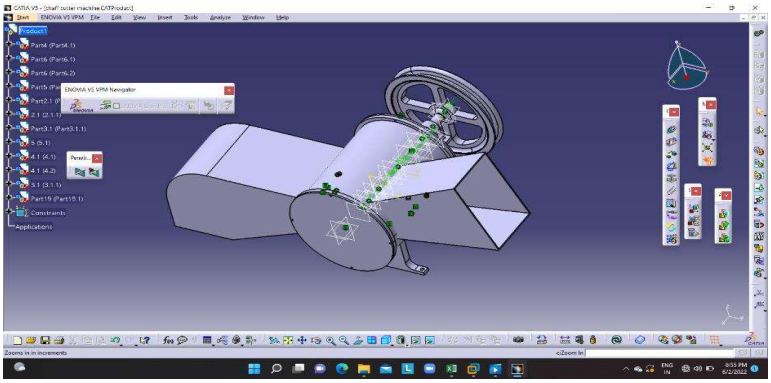

Fig 1: Mixer

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4.1.2. HOPPER

The crushed food waste is feed into the hopper. The food waste slides over the hopper by gravity into the drum. Hence the hopper is designed as conical shape.

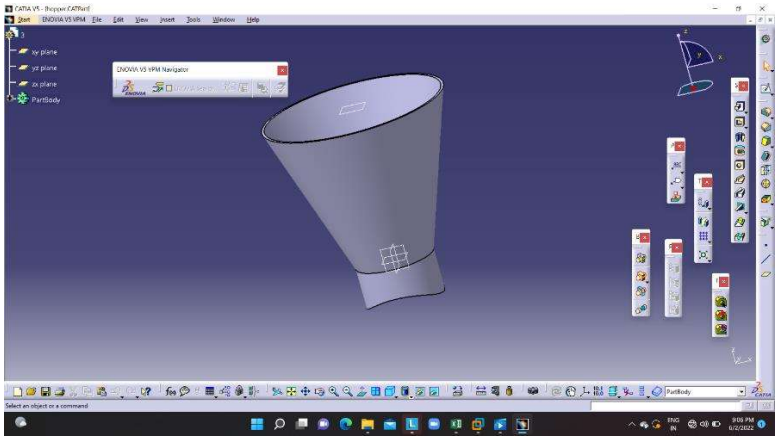

Fig 2: Hopper

4.1.3. DRUM

The drum is used to collect the food waste from the hopper. It is also used to store the food waste. The die is attached at the one end of the drum. The screw conveyor is placed inside the drum. It also acts as a support for the screw conveyor. The food waste extrude from the drum should acquires a cylindrical shape, so that the square shaped die is placed at the one end of the drum. The food waste is made to pass through the die which is push by the screw conveyor.

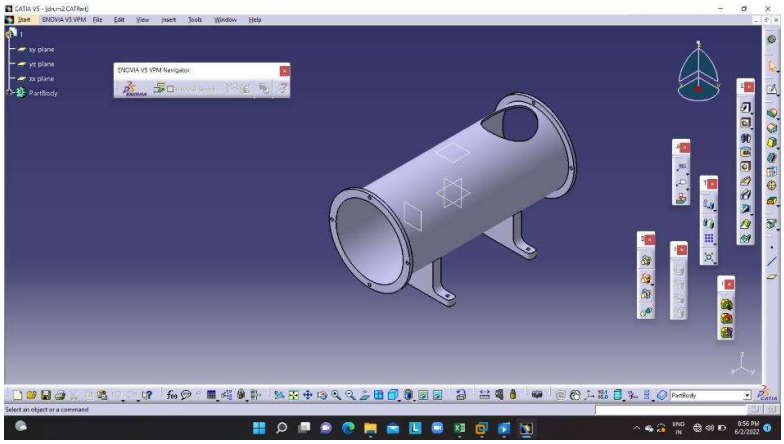

Fig 3: Drum

4.1.4. SCREW CONVEYOR

The purpose of the screw Conveyor is to transfer and compress the crushed food waste and also pushes the food waste to extrude it through the die. It consists of hollow cylindrical shaft consists of screw plates. The one end of the hollow shaft is coupled with the pulley and the other end of the shaft is simply mounted at the end of the drum.

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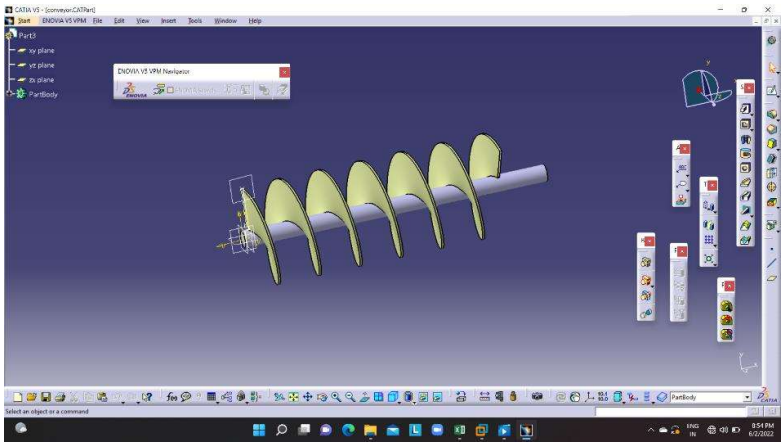

Fig 4: Screw Conveyor

4.1.5. STAND

The stand is designed for supporting the whole assembly.

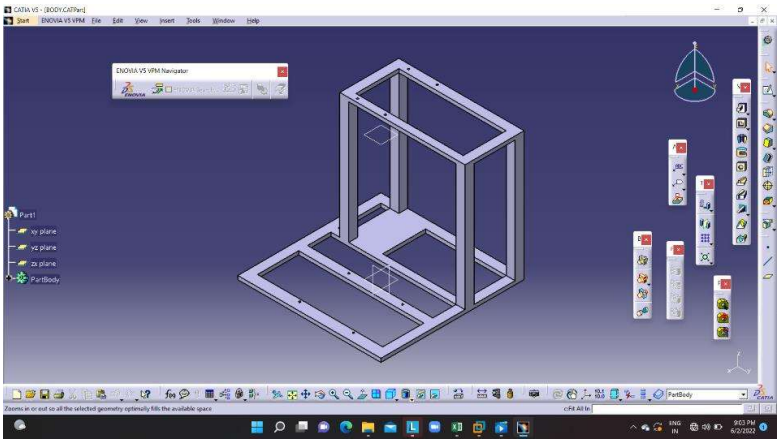

Fig 5: Stand

4.1.6. BEARING

Bearing should be attached to the motor side of the drum. Bearing is used to reduce friction and allow free rotation of the screw conveyor and mixer.

4.1.7. ELECTRIC MOTOR

To rotate the conveyor and mixer AC motor is used.

4.1.8. PULLEY

Pulley is used to transfer the power from the motor to the screw conveyor and mixer by reducing the rotations. Two pulleys are used one for the conveyor and another for the mixer.

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4.2. FINAL DESIGN:

Fig 5: Final Design

4.3. WORKING PROCEDURE

In this project, the waste food from dumping yard or from different municipality bins in the city is collected. Further, the collected food from different bins is needed to dry in sunlight, and the dried food waste is put into the mixture which makes it uniform and chop After this mixture falls in the hopper by gravity it falls into drum. Drum consists of screw conveyor, the main function of screw conveyor is to transfer and compress this food to the end of die. The end die is a square in shape so that the log shape will be as a bricks.By checking the nutrition value of this log, it can be sent for cattle feeding and/or by checking burning value, it can be used as burning material. So, this project is useful for the kitchen waste management.

5. CONCLUSION

Kitchen waste material is converted into log which will be useful for

1. After checking the nutrition value of log material we can use for animal food purpose.
2. We can also use for burning purpose.

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DEVELOPMENT OF AUTO FEEDER MECHANISM FOR CRICKET BALL THROWING MACHINE"

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ABSTRACT
Cricket is one of the most popular games in India. We have developed an automatic feed mechanism for cricket ball throwing machine to help young and passionate players improve their cricket skills. The mechanism consists of a DC geared motor with ribs connected to a shaft. The motor rotates at a specific interval desired by the user. The rotating fins push the ball into the ball-throwing machine. The rotation of the DC motor is detected by an induction sensor and sends a signal to the PLC. This program is designed to control the time interval at which ball is delivered to a throwing machine. This eliminates the external effort required to feed the balls in turn to the cricket-throwing machine
Keywords: DC geared motors, PLC, cricket, machine, External Efforts etc.

I.INTRODUCTION

In today's highly competitive world, every job requires maximum practice to achieve the required skills. In cricket, a bowling machine is a device that repeats the throwing of a ball of a certain length,line, and speed so that the batter can practice (usually on the net) and hone certain skills. In the context of unprecedented pandemics and the uncertainty of the physical crowd, the need for these machines for batters becomes more acute. 4,444 professional cricketers train for an average of about4-6 hours each day over 5 days a week. This includes network training and various forms of trainingsuch as flexibility, strength and conditioning, stamina building, gym and reflexes, fighting, bowlingand playing on the pitch. Even beginners need a fair amount of ball play practice. Usually bowling

alleys exist to throw the ball to the batter, but if you continue bowling with the same energy, your body gets tired. This is why you need a cricket ball throw that can run continuously at a certain length and speed. Also, the for this ball throwing machine there is need of certain external human efforts to feed ballsinto the machine which is very hectic job for human being to do it for long period of time.

During this pandemic times it becomes necessity maintain the COVID protocol and avoid unwantedgathering of people.

II.METHODOLOGY

1. Conceptual design:

In Auto feeding Mechanism We have used a storage rack to store the balls. The Capacity ofthis Rack is calculated to be 36 Balls. This Mechanism is feasible and easy to use.

Figure 1.CAD Model of mechanism

The storage medium was made of acrylonitrile butadiene styrene (ABS). It is mounted on the ball launcher at an angle of 7°.

This mechanism consists of a 12 V dc gear motor with fins mounted to the shaft. Fins Help put the ball in turn into the Ball throwing machine. An inductive sensor is used to sense a rotation of a DC motor and send a signal to a programmable logic control called a PLC. Power for the PLC is providedby a switched-mode power supply with an output of 8.8A. Three switches are used. When the first switch is turned on, it sends a signal to the PLC and the PLC sends an output according to the programbeing downloaded. A program has been developed in three time periods, i.e., 20 seconds, 30 seconds, 40 seconds. The beep will always sound for 2 seconds at the end of each time cycle. When the time is up, the motor starts to spin and the ball is put into the Ball throwing machine. When the motor finishes one revolution, the induction sensor sends a signal to the PLC and stops the motor and startstiming for the next cycle. If, in the case of a user turning on one or more switches at the same time,an arrangement shall be made so that

the beeps sound continuously until the single switch or noneremains ON.

2.Closure:

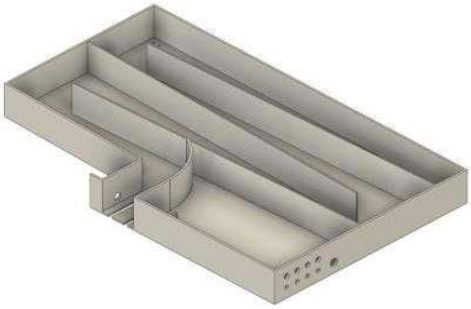
Above chapter briefs us about construction and working of Auto feeding mechanism for ballthrowing machine

III.List of Components –

1.Metal Componant

A. Storage Rack:

Storage Rack is manufactured from acrylonitrile butadiene styrene (ABS). The part is manufactured by using 3D printing process. The reason behind using this material is that this material offers high strength and toughness and also this material comes with glossy and finished look. The dimensions of storage rack are 900*550*90 mm.



B. Motor:

Motor is used to rotate the fins which in turn pushes the ball into the ball throwing machine.Motor specifications:

Type:	DC motor
Max Torque:	4 Kg-cm
Speed:	10 rpm
Voltage:	12 V
Current:	450mA
Weight:	150 gm

C. Synthetic cricket ball:

The balls which we have used for the designing the Auto feeding Mechanism is SyntheticCricket Ball .

Ball specifications

Diameter: 63 mm

Weight: 70 g

D. Supporting stand:

To support entire storage rack stand is required. The storage rack is made of Mild steel

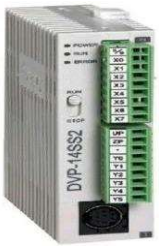
E. Fin:

For applying motor torque on ball, we have attached Fin on shaft of motor. With the help of thisfin ball is push forward.

2.Electrical components

A. Programmable Logic Control (PLC)

switched-mode power supply supplies power to the PLC. The negative voltage from SMPS is given to S0.X0 is connected to main ON/OFF switch. X1 is connected to one end of Inductive sensor. While X2, X3, X4 are connected to the three switches. Positive voltage from SMPS is given to the C0. While Y1, Y2 are connected to positive ends of Relay



B. Switched-Mode Power Supply

Specifications: Current: 8.8AmpVoltage:24V

C. Inductive Sensor

It is used to sense one revolution of shaft of DC motor. When DC motor completes onerevolution it is sensed by inductive which in turn sends signals to the PLC.

D. DC to DC convertor

As the output coming from SMPS is 24V and our motor and Beep requires 12V supply we have use DC to DC convertor. After converting the voltage, the output of DC convertor is given to motor and beep

E. Beep

A beep is used to alert the batsman that ball will be delivered in short time

F. Switches

Switches are provided so that user can select any one of the time interval which he/she wants.

G. LED

16 mm LED is being used which indicated which switch is ON/OFF

IV. Calculations

For the proposed Auto feeding Ball throwing Machine we need a dc motor. For pushing the ball into the machine, we need to calculate the required torque.

a) Torque Calculation

Mass of the Ball (m)=150gm=0.15 kgCoefficient of Friction(μ)=0.4 Diameter of Ball(d)=70mm

Force due to weight= m*g

=0.15*9.81

= 1.4715 N

Normal Force = Force due to weight

=1.4715 N

Force due to Friction = μ* Normal Force

=0.4*1.4715

=0.5866 N

Total Force = Force due to weight + force due to friction

= 1.4715+0.5866

=2.0601 N

Perpendicular Distance=76.75 mm

Perpendicular distance * total force

= 76.75*2.0601

=158.11 N-mm

=0.15811 N-m

The torque required to push the ball into the machine is 0.15811 N-m

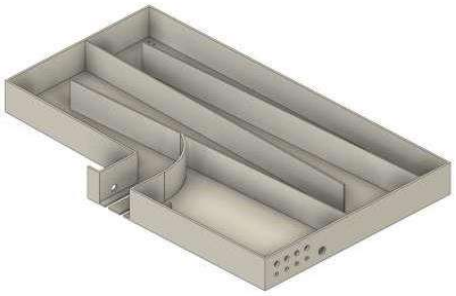
We have used Storage rack made up of acrylonitrile butadiene styrene (ABS). Its is required tocalculate quantity of balls that can be stored into the storage rack

b) Closure:

This chapter briefs about the torque calculation

V.FIGURES AND TABLES

V.1 CAD Model of mechanism



V.2 Storage Rack

V.3 Final Modules

CONCLUSION

➢ Cost of ball throwing machine around 2.7 lack which is too expensive because it developed byforeign manufacturers, but there has no existing machine that has Auto feeder mechanism installed. So that is not affordable to local Academy and institute

level practice purpose.

- It becomes a hectic job for a person to feed balls one by one into the ball throwing machine. For this purpose, there is a need to affordable Auto feeder Mechanism for Cricket Ball throwing machine

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DESIGN AND DEVELOPMENT OF ONION SEGREGATION MACHINE

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ABSTRACT
Onion is an important vegetable crop which is seasonal in production but grown all over the India. According to journey of market six of bulbs plays an important role in its price large size onion bulbs produced in Gujarat, Maharashtra, Karnataka & Tamilnadu and are exported from Mumbai & Kolkata ports to Dubai, Kuwait, Saudi, Singapore. Small size onion bulbs produced in Karnataka & Andhra is exported from Chennai to Singapore, Srilanka and Other countries while medium bulb type onion stored for long term storage. Roller segregation is fast & accurate but a little damage to bulbs. Literally it is solution over consuming, labor intensive which improves economic considerations of farmer. Grading of onion bulb is usually important steps in processing operations which brings overall improvement not only in Marketing system but also in raising its quality. In India traditional method is followed which is manual segregation. Onion grades were developed but that cost more than usual & is not affordable by ordinary farmers. So, keeping in view we have designed onion segregator based on chain arrangement.
Keywords: Segregation, Onion Bulbs,PLA, 3D Printing, Onion Graders.

1. Introduction

Onion is one of the important crops cultivated in India. India is the second largest producer of onion in the world.

Improvement of quality and value addition of agricultural produces has gained higher concern in recent times in India due to creation of new opportunities for sale of agricultural commodities in open market at competitive prices. Until now almost everywhere in India, the onion segregation is done manually.

This manual segregation increases the cost of onion tremendously to customers and to producers. The manual segregation also needs more labour. Now the need of automation arrives in the agricultural sector also due to the higher competition from across the globe. So, we have to increase the quality and efficiency of the segregation process. This type of new ideas will surely help a lot of people, to focus back to agriculture and this will lead to new innovations in the agriculture sector. Segregation according to the sizes is an important value adding technique for most agricultural products. And also, the price of the many agricultural products varies significantly according to their uniformity in size. Uniformity in size not only makes the product more attractive to consumers but also improve its processing qualities. In order to achieve uniform size of onion the proper segregation is required, with the aid of automation that goal can be achieved.

A simple, manually operated machine is designed and developed for grading onion bulbs. The grader was fabricated in the Arunoday Enterprises, Kolhapur. The following factors were considered while developing the grader: (a) Suitability of machine for the grading of onion bulbs in the fields. (b) Ease of operation and maintenance. (c) Energy efficient and low cost of operation. (d) Minimum damage to bulbs.

The developed prototype On-farm Onion Grader Unit consisted of (i) Feed hopper, (ii) Rollers, (iii) Collection unit, (iv) Mainframe

Feed hopper

The horizontal section of feed hopper is rectangular in shape and is fabricated out of PLA Polylactic Acid of 5 mm thickness. The hopper was inclined for smooth delivery of bulbs over rotating rollers.The feed hopper was mounted on the main frame to feed the onion bulbs on to the grading unit.

Collection unit

The Collection unit partitioned into four compartments on one side. The first compartment was located from the start of feed end of the roller, while the second and the third and fourth compartment were provided at some distances respectively, from the feed end to the rear end. This was arranged based on the required grade of onion and space between the rollers available above the compartment. The overall dimension of the collection unit is measured in millimetres. The collection unit is provided with vertical dividers to guide the bulbs in appropriate compartments.

Main frame

The feeding hopper unit and the collection unit all are assembled on a structural frame. The main frame of the machine was fabricated out of rectangular bar mild steel. The machine is having length of 30-inch, width of 7 inch and height of 15 inch. We have assembled some of the parts with each other with the help of glue gun.

Roller

There are four rollers which are mounted on the four shafts. These shafts are mounted parallelly. Over the first roller we have made holes of diameter 15 mm, 25 mm diameter holes over second roller, 35 mm diameter holes over second roller, 45 mm diameter holes over second roller for the purpose of separation of onion through holes.

Material Selection

PLA

1. PLA material boasts high strength and stiffness, comparable topolystyrene (PS) at room temperature.
2. Energy consumption by PLA while production is less than other plasticand greater thermal processing capabilities.
3. It is a thermoplastic which means it can be reheated several times withoutany significant change in the mechanical properties.

ABS

1. High impact strength and ductility, which combine to give exceptional toughness.
2. Good chemical resistance.

3. Design of Machine

CATIA V5 (Version 5) is primarily a CAD software used for parametric and non-parametric modelling. It is capable of working alongside products with different brands. CATIA V5 is modular, meaning customers can buy as much or as little functionality as required.

We have designed the total model of our project on CATIA V5 Software.

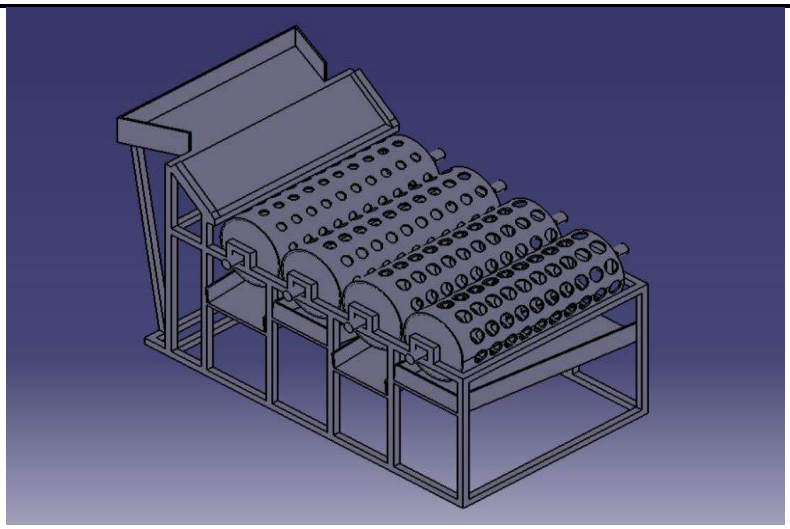

Figure 1: Design of Machine on CATIA V5 Software.

3.Development of Machine

Rollers

Rollers of the machine are made using material called PLA (PolylacticAcid).

Figure 1: Different Types of Rollers.

Figure 2: Top View of Machine

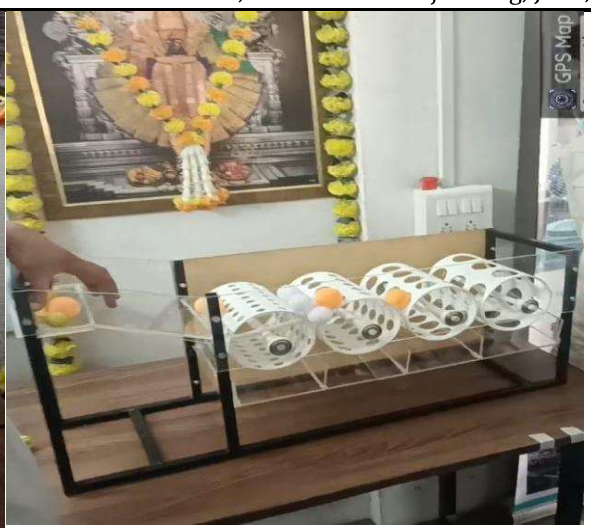

Figure 3: Front View of Machine.

4. Result and Discussion

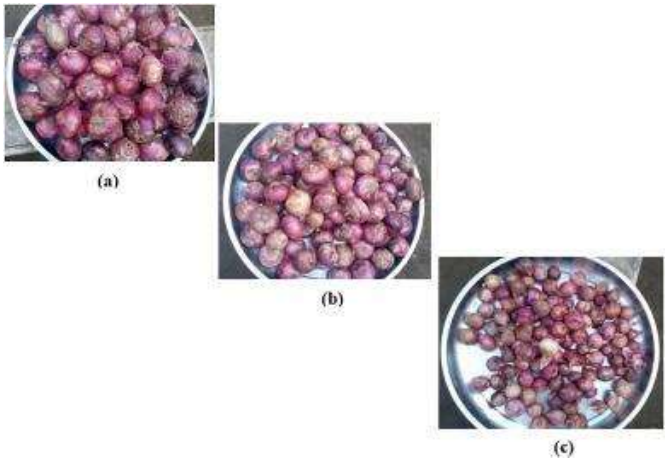

Figure 4: Result after Sorting.

The first roller separates the onion having diameter size less than 15 mm, second roller separates the onion having diameter size less than 25 mm, third roller separates the onion having diameter size less than 35 mm and fourth roller separates onion having diameter size less than 45 mm.

The percentage of feed collected and percentage of target onion size collected from a particular outlet was calculated by using the following relationships:

Feed collected (%)= (Weight of onion in the outlet (kg) /Weight of feed (kg)) * 100

[Target onion size collected (%)] = Weight of target size collected in the outlet (kg) / Weight of onion in the oulet (kg) x100

Bulb damage

The mechanical damage to onion bulbs during grading operation was determined by visual observation.

The graded bulbs were manually sorted for damage of bulbs due to abrasion and the weight of total damaged bulbs collected in each outlet was noted. Thereafter, the damage percentage was computed using the following relation:

Mechanical damage (%) = (D/W)×100

Where,

D = Weight of damaged onion bulbs in all outlets, kg

W = Total weight of onion bulbs in all outlets, kg

Grading capacity

The grading capacity of the onion grader was estimated by weighing the total onion bulbs collected per unit time from the all outlets of the grader and was calculated by using the following relationship:

Grading capacity (kg/h) = Weight of onion bulbs collected in all outlets(kg) / Grading time (h)

5. Conclusions

An efficient, fast, precise and automatic system for Grading of different varieties of onions. It can be an alternative to the traditional methods with better productivity and effectiveness. We have developed and implemented a working model of onion grading machine successfully with very effective performance. From this model of onion grading machine, we have studied many the mechanical concepts which comes under this project.

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