



Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune
(Maharashtra)

Key Indicator: 2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning level of each student and then organizes dedicated program for advanced and slow learners.

Response

To get familiar with new environment of College/ Institute we organize induction program for first year and direct second year students. Students are given detailed information about examination structure, grading system, academic calendar and passing criteria.

1. Slow and advanced learner identification is done by each subject teacher by referring to the Policy designed for the same by College.

Learning level of student is studied as student comes from various backgrounds through centralized admission process.

Process for analyzing learning level of student is as follows:

1. On basis of HSC marks for first year student and previous years marks for SE, TE and BE and class test-1 marks. Slow and Advanced learners are identified after one month of starting of academics.
2. The student more than 75% marks are considered as advanced learner and student below 40% marks is considered as slow learner.

2. The various activities for slow and advanced learners are then conducted by the respective subject teacher.

Activities for slow Learners:

1. Remedial Coaching Classes
2. Prerequisites Lectures and Extra lecture for Slow Learners
3. Provision of Question Paper Solutions, Hand –Written Notes, and Question Bank for all Subjects.
4. Personal Attention in Learning Levels through TG.

Activities for Advanced Learners:

1. NPTEL Videos Availability

2. Quiz Competition
3. Arrangement of Seminar / Workshop / Guest Lectures
4. Industry Sponsored Internships.

INDEX

| Sr. No. | Activities for Slow and Advanced Learner |
|---------|--|
| | Sample Documentary Evidences |
| 1 | Arrangement of First Year Induction Program after Admission to Aware/Set the Students in New Environment |
| 2 | Identification Policy for Slow and Advanced Learners |
| 3 | Sample List of Advanced and Slow Learner |
| | Activities for Slow Learners |
| 4 | Extra Lecture for Slow Learners |
| 5 | Prerequisites Lectures for Subject |
| 6 | Provision of Question Paper with Solution |
| 7 | Provision of Hand-Written Notes for Subject |
| 8 | Provision of Question Bank for Practice at Home |
| 9 | Personal Attention in Learning Levels through Teacher Guardian |
| | Activities for Advanced Learners |
| 10 | NPTEL Videos Availability for All Subject |
| 11 | Technical Quiz Competition |
| 12 | Arrangement of Seminar/Workshop/Conference for Students |
| 13 | Arrangement of Expert Guest Lectures |
| 14 | Industry Sponsored Internships |
| 15 | Workshop's to Promote Presentation Skills |
| 16 | MOU's with Various Reputed Industries/Institutes |

For more details click on following link

<https://www.rajgad.edu.in/AQAR22-23/Cr2/2.2.1.pdf>



Principal
Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engg.
Dhangeawadi, Pune-412206



1. Induction Program
Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhore, Dist- Pune (Maharashtra)

Date: 05/11/2022

NOTICE

All staffs of First Year Engineering department are hereby informed that, staff meeting is schedule on 06/11/2022 in H.O.D cabin at 1.00 pm to discuss about Induction programme schedule on 10/11/2022 to 18/11/2022.

Meeting Agenda:

- To discuss planning of arrangement of Induction programme conduction.
- Formation of different committee's for smooth conduction of induction function.
- Arrangement in seminar hall.
- About photo shoot.
- Hospitality of guests, students and parents.
- Discussion on annual awareness program on code of conducts.

A. R. Bobade

Prof. A. R. Bobade
Event Co-Coordinator

J. G. Kale

Prof. J. G. Kale
HOD (FE)
Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206

S. B. Patil

Prof. Dr. S. B. Patil
Principal (SCSCOE)
Principal
Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412205





Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

Date: 06/11/2022

NOTICE

All students, teaching and non-teaching staff are hereby informed that, Department of First Year Engineering of RD's SCSCOE organizing Induction Function Programme and annual awareness programme on code of conducts for First Year students from 10/11/2022 to 18/11/2022. All are instructed to participate. Attendance is compulsory to all.

Prof. A. R. Bobade

Event Co-Coordinator

Prof. J. G. Kale

HOD (FE)

Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206

Prof. Dr. S. B. Patil

Principal (SCSCOE)

Principal

Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412 205





Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

INDUCTION PROGRAM

DEPARTMENT: F.E

CLASS: F.E 2022-23

TITLE/TOPIC: Induction Program and Annual awareness Program on Code of Conducts.

DATE: 10/11/2022 to 18/11/2022

DURATION OF EVENT: 5hrs per day

STUDENT/ STAFF PRESENT: 124/15

DEPARTMENT CO-ORDINATOR: Prof. A. R. Bobade

OBJECTIVE: To create awareness in the young minds of the students regarding the unity in diversity & to reduce stress on students. Starting with the new academic session, colleges will greet every student with a 1 week-long 'induction programme' before they start on any study of Engineering semester.

The term induction is generally used to describe the whole process whereby the incumbents adjust to or acclimatize to their new roles and environment. In other words, it is a well-planned event to educate the new entrants about the environment in a particular institution, and connect them with the people in it.

The induction program of Department of First Year Engineering for Sem I of Rajgad Dnyanpeeth's Shri Chhatrapati Shivajiraje College of Engineering, Dhangwadi was held on between **10/11/2022 to 18/11/2022.**



On the first day Thursday, 10/11/2022 of Induction Programme, students reported to college. Registration & welcome of students are done.

The Chief guest for this event is Prof. Udaysheth Gujar ji, also the Principal of RD's SCSCOE Prof. Dr. S.B. Patil & all of the head of departments were present. After this the warm welcome of all the dignitaries was done by the students. In the beginning Saraswati Pujan & Deep Prajwalan is done by Chief Guest, Respected Principal & HOD's of all departments.



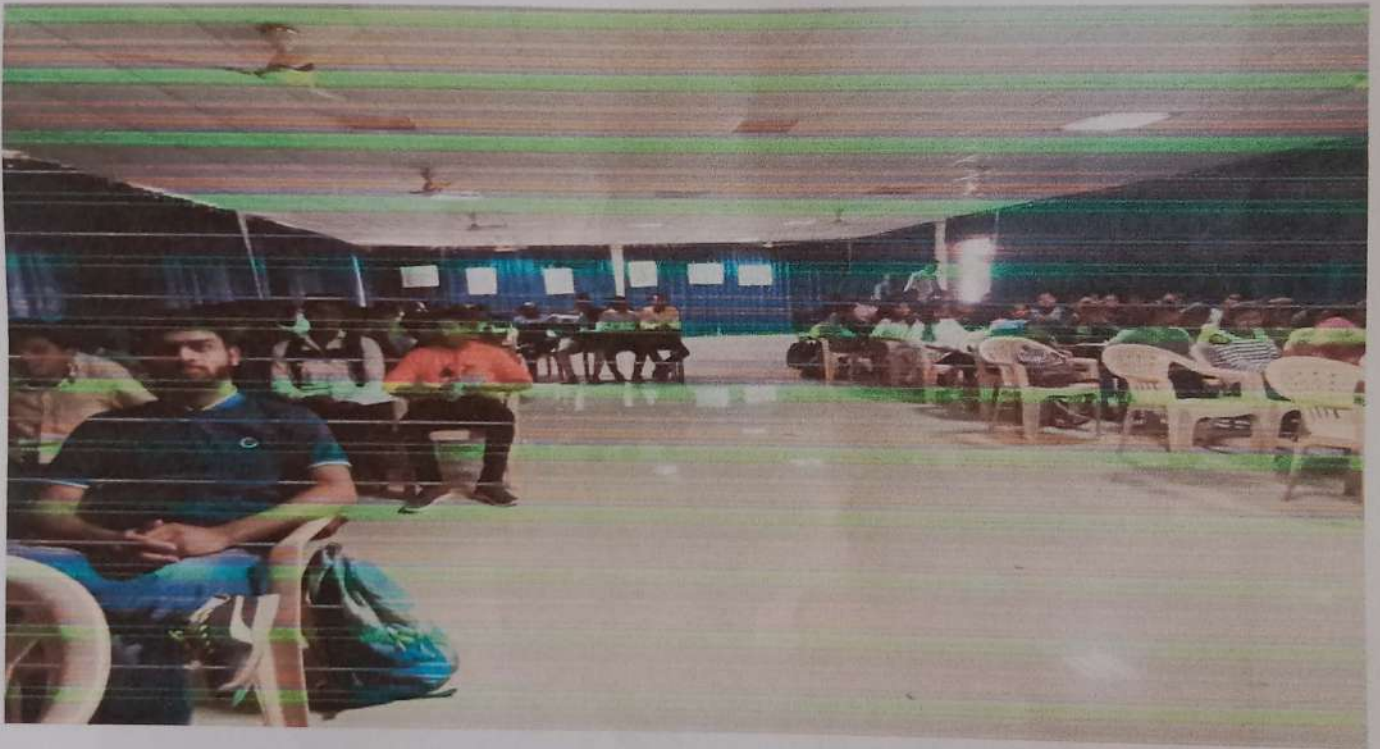
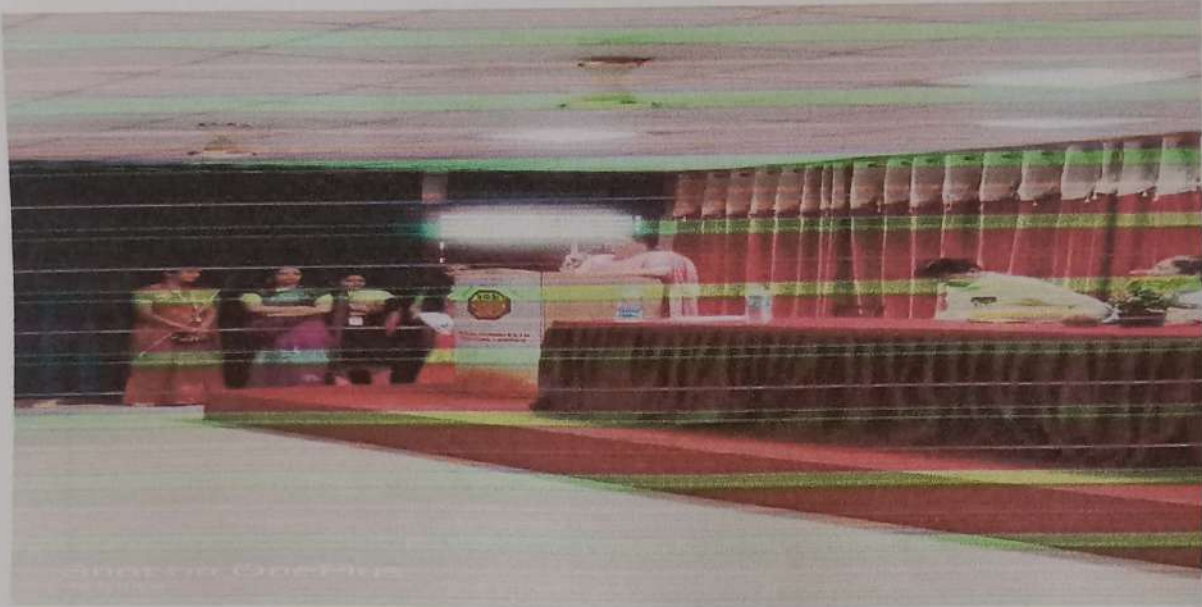
Chief Guest Mr. Udayseth Gujar ji addressed students



Class teachers and TG interacted with newly admitted students



In this session Prof.J.G. Kale discussing the code of conducts and giving brief information about college.



Prof. J.G.Kale(F.E. HOD) Discussing Code of Conduct

At the end of the day, Vote of Thanks is given by Prof. B.P. Tapare from first year department & announced the end of the programme for the day.



DAY 2

On the Second day Friday, 11/11/2022 of Induction Programme, students reported to college. Students went to visit to local places such as Balaji temple, Kapurhol, & Baneshwar temple, Baneshwar etc. to get familiarize the environment nearby college



Visit at Balaji Temple, Kapurhol



Visit at Baneshwar Temple, Baneshwar



On third day Monday, 14/11/2022 of Induction Programme, students reported to college. Guest Lecture by Prof. M. K. Ahirao arranged for the students on the topic of "Tips to improve Mind Power"



In Afternoon session fun fair activities are arranged & all are encouraging students to participate in most of the activities.



Funfair activities

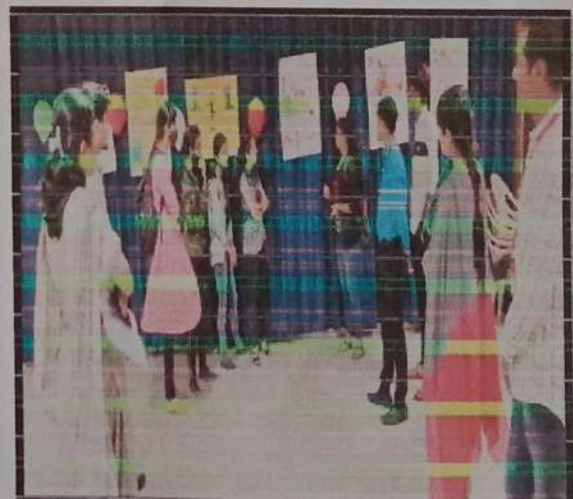


On Fourth day Tuesday, 15/11/2022 of Induction Programme, students reported to college. Expert Lecture by Prof. S. S. Salunkhe



Guidance by Prof. S. S. Salunkhe

In the afternoon session, Students are introduced to technical activities. This session helped students to enhance their ideas beyond their limit. The name of Session is 'Poster Presentation Competition'. For this topic is already given to students. Once the poster were completed exhibition for posters are arranged. Many staff & students of other departments were visited for exhibition. At the last, presentation of their respective posters was given by students & top three posters were selected.



Poster Presentation Competition

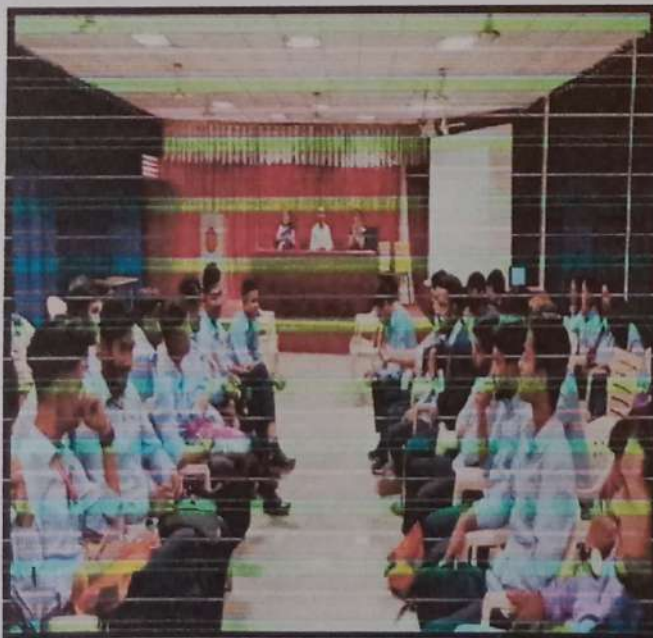


DAY- 5

On Fifth day Wednesday, 16/11/2022 of Induction Programme, students reported to college. Expert lecture about online courses, E- resources, Introduction to paper publication, Project by students (Curriculum & apart from curriculum) by Prof. T. M. Dudhane has been conducted in the morning session for students & in afternoon session of same days the technical activities such as Group discussion, quiz competition & debate competition has been conducted.



Prof. T. M. Dudhane addressing students



Students participated in Group discussion, quiz competition & debate competition



DAY- 6

On Sixth day Thursday, 17/11/2022 of Induction Programme, students reported to college. Expert Lecture by Prof. Dr. S. D. Pasalkar sir arranged for the students on the topic of 'Training & placement in institute'.

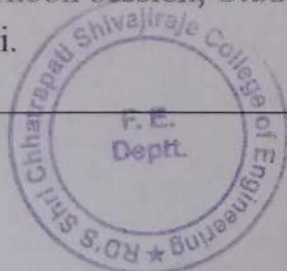


Prof. Dr. S. D. Pasalkar sir addressing students



Swachata Aabiyaan at Adbaalnaath Temple

In the afternoon session, Students are engaged in "Swachata Abhiyan" at Adbaalnaath Temple, Dhangwadi.



DAY- 7

On the Seventh day i.e. on Friday 18/04/2022 the department of First Year Engineering organized the visit to Science Park located at Pimpri Chinchwad for students. The Science Park is a non-formal educational institution to communicate developments in Science & Technology among the masses, and encourage creativity and spirit of enquiry among the students. Apart from providing effective environment for non-formal science education Pimpri Chinchwad Science Park is sure to enthuse and excite the people especially students of the region creating awareness on important topical issues in science, technology and engineering.

The Science park Pimpri Chinchwad (PCMC) consist of 4 galleries –

1. Automobile gallery Showing the journey in automobile engineering — from the invention of a wheel to the latest developments
2. Energy gallery Showing exhibits on energy, such as solar, mechanical, electrical, etc.
3. Fun science gallery Showing entertainment, science and computers, to understand the basic principles in physics, mathematics, geography, geology, chemistry, bio-sciences and electrical engineering,
4. Climate Change gallery It will also have exhibits of dinosaurs as well as inflatable dome planetarium with a seating capacity of 15 to 20. Basic information about astronomy, stars and planets.

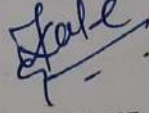


In this way, Rajgad Dnyanpeeth's Shri Chhatrapati College of Engineering organized & conducted the induction function for first year students in the starting of Semester I of A.Y. 2022-23.



Prof. A. R. Bobade

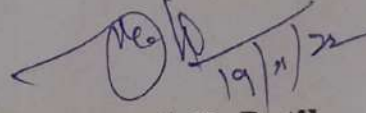
Event Co-Coordinator



Prof. J. G. Kale

HOD (FE)
Head of Department

First Year Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206



Prof. Dr. S. B. Patil

Principal (SCSCOE)

Principal

Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412 205





Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
Gat No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.

DEPARTMENT OF FIRST YEAR ENGINEERING
Academic Year: 2022 - 23, Sem .er - I

Induction Program

REGISTRATION SHEET

Class: FE Induction Function
Activity: _____
Day & Date: Friday, 10/11/2022

| Sr. No. | Name of Student | Branch | Student's Contact No. (WhatsApp No.) | Parent's Contact No | Email Id | Signature |
|---------|--------------------------|--------------|--------------------------------------|---------------------|--------------------------------|-----------|
| 1] | Omkar Vivek Desai | E & TC | 9371538325 | 9579771421 | desaioml592905@gmail.com | |
| 2] | Ganesh Shankar Tadhar | E & TC | 9209098404 | 9970334728 | tadharanv21@gmail.com | |
| 3] | Pravin Ravindra Khatke | E & TC | 8261988228 | 9049158166 | pravin.khatke18@gmail.com | |
| 4] | Abhinav Anandam Thombare | E. Civil. | 8177847923 | 9823606405 | abhinav.thombare42@gmail.com | |
| 5] | Nikhil brijesh mishra | CS | 7499345228 | 9823336685 | nikhilbrijesh@gmail.com | |
| 6] | Nirhi Santosh Kinare | Computer | 93222562081 | 9921519245 | nirhikinanorek@gmail.com | |
| 7] | Asahil madhukar Ambale | F & TC | 9096483255 | 9028449289 | ambalesahil@gmail.com | |
| 8] | Nirrajon Nomdev Bandal | F & TC | 8668386396 | 7972985003 | nirrajonnomdevbandal@gmail.com | |
| 9] | Avishkar dohtaray Tadhar | Mechanical | 9529828024 | 95271547658 | avishkar_tadhar@gmail.com | |
| 10] | Avi Aditya S. Ranjane | E & TC | 8625812969 | 9130454991 | adityaranjane3@gmail.com | |
| 11] | shaheer S Rauf | E & TC | 9421859748 | 9764200207 | shaheer_s_k@gmail.com | |
| 12] | Sahil Randal | E & TC | 9763627042 | 989081983 | sahilrandal@gmail.com | |
| 13] | Ravi Yash Suresh | Computer - E | 9699234251 | 9923843518 | yashmail369@gmail.com | |



| Sr. No. | Name of Student | Branch | Student's Contact No. (WhatsApp No.) | Parent's Contact No | Email Id | Signature |
|---------|---------------------------|--------|--------------------------------------|---------------------|------------------------------------|-----------|
| 1 | Prasad Daga & Parth | Com. | 8010515856 | 8459131615 | Parth.Prasad@gmail.com | Parth |
| 2 | Atharv Nilesy Pissal | Mech | 9175794738 | 9767101706 | Atharv Pissal | Atharv |
| 3 | Sahil Suryakant Dhama | Mech | 8806507148 | 8010095631 | Sahil dhama1211@gmail.com | Suryakant |
| 4. | Saurabh shivaraj Bhavde | com. | 9309854770 | 7219824365 | Saurabh sb@gmail.com | Saurabh |
| 5] | Rahul Ravul Ashok | Mech | 9008687563 | 9881507602 | RahulRavul2551570 | Rahul |
| 6] | Yurraj S. Tadhekar | Mech | 7298291903 | 7498195002 | yurraj.tadhekar2270@gmail.com | Yurraj |
| 7] | Sonawane Pranav S. | Elect | 9970626974 | 9970696974 | Pranavsonawane1414@gmail.com | Pranav |
| 8] | Shubham Ganpat Puroor | Mech | 7350682580 | 7040779406 | Shubham120@gmail.com | Shubham |
| 9] | Sarthak Jitendra Bhargava | CE | 7620494811 | 9604352892 | sarthakbhargava@gmail.com | Sarthak |
| 10] | Aditya Shankar Khopde | CE | 9322984792 | 9960068617 | adityakhopde66@gmail.com | Aditya |
| 11] | Sarthak Dip Shindade | Mech | 9356196201 | 9557881025 | Shivataresarthakshindade@gmail.com | Sarthak |
| 12] | Vedant Mahan Shone | COM | 9354628961 | 9886030162 | Vedantgbonale@gmail.com | Vedant |
| 13] | Prashant Shriyog Kamble | Elect | 9168322198 | 9765152894 | kamblprashant@gmail.com | Prashant |
| 14] | Mayur Daasharath Manbhare | Elect | 74220978518 | 9604394832 | mayurmandhara4@gmail.com | Mayur |
| 15] | Omkar Dattatraya Mudehar | Mech | 9322152994 | 7794106227 | omkardhane588@gmail.com | Omkar |
| 16] | Saheerud Shivaji Saldakar | COM. | 8167270613 | 9819977475 | saheerud.saldakar14@gmail.com | Saheerud |
| 17] | Ranveer Rajendra Patil | COM. | 8530060746 | 9049592999 | ranveer52931@gmail.com | Ranveer |
| 18] | Aditya Rangrao Shirde | COM. | 7445012060 | 98222939014 | adishirde2060@gmail.com | Aditya |
| 19] | Ganesh Hari Dumbre | Elect | 9096094983 | 9422244156 | ganeshdumbre1024@gmail.com | Ganesh |
| 20] | Harsh Santosh Pande | COM. | 9665317664 | 9325357064 | pandeharshh139@gmail.com | Harsh |

No. Of Students Present: ~~20~~

Activity Coordinator

P. P. P. P.



Shirde

HOD
Head of Department

First Year Engineering

Shri Chh. Shivaji Maharaj College of Engg.

Dhangaewadi, Pune-412206



Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
 Gat No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.

DEPARTMENT OF FIRST YEAR ENGINEERING
 Academic Year: 2022 - 23, Semester - I

Induction Program

REGISTRATION SHEET

Class: FE Activity: Induction Function Day & Date: 11/11/22 - Friday

| Sr. No. | Name of Student | Branch | Student's Contact No. (WhatsApp No.) | Parent's Contact No | Email Id | Signature |
|---------|-----------------------------|----------|--------------------------------------|---------------------|-----------------------------|----------------|
| 1 | Chayan Sakshi Santosh | E & TC | 8161593268 | 9975199234 | - | as.s.Chayan. |
| 2 | Jeshe Dnyaneshwari | E & TC | 9552052831 | 8459289620 | - | D.S.Jeshe |
| 3 | chandanshiv shradha | E & TC | 9819928534 | 9823100209 | - | SH.chandanshiv |
| 4 | Sakshi Pawar. | E & TC | 8180922603 | 7387880346 | SakshiPawar2003200 | gawar. |
| 5 | Shravani Deepak Jadhav | E & TC | 9096377472 | 9657178953 | jadhavshravani1704@ | shri |
| 6 | Ashwini Akavath Jagtap | E & TC | 8080025838 | 9699362202 | shirnothjagtap03@gmail.com | A.f.jagtap |
| 7 | Divya Rupesh Babar | E & TC | 8010578227 | 9309813913 | divyababar689@gmail.com | D.R.Babar |
| 8 | sanika santosh Jagtap | computer | 8459250498 | 9146918545 | sanikajagtap002@gmail.com | Shigtap |
| 9 | Manali Sudam Makar | E & TC | 8767629115 | 9545596669 | piagsudam04@gmail.com | makar |
| 10 | Abhaidkar Diya Anil | Computer | 9503506446 | 8605936446 | diyahabaidkar@gmail.com | Abhaidkar |
| 11 | Mahadik vibhavi chandrakant | computer | 7028121252 | 98502257968 | - | Abhaidkar |
| 12 | Gaitwad Shrutika Bhanjay | E & TC | 9699243131 | 935642669 | - | Shrutika |
| 13 | Bhargude Meenasi Hanumanth | Mech | 9552900247 | 9552900247 | - | Bhargude |
| 14 | Sonawane Rutuja Prasad | Computer | 99122477335 | 9960635460 | rutujasonawane171@gmail.com | Sonawane |

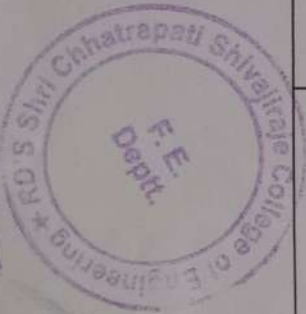


Shri

| Sr. No. | Name of Student | Branch | Student's Contact No. (WhatsApp No.) | Parent's Contact No | Email Id | Signature |
|---------|--------------------------|------------|--------------------------------------|---------------------|-------------------------------|-------------|
| 1 | Maheshwari Dube | Mech. | 9822615608 | 9579135543 | swatidube46@gmail.com | |
| 2 | Shrutika | | | | | |
| 3 | Shrutika Gorkh Gargal | Computer | 8856816923 | 9769573042 | shrutikagargal4@gmail.com | S.G. Gargal |
| 4 | Tanni Shamrao Ravlekar | Computer | 9527742536 | 9011228234 | tanniravlekar1894@gmail.com | |
| 5 | Sakshi Sambhaji mane | Computer | 86214953299 | 9096263299 | manes2701@gmail.com | |
| 6 | Zagade Rucha Mahesh | Mech | 9597234464 | 7507568139 | ruchazagade02@gmail.com | |
| 7 | Mare Payal Sanjay | Computer | 9780778022 | 9693723962 | payalmore499@gmail.com | |
| 8 | Taavi Hanwant Ma Hanwani | E&TC | 9699935847 | 9822579684 | tanvimahamuni7@gmail.com | |
| 9 | Siddhi Sunil Yadav | Mechanical | 7350443787 | 9307614683 | siddhisunilyadav@gmail.com | S.S. Yadav |
| 10 | Nevase Sakshi Dipak | E&TC | 7972405568 | 9112837944 | sakshinevase78@gmail.com | |
| 11 | Jadhav Aditi Bajarang | Mech | 8591273514 | 9082217663 | aditijadhav4257@gmail.com | |
| 12 | Gaire Shruti Sanjay | E&TC | 9322938138 | 9922640054 | shrutigaire@gmail.com | |
| 13 | Bhosale Vaishnavi Vijay | Computer | 9021297317 | 9689459939 | vaishnavibhosale379@gmail.com | |
| 14 | Bandal Aeyga Jayendra | E&TC | 9579490508 | 9373420291 | aeygabandal257@gmail.com | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

No. Of Students Present: 12/24

Activity Coordinator



HOD
Head of Department
First Year Engineering
Shri Chh. Shivaji Maharaj College of Engg.
Dhansawadi, Pune-412206

2. Policy for Slow and Advanced Learners



Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
S.No.237, Dhangwadi, Tal-Bhor, Dist-Pune

DEPARTMENT OF CIVIL ENGINEERING

Academic Year (22-23)

Policy for Advanced and Slow Learners based on Percentage:

- 1) Students who secured more than 75% in previous End semester and Unit test Score is above 20 marks are grouped under the category of Advanced Learners.
- 2) Students in the range 51% to 74% are grouped as Average Learners.
- 3) Students who obtained below 50% in previous End Sem and Unit test score below 12 are grouped under slow learners.

Policy for Advanced and Slow Learners based on SGPA:

- 1) Students whose previous End Semester results are above 7.5 SGPA and Unit Test I score is above 20 marks are classified Advanced Learners.
- 2) Students below 7.4 SGPA are classified as Average Learners.
- 3) Students who have 2 or more backlog in previous End semester results and Unit Test I score is below 12 marks are grouped as Slow Learners.





DEPARTMENT OF CIVIL ENGINEERING

Academic Year : 2021-22, Semester - I

SLOW AND ADVANCED LEARNER IDENTIFICATION

Course Code :

Class :B.E.

Course Name:QSCT

Name of Faculty: Asst. Prof.P.G.Gaikwad

| Roll No. | Name of Student | Unit Test I (Out of 25) | 50% Weightage | Overall of Marks in Previous Exam (SCPA) | 25% Weightage | Class Observation (on the Scale of 1-10) | 25% Weightage | Total % Weightage (out of 100) | Remark |
|-----------|--------------------------|-------------------------|---------------|--|---------------|--|---------------|--------------------------------|--------|
| BC120D001 | ADSUJI SHREERAJ VIJAY | 24 | 48 | 8.65 | 22 | 6 | 15 | 85 | |
| BC120D002 | AGJAL EKNATH PARAJI | 20 | 40 | 8.7 | 22 | 7 | 18 | 79 | |
| BC119F003 | ANBHORE TUSHAR ASHISH | 14 | 28 | 8.7 | 22 | 5 | 13 | 62 | |
| BC120D004 | BANDAL NIKHIL BHARAT | 13 | 26 | 8.91 | 22 | 5 | 13 | 61 | |
| BC120D005 | BANDAL SHUBHAM BABURAO | 17 | 34 | 8.83 | 22 | 7 | 18 | 74 | |
| BC119D006 | BHAGWAT YOGESH SHRIRANG | 20 | 40 | 8.48 | 21 | 6 | 15 | 76 | |
| BC120D007 | BHANDALKAR PUJA MANSING | 15 | 30 | 8.96 | 22 | 9 | 23 | 75 | |
| BC118F008 | BHILARE SAURABH MARUTTI | 25 | 50 | 8.35 | 21 | 5 | 13 | 83 | |
| BC120D010 | CHAUDHARI VIVEK RAJENDRA | 12 | 24 | 8.74 | 22 | 6 | 15 | 77 | |
| BC120D011 | CHAVAN ANIKET KESHAV | 23 | 46 | 8.78 | 22 | 6 | 15 | 61 | |
| BC120D012 | CHAVAN KIRAN YUVRAJ | 8 | 16 | 8.39 | 21 | 5 | 13 | 49 | |
| BC120D013 | CHAVAN ROSHAN NAMDEV | 8 | 16 | 4.ATKT | 0 | 2 | 5 | 21 | |
| BC120D014 | CHAVAN VIKAS KASHINATH | 20 | 40 | 8.7 | 22 | 7 | 18 | 79 | |
| BC120D015 | CHIKANE JAY DATTATRAY | 9 | 18 | 8.43 | 21 | 5 | 13 | 52 | |
| BC120D016 | CHOUGULE OMKAR BALASAHEB | 23 | 46 | 8.91 | 22 | 8 | 20 | 88 | |
| BC120D017 | DEVKATE SAGAR SIDHU | 24 | 48 | 8.83 | 22 | 5 | 13 | 83 | |
| BC119F018 | DHADVE NIKHIL DILIP | AB | 0 | 8.17 | 20 | 6 | 15 | 35 | |
| BC120D019 | DHAYGUDE JAYESH SAMBHAJI | 8 | 16 | 8.04 | 20 | 5 | 13 | 49 | |
| BC120D020 | GADE ROHAN RAJENDRA | 9 | 18 | 1.ATKT | 0 | 5 | 13 | 31 | |
| BC120D021 | GUJAR AMOL RAJENDRA | 12 | 24 | 8.78 | 22 | 7 | 18 | 63 | |
| BC120D022 | JADHAV AJIT SANJAY | 24 | 48 | 8.87 | 22 | 5 | 13 | 83 | |
| BC120D023 | JADHAV SHITAL SUBHASH | 20 | 40 | 8.826 | 22 | 6 | 15 | 77 | |
| BC120D024 | JADHAV SHUBHAM NAVANATH | 14 | 28 | 8.3 | 21 | 6 | 15 | 64 | |
| BC118F025 | JAIN KETAN NARENDRAKUMAR | 13 | 26 | 8.91 | 22 | 6 | 15 | 63 | |
| BC120D026 | JAMHARDE SANKET PRAKASH | 17 | 34 | 1.ATKT | 0 | 7 | 18 | 52 | |
| BC119F027 | KADAM PRATIK SATISH | 20 | 40 | 8.87 | 22 | 8 | 20 | 82 | |
| BC119F028 | KALE RUTUJA DNYANESHWER | 10 | 20 | 8.91 | 22 | 6 | 15 | 57 | |
| BC120D029 | KARALE PRAVIN SUDHIR | 25 | 50 | 9.09 | 23 | 9 | 23 | 95 | |
| BC120D030 | KATTA SACHIN SANJU | 20 | 40 | 8.83 | 22 | 7 | 18 | 80 | |
| BC119F031 | KAZI MUJEEB ARSHAD | 12 | 24 | 8.96 | 22 | 7 | 18 | 64 | |
| BC120D032 | KOLEKAR AKSHAY DATTATRAY | 23 | 46 | 8.91 | 22 | 5 | 13 | 81 | |
| BC120D033 | KOLI MAYURESH SANJAY | 24 | 48 | 8.96 | 22 | 5 | 13 | 83 | |
| BC119F034 | KSHIRSAGAR SAURABH SUNIL | 16 | 32 | 8.57 | 21 | 6 | 15 | 68 | |
| BC120D035 | KUKADE MANOJ ARVIND | 13 | 26 | 1.ATKT | 0 | 4 | 10 | 36 | |



| Roll No. | Name of Student | Unit Test I (Out of 25) | 50% Weightage | Overall of Marks in Previous Exam (SGPA) | 25% Weightage | Class Observation (on the Scale of 1-10) | 25% Weightage | Total % Weightage (out of 100) | Remark |
|-----------|-------------------------------|-------------------------|---------------|--|---------------|--|---------------|--------------------------------|--------|
| BC119F036 | LOKHANDE VAIBHAV DILIP | 21 | 42 | 9 | 23 | 5 | 13 | 77 | |
| BC120D037 | MADGULE SANKET RAJARAM | 19 | 38 | 9.04 | 23 | 7 | 18 | 78 | |
| BC119F038 | MAHANGARE PRAKASH SUDAM | 22 | 44 | 8.78 | 22 | 7 | 18 | 83 | |
| BC120D039 | MANE AMIT JAGDISH | 20 | 40 | 8.87 | 22 | 9 | 23 | 85 | |
| BC120D040 | MANE NAVANATH SOMANNA | 14 | 28 | 7.96 | 20 | 7 | 18 | 65 | |
| BC119F041 | MOHITE OMKAR SAMBHAJI | 23 | 46 | 9.04 | 23 | 6 | 15 | 84 | |
| BC120D042 | MOHITE SHITAL SHAMARAO | 20 | 40 | 9.43 | 24 | 7 | 18 | 81 | |
| BC120D043 | MORE GOURI PRAVIN | 23 | 46 | 8.7 | 22 | 6 | 15 | 83 | |
| BC120D044 | NIGADE ATHARVA VIJAY | 24 | 48 | 1.ATKT | 0 | 6 | 15 | 63 | |
| BC120D045 | PANASARE SHUBHAM NAVANATH | 8 | 16 | 8.87 | 22 | 5 | 13 | 51 | |
| BC120D046 | PAWAR SAYALI RAVINDRA | 24 | 48 | 9.04 | 23 | 6 | 15 | 86 | |
| BC119F047 | PAWAR VISHAL SANJAY | 17 | 34 | 8.91 | 22 | 7 | 18 | 74 | |
| BC120D048 | PAYGULE SHUBHAM SANJAY | 23 | 46 | 8.91 | 22 | 9 | 23 | 91 | |
| BC120D049 | PHARANDE ATISH ASHOK | 19 | 38 | 8.52 | 21 | 6 | 15 | 74 | |
| BC120D050 | PISAL PRATIBHA UMESH | 9 | 18 | 8.7 | 22 | 5 | 13 | 52 | |
| BC120D051 | PISAL SNEHAL CHANDRASHEKHAR | 25 | 50 | 8.96 | 22 | 9 | 23 | 95 | |
| BC120D052 | POWAR NAMDEV TIMANNA | 11 | 22 | 8.96 | 22 | 5 | 13 | 57 | |
| BC120D053 | RAUT SHUBHAM SANJAY | AB | AB | 2.ATKT | 0 | 4 | 10 | 26 | |
| BC119F054 | SHILMKAR MONIKA UDAY | 12 | 24 | 8.87 | 22 | 5 | 13 | 59 | |
| BC119F055 | SHINDE ADITYA NANDKUMAR | 24 | 48 | 8.87 | 22 | 7 | 18 | 88 | |
| BC120D056 | SHINDE SHIVANI ASHOK | 24 | 48 | 8.87 | 22 | 5 | 13 | 83 | |
| BC120D057 | SHINDE SONAM SUBHASH | 15 | 30 | 8.87 | 22 | 6 | 15 | 67 | |
| BC120D058 | SURYAWANSHI ROHIT RAJENDRA | 12 | 24 | 8.39 | 21 | 6 | 15 | 60 | |
| BC120D059 | TANK KARTIK CHANDRAKANT | 15 | 30 | 8.35 | 21 | 6 | 15 | 66 | |
| BC120D060 | TARU GANESH KRUSHNAKANT | AB | 0 | ATKT | 0 | 4 | 10 | 10 | |
| BC120D061 | WADMARE ROHIT ISHVAR | 20 | 40 | 8.87 | 22 | 7 | 18 | 80 | |
| BC116D062 | KARCHUNDE RAMESH SUNDERRAO | 14 | 28 | 8.87 | 22 | 6 | 15 | 65 | |
| BC116D063 | TARU SACHIN ASHOK | 13 | 26 | 8.87 | 22 | 6 | 15 | 63 | |
| BC120D064 | NIGADE SANDESH SURESH | 17 | 34 | 8.87 | 1 | 6 | 15 | 50 | |
| BC120D065 | BARGE ABHJEET SUNIL | 20 | 40 | 8.39 | 21 | 4 | 10 | 71 | |
| BC120D066 | NAVGHANE SOURABH SOPAN | 10 | 20 | 8.35 | 21 | 7 | 18 | 58 | |
| BC120D067 | GIRIGOSAVI JYOTI BALU | 22 | 44 | 8.87 | 22 | 5 | 13 | 79 | |
| BC117F068 | KAVACHAT DATTATRAYA ABHIMAN | 20 | 40 | 8.91 | 2 | 6 | 15 | 57 | |
| BC1141069 | RANGOLE PRANIT DNYANESHWAR | 12 | 24 | 9.09 | 23 | 6 | 15 | 62 | |
| BC120D070 | KSHIRASAGAR GAJENDRA SAMBHAJI | 23 | 46 | 8.83 | 22 | 4 | 10 | 78 | |
| BC120D071 | BHAVE PANDU RANGKISHANRAO | 20 | 40 | 8.96 | 22 | 6 | 15 | 77 | |



Prasad.

Signature of Faculty

3. List of Advanced and Slow Learner



Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

DEPARTMENT OF CIVIL ENGINEERING
Academic Year : 2022-23 Semester : II

LIST OF SLOW LEARNERS

Class: B.E

Subject: QSCT

| Roll No. | Name of the Student | Total % Weightage Based on Parameter (out of 100) |
|-----------|----------------------|---|
| BCI20D013 | CHAVAN ROSHAN NAMDEV | 21 |
| BCH19F018 | DHADVE NIKHIL DILIP | 35 |
| BCI20D020 | GADE ROHAN RAJENDRA | 31 |
| BCI20D035 | KUKADE MANOJ ARVIND | 36 |
| BCI20D053 | RAUT SHUBHAM SANJAY | 26 |

Note: Total percentage less than or equal to 45% are the Slow learners

Faculty Sign

P. J. D.



Sign of Faculty

P. J. D.



Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

DEPARTMENT OF CIVIL ENGINEERING
Academic Year : 2022-23 Semester : II

LIST OF ADVANCED LEARNERS

Class: B.E

Subject: QSCT

| Roll No. | Name of the Student | Total % Weightage Based on Parameter (out of 100) |
|-----------|--------------------------------|---|
| BC120D016 | CHOUGULE OMKAR BALASAHEB | 88 |
| BC120D029 | KARALE PRAVIN SUDHIR | 95 |
| BC120D046 | PAWAR SAYALI RAVINDRA | 86 |
| BC120D048 | PAYGUDE SHUBHAM SANJAY | 91 |
| BC120D051 | PISAL SNEHAL CHANDRASHEKHAR | 95 |
| BC119F055 | SHINDE ADITYA NANDKUMAR | 88 |



Sign of Faculty

Chhatrapati



4. Extra lecture for Slow Learners

Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.

DEPARTMENT OF CIVIL ENGINEERING

Academic Year : 2022-23, Semester - II

SCHEDULE OF SLOW LEARNER ACTIVITIES

Class : B.E

Course : Quantity Surveying, Contracts and Tenders

Name of Faculty: Prof.P.G.Gaikwad

| Lecture No. | Date | Time | Activity | Topic/Unit Covered |
|-------------|------------|---------------|---------------|----------------------------|
| 1 | 25/03/2023 | 11 Am-1.00 Pm | Extra lecture | Tendres & Tenders Document |
| 2 | 25/03/2023 | 11 Am-1.00 Pm | Extra lecture | Contacts |
| 3 | 15/04/2023 | 11 Am-1.00 Pm | Extra lecture | Arbitrator |
| 4 | 15/04/2023 | 11 Am-1.00 Pm | Extra lecture | Estimation & Its Methods |

Sign of Faculty





Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S No. 237, Satara-Pune, NH-4, Dhangawadi, Tal. Bhor, Dist. Pune

DEPARTMENT OF CIVIL ENGINEERING

Academic Year : 2022-23

Semester : II

ATTENDANCE OF SLOW LEARNERS

Class: B.E

| Roll No. | Name of the Student | 25/03/2023 | 25/03/2023 | 15/04/2023 | 15/04/2023 |
|-----------|-------------------------|------------|------------|------------|------------|
| BC120D013 | CHAVAN ROSHAN NAMDEV | P | P | A | P |
| BC119F018 | DHADVE NIKHIL DILIP | P | P | P | A |
| BC120D020 | GADE ROHAN RAJENDRA | P | A | P | P |
| BC120D035 | KUKADE MANOJ ARVIND | P | P | A | P |
| BC120D053 | RAUT SHUBHAM SANJAY | P | P | P | A |

Faculty Sign.

P. Jain



Sign of Faculty

P. Jain



DEPARTMENT OF CIVIL ENGINEERING

Academic Year : 2022-23 Semester - II

ASSIGNMENT TO ADVANCED LEARNER

Class : BE

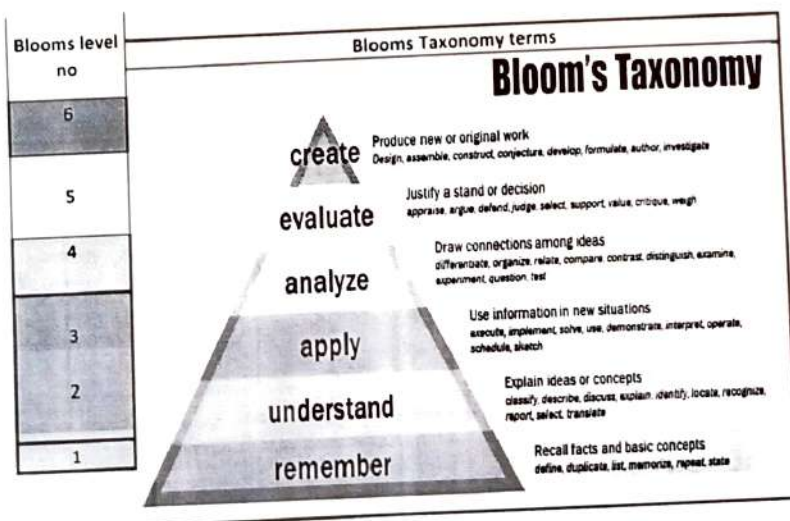
Course : Quantity Surveying, Contracts and Tenders

Maximum Marks:

Name of Faculty: Prof.P.G.Gaikwad

Assignment assessment declaration Date by faculty (on or before):

| Question No. | Question Statement | CO Mapping | Blooms Level | Marks |
|--------------|---|------------|--------------|-------|
| 1 | Define Estimate.State the purpose of estimation | CO 1 | 1 | |
| 2 | Explain in brief A) Supplimentary Estimate B) Revised Estimate | CO 2 | 1 | |
| 3 | State the detailed classification of Estimate What is the objective of preparing preliminary estimate | CO 3 | 1 | |
| 4 | Prepare typical format of measurement sheet & abstract sheet for detailed estimate | CO 4 | 1 | |
| 5 | What is mean by contingencies?How much provision is made for contingencies while preparing estimate. | CO 5 | 1 | |
| 6 | What are the different data is necessary for preparing the estimate? What information is available from such data? | CO 6 | 1 | |
| 7 | Prepare approximate estimate for proposed commercial complex for shopping mall with the following details- Plinth are 1000sqm/floor. height o each floor 4m ; No of storey G+2,cubical content rate Rs 3000/meter sq. 1) Water supply & Sanitary Connection 10% 2) Electrical Connection at 7% 3) Road & Lawn 5% 4) architectural Finish at 3%. | CO 7 | 1 | |
| 8 | Write brief Description as required in the requirement & billing of any item. | CO 8 | 1 | |



Note:

1. Example demonstrate the method for filling the data
2. Blooms Taxonomy is provided for Ready Reference

Sub Incharge sign

Prof. P. G. Gaikwad



Sign of Faculty *Prof. P. G. Gaikwad*



Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.

DEPARTMENT OF CIVIL ENGINEERING

Academic Year :2022-2023

Semester : II

PERFORMANCE IMPROVEMENT OF SLOW LEARNERS

Class: BE

Subject: QSCT

| Roll No. | Name of the Student | Total % Weightage Based on Parameter (out of 100) | Marks Obtained in Online/ Insem Exam (out of 30/50) | Marks Obtained in End Sem Exam (out of 50/70) | Total Marks (out of 100) | Improved / Not Improved |
|-----------|----------------------|---|---|---|--------------------------|-------------------------|
| BCI20D013 | CHAVAN ROSHAN NAMDEV | 21 | 18 | 48 | 66 | Improved |
| BCI19F018 | DHADVE NIKHIL DILIP | 35 | 20 | 48 | 68 | Improved |
| BCI20D020 | GADE ROHAN RAJENDRA | 31 | 12 | 43 | 55 | Improved |
| BCI20D035 | KUKADE MANOJ ARVIND | 36 | 17 | 33 | 50 | Improved |
| BCI20D053 | RAUT SHUBHAM SANJAY | 26 | 19 | 38 | 57 | Improved |



Prasad.



5. Prerequisites Lectures for Subject

Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

S. No. 237, Safara-Pune, NH-4, Dhangawadi, Tal. Bhor, Dist. Pune -412205 (MS), India.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Academic Year: 2022 -23 , Semester - II

THEORY TEACHING RECORD (TEACHING PLAN)

| | | | |
|--|----------|-------------------------------------|-------------------|
| Course Code : 404190 | Class:BE | Name of Faculty: Prof. Bandal J. J. | |
| Course Name: Fiber Optic Communication | | Teaching Scheme: | Th : 3 Hrs / week |

| Lr. No. | Topics to be Delivered | CEO | CO | Date of Plan | Date of Conduction | Remarks of Faculty (incase of variance) | Monitored by | | |
|---------------------------|--|--------------|-------------|--------------------------|--------------------|---|--------------|-----|--|
| | | | | | | | AMC | HOD | |
| UNIT 1 : UNIT NAME | | | | | | | | | |
| 1 | 1.1 Prerequisite Fundamentals of Optical Communication EM spectrum - Optical Spectral bands, Shannon channel capacity, power units (watts, dB & dBm). Block diagram of optical fiber communications link, advantages of optical fibers. | | | 23/1/23 to 25/1/23 | 23/1/23 25/1/23 | | | | |
| 2 | 1.2 Optical Fiber Waveguides:Introduction, Total internal reflection, acceptance angle, numerical aperture, fiber types | CEO 404190.1 | CO 404190.1 | 30/1/23 | 30/1/23 | | | | |



| Sr. No. | Topics to be Delivered | | CEO | CO | Date of Plan | Date of Conduction | Remarks of Faculty (increase of variance) | | Monitored by | | | |
|---------------------------------|------------------------|--|-------------------------|----|--------------|--------------------|---|------------------------|--------------|-----|--|--|
| | | | | | | | | | AMC | HOD | | |
| 3 | 1.3 | mode theory for circular waveguides: overview of modes & key modal concepts (V number, number of modes, power in clad), single mode fibers, cutoff wavelength | CEO 404190, CO 404190.1 | | 31/1/23 | 31/1/23 | | | | | | |
| 4 | 1.4 | Transmission characteristics of optical fibers: attenuation | | | 1/2/23 | 1/2/23 | | | | | | |
| 5 | 1.5 | Transmission characteristics of optical fibers: attenuation material absorption, scattering losses, fiber bend loss, loss due to fiber misalignment, splices and connectors: | | | 2/2/23 | 2/2/23 | | | | | | |
| 6 | 1.6 | signal distortion - intermodal delay, intramodal dispersion or chromatic dispersion, | | | 6/2/23 | 6/2/23 | | | | | | |
| 7 | 1.7 | modal delay, bit rate-distance product, plot of material & waveguide dispersions for standard single mode, | | | 7/2/23 | 7/2/23 | | | | | | |
| 8 | 1.8 | dispersion shifted and dispersion flattened fibers: optical fibers for 5G networks, comparison, | | | 8/2/23 | 8/2/23 | | | | | | |
| UNIT 2 : Optical Sources | | | | | | | | | | | | |
| 9 | 2.1 | Optical Sources: Introduction, wavelength and material consideration (direct & indirect bandgap semiconductor); requirements from optical sources for telecommunication. | | | | | 9/2/23 & 13/2/23 | 9/2/23 & 13/2/23 | | | | |



| Sr. No. | Topics to be Delivered | CEO | CO | Date of Plan | Date of Conduction | Remarks of Faculty (in case of variance) | Monitored by | |
|---------|------------------------|--------------|-------------|-------------------------|-------------------------|--|---------------|----------------|
| | | | | | | | AMC | HOD |
| 10 | 2.2 | CEO 404190.2 | CO 404190.2 | 14/2/23 8 15/2/23 | 14/2/23 8 15/2/23 | | AS | Amc |
| 11 | 2.3 | | | 16/2/23 | 16/2/23 | | AS | Amc |
| 12 | 2.4 | | | 20/2/23 | 20/2/23 | | AS | Amc |
| 13 | 2.5 | | | 21/2/23 8 22/2/23 | 21/2/23 | | AS | Amc |
| 14 | 2.6 | | | 27/2/23 | 27/2/23 | | AS | Amc |
| 15 | 2.7 | | | 1/3/23 2/3/23 | 1/3/23 2/3/23 | | AS | Amc |

UNIT 3 : Photodetectors

| | | | | | | | | |
|----|-----|--------------|-------------|------------------|---------|--|---------------|----------------|
| 16 | 3.1 | CEO 404190.3 | CO 404190.3 | 6/3/23 7/3/23 | 6/3/23 | | AS | Amc |
| 17 | 3.2 | | | 9/3/23 | 9/3/23 | | AS | Amc |
| 18 | 3.3 | | | 13/3/23 | 13/3/23 | | AS | Amc |
| 19 | 3.4 | | | 14/3/23 | 14/3/23 | | AS | Amc |
| 20 | 3.5 | | | 15/3/23 | 15/3/23 | | AS | Amc |
| 21 | 3.6 | | | 16/3/23 | 16/3/23 | | AS | Amc |

UNIT 4 : Fiber Optic Design & WDM Systems

| | | | | | | | | |
|----|-----|--|--|---------|---------|--|---------------|----------------|
| 22 | 4.1 | | | 20/3/23 | 20/3/23 | | AS | Amc |
| 23 | 4.2 | | | 21/3/23 | 21/3/23 | | AS | Amc |



| Sr. No. | Topics to be Delivered | | CEO | CO | Date of Plan | Date of Conduction | Remarks of Faculty (in case of variance) | | Monitored by | |
|---------|------------------------|---|--------------|-------------|--------------|--------------------|--|--|--------------|-----|
| | | | | | | | | | AMC | HOD |
| 24 | 4.3 | Optical system design and performance analysis using software tools. | CEO-404190.4 | CO-404190.4 | 23/3/23 | 23/3/23 | | | } | } |
| 25 | 4.4 | WDM Concepts & Components: Overview of WDM, WDM components: | | | 27/3/23 | 27/3/23 | | | | |
| 26 | 4.5 | 2 x 2 fiber coupler, isolator, circulator, basics of fiber grating filters. | | | 28/3/23 | 28/3/23 | | | | |
| 27 | 4.6 | optical add/drop multiplexer | | | 29/3/23 | 29/3/23 | | | | |
| 28 | 4.7 | architecture of optical amplifiers (SOA, EDFA & FRA). | | | 10/4/23 | 10/4/23 | | | | |
| 29 | 4.8 | Noise figure, OSNR & system impact of ASE. | | | 12/4/23 | 12/4/23 | | | | |

UNIT 5 : Optical Networks

| | | | | | | | | | | |
|----|-----|--|--------------|-------------|---------|---------|--|--|---|---|
| 30 | 5.1 | Optical Network concepts: fundamentals, network terminology, desirable properties | CEO-404190.5 | CO-404190.5 | 13/4/23 | 13/4/23 | | | } | } |
| 31 | 5.2 | elements of an optical network, optical network topology types, advantages of optical network. | | | 17/4/23 | 17/4/23 | | | | |
| 32 | 5.3 | Overview of Optical Networks: FDDI | | | 18/4/23 | 18/4/23 | | | | |
| 33 | 5.4 | SONET/SDH, FTTX, FTTP | | | 19/4/23 | 19/4/23 | | | | |
| 34 | 5.5 | FTTH, PON, GPON, Long haul. | | | 20/4/23 | 20/4/23 | | | | |
| 35 | 5.6 | Metro, Access, Submarine optical networks | | | 24/4/23 | 24/4/23 | | | | |
| 36 | 5.7 | role of fiber optic network in the 5G networks, Current technology trends, standards and challenges. | | | 25/4/23 | 25/4/23 | | | | |



| Sr. No. | Topics to be Delivered | CEO | CO | Date of Plan | Date of Conduction | Remarks of Faculty (in case of variance) | Monitored by | |
|--|---|--------------|-------------|--------------------|--------------------|--|--------------|-----|
| | | | | | | | AMC | HOD |
| UNIT 6 : Optical Fiber Measurements | | | | | | | | |
| 37 | 6.1 Overview of Measurement Standards for fiber optics: Test Equipments for field work: Test support lasers | CEO 404190.6 | CO 404190.6 | 26/4/23 | 26/4/23 | | | } |
| 38 | visual fault indicator, optical power meter, Optical Time Domain Reflectometry (OTDR). | | | 27/4/23 | 27/4/23 | | | |
| 39 | optical spectrum analyzer (OSA), BER test equipment | | | 11/5/23 | 11/5/23 | | | |
| 40 | Measurements; measurement of: optical power, numerical aperture of fiber | | | 21/5/23 31/5/23 | 31/5/23 | | | |
| 41 | fiber attenuation (cutback method, insertion loss method, OTDR), macrobending loss, fiber dispersion | | | 41/5/23 81/5/23 | 41/5/23 81/5/23 | | | |
| 42 | System performance evaluation: Eye Diagram Test, study of OTDR. | | | 10/5/23 15/5/23 | 15/5/23 | | | |

Text Books:



- 1 Gerd Keiser, "Optical Fiber Communications" 4th Edition, Tata McGraw Hill.
- 2 John M Senior, "Optical Fiber Communications" 2nd Edition, PHI.

Reference Book:

1 Djafar K Mynbaev and Lowell L Scheiner, "Fiber Optic Communications Technology", 1st Edition, Pearson Education.

- 2 Uyles Black, "Optical Networks- Third Generation Transport Systems", Pearson Education.
- 3 Govind P Agrawal, "Fiber Optic Communication Systems", 3rd Edition, Wiley India.
- 4 Fredrick C Allard, "Fiber Optics Handbook for Engineers & Scientists", MH International


Start of Semester

| Signature | Date |
|--|---------|
| Course Faculty :  | 18/3/23 |
| HOD  | |

Head of Department
Dept. of E&TC Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune 412 206



End of Semester

| Signature | Date |
|--|---------|
| Course Faculty :  | 19/5/23 |
| HOD  | |

Head of Department
Dept. of E&TC Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune 412 206

Total No. of Questions : 8]

SEAT No. :

P-607

[Total No. of Pages : 3

[6004]-556

B.E. (E & TC)

Fiber Optic Communication

(2019 Pattern) (Semester - VIII) (404190)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) A photodiode has a quantum efficiency of 65% when photons of energy 1.5×10^{-19} J are incident upon it. [6]
- i) at what wavelength is the photodiode operating?
 - ii) Calculate the incident optical power required to obtain a photocurrent of $2.5 \mu\text{A}$.
- b) Define the quantum efficiency and the responsivity of a photodetector. Give the mathematical equations for the same. [6]
- c) Compare PIN diode with APD (any 3 points). [6]

OR

- Q2)** a) An InGaAs PIN photodiode has the following parameters at a wavelength of 1300 nm: $I_D = 4 \text{ nA}$, $\eta = 0.90$, $R_L = 1000\Omega$, and the surface leakage current is negligible. The incident optical power is 300 nW (-35 dBm) and the receiver bandwidth is 20 MHz. Find the following noise terms of the receiver. [6]
- i) The mean-square dark current
 - ii) The mean-square thermal noise current
- b) What is a photodetector? Discuss various requirements of a photodetector to be used in optical communication. [6]
- c) With the help of diagram explain working of p - n photodiode. Draw its output characteristics. [6]

P.T.O.

- Q3)** a) A 1550-nm single-mode digital fiber optic link needs to operate at 622 Mb/s over 80 km without amplifiers. A single-mode InGaAsP laser launches an average optical power of 13 dBm into the fiber. The fiber has a loss of 0.35 dB/km and there is a splice with a loss of 0.1 dB every kilometer. The coupling loss at the receiver is 0.5 dB and the receiver uses an InGaAs APD with a sensitivity of -39 dBm. Excess-noise penalties are predicted to be 1.5 dB. Setup an optical power budget for this link and find the system margin. [6]
- b) Draw and explain simplex point to point optical link. [6]
- c) Illustrate the working of optical amplifier. Enlist the semiconductor materials used for active medium in DFAs. [6]

OR

- Q4)** a) Sketch and explain implementation of a typical WDM network. Enlist some of the active WDM components. [6]
- b) A digital optical fiber system uses an RZ pulse format. An optical fiber link is required to operate over a distance of 10 km without repeaters. The fiber available exhibits a rise-time due to intramodal dispersion of 0.2 ns/km. In addition the APD detector has a rise time of 1 ns. Estimate the maximum rise time allowable for the system, if the source has a rise time of 4 ns in order for the link to be successfully operated at a transmission rate of 40 Mbps. [6]
- c) Describe Optical power-loss model. Draw a neat diagram for the same. [6]
- Q5)** a) With the help of diagram explain various elements used in optical networks. Explain the modularity and scalability features of an optical network. [6]
- b) What are the corresponding levels and bit rates for SDH and SONET? Draw and explain STS-1 frame structure. [6]
- c) i) Calculate how many 64-kb/s voice channels can be carried by an STS-3, STS-48, and STS-192 system.
- ii) How many 20-Mb/s digitized video channels can be transported over STS-3 systems? [5]

OR

- Q6)** a) Draw and explain general structure of a passive optical network (PON). [5]
- b) Compare EPON, APON and GPON (any 3 points). [6]
- c) Explain the following w.r.t. SONET. [6]
- i) Structure
 - ii) Operation
 - iii) Advantages

- Q7)** a) Enlist widely used optical system test instruments and explain their functions. [6]
- b) Draw Schematic experimental setup for determining fiber attenuation by the cutback technique. Explain the same. [6]
- c) Draw representative trace of backscattered and reflected optical power as displayed on an OTDR screen and explain the meanings of various trace features. [5]

OR

- Q8)** a) Illustrate Operational principle of an OTDR using an optical circulator. Draw the corresponding diagram. [6]
- b) Explain Eye diagram test. Define fundamental measurement parameter. [6]
- c) Consider the case when the power at the photodetector prior to inserting the filter is $P_1 = 0.51$ mW and the power level with the optical filter in the link is $P_2 = 0.43$ mW. What is the insertion loss of the device? [5]

Total No. of Questions : 8]

P-10336

[6004]-S-556

B.E. (E & TC)

FIBER OPTIC COMMUNICATION

(2019 Pattern) (Semester - VIII) (404190)

Marking Scheme

Time : 2½ Hours]

[Max. Marks : 70

Q.1) a). $\lambda = \frac{hc}{E} \quad \text{--- 1m}$

$\lambda = 1.32 \mu\text{m} \quad \text{--- } \frac{1}{2}\text{m}$

$R = \frac{\eta e}{hf} = \quad \text{--- 1m}$

Total (6m)

$R = 0.694 \quad \text{--- } \frac{1}{2}\text{m}$

$R = \frac{I_p}{I_0} \quad \text{--- 1m}$

$P_o = 3.60 \mu\text{W} = 2\text{m}$

b) Defn $\eta =$ formula
1m 2m

Responsivity Defn 1m
formula - 2m

6m

c) Any three points of comparison
each 2m

6m

Q.2) a) Dark current noise formula --- 1m

Correct Answer $(i_{DN})^{1/2} = 0.16 \text{ nA} \quad \text{--- 2m}$

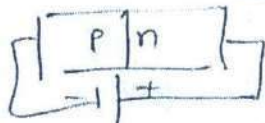
Thermal noise current formula --- 1m

Correct Answer $(i_T)^{1/2} = 18 \text{ nA} \quad \text{--- 2m}$

b) Photo detector defn --- 2m

Requirements 4m

c)



2m

Explanator 2m

o/p Characteristics 2m

Q.3) a) Formula Power budget 1m

Perform Budget 3m

5m 2m

b) Simplex Point to Point Link

Diagram 3m

Explanator 3m

c) Optical Amplifier Diagram 2m
explanator 2m

Materials used in active medium 2m

Q.4a) WDM block diagram 2m

Explanator 2m

WDM active components 2m

b) Rise time budget formula: 1m

$$t_{sys} = 4.58 ns \quad 2m$$

$$\text{formula } RZ = \frac{0.35}{BRZ} \quad 1m$$

$$t_{sys\ max} = 8.75 ns \quad 1m$$

$$\text{condition } t_{sys} < t_{max} \quad 1m$$

c) Power loss model Diagram 3m

explanator 2m

formula power loss model 1m

Q.5a) Optical Network — Element diagram 2m

Explanator 2m

Define Modularity — 1m

Scalability — 1m

b) Data rates for SONET SDH 3m

SONET frame structure STS-1 — 3m

c) STS-3 — 1m

for STS 3 2m

STS-48

STS-192

Video channels STS — 2m

Q.6a) PON block diagram 3m

explanator 2m

b) Compare EPON APON & GPON

3 points each X 2m = 6m

- c) SONET structure 2M diagram
Operation 2M
advantages 2M

Q-7) a) Optical Measurement instruments list-

(3M)
functions of each instrument 3M

b) Attenuation measurement using cutback method. Diagram 3M
Explanation 3M

c) OTDR trace. Diagram 2M
Explanation 3M

Q-8) a) Diagram of OTDR using an Optical circulator
3M

Explanation 3M

b) Eye diagram test. — Diagram 3M
Define 3 parameters — 3M

c) Formula for insertion loss — 2M
Calculation & correct answer 3M



[6004]-S-556

B.E. (E & TC)

FIBER OPTIC COMMUNICATION
(2019 Pattern) (Semester - VIII) (404190)

Model Answers & Solution

Time : 2½ Hours]

[Max. Marks : 70

| | | |
|-----|----|---|
| Q.1 | A] | $\lambda = \frac{hc}{E} = \frac{6.626 \times 10^{-34} \times 2.998 \times 10^8}{1.5 \times 10^{-19}}$ $= 1.32 \mu\text{m}$ <p>The photodiode is operating at a wavelength of 1.32 μm. 3M</p> $\text{Responsivity } R = \frac{\eta e}{hf} = \frac{0.65 \times 1.602 \times 10^{-19}}{1.5 \times 10^{-19}}$ $= 0.694 \text{ A W}^{-1}$ <p>Also from Eq. (8.4):</p> $R = \frac{I_p}{P_o}$ <p>Therefore:</p> $P_o = \frac{25 \times 10^{-6}}{0.694} = 3.60 \mu\text{W}$ <p>The incident optical power required is 3.60 μW. 3M</p> |
| | B] | <p>Quantum Efficiency</p> <p>The quantum efficiency η is defined as the fraction of incident photons which are absorbed by the photodetector and generate electrons which are collected at the detector terminals:</p> $\eta = \frac{\text{number of electrons collected}}{\text{number of incident photons}} \quad (8.2)$ <p>Hence:</p> $\eta = \frac{r_e}{r_p} \quad (8.3)$ <p>where r_p is the incident photon rate (photons per second) and r_e is the corresponding electron rate (electrons per second). 3M</p> <p>Responsivity:</p> |

| | | | | |
|--|---|---|--|---|
| | | $R = \frac{I_p}{P_o} (\text{A W}^{-1}) \quad (8.4)$ <p>where I_p is the output photocurrent in amperes and P_o is the incident optical power in watts (i.e. output optical power from the fiber). The responsivity is a useful parameter as it gives the transfer characteristic of the detector (i.e. photocurrent per unit incident optical power).</p> <p>3M</p> | | |
| | C] | | | |
| | | <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; vertical-align: top;"> PIN <ul style="list-style-type: none"> • Lightly doped layer i • Without internal Gain • Response time less • Output current IP small • Low reverse bias • Low complexity in fabrication • low cost • Detects comparatively high light levels • Temperature stability good </td> <td style="text-align: center; vertical-align: top;"> APD <ul style="list-style-type: none"> • Multiplicative layer with i layer • With internal Gain • Response more • Output current IP more • High reverse bias • High complexity in fabrication • high cost • Detects low light levels • Temperature stability poor </td> </tr> </table> <p style="text-align: center;">2M for each point OR</p> | PIN <ul style="list-style-type: none"> • Lightly doped layer i • Without internal Gain • Response time less • Output current IP small • Low reverse bias • Low complexity in fabrication • low cost • Detects comparatively high light levels • Temperature stability good | APD <ul style="list-style-type: none"> • Multiplicative layer with i layer • With internal Gain • Response more • Output current IP more • High reverse bias • High complexity in fabrication • high cost • Detects low light levels • Temperature stability poor |
| PIN <ul style="list-style-type: none"> • Lightly doped layer i • Without internal Gain • Response time less • Output current IP small • Low reverse bias • Low complexity in fabrication • low cost • Detects comparatively high light levels • Temperature stability good | APD <ul style="list-style-type: none"> • Multiplicative layer with i layer • With internal Gain • Response more • Output current IP more • High reverse bias • High complexity in fabrication • high cost • Detects low light levels • Temperature stability poor | | | |
| Q.2 | A] | <p>i) The mean-square dark current</p> $\langle i_{DB}^2 \rangle = 2qI_D B_e$ $= 2(1.6 \times 10^{-19} \text{ C})(4 \times 10^{-9} \text{ A})(20 \times 10^6 \text{ Hz})$ $= 2.56 \times 10^{-20} \text{ A}^2$ <p>or</p> $\langle i_{DB}^2 \rangle^{1/2} = 0.16 \text{ nA} \quad 3\text{M}$ <p>ii) The mean-square thermal noise current</p> $\langle i_T^2 \rangle = \frac{4k_B T}{R_L} B_e = \frac{4(1.38 \times 10^{-23} \text{ J/K})(293 \text{ K})}{1 \text{ k}\Omega} B_e$ $= 323 \times 10^{-18} \text{ A}^2$ <p>or</p> $\langle i_T^2 \rangle^{1/2} = 18 \text{ nA} \quad 3\text{M}$ | | |
| | B] | <p>Optical receivers convert optical signal (light) to electrical signal (current/voltage)</p> <p>• Photodetector is the fundamental element of optical receiver, followed by amplifiers and signal conditioning circuitry 2M</p> <p>Requirements of photodetector</p> | | |

Compatible physical dimensions (small size)

- High sensitivity at the desired wavelength

Low attenuation at three windows

- Low noise introduced by detector: Dark current, leakage current and shunt conductance must be low

- High fidelity: Response of P.D. must be linear with regard to the optical signal

- Large electrical response to received optical signal

Short response time & high bandwidth

- Insensitive to temperature variations

- Long operating life and low cost

- Low bias voltages

- High reliability & Stable operation at room temperature

4M

C] Diagram 2M

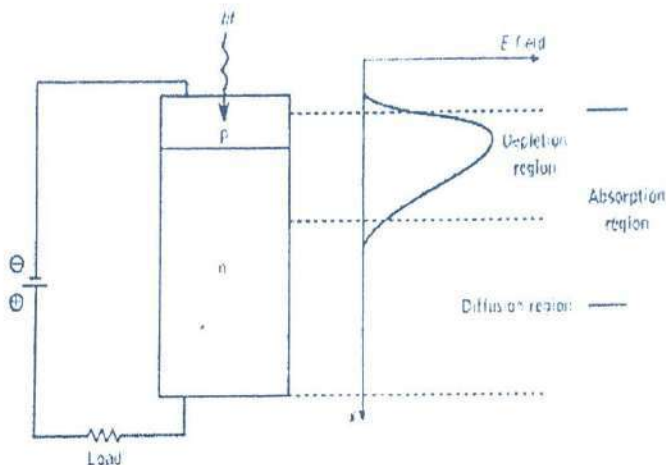


Figure 8.4 The p-n photodiode showing depletion and diffusion regions

Working 2M

Characteristics: 2M

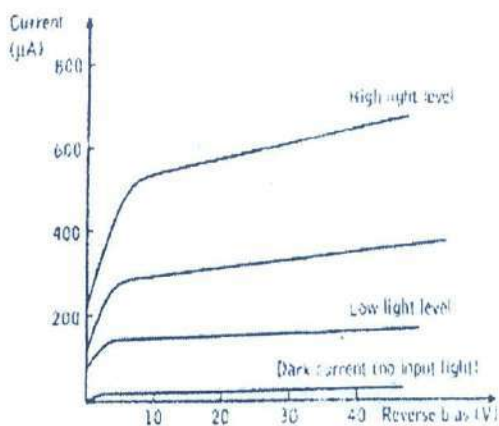


Figure 8.5 Typical p-n photodiode output characteristics

Q.3

A]

Power budget formula

1M

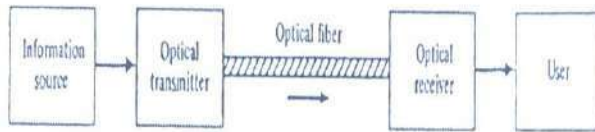
$$P_T = P_S - P_R$$

$$= 2I_c + \alpha L + \text{system margin}$$

Performing budget using
 $P_r = P_t - P_k = m l_c + n l_{sp} + \alpha_f L + \text{System Margin}$ 3M

System Margin = 14 dB 2M

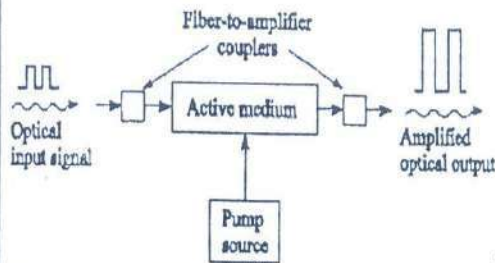
B) Simplex point to point link



3M

Explain each block: 3M

C) Block diagram of an optical amplifier



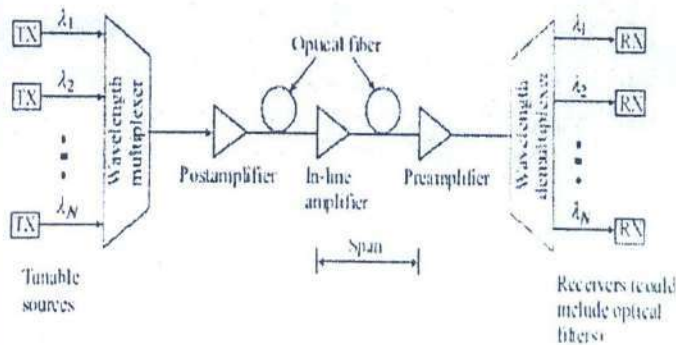
2M

Explanation :2M

in DFAs active medium is created by doping silica or tellurite with rare earth elements such as erbium, ytterbium 2M

OR

Q.4 A) Implementation of WDM network.



2M

Explanation: 2M

WDM active components:

Optical amplifiers

Filters

OADMs

Tunable source any two components 2M

B) Rise time budget formula:

$$t_{sys} = \left[t_{\alpha}^2 + t_{nsd}^2 + t_{GVD}^2 + t_{ra}^2 \right]^{1/2}$$

1M

$t_{sys} = 4.58 \text{ ns}$ 2M

in order for the link to be successfully operated at a transmission rate of 40 Mbps using RZ format

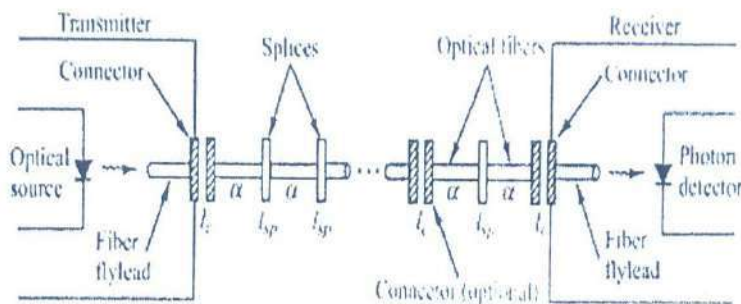
$$\text{Max. allowed rise time } t_{s_{max}} = \frac{0.7}{B_{NRZ}}, \text{ OR } t_{s_{max}} = \frac{0.35}{B_{RZ}}$$

B_{NRZ} and B_{RZ} is the bit rate for NRZ and RZ signals respectively

$$t_{s_{max}} = 0.35/40 \text{ Mbps} = 8.75 \text{ ns}$$
 2M

so the system will operate successfully as $t_{sys} < t_{s_{max}}$ 1M

C) Power loss model diagram: 3M

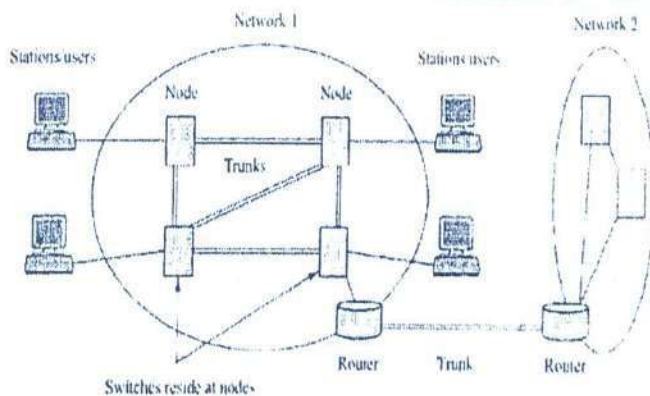


Explanation: 2M

Formula: 1M

$$P_T = P_s - P_R = ml_c + nl_{sp} + \alpha_f L + \text{System Margin}$$

Q.5 A) Diagram of various elements used in optical networks 2M



Explanation 2M

- Modularity defines the characteristics of a network which allows the addition or reduction of networking nodes in a modular fashion. 1M
- Scalability is the property of a network which enables it to progressively accommodate a large number of nodes and end user systems without incurring excessive overheads. 1M

B) The corresponding levels and bit rates for SDH and SONET 3M

Table 13.2 Commonly used SONET and SDH transmission rates

| SONET level | Electrical level | SDH level | Line rate (Mb/s) | Common rate name |
|-------------|------------------|-----------|------------------|------------------|
| OC-N | STS-N | | $N \times 51.84$ | |
| OC-1 | STS-1 | | 51.84 | |
| OC-3 | STS-3 | STM-1 | 155.52 | 155 Mb/s |
| OC-12 | STS-12 | STM-4 | 622.08 | 622 Mb/s |
| OC-48 | STS-48 | STM-16 | 2488.32 | 2.5 Gb/s |
| OC-192 | STS-192 | STM-64 | 9953.28 | 10 Gb/s |
| OC-768 | STS-768 | STM-256 | 39813.12 | 40 Gb/s |

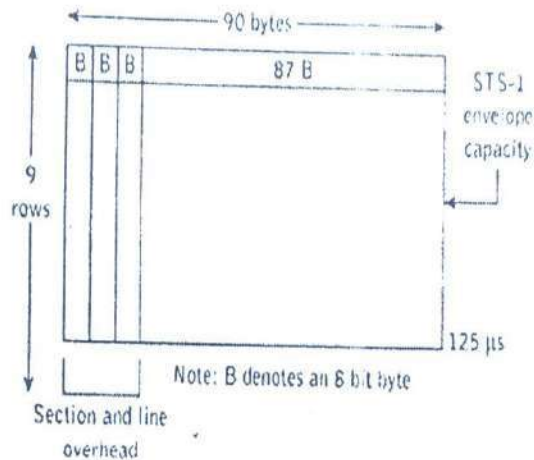


Figure 15.10 STS-1 frame structure

3M

- C) STS-3 = 155.52Mbps
 No. of 64-kb/s voice channels = $STS-3/64\text{kbps} = 2430$
 For STS-48 = 2488.32 Mbps no. of channels = 38880
 For STS-192 = 9953.28 Mbps no. of channels = 155520

3M

No. of 20-Mb/s digitized video channels over STS-3 = $155.52\text{Mbps} / 20\text{Mbps} = 8$ channels

2M

Q.6 A)

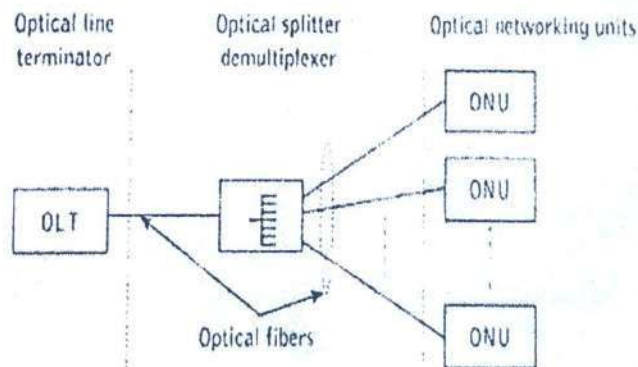


Figure 15.38 General structure of a passive optical network (PON)

3M

Explanation 2M

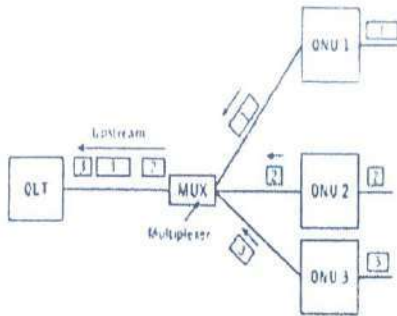
B)

EPON

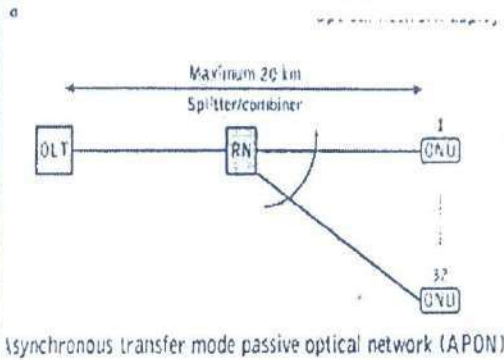
APON

GPON

the data rates used in APON (i.e. 155 Mbit s⁻¹ upstream and 622 Mbit s⁻¹ downstream)
 APON cannot readily carry the IP or Ethernet data packets
 Gigabit PON can carry both ATM and Ethernet as well as IP packets



0 Ethernet PON (EPON): (a) downstream broadcast; (b) upstream



Asynchronous transfer mode passive optical network (APON)

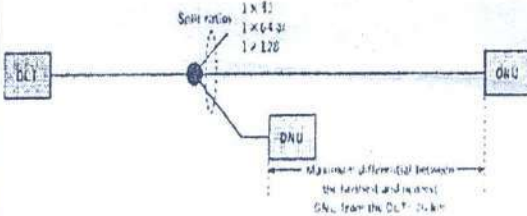
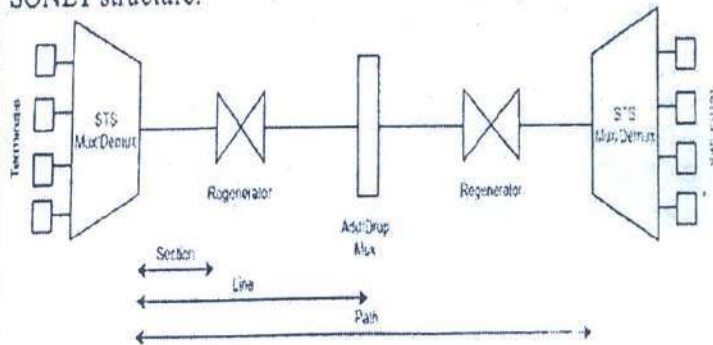


Figure 15.41 Gigabit passive optical network (GPON) (Ref. 126)

Each point 2M

C) SONET structure:



Operation 2M
 Advantages 2M

2M

Q.7 A)

Table 14.3 Some widely used optical system test instruments and their functions

| Test instrument | Function |
|--|--|
| Test-support lasers (multiple-wavelength or broadband) | Assist in tests that measure the wavelength-dependent response of an optical component or link |
| Optical spectrum analyzer | Measures optical power as a function of wavelength |
| Multifunction optical test system | Factory or field instruments with exchangeable modules for performing a variety of measurements |
| Optical power attenuator | Reduces power level to prevent instrument damage or to avoid overload distortion in the measurements |
| Conformance analyzer | Measures optical receiver performance in accordance with standards-based specifications |
| Visual fault indicator | Uses visible light to give a quick indication of a break in an optical fiber |
| Optical power meter | Measures optical power over a selected wavelength band |
| BER test equipment | Uses standard eye-pattern masks to evaluate the data-handling ability of an optical link |
| OTDR (field instrument) | Measures attenuation, length, connector/splice losses, and reflectance levels; helps locate fiber breaks |
| Optical return loss tester | Measures total reverse power in relation to total forward power at a particular point |

3M

3M

B)

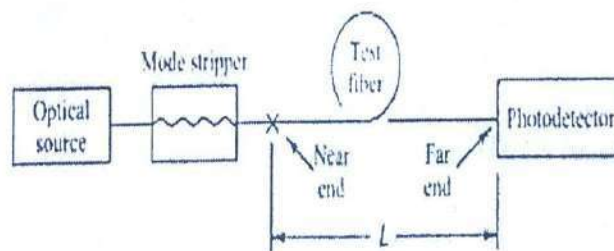


Fig. 14.6 Schematic experimental setup for determining fiber attenuation by the cutback technique. The optical power is first measured at the far end, then the fiber is cut at the near end, and the power output there is measured

Diagram 3M

Explanation 3M

C)

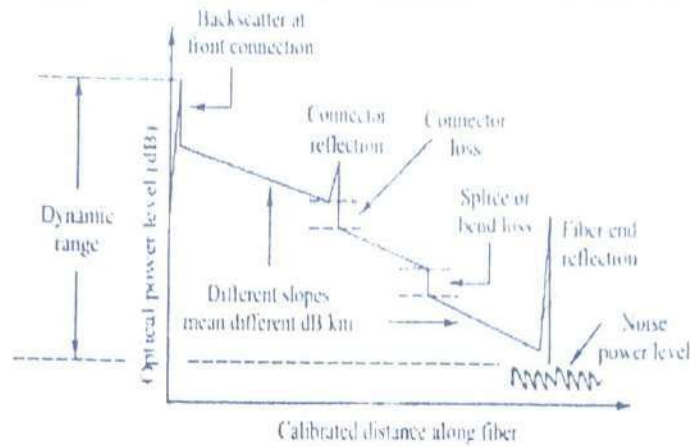


Fig. 14.21 Representative trace of backscattered and reflected optical power as displayed on an OTDR screen and the meanings of various trace features

Diagram: 2M

The backscattered waveform has four distinct features:

- A large initial pulse resulting from Fresnel reflection at the input end of the fiber
- A long decaying tail resulting from Rayleigh scattering in the reverse direction as the input pulse travels along the fiber
- Abrupt shifts in the curve caused by optical loss at joints or connectors in the fiber line
- Positive spikes arising from Fresnel reflection at the far end of the fiber, at fiber joints, and at fiber imperfections

Fresnel reflection and Rayleigh scattering principally produce the backscattered light. *Fresnel reflection* occurs when light enters a medium having a different index of refraction. For a glass-air interface, when light of power P_0 is incident perpendicular to the interface, the reflected power P_{ref} is

$$P_{ref} = P_0 \left(\frac{n_{fiber} - n_{air}}{n_{fiber} + n_{air}} \right)^2 \quad (14.16)$$

where n_{fiber} and n_{air} are the refractive indices of the fiber core and air, respectively. A perfect fiber end

Explanation: 3M

Q.8) A)

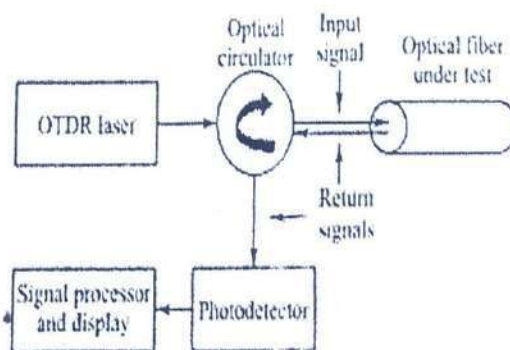


Fig. 14.19 Operational principle of an OTDR using an optical circulator

Diagram: 3M

Explanation: 3M

An *optical time-domain reflectometer* (OTDR) is a versatile portable instrument that is used widely to evaluate the characteristics of an installed optical fiber link. In addition to identifying and locating faults or anomalies within a link, this instrument measures parameters such as fiber attenuation, length, optical connector and splice losses, and light reflectance levels. ³⁶⁻³⁸⁾

An OTDR is fundamentally an optical radar. As shown in Fig. 14.19, the OTDR operates by periodically launching narrow laser pulses into one end of a fiber under test by using either a directional coupler or a circulator. The properties of the optical fiber link then are determined by analyzing the amplitude and temporal characteristics of the waveform of the reflected and back-scattered light. A typical OTDR consists of a light source and receiver, data-acquisition and processing modules, an information-storage unit for retaining data either in the internal memory or on an external disk, and a display. Figure 14.20

B)

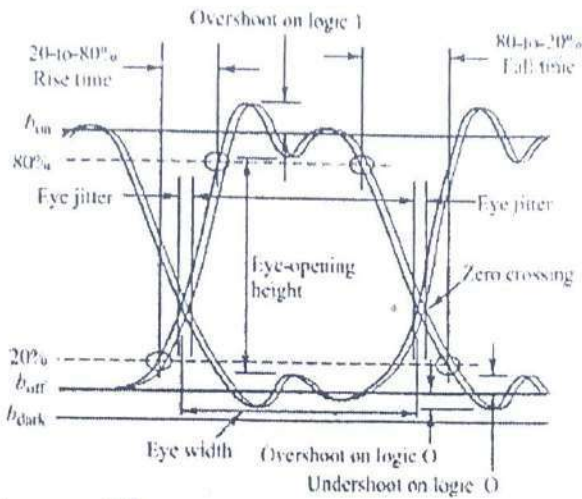


Diagram: 3M

Define parameters such as Jitter, overshoot and undershoot 3M

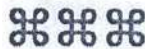
C)

$$A = 10 \log \frac{P_1(\lambda)}{P_2(\lambda)}$$

formula : 2M

$$\text{Insertion loss} = 10 \log \frac{P_1}{P_2} = 10 \log 0.51/0.43 = 0.74 \text{ dB}$$

3M



Unit II Combinational Logic Design

Syllabus

Defination of combinational logic, Canonical forms, Standard representations for logic functions, k-map representation of logic functions (SOP and POS forms), minimization of logical functions for min-terms and max-terms (upto 4 variables), don't care conditions, Design Examples, Arithmetic Circuits, BCD to 7-segment decoder, Code Converter, Introduction to Quine-Mccluskey method, Quine McCluskey using don't care terms, Reduced prime implecants Tables.

Defination of combinational logic.

A combinational logic is a type of digital logic which is implemented by Boolean circuits, where the output is a pure function of present input.

Standard representations for logic functions

Boolean expressions or Boolean function

eg.

$$f(A, B, c) = (A + \bar{B})c$$

$$f(A, B, c, D) = A + \bar{B}c + A c \bar{D}$$

Product terms

$$f(A, B, c, D) = A + \bar{B}c + A c \bar{D}$$

↑ ↑ ↑ ↑ ↑

Literals Sum terms

$$f(A, B, c, D) = (\bar{B} + \bar{D}) \cdot (A + \bar{B} + c) \cdot (A + c)$$

↑ ↑ ↑ ↑ ↑ ↑ ↑

Literals

Two forms.

- 1) SOP form (Sum of product form)
- 2) POS form (Product of sum form)

Sum of Product form

eg.

$$1. f(A, B, C) = ABC + \overline{A}\overline{B}\overline{C}$$

Sum
↑ ↑
Product terms

$$2. f(P, Q, R, S) = \overline{P}Q + QR + RS$$

Sum
↓ ↓
↑ ↑ ↑
Product terms

Product of Sum form

$$1. f(A, B, C) = (A+B) \cdot (\overline{B}+C)$$

Product
↓ ↓
↑ ↑
Sum terms

$$2. f(P, Q, R, S) = (P+Q) \cdot (R+\overline{S}) \cdot (P+S)$$

Product
↓ ↓ ↓
↑ ↑ ↑
Sum terms

Canonical forms (Standard form)

Steps to Convert SOP to Canonical SOP form.

Step 1: Find the missing literal in each product term if any.

Step 2: AND each product term having missing literals with terms form by ORing the literal and its complement.

Step 3: Expand the terms by applying distributive law and reorder the literals in the product terms.

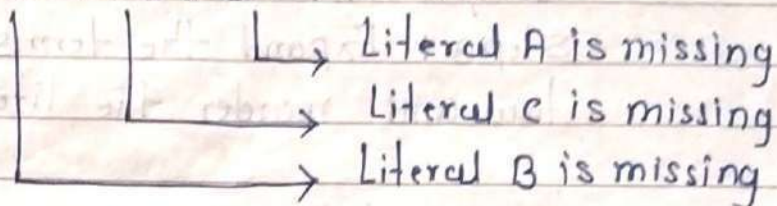
Step 4: Reduce the expression by omitting repeated product terms if any. Because $A+A=A$.

1) Convert the given expression in Canonical SOP form.

$$f(A, B, C) = AC + AB + BC$$

Step I Find the missing literals in each product terms

$$f(A, B, C) = AC + AB + BC$$



Step II AND product term with (missing literal + its complement)

Step III Expand the terms and reorder literals

$$f(A, B, C) = AC(B + \bar{B}) + AB(C + \bar{C}) + BC(A + \bar{A})$$

$$= \underline{ABC} + \underline{A\bar{B}C} + \underline{ABC} + \underline{AB\bar{C}}$$

$$+ \underline{ABC} + \underline{\bar{A}BC} \text{ (omit repeated product terms)}$$

$$= ABC + A\bar{B}C + AB\bar{C} + \bar{A}BC$$

2) Convert the given expression in Canonical SOP form.

$$f(A, B, C) = A + ABC$$

$$f(A, B, C) = A + ABC$$

Literal B and C are missing

$$= A(B + \bar{B})(C + \bar{C}) + ABC$$

$$\therefore f(A, B, C) = ABC + A\bar{B}\bar{C} + AB\bar{C} + A\bar{B}C + ABC$$

H.W obtain the Canonical sum of product form of.

i) $f = \bar{A}Bc + \bar{B}\bar{c}(A + D)$ ii) $f = A(c + \bar{D}) + B\bar{c}$

iii) $f(x, y, z) = (xy + \bar{z})(y + x\bar{z})$

iv) $(AB + c)(B + \bar{C}D)$ v) $F_1 = AB + \bar{C}D + A\bar{B}c$

Steps to convert Pos to Canonical Pos form.

Step 1: Find the missing literals in each sum term if any.

Step 2: OR each sum term having missing literal with terms form by ANDing the literal and its complement.

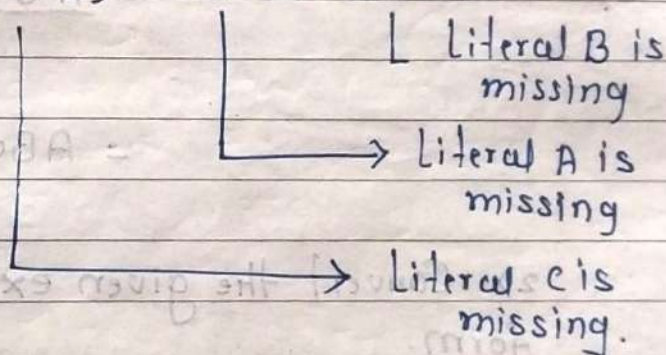
Step 3: Expand the terms by applying distributive law and reorder the literals in the sum terms.

Q) Convert the given expression in Canonical Pos form

$$f(A, B, C) = (A+B)(B+C)(A+C)$$

Step 1: Find the missing literals in each sum term

$$f(A, B, C) = (A+B)(B+C)(A+C)$$



Step 2: OR sum term with (missing literal) its complement

$$f(A, B, C) = (A+B)(C+\bar{C}) \cdot (B+C)(A+\bar{A}) \cdot (A+C)(B+\bar{B})$$

Step 3: Expand the terms and reorder literals

Expand

Since $A+B+C = (A+B)(A+C)$ we have,

$$f(A, B, C) = (A+B+C)(A+B+\bar{C}) \cdot$$

$$(B+C+A)(B+C+\bar{A})$$

$$(A+C+B)(A+C+\bar{B})$$

$$F(A, B, C) = \underline{(A+B+C)} (A+B+\bar{C}) \underline{(A+B+C)} (\bar{A}+B+C)$$

$$(\underline{A+B+C}) (A+\bar{B}+C)$$

Step 4 Omit repeated sum terms

$$F(A, B, C) = (A+B+C) (A+B+\bar{C}) (\bar{A}+B+C)$$

$$(A+\bar{B}+C)$$

2) Convert the given expression in canonical form

$$y = A \cdot (A+B+C)$$

$$y = A \cdot (A+B+C)$$

Literal B and C is missing

$$y = (A+B\bar{B}+C\bar{C}) (A+B+C)$$

$$\text{Since } A+B\bar{C} = (A+B)(A+\bar{C})$$

$$y = (A+B\bar{B}+C) (A+B\bar{B}+\bar{C}) (A+B+C)$$

$$= (\underline{A+B+C}) (A+\bar{B}+C) (A+B+\bar{C}) (\underline{A+B+C})$$

$$y = (A+B+C) (A+\bar{B}+C) (A+B+\bar{C}) (A+\bar{B}+C)$$

convert the given expression in canonical pos form.

H.W $\Rightarrow y = (A+B)(A+C)(B+\bar{C})$

2) $f(P, Q, R) = (P+\bar{Q})(P+R)$

3) $f(A, B, C) = (A+\bar{B})(B+C)(A+\bar{C})$

Minterms and Maxterms

Each individual term in Canonical SOP form is called minterm and each individual term in canonical POS form is called maxterm.

Variables Minterms = Maxterms

A B C m_i

$$0 \quad 0 \quad 0 \quad \bar{A}\bar{B}\bar{C} = m_0 \quad A+B+C = M_0$$

$$0 \quad 0 \quad 1 \quad \bar{A}\bar{B}C = m_1 \quad A+B+\bar{C} = M_1$$

$$0 \quad 1 \quad 0 \quad \bar{A}B\bar{C} = m_2 \quad A+\bar{B}+C = M_2$$

$$0 \quad 1 \quad 1 \quad \bar{A}BC = m_3 \quad A+\bar{B}+\bar{C} = M_3$$

$$1 \quad 0 \quad 0 \quad A\bar{B}\bar{C} = m_4 \quad \bar{A}+B+C = M_4$$

$$1 \quad 0 \quad 1 \quad A\bar{B}C = m_5 \quad \bar{A}+B+\bar{C} = M_5$$

$$1 \quad 1 \quad 0 \quad AB\bar{C} = m_6 \quad \bar{A}+\bar{B}+C = M_6$$

$$1 \quad 1 \quad 1 \quad ABC = m_7 \quad \bar{A}+\bar{B}+\bar{C} = M_7$$

$$1. \quad f(A, B, C) = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + \bar{A}B\bar{C} + A\bar{B}\bar{C}$$

$$= m_0 + m_1 + m_3 + m_6$$

$$= \sum m(0, 1, 3, 6)$$

$$2. \quad f(A, B, C) = (A+B+\bar{C})(A+\bar{B}+\bar{C})(\bar{A}+\bar{B}+C)$$

$$= M_1 \cdot M_3 \cdot M_6$$

$$= \prod M(1, 3, 6)$$

Complements of Canonical Forms

$$f(A, B, C) = m_0 + m_1 + m_3 + m_4 + m_6 + m_7 = M_2 + M_5$$

$$f(A, B, C) = \sum m(0, 1, 3, 4, 6, 7) = \prod M(2, 5)$$

Express $F = A + \bar{B}C$ as sum of minterms

$$A + \bar{B}C = A(B + \bar{B})(C + \bar{C}) + (A + \bar{A})\bar{B}C$$

$$= AB + A\bar{B}(C + \bar{C}) + A\bar{B}C + \bar{A}\bar{B}C$$

$$= AB C + A\bar{B}C + AB\bar{C} + A\bar{B}\bar{C} + \bar{A}\bar{B}C + \bar{A}\bar{B}C$$

$$= AB C + A\bar{B}C + AB\bar{C} + A\bar{B}\bar{C} + \bar{A}\bar{B}C$$

$$F = \sum m(1, 4, 5, 6, 7)$$

Express the Boolean function $F = xy + \bar{x}z$ in product of maxterm

$$F = xy + \bar{x}z$$

$$= xy(z + \bar{z}) + \bar{x}z(y + \bar{y})$$

$$= xyz + xy\bar{z} + \bar{x}yz + \bar{x}\bar{y}z$$

$$F = \sum m(7, 6, 3, 1)$$

$$= \prod M(0, 2, 4, 5)$$

$$= (x + y + z)(x + \bar{y} + z)(\bar{x} + y + z)(\bar{x} + \bar{y} + \bar{z})$$

k-map Representation of Logic functions

| | |
|---|--|
| A | |
| 0 | |
| 1 | |

| | | | |
|---|---|---|---|
| | B | 0 | 1 |
| A | 0 | | |
| | 1 | | |

| | | | | | | |
|---|---|----|----|----|----|----|
| | | Bc | 00 | 01 | 11 | 10 |
| A | 0 | | | | | |
| | 1 | | | | | |

1 - Variable map
(2 cells)

2 - variable
(4 cells)

3 - variable map
(8 cells)

| | | | | | | |
|----|----|----|----|----|----|----|
| | | CD | 00 | 01 | 11 | 10 |
| AB | 00 | | | | | |
| | 01 | | | | | |
| | 11 | | | | | |
| | 10 | | | | | |

4 - variable

(16 cells)

1, 2, 3, Variable map with product terms

| | | | | |
|-----------|-----------|-----------|------------------|------------|
| \bar{A} | \bar{A} | \bar{A} | $\bar{A}\bar{B}$ | $\bar{A}B$ |
| A | A | A | $A\bar{B}$ | AB |

| | | | | |
|-----------|-------------------------|-------------------|-------------------|-------------|
| \bar{A} | $\bar{A}\bar{B}\bar{C}$ | $\bar{A}\bar{B}C$ | $\bar{A}B\bar{C}$ | $\bar{A}BC$ |
| A | $A\bar{B}\bar{C}$ | $A\bar{B}C$ | $AB\bar{C}$ | ABC |

| | | | | |
|------------------|--------------------------------|--------------------------|--------------------------|--------------------|
| $\bar{A}\bar{B}$ | $\bar{A}\bar{B}\bar{C}\bar{D}$ | $\bar{A}\bar{B}\bar{C}D$ | $\bar{A}\bar{B}C\bar{D}$ | $\bar{A}\bar{B}CD$ |
| $\bar{A}B$ | $\bar{A}B\bar{C}\bar{D}$ | $\bar{A}B\bar{C}D$ | $\bar{A}BC\bar{D}$ | $\bar{A}BCD$ |
| AB | $AB\bar{C}\bar{D}$ | $AB\bar{C}D$ | $ABC\bar{D}$ | $ABCD$ |
| $A\bar{B}$ | $A\bar{B}\bar{C}\bar{D}$ | $A\bar{B}\bar{C}D$ | $A\bar{B}C\bar{D}$ | $A\bar{B}CD$ |

1, 2, 3 and 4-Variable maps for SOP expressions.

| | | | |
|---|-------|---|-------|
| 0 | m_0 | 1 | m_1 |
| 1 | m_2 | 0 | m_3 |

| | | | | |
|----|----------|----------|----------|----------|
| 00 | m_0 | m_1 | m_2 | m_3 |
| 01 | m_4 | m_5 | m_6 | m_7 |
| 11 | m_8 | m_9 | m_{10} | m_{11} |
| 10 | m_{12} | m_{13} | m_{14} | m_{15} |

1-Variable map 2-Variable 3-Variable

| | | | | |
|----|----------|----------|----------|----------|
| 00 | m_0 | m_1 | m_2 | m_3 |
| 01 | m_4 | m_5 | m_6 | m_7 |
| 11 | m_8 | m_9 | m_{10} | m_{11} |
| 10 | m_{12} | m_{13} | m_{14} | m_{15} |

4-Variable

1, 2, 3 and 4-Variable maps with sum terms (POS)

| | | | | |
|-----------|-----------|-----------|-------------------|-------------|
| A | A | A | $A+B$ | $A+\bar{B}$ |
| \bar{A} | \bar{A} | \bar{A} | $\bar{A}+\bar{B}$ | $\bar{A}+B$ |

| | | | | |
|-----------|---------------|---------------------|---------------------|---------------------------|
| A | $A+B+C$ | $A+B+\bar{C}$ | $A+\bar{B}+C$ | $A+\bar{B}+\bar{C}$ |
| \bar{A} | $\bar{A}+B+C$ | $\bar{A}+B+\bar{C}$ | $\bar{A}+\bar{B}+C$ | $\bar{A}+\bar{B}+\bar{C}$ |

1-variable 2-variable

$C+D$ $C+\bar{D}$ $\bar{C}+D$ $\bar{C}+\bar{D}$

| | | | | |
|-------------------|---------------------|---------------------------|---------------------|---------------------------|
| $A+B$ | $A+B+C$ | $A+B+\bar{C}$ | $A+B+C$ | $A+B+\bar{C}$ |
| $A+\bar{B}$ | $A+\bar{B}+C$ | $A+\bar{B}+\bar{C}$ | $A+\bar{B}+C$ | $A+\bar{B}+\bar{C}$ |
| $\bar{A}+\bar{B}$ | $\bar{A}+\bar{B}+C$ | $\bar{A}+\bar{B}+\bar{C}$ | $\bar{A}+\bar{B}+C$ | $\bar{A}+\bar{B}+\bar{C}$ |
| $\bar{A}+B$ | $\bar{A}+B+C$ | $\bar{A}+B+\bar{C}$ | $\bar{A}+B+C$ | $\bar{A}+B+\bar{C}$ |

1, 2, 3 and 4-Variable map for pos expression.

| | |
|---|----------------|
| 0 | M ₀ |
| 1 | M ₁ |

1-variable

| | | | |
|---|---|----------------|----------------|
| | B | 0 | 1 |
| A | 0 | M ₀ | M ₁ |
| | 1 | M ₂ | M ₃ |

2-variable

| | | | | | |
|---|----|----------------|----------------|----------------|----------------|
| | Bc | 00 | 01 | 11 | 10 |
| A | 0 | M ₀ | M ₁ | M ₃ | M ₂ |
| | 1 | M ₄ | M ₅ | M ₇ | M ₆ |

3-variable map

Representation of Truth table on karnaugh map

| | | |
|---|---|---|
| A | B | y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

| | | | |
|---|---|---|---|
| | B | 0 | 1 |
| A | 0 | 0 | 1 |
| | 1 | 1 | 0 |

| | | | |
|-----------|---|-----------|---|
| | B | \bar{B} | B |
| \bar{A} | 0 | 1 | |
| A | 1 | 0 | |

Plot Boolean expression $y = ABC\bar{c} + ABCc + \bar{A}\bar{B}c$ on the karnaugh map.

The expression has 3 variables.

$\therefore 2^3 = 8$ cells.

| | | | | | |
|---|----|----------------|----------------|----------------|----------------|
| | Bc | 00 | 01 | 11 | 10 |
| A | 0 | 0 ₀ | 1 ₁ | 0 ₃ | 0 ₂ |
| | 1 | 0 ₄ | 0 ₅ | 1 ₇ | 1 ₆ |

Plot Boolean expression.

$y = \bar{A}\bar{B}\bar{C}\bar{D} + \bar{A}\bar{B}c\bar{D} + \bar{A}\bar{B}cD + \bar{A}B\bar{C}D$ on the karnaugh map.

The expression has 4 variables

$\therefore 2^4 = 16$ cells.

| | | | | | |
|----|----|-----------------|-----------------|-----------------|-----------------|
| | CD | 00 | 01 | 11 | 10 |
| AB | 00 | 0 ₀ | 0 ₁ | 0 ₃ | 0 ₂ |
| | 01 | 1 ₄ | 0 ₅ | 0 ₇ | 0 ₆ |
| | 11 | 0 ₁₂ | 1 ₁₃ | 0 ₁₅ | 0 ₁₄ |
| | 10 | 0 ₈ | 0 ₉ | 1 ₁₁ | 1 ₁₀ |

$$\bar{A}\bar{B}\bar{C}\bar{D} = 0100 = 4$$

$$\bar{A}\bar{B}c\bar{D} = 1010 = 10$$

$$\bar{A}\bar{B}cD = 1011 = 11$$

$$\bar{A}B\bar{C}D = 1101 = 13$$

Plot Boolean expression

$$Y = (A + \bar{B} + C) (A + \bar{B} + \bar{C}) (\bar{A} + \bar{B} + C) (A + B + \bar{C})$$

on the karnaugh map.

3 variables.

$$2^3 = 8 \text{ cells}$$

$$A + \bar{B} + C = 010 = M_2, \quad A + \bar{B} + \bar{C} = 011 = M_3$$

$$\bar{A} + \bar{B} + C = 110 = M_6, \quad A + B + \bar{C} = M_1 (001)$$

| | | | | | |
|---|-----|----|----------------|----------------|----------------|
| | B/C | 00 | 01 | 11 | 10 |
| A | 0 | 0 | 0 ₁ | 0 ₃ | 0 ₂ |
| | 1 | 4 | 5 | 7 | 6 |

Plot Boolean expression

$$Y = (A + B + C + \bar{D}) (A + \bar{B} + \bar{C} + D) (A + B + \bar{C} + \bar{D})$$

$$(A + \bar{B} + C + \bar{D}) (\bar{A} + \bar{B} + \bar{C} + D)$$

4 - variables

$$\therefore 2^4 = 16 \text{ cells}$$

$$A + B + C + \bar{D} = 0001 = M_1, \quad A + \bar{B} + \bar{C} + D = 0110$$

$$A + B + \bar{C} + \bar{D} = 0011 = M_3$$

$$= M_6$$

$$\bar{A} + \bar{B} + C + \bar{D} = 1101 = M_{13}$$

$$\bar{A} + \bar{B} + \bar{C} + D = 1110 = M_{14}$$

| | | | | | |
|----|----|----|----------------|----------------|----|
| | CD | 00 | 01 | 11 | 10 |
| AB | 00 | 0 | 0 ₁ | 0 ₃ | 2 |
| | 01 | 4 | 5 | 7 | 6 |
| | 11 | 12 | 13 | 15 | 14 |
| | 10 | 8 | 9 | 11 | 10 |

Grouping cell for simplification.

Grouping two adjacent ones (cells) (pairs)

e.g.

$$Y = \overline{A}\overline{B}C + \overline{A}BC$$

$$= \overline{A}C(\overline{B}+B)$$

$$= \overline{A}C(1)$$

$$\therefore \overline{B}+B=1$$

$$\therefore Y = \overline{A}C$$

By using k-map technique

$$Y = \overline{A}\overline{B}C + \overline{A}BC$$

$$\overline{A}\overline{B}C = 001 = m_1$$

$$\overline{A}BC = 011 = m_3$$

| | | | | |
|---|----|----|----|----|
| | Bc | | | |
| | 00 | 01 | 11 | 10 |
| A | | | | |
| 0 | 0 | 1 | 1 | 2 |
| 1 | 4 | 5 | 7 | 6 |

$$Y = \overline{A}C$$

e.g.

| | | | | |
|---|----|----|----|----|
| | Bc | | | |
| | 00 | 01 | 11 | 10 |
| A | | | | |
| 0 | 0 | 1 | 1 | 2 |
| 1 | 4 | 5 | 7 | 6 |

| | | | | |
|---|----|----|----|----|
| | Bc | | | |
| | 00 | 01 | 11 | 10 |
| A | | | | |
| 0 | | | | |
| 1 | 1 | | | 1 |

AC

e.g. $Y = \overline{A}\overline{B}\overline{C}D + A\overline{B}\overline{C}D$

$$= \overline{B}\overline{C}D(\overline{A}+A)$$

$$\text{But } (\overline{A}+A) = 1$$

$$\therefore Y = \overline{B}\overline{C}D$$

kmap.

$$\overline{A}\overline{B}\overline{C}D = 0001 = m_1$$

$$A\overline{B}\overline{C}D = 1001 = m_9$$

| | | | | |
|----|----|----|----|----|
| | BD | | | |
| | 00 | 01 | 11 | 10 |
| AB | | | | |
| 00 | 0 | 1 | 3 | 2 |
| 01 | 4 | 5 | 7 | 6 |
| 11 | 12 | 13 | 15 | 14 |
| 10 | 8 | 9 | 11 | 10 |

$$\therefore Y = \overline{B}\overline{C}D$$

$$\begin{aligned}
 Y &= \overline{A}\overline{B}C + \overline{A}BC + ABC \\
 &= \overline{A}\overline{B}C + \overline{A}BC + \overline{A}BC + ABC \quad [A+A=A] \\
 &= \overline{A}C(\overline{B}+B) + BC(\overline{A}+A) \\
 &= \overline{A}C + BC
 \end{aligned}$$

| | | | | | |
|---|----|----|----|----|----|
| | Bc | 00 | 01 | 11 | 10 |
| A | 0 | 0 | 1 | 1 | 2 |
| | 1 | 4 | 5 | 1 | 6 |

$$Y = \overline{A}C + BC$$

e.g.

| | | | | | |
|---|----|----|----|----|----|
| | Bc | 00 | 01 | 11 | 10 |
| A | 0 | | 1 | 1 | |
| | 1 | | | 1 | 1 |

pair not required.

Grouping Four Adjacent Ones (Quad)

| | | | | | |
|---|----|----|----|----|----|
| | Bc | 00 | 01 | 11 | 10 |
| A | 0 | | | | |
| | 1 | 1 | 1 | 1 | 1 |

A

| | | | | | |
|----|----|----|----|----|----|
| | CD | 00 | 01 | 11 | 10 |
| AB | 00 | | | 1 | |
| | 01 | | | 1 | |
| | 11 | | | 1 | |
| | 10 | | | 1 | |

CD

| | | | | | |
|----|----|----|----|----|----|
| | CD | 00 | 01 | 11 | 10 |
| AB | 00 | | | | |
| | 01 | | | | |
| | 11 | 1 | | | 1 |
| | 10 | 1 | | | 1 |

AD

| | | | | | |
|----|----|----|----|----|----|
| | CD | 00 | 01 | 11 | 10 |
| AB | 00 | | | | |
| | 01 | | | 1 | 1 |
| | 11 | | | 1 | 1 |
| | 10 | | | | |

BD

Grouping Eight Adjacent Ones (Octet)

e.g.

$$\begin{aligned}
 Y &= \bar{A}\bar{B}\bar{C}\bar{D} + \bar{A}\bar{B}\bar{C}D + \bar{A}\bar{B}C\bar{D} + \bar{A}\bar{B}CD \\
 &\quad + A\bar{B}\bar{C}\bar{D} + A\bar{B}\bar{C}D + AB\bar{C}\bar{D} + AB\bar{C}D \\
 &= \bar{A}\bar{B}\bar{C}(\bar{D}+D) + \bar{A}\bar{B}C(\bar{D}+D) + A\bar{B}\bar{C}(\bar{D}+D) \\
 &\quad + ABC(\bar{D}+D) \\
 &= \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + A\bar{B}\bar{C} + ABC = \bar{A}\bar{B}(\bar{C}+C) + AB(\bar{C}+C) \\
 &= \bar{A}\bar{B} + AB
 \end{aligned}$$

| | | | | | |
|---------|---|----|----|----|----|
| | | 00 | 01 | 11 | 10 |
| AB \ CD | | | | | |
| 00 | | | | | |
| 01 | 1 | 1 | 1 | 1 | |
| 11 | 1 | 1 | 1 | 1 | |
| 10 | | | | | |

$$Y = B$$

Minimization of Logical Functions for Min-Terms (SOP Expressions)

$$\begin{aligned}
 &= \bar{A}\bar{B} + AB \\
 &= B(\bar{A} + A) \\
 &= B
 \end{aligned}$$

Procedure to simplify SOP Boolean expressions

1. Plot the k-map and place 1s in those cells corresponding to the 1s in the truth table or sum of product expression. Place 0s in other cells.
2. Check the k-map for adjacent 1s and encircle those 1s which are not adjacent to any other 1s. These are called isolated 1s.
3. Check for those 1s which are adjacent to only one other 1 and encircle such pairs.
4. Check for quads and octets of adjacent 1s even if it contains some 1s that have already been encircled. While doing this make sure that there are minimum number of groups.
5. Combine any pairs necessary to include any 1s that have not yet been grouped.
6. Form the simplified expression by summing product terms of all the groups.

Minimize the expression

$$Y = A\bar{B}C + \bar{A}\bar{B}C + \bar{A}BC + A\bar{B}\bar{C} + \bar{A}\bar{B}\bar{C}$$

3-variables

$\therefore 2^3 = 8$ cells

$$A\bar{B}C = 101 = m_5$$

$$\bar{A}\bar{B}C = 001 = m_1$$

$$\bar{A}BC = 011 = m_3$$

$$A\bar{B}\bar{C} = 100 = m_4$$

$$\bar{A}\bar{B}\bar{C} = 000 = m_0$$

| | | | | | |
|---|---|----------------|----------------|----------------|----|
| | | Bc | | | |
| | | 00 | 01 | 11 | 10 |
| A | 0 | 1 ₀ | 1 ₁ | 1 ₃ | 2 |
| | 1 | 1 ₄ | 1 ₅ | 7 | 6 |

$$Y = \bar{A}C + \bar{B}$$

Reduce the following function to its minimum sop form.

$$Y = \bar{A}\bar{B}\bar{C}D + \bar{A}B\bar{C}D + \bar{A}BCD + \bar{A}B\bar{C}\bar{D} + A\bar{B}\bar{C}\bar{D} + AB\bar{C}D + ABCD + A\bar{B}CD$$

$$\bar{A}\bar{B}\bar{C}D = 0001 = m_1$$

$$A\bar{B}\bar{C}D = 1101 = m_{13}$$

$$\bar{A}B\bar{C}D = 0101 = m_5$$

$$AB\bar{C}D = 1111 = m_{15}$$

$$\bar{A}BCD = 0111 = m_7$$

$$A\bar{B}CD = 1011 = m_{11}$$

$$\bar{A}B\bar{C}\bar{D} = 0110 = m_6$$

$$A\bar{B}\bar{C}\bar{D} = 1100 = m_{12}$$

| | | | | | |
|----|----|-----------------|-----------------|-----------------|----------------|
| | | D | | | |
| | | 00 | 01 | 11 | 10 |
| AB | 00 | | 1 ₁ | | 2 |
| | 01 | | 1 ₅ | 1 ₇ | 1 ₆ |
| | 11 | 1 ₁₂ | 1 ₁₃ | 1 ₁₅ | 14 |
| | 10 | | | 1 ₁₄ | 10 |

$$Y = \bar{A}\bar{C}D + \bar{A}B\bar{C} + A\bar{B}\bar{C} + A\bar{C}D$$

Reduce following function using k-map technique

$$f(A, B, C, D) = \sum m(0, 1, 4, 8, 9, 10)$$

| | | | | | |
|----|----|----|----|----|----|
| | | CD | | | |
| | | 00 | 01 | 11 | 10 |
| AB | 00 | 1 | 1 | 0 | 0 |
| | 01 | 1 | 0 | 0 | 0 |
| | 11 | 0 | 0 | 0 | 0 |
| | 10 | 1 | 0 | 0 | 1 |

$$y = \overline{B}\overline{C} + \overline{A}\overline{C}\overline{D} + A\overline{B}\overline{D}$$

H.w Simplify following logical expression using k-map

$$1) Y = \overline{A}\overline{B}\overline{C} + \overline{A}B\overline{C} + A\overline{B}\overline{C} + \overline{A}\overline{B}C + A\overline{B}C$$

$$2) f_1(A, B, C, D) = \sum m(0, 3, 5, 6, 9, 10, 12, 15)$$

$$3) f_3(A, B, C, D) = \sum m(0, 1, 2, 3, 11, 12, 14, 15)$$

Don't care Terms

Find the reduced SOP form of the following function.

$$f(A, B, C, D) = \sum m(1, 3, 7, 11, 15) + \sum d(0, 2, 4)$$

| | | | | | |
|----|----|----|----|----|----|
| | | CD | | | |
| | | 00 | 01 | 11 | 10 |
| AB | 00 | X | 1 | 1 | X |
| | 01 | X | 5 | 1 | 6 |
| | 11 | 12 | 13 | 1 | 14 |
| | 10 | 8 | 9 | 1 | 10 |

$$y = CD + \overline{A}\overline{B}$$

8. Question Bank

Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhore, Dist: Pune -412205 (MS), India.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

Academic Year : 2022-23 , Semester - II

QUESTION BANK UNIT 1

Class : BE

Course : FIBER OPTIC COMMUNICATION

Name of Faculty: Prof. J. J. Bandal

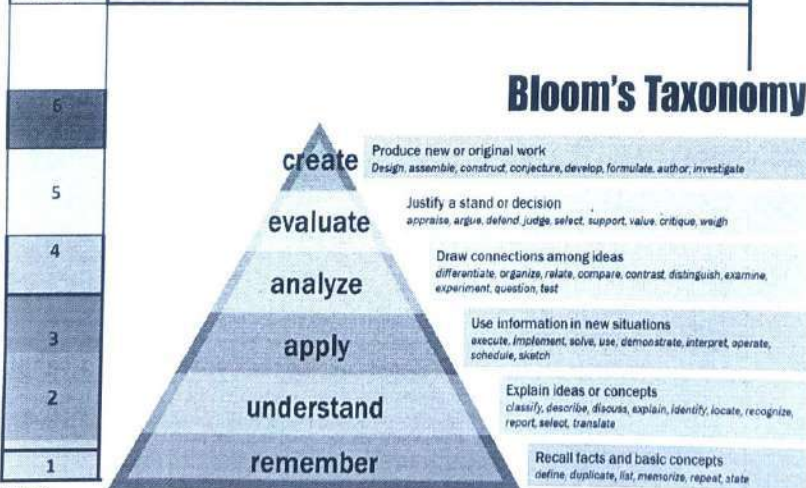
Unit No. and Name : Unit I Optical Fibers for Telecommunication

Batch No.

| Question No. | Question Statement | CO Mapping | Blooms Level |
|--------------|---|------------|--------------|
| 1 | Explain the following sources of attenuation in optical fibers in details and draw neat diagrams to illustrate them: i) Material absorption Loss ii) Scattering Loss iii) Fiber bending loss | CO1 | BT_2 |
| 2 | Explain the following types of dispersions involved in optical fibers: I) Intramodal dispersion ii) Intermodal dispersion iii) overall fiber dispersion Draw dispersion curves to illustrate the same | CO1 | BT_2 |
| 3 | Write brief notes on: i) Dispersion in optical fibers ii) Dispersion shifted fibers iii) Non-zero dispersion shifted fibers iv) Dispersion flattened fibers | CO1 | BT_2 |
| 4 | Explain the key elements of optical fiber communication system with a neat diagram and identify the three transmission windows on the fiber attenuation curve | CO1 | BT_2 |
| 5 | Classify and explain the various loss mechanisms (linear & nonlinear scattering, absorption, bending) in optical fibers. | CO1 | BT_2 |
| | Answer the following: 1. Draw a neat diagram of optical fiber communication system showing all the key elements. 2. Draw the attenuation curve of optical fibers and mark the various transmission windows on it. 3. Explain TIR in optical fibers with a neat ray diagram | CO1 | BT_2 |
| 7 | Give reasons: Why can only glass and plastic materials be used for drawing fibers for optical communication? | CO1 | BT_2 |
| 8 | Draw and Explain different types of dispersion mechanisms in optical fibers. | CO1 | BT_2 |

| | | | |
|----|--|-----|------|
| 9 | In a laboratory setup, 0.1 mW of optical power is launched at the input of a 10 km optical fiber and 5 μW of power is measured at the fiber end. i) Calculate the signal attenuation per km. ii) Calculate the overall signal attenuation for a 12 km optical link using the same fiber specifications, with splices at 1 km interval. The splice loss inserts 0.5 dB loss per splice. | CO2 | BT_3 |
| 10 | For a step index fiber with NA = 0.225, core refractive index of 1.495 and length of 10 km, calculate the pulse spread and the pulse spread per unit length. Estimate the maximum bit rate. Suggest two methods to overcome intermodal dispersion | CO2 | BT_3 |
| 11 | A multimode step index fiber has a relative refractive index difference of 1% & a core refractive index of 1.5. The number of modes propagating at a wavelength 1.3 μm is 1100. Estimate the diameter of the fiber core. | CO2 | BT_3 |
| 12 | A single mode step index fiber has a core diameter of 7 μm and a core refractive index of 1.49. Estimate the shortest wavelength of light which allows single mode operation when the relative refractive index difference for the fiber is 1%. | CO2 | BT_3 |
| 13 | Determine the cutoff wavelength for a step index fiber to exhibit single mode operation when the core index and radius are 1.46 & 4.5 μm respectively, with the relative index difference 0.25% | CO2 | BT_3 |
| 14 | Compare dispersion shifted & dispersion flattened fibers | CO3 | BT_4 |
| 15 | Compare MMSI, SMSI, MMGI fibers based on number of modes, RI profile, dimensions, and attenuation & dispersion parameters. | CO3 | BT_4 |
| 16 | Compare MMSI, SMSI, MMGI fibers. Of these which fiber would you select for following case scenarios: Case 1: Inter-lab optical setup for text file transfer. Case 2: Link between two cities for internet access (for implementation of a high data rate, low latency intercity optical link) and why. | CO4 | BT_5 |

| Blooms level no | Blooms Taxonomy terms |
|-----------------|-----------------------|
|-----------------|-----------------------|



Note:

1. Example demonstrate the method for filling the data
2. Blooms Taxonomy is provided for Ready Reference

Sub. Incharge sign: 



QUESTION BANK UNIT 2

Class : BE

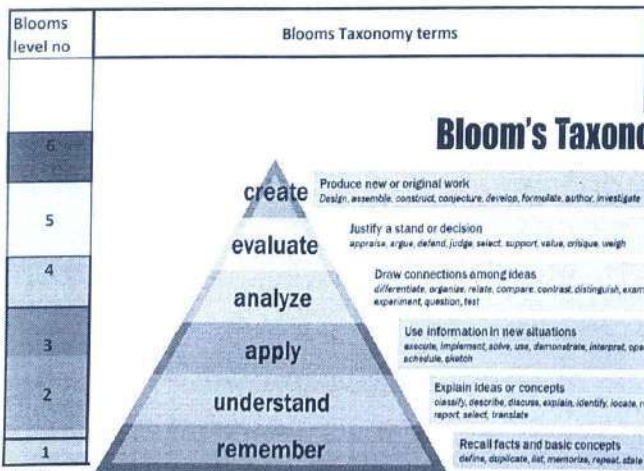
Course : FIBER OPTIC COMMUNICATION

Name of Faculty: Prof. J. J. Bandal

Unit No. and Name : Unit II Optical Sources

Batch No.

| Question No. | Question Statement | CO Mapping | Blooms Level |
|--------------|---|------------|--------------|
| 1 | State and explain the major requirements of good optical sources | CO1 | BT_2 |
| 2 | Distinguish direct and indirect band-gap semiconductor materials | CO3 | BT_4 |
| 3 | What are direct band gap and indirect band gap semiconductors with necessary diagrams? | CO1 | BT_1 |
| 4 | Why is silicon not used to fabricate LED or Laser diodes? | CO1 | BT_1 |
| 5 | Calculate the band-gap energy for an LED to emit 850 nm | CO2 | BT_3 |
| 6 | Evaluate the peak emission wavelength of an LED that uses Al 0.11Ga0.89 As as active region | CO3 | BT_2 |
| 7 | What are the various types of optical sources? Explain with diagrams and characteristics and working of LED. State its specifications, advantages and disadvantages. | CO1 | BT_2 |
| 8 | What do you understand about the term external quantum efficiency and internal quantum efficiency in the case of LED? | CO1 | BT_2 |
| 9 | Explain external quantum efficiency and the external power generated in the LED with necessary equations | CO1 | BT_2 |
| 10 | Explain the following terms w.r.t. LED 1. Spectral Width 2. Modulation Bandwidth 3. Quantum Efficiency 4. I-P characteristics | CO1 | BT_2 |
| 11 | An LED has radiative and non-radiative recombination times of 30 and 100 ns respectively. The drive current is 40mA. Determine 1. The internal quantum efficiency 2. Bulk recombination time 3. Internal Power level | CO2 | BT_3 |
| 12 | Mention the various types of LED structures. | CO1 | BT_1 |
| 13 | What are different Analog Drive circuits for LEDs? Explain any one with neat diagram. | CO1 | BT_2 |
| 14 | Explain the following terms 5. Absorption 6. Spontaneous Emission 7. Stimulated Emission | CO1 | BT_2 |
| 15 | Differentiate stimulated emission and spontaneous emission. | CO3 | BT_4 |
| 16 | Differentiate stimulated emission and spontaneous emission. | CO1 | BT_2 |



- Note:
- Example demonstrate the method for filling the data
 - Blooms Taxonomy is provided for Ready Reference

Sub. Incharge sign:

Sign of Faculty



DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

Academic Year : 2022-23 , Semester - II

QUESTION BANK UNIT 3

Class : **BE**

Course : **FIBER OPTIC COMMUNICATION**

Name of Faculty: **Prof. J. J. Bandal**

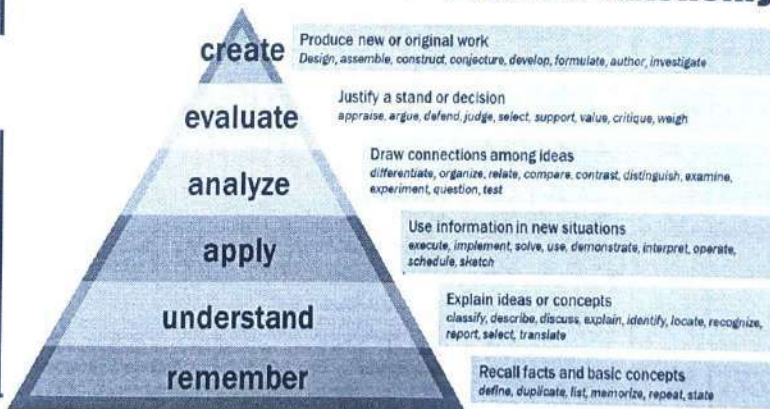
Unit No. and Name : **Unit III Photodetectors**

Batch No.

| Question No. | | Question Statement | CO Mapping | Blooms Level |
|--------------|---|---|------------|--------------|
| 1 | a | Explain performance and compatibility requirements for photodetectors | CO1 | BT_2 |
| | b | Explain the following terms I) Quantum efficiency ii) Responsivity iii) Long cut off wavelength | CO1 | BT_2 |
| 2 | a | Draw structure of p-i-n photodiode and explain its operation in brief. Plot the responsivity curve as a function of wavelength for p-i-n photodiodes constructed of silicon. | CO1 | BT_2 |
| | b | Draw the structure of APD and explain its working | CO1 | BT_2 |
| 3 | a | A given APD has a quantum efficiency of 80% at a wavelength of 900 nm. Suppose 0.5 micro watt of optical power produces a multiplied photocurrent of 11 micro A. Find multiplication factor | CO2 | BT_3 |
| | b | Compare pin diode and APD | CO3 | BT_4 |
| 4 | a | Write short note on 1. Quantum noise 2. Dark noise 3. Thermal noise | CO1 | BT_2 |
| | b | Explain receiver sensitivity and BER | CO1 | BT_2 |

| Blooms level no | Blooms Taxonomy terms |
|-----------------|-----------------------|
| 6 | |
| 5 | |
| 4 | |
| 3 | |
| 2 | |
| 1 | |

Bloom's Taxonomy



- Note:
1. Example demonstrate the method for filling the data
 2. Blooms Taxonomy is provided for Ready Reference

Sub. Incharge sign:



Class : BE

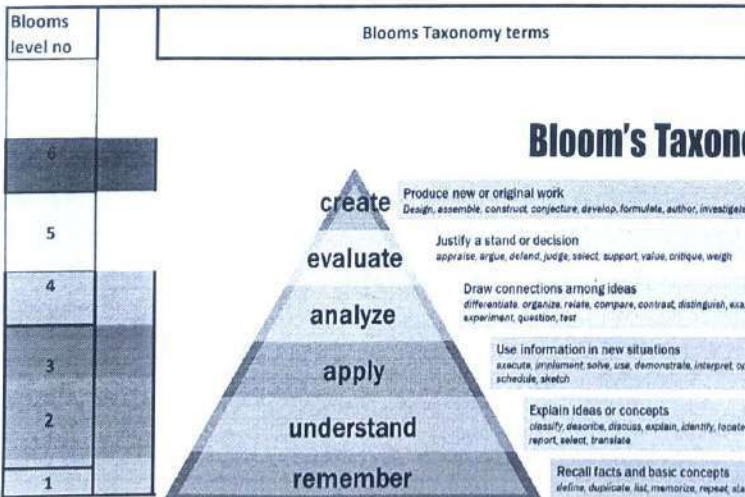
Course : FIBER OPTIC COMMUNICATION

Name of Faculty: Prof. J. J. Bandal

Unit No. and Name : Unit IV Fiber Optic Link Design & WDM Systems

Batch No.

| Question No. | Question Statement | CO Mapping | Blooms Level |
|--------------|--|------------|--------------|
| 1 | a. An optical fiber system uses fiber cable which exhibits a loss of 7 dB/km. average splice losses for the system are 1.5 dB/km and connector losses at the source and detector are 4 dB each. After safety margins have been allowed, the total permitted channel loss is 37 dB. Assuming the link to be attenuation limited, determine the maximum possible transmission distance without a repeater. | CO4 | BT_4 |
| | b. Explain the gain process in a Raman fiber amplifier and comment upon the flexibility associated with the pumping process in this fiber amplifier type. | CO2 | BT_5 |
| 2 | a. Draw the block diagram of a point to point optical fiber link and explain the function of blocks needed in it. | CO1 | BT_2 |
| | b. Develop the power loss model for the given 86 km long haul optical fiber system with the given parameters. System operates at a wavelength of 1300 nm. Mean power launched from the laser transmitter is -3 dBm. Cabled fiber loss is 0.4 dB/km, splice loss for the link is 0.1 dB/km, connectors used at transmitter and receiver respectively is 1 dB. Mean power required at the APD receiver when operating at 35 Mbps is -55 dBm. Propose the required system margin. | CO4,CO5 | BT_5 |
| 3 | a. Propose the choice of design components including transmission wavelength for the optical fiber system used for 25 Gbps.km. Discuss the reasons for the selection of a particular component. | CO4,CO5 | BT_6 |
| | b. Explain the working principle of Fiber Bragg Grating. With the help of diagram explain how it is useful as an Optical Add Drop Multiplexer. | CO1 | BT_3 |
| 4 | a. A digital optical fiber system uses an RZ pulse format. An optical fiber link is required to operate over a distance of 10 km without repeaters. The fiber available exhibits a rise time due to intramodal dispersion of 0.2 ns/km. in addition the APD detector has a rise time of 1 ns. Estimate the maximum rise time allowable for the source in order for the link to be successfully operated at a transmission rate of 40 Mbps | CO4,CO5 | BT_5 |
| | b. detail. | CO1 | BT_3 |



Note:

1. Example demonstrate the method for filling the data
2. Blooms Taxonomy is provided for Ready Reference

Sub. Incharge sign:



QUESTION BANK UNIT 5

Class : BE

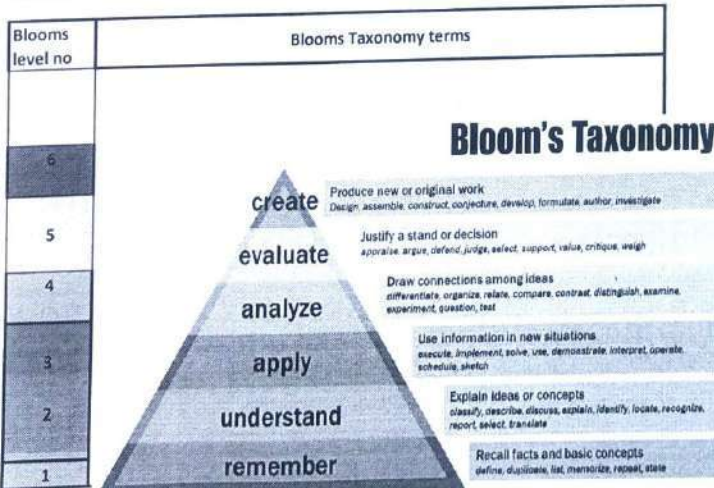
Course : FIBER OPTIC COMMUNICATION

Name of Faculty: Prof. J. J. Bandal

Unit No. and Name : Unit V Optical Networks

Batch No.

| Question No. | Question Statement | CO Mapping | Blooms Level |
|--------------|--|------------|--------------|
| 1 | Define Optical Network. Explain the term optical node & light path with suitable diagram relative to optical network. | CO1 | BT_2 |
| 2 | Define network topology. State and explain types of network topologies with suitable diagram. | CO1 | BT_2 |
| 3 | State Advantages and desirable properties of optical network. | CO1 | BT_1 |
| 4 | Compare Asynchronous and Synchronous Optical Network. Explain SONET with respect to structure, elements, STS 1 frame structure. | CO3 | BT_4 |
| 5 | Explain SONET with respect to SONET ring, advantages, applications. | CO1 | BT_2 |
| 6 | Compare active optical network (AON) and passive optical network (PON). Explain concept of PON with suitable diagram. | CO3 | BT_4 |
| 7 | With suitable diagram explain Gigabit Passive Optical Network (GPON). Using internet resources, compile state of art technology related to GPON. | CO6 | BT_6 |
| 8 | With suitable diagram explain Long Haul, Metropolitan Area Network (MAN) and access network. | CO1 | BT_2 |
| 9 | With suitable diagram explain Submarine optical networks. Using internet resources, compile state of art technology related to Submarine optical networks. | CO6 | BT_6 |
| 10 | What is Fiber Distributed Data Interface (FDDI). Explain with diagram FDDI with respect to ring structure, Reference Model, frame and topology used. | CO1 | BT_2 |
| 11 | What is FTTH. What are the different categories of FTTH. Explain FTTH with respect to architecture, advantages. Compare the categories. | CO3 | BT_4 |
| 12 | With suitable diagram explain concept of FTTH. State advantages of FTTH. Using internet resources, compile state of art technology related to FTTH. | CO6 | BT_6 |
| 13 | With suitable diagram explain concept of FTTP. State advantages of FTTP. Using internet resources, compile state of art technology related to FTTP. | CO6 | BT_6 |



Note:

1. Example demonstrate the method for filling the data
2. Blooms Taxonomy is provided for Ready Reference

Sub. Incharge sign: _____



QUESTION BANK UNIT - 6

Class : BE

Course : FIBER OPTIC COMMUNICATION

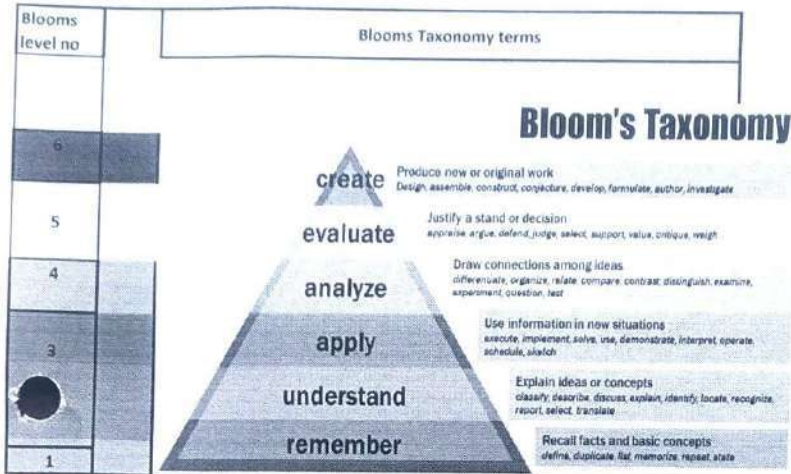
Name of Faculty: Prof. J. J. Bandal

Unit No. and Name : Unit VI Optical Fiber Measurements

Batch No.

| Question No. | Question Statement | CO Mapping | Blooms Level |
|--------------|---|------------|--------------|
| 1 | a Describe with necessary experimental arrangement for the measurement of the signal attenuation in an optical fiber by cutback technique | CO6 | BT_2 |
| | b A multimode fiber of length 1.8 km is connected to an apparatus for the measurement of attenuation coefficient by cutback technique. The output voltage from the photodetector using 1.8 km fiber length is found to be 2.5 V at an wavelength of 0.9 μm . Without disturbing the system the fiber is then cutback to a length of 2 meters, and the measured output voltage from the photodetector is found to be 11.5 volts. Estimate the value attenuation per km in dB. | CO6 | BT_3 |
| 2 | a Describe and explain the experimental set up used in OTDR technique. How is the attenuation measured by this technique? Give the representative results obtained from OTDR expt. Explain a typical curve obtained on the scope giving representative results of the expt. What is limitation of this technique. | CO6 | BT_3 |
| | b Describe the arrangement for the experimental set up for the time domain fiber dispersion measurement. Find the relationship between the pulse broadening and the widths of input and output pulses with assumption that the shape of pulses are Gaussian. Pulse broadening measurement expt. Is done on a 2 Km length of a multimode step index fiber. The 3 dB width of the input and output pulses are found to be 300 ps and 12.6 ns respectively. Estimate a> a 3 dB pulse broadening for the fiber in ns/km, and b> bandwidth length product of the fiber. Assume that the input and output pulses are Gaussian in shape. | CO6 | BT_3 |
| 3 | a Describe with the experimental arrangement for the frequency domain dispersion measurement. | CO6 | BT_2 |
| | b How can you measure the numerical aperture of a fiber by a> scanning photodetector and rotating stage method and b> b> trigonometric method | CO6 | BT_2 |
| | a Compare and contrast two simple techniques used for the measurement of the numerical aperture of optical fibers. Numerical aperture measurements are performed on an optical fiber. The angular limit of the far-field pattern is found to be 26.1° when the fiber is rotated from a center zero point. The far-field pattern is then displayed on a screen where its size is measured as 16.7 cm. Determine the numerical aperture for the fiber and the distance of the fiber output end face from the screen. | CO6 | BT_3 |

| | | | | | | |
|---|---|---|----------------------------|-------------------------------|-----|------|
| 4 | b | Input pulse width | Output pulse width | Fiber length | CO1 | BT_3 |
| | | (i) Multimode fiber (ii) Single-mode fiber | (3 dB) 400 ps 200 ps | (3 dB) 11.20 ns 4.25 ps | | |
| <p>Pulse dispersion measurements in the time domain are taken on a multimode and a single-mode step index fiber. The results recorded are:</p> <p>Calculate the optical bandwidth over 1 kilometer for each fiber assuming Gaussian pulse shapes.</p> | | | | | | |



Note:

1. Example demonstrate the method for filling the data
2. Blooms Taxonomy is provided for Ready Reference

Sub. Incharge sign: 

9. Teacher Guardian

| Div. | Batch |
|------|----------------|
| | S ₁ |



Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

S. No. 237, Dhangwadi, Tal, Bhore, Dist Pune.

GUARDIAN TEACHER SCHEME ACADEMIC YEAR 20 -20 SEMESTER I

Name of Staff : Prof. J. J. Bandal

Department : EGTC Mob No. : 9657498032

Class: SE Batch : S₁

SEMESTER II

Name of Staff : Prof. J. J. Bandal

Department : EGTC Mob No. : 9657498032

Class: SE Batch : S₁

| Sr. No. | Particulars |
|----------------------|---|
| 1 | List of Student (Mentee) |
| 2 | Student Information (Mentee) |
| Semester - I | |
| 3 | Time Table : Semester I |
| 4 | Postal Record : Semester I |
| 5 | Phone Call Record : Semester I |
| 6 | Student Councelling Record : Semester I |
| 7 | Meeting Attendance Record : Semester I |
| 8 | Student Councelling Record : Semester I |
| 9 | Improvement Status Record : Semester I |
| 10 | Subject- Wise Theory Attendance after Four Weeks With Test Marks |
| 11 | Subject -Wise Practical Attendance after Four Weeks |
| 12 | Subject-Wise Theory Attendance after Eight Weeks With Test Marks |
| 13 | Subject-Wise Practical Attendance after Twelve Weeks |
| 14 | Subject-Wise Final Theory Attendance |
| 15 | Subject-Wise Final Practical Attendance |
| 16 | Prelim Results |
| 17 | University Results |
| Semester - II | |
| 18 | Time Table : Semester II |
| 19 | Postal Record : Semester II |
| 20 | Phone Call Record : Semester II |
| 21 | Student Meeting Record : Semester II |
| 22 | Meeting Attendance Record : Semester II |
| 23 | Student Councelling Record : Semester II |
| 24 | Improvement Status Record : Semester II |
| 25 | Subject - Wise Theory Attendance after Four Weeks With Test Marks |
| 26 | Subject- Wise Practical Attendance after Four Weeks |
| 27 | Subject- Wise Theory Attendance after Eight Weeks |
| 28 | Subject - Wise Pactical Attendance after Eight Weeks |
| 29 | Subject- Wise Final Theory Attendance |
| 30 | Subject- Wise Final Practical Attendance |
| 31 | Prelim Results |
| 32 | University Results |



List of Students (Mentee)

| Roll No. | Name of Students | Remarks |
|-----------|-----------------------------|---------|
| SET21F001 | Ambike Atul Vilas | |
| SET21F002 | Andhalikar Akshada Yashwant | |
| SET22D003 | Bhosale Ankita Ramchandra | |
| SET21F004 | Borkar Sameer Bhanudas | |
| SET22D005 | Chavan Tejas Deepak | |
| SET21F006 | Deshmukh Adesh Hemant | |
| SET22D007 | Devkar Pooja Dhanaji | |
| SET21F008 | Dhaigude Aditya Ganpat | |
| SET22D009 | Dham Diksha Vinod | |
| SET21F010 | Dhumal Shivanjali Santosh | |
| SET21F011 | Dudhane Devang Dattatray | |
| SET22D012 | Gadre Pooja Shivaji | |
| SET21F013 | Gaikwad Sakshi Bhimaji | |
| SET22D014 | Ghore Kishor Ramchandra | |
| SET22D015 | Gita Datta Tapkar | |
| SET21F016 | Gole Pradnya Laxman | |
| SET21F017 | Gole Shruti Sunil | |
| SET22D018 | Hingane Ganesh Pravin | |
| SET21F019 | Howal Vijay Vikas | |
| SET22D020 | Jadhav Ankita Aba | |
| SET22D021 | Jadhav Gayatri Ramdas | |
| SET21F022 | Jagtap Aditya Sanjay | |
| SET21F023 | Jagtap Saurav Pramod | |
| SET22D024 | Jangam Aishwarya Bujrany | |
| SET22D025 | Jangam Mayur Vinayak | |
| | | |
| | | |



MENTEE INFORMATION



Roll No. SET21F001 Batch : SI

Name : Ambike Atul Vilas

Mobile No. : 7499634241 .. Email Id : atulambike1214@gmail.com

Correspondence Address : At - Gundewadi, Post - Dhawadi
Tal - Wai, Dist - Satara

Name of Parent / Guardian : Ambike Vilas Serjeras

Mobile No. of Parent : 7350949383 .. Relation with Guardian : Father ..

Family Educational Background :

Occupation of Parent : Farmer .. Blood Group : B⁺

ABCID : 300854343988

MENTEE INFORMATION



Roll No. SET21F002 Batch : SI

Name : Andhalikar Akshada Yashwant

Mobile No. 9960683285 .. Email Id : akshadaandhalikar27@gmail.com ..

Correspondence Address : Sanghavi Residency, Flat No.21
Bajarang Ali, Bhor

Name of Parent / Guardian : Sulbha Yashwant Andhalikar

Mobile No. of Parent : 7058683285 .. Relation with Guardian : Mother ..

Family Educational Background :

Occupation of Parent : Teacher .. Blood Group : A⁺

ABCID : 134200169063



MENTEE INFORMATION

Roll No. SET22D003 Batch: S1
 Name: Bhosale Ankita Ramchandra
 Mobile No.: 9552208243 Email Id: shreyabhosale2003@gmail.com
 Correspondence Address: At - post Ajnaji Tal - Khandala
 Dist - Satara
 Name of Parent / Guardian: Ramchandra Vaman Bhosale
 Mobile No. of Parent: 9373317246 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Farmer Blood Group:
 ABCID: 818852448181

MENTEE INFORMATION

Roll No. SET22D005 Batch: S1
 Name: Chavan Tejas Deepak
 Mobile No.: 9890863807 Email Id: tdchavan9889@gmail.com
 Correspondence Address: At - Post Hatnushi, Tal - Bhar
 Dist - Pune
 Name of Parent / Guardian: Dipak Malahari Chavan
 Mobile No. of Parent: 9890914727 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Farmer Blood Group:
 ABCID: 140457155662

MENTEE INFORMATION

Roll No. SET21F004 Batch: S1
 Name: Borkar Sameer Bhanudas
 Mobile No.: 9067671977 Email Id: borkarsameer.01@gmail.com
 Correspondence Address: At - Post Narayanpur, Tal - Purandar
 Dist - Pune
 Name of Parent / Guardian: Borkar Bhanudas Baban
 Mobile No. of Parent: 8468909053 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Farmer Blood Group: A+B
 ABCID: 158172401874

**MENTEE INFORMATION**

Roll No. SET22D007 Batch: S1
 Name: Devkar Pooja Dhanaji
 Mobile No.: 7219561168 Email Id: Devkar.pooja@gmail.com
 Correspondence Address: At - Post Shindewadi
 Tal - Khandala Dist - Satara
 Name of Parent / Guardian: Devkar Dhanaji Shankar
 Mobile No. of Parent: 9850383603 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: MESSON Blood Group:



MENTEE INFORMATION

Roll No. SET21F008 Batch: S1
 Name: Dhayagude Aditya Gunpat
 Mobile No.: 9858950707 Email Id: adityadhayagude1137@gmail.com
 Correspondence Address: AT - Sukhed, Tal - Khandala
 Dist - Satara
 Name of Parent / Guardian: Dhayagude Gunpat Vishnu
 Mobile No. of Parent: 7709192877 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Farmer Blood Group:
 ABC ID: 623024895240

MENTEE INFORMATION

Roll No. SET22D009 Batch: S1
 Name: Dham Diksha Vinod
 Mobile No.: 9096640114 Email Id: dikshadham12@gmail.com
 Correspondence Address: A11, 304, Morya Society, Ghankul,
 Spine road, Chikhali, Pune
 Name of Parent / Guardian: Vinod B. Dham
 Mobile No. of Parent: 9923753351 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Service Blood Group:
 ABC ID: 276031767061

**MENTEE INFORMATION**

Roll No. SET21F000 Batch: S1
 Name: Dhumal Shivanjali Santosh
 Mobile No.: 7397945767 Email Id: shivanjalidhumal0707@gmail.com
 Correspondence Address: AT - post kuvanjkhop, Tal - Koregaon
 Dist - Satara
 Name of Parent / Guardian: Dhumal Santosh Babanrao
 Mobile No. of Parent: 7219827273 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Social worker Blood Group:
 ABC ID: 462529294754

MENTEE INFORMATION

Roll No. SET21F011 Batch: S1
 Name: Dudhane Devang Dattatray
 Mobile No.: 7447209145 Email Id: devangdudhane@gmail.com
 Correspondence Address: AT Nand Post ghind Tal. Bhos
 Dist Pune 412206
 Name of Parent / Guardian: Dudhane Dattatray Krushna
 Mobile No. of Parent: 7517920285 Relation with Guardian: Father
 Family Educational Background:
 Occupation of Parent: Farmer Blood Group: A+
 ABC ID: 165591967886



MENTEE INFORMATION



Roll No. SET22D012 Batch: SI
Name: Gadre Pooja Shivaji
Mobile No.: 774484642 Email Id: poojagadre92@gmail.com
Correspondence Address: AT post - khulod, Tal - Purandhar Dist - Pune, Pin - 412301
Name of Parent / Guardian: Gadre Shivaji Kaluram
Mobile No. of Parent: 9767686239 Relation with Guardian: Father
Family Educational Background:
Occupation of Parent: Peon Blood Group:
ABC ID: 849394804716

MENTEE INFORMATION



Roll No. SET22D014 Batch: SI
Name: Ghore Kishor Ramchandra
Mobile No.: 7083944439 Email Id: ghorekishor33@gmail.com
Correspondence Address: At-Sangavi b.K Post - Ambavane Tal-Bhor Dist-Pune
Name of Parent / Guardian: Ramchandra Sopan Ghore
Mobile No. of Parent: 7507502926 Relation with Guardian: Father
Family Educational Background:
Occupation of Parent: Farmer Blood Group: A+
ABC ID: 119121412603

MENTEE INFORMATION



Roll No. SET21FD13 Batch: SI
Name: Gaikwad Sakshi Bhimaji
Mobile No.: 8767960689 Email Id: sakshigaikwad12347@gmail.com
Correspondence Address: 706, Bhelakewadi, Bhor Tal-Bhor dist Pune 412206
Name of Parent / Guardian: Gaikwad Bhimaji Saxjexaa
Mobile No. of Parent: 9922822828 Relation with Guardian: father
Family Educational Background:
Occupation of Parent: farmer Blood Group: O+
ABC ID: 902361258362



MENTEE INFORMATION



Roll No. SET22D015 Batch: SI
Name: Tapkar Gita Datta
Mobile No.: 9503464980 Email Id: tapkargita2000@gmail.com
Correspondence Address: At-post Mandani, Tal - Ahmedpur Dist - Latur 413514
Name of Parent / Guardian: Mr. Datta Bapurav Tapkar
Mobile No. of Parent: 9145678230 Relation with Guardian: Father
Family Educational Background:
Occupation of Parent: Farmer Blood Group: B+



MENTEE INFORMATION

Roll No. SET21F016 Batch:

Name: Gole Pradnya Laxman

Mobile No.: 8806245665 Email Id: golepradnya24@gmail.com

Correspondence Address: AT - post Saswad

Name of Parent / Guardian: Laxman Dharamaji Gole

Mobile No. of Parent: 9860434505 Relation with Guardian: Father

Family Educational Background:

Occupation of Parent: Teacher Blood Group: A+

ABC ID: 372675567513

MENTEE INFORMATION

Roll No. SET22D018 Batch:

Name: Hingane Ganesh Pravin

Mobile No.: 7145090267 Email Id: ganeshhingne777@gmail.com

Correspondence Address: Nakhate wasti, Gulmohar colony, Rahatni Pune

Name of Parent / Guardian: Pravin Baburao Hingne

Mobile No. of Parent: 8884988765 Relation with Guardian: Father

Family Educational Background:

Occupation of Parent:

Blood Group:

ABC ID: - 809655211947

MENTEE INFORMATION

Roll No. SET21F017 Batch:

Name: Gole Shanti Sunil

Mobile No.: 9156009109 Email Id: shantigole.1027@gmail.com

Correspondence Address: 886, choupati Bhor Tal - Bhor, Dist - Pune

Name of Parent / Guardian: Gole Sunil Vasant

Mobile No. of Parent: 9881209668 Relation with Guardian: Father

Family Educational Background:

Occupation of Parent: Business Blood Group: A-

ABC ID: - 619602342235

**MENTEE INFORMATION**

Roll No. SET21F019 Batch: 51

Name: Hoval Vijay Vikas

Mobile No.: 8766820842 Email Id: vijayhaval4@gmail.com

Correspondence Address: At post Andori Tal - Khandala Dist - Satara Pin - 415521

Name of Parent / Guardian: Hoval Vikas Baban

Mobile No. of Parent: 9975328214 Relation with Guardian: Father

Family Educational Background:

Occupation of Parent: Farmer Blood Group: B+

ABC ID: - 698803292700



MENTEE INFORMATION



Roll No. SET22D020 Batch:

Name: Jadhav Ankita Aba

Mobile No.: 9699051530 Email Id: ankita.jadhav614@gmail.com

Correspondence Address: A/p - Kenjal
Tal Bhos, Dist - Pune

Name of Parent / Guardian: Aaba Sakharan Jadhav

Mobile No. of Parent: 9890569427 Relation with Guardian: father

Family Educational Background:

Occupation of Parent: farmer Blood Group:

MENTEE INFORMATION



Roll No. SET21F022 Batch:

Name: Jagtap Aditya Sanjay

Mobile No.: 9373751128 Email Id: contactadijagtap@gmail.com

Correspondence Address: At - Wadwadi, tal - Khandala,
dist - Satara, maharashtra 412801

Name of Parent / Guardian: Sanjay Eknath Jagtap

Mobile No. of Parent: 9067644258 Relation with Guardian: father

Family Educational Background:

Occupation of Parent: farmer Blood Group: O+

ABC ID: - 458 262 034 294

MENTEE INFORMATION



Roll No. SET22D021 Batch:

Name: Jadhav Gayatri Ramdas

Mobile No.: 8956670246 Email Id: gayatri.jadhav0846@gmail.com

Correspondence Address: At post Shirasgaon Kata
Tal - Shirur Dist - pune 412210

Name of Parent / Guardian: Ramdas Prakash Jadhav

Mobile No. of Parent: 9405854821 Relation with Guardian: father
9405854822

Family Educational Background:

Occupation of Parent: farmer Blood Group:



ABC ID - 326 714 289 113

MENTEE INFORMATION



Roll No. SET21F023 Batch:

Name: Jagtap Sourav Pramod

Mobile No.: 8888343670 Email Id: sourav.jagtap1488@gmail.com

Correspondence Address: At / Post: Dhanpuri, Tal - Khatav
Dist - Satara

Name of Parent / Guardian: Pramod Gulab Jagtap

Mobile No. of Parent: 9657233150 / 7796383638 Relation with Guardian: Father

Family Educational Background:

Occupation of Parent: farmer Blood Group: B+



MENTEE INFORMATION



Roll No. SET22D024 Batch
 Name Jangam Aishwarya Bajrang
 Mobile No. 9859014250 Email Id abjangam2203@gmail.com
 Correspondence Address Chakan Ambarhan Chowk
 Pune
 Name of Parent / Guardian Bajrang Shamrao Jangam
 Mobile No. of Parent 9628140712 Relation with Guardian: father
 Family Educational Background
 Occupation of Parent farmer Blood Group:
 AB ID: 917129339764

MENTEE INFORMATION



Roll No. SET220006 Batch
 Name Deshmukhi Adesh Hemant
 Mobile No. 5830396758 Email Id: adeshhemant15@gmail.com
 Correspondence Address: Shree Sai Heritage Flat no. 116
 4 floor, Navale bridge, Sadashivnagar Ambegaon Pune
 Name of Parent / Guardian: Hemant Vishwanath Deshmukhi
 Mobile No. of Parent: 9850473860 Relation with Guardian: father
 Family Educational Background:
 Occupation of Parent: Contractor Blood Group: A+
 ABC ID: 515746060750



MENTEE INFORMATION



Roll No. SET22D025 Batch
 Name Jangam Mayur Vinayak
 Mobile No. 7276407145 Email Id mayurjangama@gmail.com
 Correspondence Address 51 No 130, opp Ramkrushna Math
 Gate 2, Dandhas pool, Sinhagad road, pune-30
 Name of Parent / Guardian Vinayak Ramchandra Jangam
 Mobile No. of Parent 9421504340 Relation with Guardian: father
 Family Educational Background
 Occupation of Parent driver Blood Group:
 AB ID: 490261774599



MENTEE INFORMATION



Roll No. Batch:
 Name:
 Mobile No.: Email Id:
 Correspondence Address:
 Name of Parent / Guardian:
 Mobile No. of Parent: Relation with Guardian:
 Family Educational Background:
 Occupation of Parent: Blood Group:

PHONE CALL RECORD SEMESTER- I

| Sr No | Roll No | Name of the Mentee | Date | Time | Call Received By | Phone No | Points Discussed | Remark |
|-------|---------|--------------------|---------|--------|------------------|------------|------------------|--------|
| 1 | 01 | Ambike Atul | 1-11-22 | 3:00pm | Mother | 7350949383 | Regarding | |
| 2 | 02 | Akshada | - | 3:10 | Father | 9960683285 | Attendance | |
| 3 | 07 | Devkar Pooja | - | 3:15 | Brother | 7219561168 | - | |
| 4 | 11 | Dudhade Prang | - | 3:20 | Father | 7447209145 | - | |
| 5 | 09 | Dhas Diksha | - | 3:25 | Not Received | 9096640114 | - | |
| 6 | 15 | Tapkar Greta | - | 3:30 | Not Received | 9503464100 | - | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



PHONE CALL RECORD SEMESTER- I

| Sr No | Roll No | Name of the Mentee | Date | Time | Call Received By | Phone No | Points Discussed | Remark |
|-------|---------|--------------------|---------|-------|------------------|------------|------------------|--------|
| 06 | | Deshmukh Adesh | 1-11-22 | 12:00 | Father | 9650473860 | class Attendance | |
| 25 | | Jangam Mayur | - | 12:05 | Father | 9422504340 | Attendance | |
| 24 | | Jangam Aishwarya | - | 12:10 | Brother | 9623240718 | - | |
| 23 | | Jagtap Saurav | - | 12:15 | Uncle | 7796983638 | - | |
| 22 | | Jagtap Aditya | - | 12:20 | Mother | 9067644258 | - | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



PHONE CALL RECORD SEMESTER- I

| Sr. No. | Roll No. | Name of the Mentee | Date | Time | Call Received By | Phone No. | Points Discussed | Remark |
|---------|----------|--------------------|----------|-------|------------------|------------|------------------|-----------|
| | 21 | Jadhav Gayatri | 15-10-22 | 11:00 | Mother | 9405854822 | -r- | |
| | 20 | Jadhav Ankita | -r- | 11:00 | Mother | 9890569427 | -r- | Attendare |
| | 12 | Godre Pooja | -r- | 11:00 | Father | 9767686239 | -r- | issare |
| | 13 | Geukwad Sakshi | -r- | 11:00 | Mother | 9922822828 | -r- | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



MENTOR - MENTEE MEETING RECORD

| Meeting No. | Session Date & Time | No. of Students Present | Points Discussed |
|-------------|---------------------------------------|--|---|
| 01 | Morning 1.08.22 <u>11:30 Am</u> | Morning 1.08.22 12 Student Present | ▷ Discuss Mentor-Mentee obj. 1. Building M-M Relationship 2. discuss how to progress in sem-I 3. Compulsory Attendance.. |
| 02 | Afternoon 05.09.22 2:00 pm | 15 Student present | ▷ listen issues faced by student in campus such as 1. Water purifier 2. library Book issue 3. O.S. Admin work |
| 03. | Morning 1.11.22 11:15 Am | 22 Student present | points discuss about academic progress, Attendance, In-semester marks, upcoming practical exam & SPPU theory exam fear how to come over that... |
| Meeting No. | Session Date & Time | No. of Students present | Points Discussed |
| | | | |



MENTOR- MENTEE MEETING ATTENDANCE RECORD

| Roll No. | Name of the Student | Session No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total |
|-------------------------------------|---------------------|--------------|-----------------|---|---|---|---|---|---|---|---|----|-------|
| | | Date | | | | | | | | | | | |
| 1 | Ambilka Atul | 1-8 06/09 | P | | P | | | | | | | | |
| 2 | Adhalikar Akshada | | | P | P | | | | | | | | |
| 3 | Bhosale Ankita | | | | P | | | | | | | | |
| 4 | Borkar Sameer | | P | P | P | | | | | | | | |
| 5 | chavan Tejas | | | | P | | | | | | | | |
| 6 | Deshmukh Adern | | P | P | P | | | | | | | | |
| 7 | Devkar Pooja | | | | P | | | | | | | | |
| 8 | Dhaisule Aditya | | P | P | P | | | | | | | | |
| 9 | Dham Diksha | | P | P | P | | | | | | | | |
| 10 | Dhumal shivanjili | | P | P | P | | | | | | | | |
| 11 | Dudhane Devang | | P | P | | | | | | | | | |
| 12 | Gadre Pooja | | | P | P | | | | | | | | |
| 13 | Gaikwad Sakshi | | P | P | P | | | | | | | | |
| 14 | Ghose Kishor | | | | P | | | | | | | | |
| 15 | Gita Datta | | | P | P | | | | | | | | |
| 16 | Gole Pradnya | | | P | P | | | | | | | | |
| 17 | Gole shruti | | | | P | | | | | | | | |
| 18 | Hingane Ganesh | | P | P | | | | | | | | | |
| 19 | Hoval Vijay | | P | | P | | | | | | | | |
| 20 | Jadhav Ankita | | P | P | | | | | | | | | |
| 21 | Jadhav Gayatri | | P | P | P | | | | | | | | |
| 22 | Jagtap Aditya | | | | P | | | | | | | | |
| 23 | Jagtap Saurav | | | | P | | | | | | | | |
| 24 | Jangam Aishwarya | | | P | P | | | | | | | | |
| 25 | Jangam Mayur | | | | P | | | | | | | | |
| Signature of Faculty | | | M | M | M | | | | | | | | |
| Signature of Academic Co- Ordinator | | | ← [Signature] → | | | | | | | | | | |
| Signature of Head of Department | | | ← [Signature] → | | | | | | | | | | |



STUDENT COUNSELLING RECORD

Class : S.E.

Batch : 51

Name of Mentor : Prof. J.J. Bandal.

| Sr. No. | Roll No. | Name of the Mentee | Date | Time | Issue | Suggestion | Remark |
|---------|----------|------------------------------|--------|----------------------------|--|---|----------------------|
| 1 | 07 | Devkar Pooja Dhanaji | 1-8-22 | 11:00 Am TO 11:20 Am | class Attendance | attend all Regular classes | Showing improving |
| 2. | 19 | Hoyal Vijay Vikas. | 1-8-22 | 11:30 Am TO 11:40 Am | College Uniform & Communication with teacher. | financial Assitance speak regularly with all teachers | done |
| 3. | 06 | Deshmukh Adesh Hemant. | 1-8-22 | 2:00pm TO 2:30pm | poor marks. | focus on study & Regular classes | - |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



IMPROVEMENT STATUS OF MENTEES

| Roll No. | Name of the Student | Active Participation in Mentor Program (Yes/No) | Areas of Improvements Seen in Student | Remark |
|----------|---------------------|---|---------------------------------------|--------|
| 1 | Ambike Atul Vikas | Yes | Attendance | |
| 2 | Andhalikar Akshada | Yes | overall academic improvement | |
| 3 | Bhosale Ankita | Yes | Communication skill | |
| 4 | Borkar Sameer | Yes | Attendance | |
| 5 | Chavan Tejas | Yes | In sem mark improvement | |
| 6 | Deshmukh Adesh | Yes | Communication skill | |
| 7 | Devkar Pooja | Yes | Communication skill | |
| 8 | Dhaigude Aditya | Yes | Attendance | |
| 9 | Dham Diksha | Yes | Attendance | |



IMPROVEMENT STATUS OF MENTEES

| Roll No. | Name of the Student | Active Participation in Mentor Program (Yes/No) | Areas of Improvements Seen in Student | Remark |
|----------|---------------------|---|---------------------------------------|--------|
| 10 | Dhumal Shivanjali | Yes | Communication Skill | |
| 11 | Dudhane Devangy | Yes | Communication Skill | |
| 12 | Gadre Pooja | Yes | Attendance | |
| 13 | Gaikwad Sakshi | yes | Attendance | |
| 14 | Ghore Kishor | Yes | Communication skill | |
| 15 | Gita Datta | yes | In sem mark improvement | |
| 16 | Gole Prachya | yes | Comm ⁿ Skill | |
| 17 | Gole Shruti | yes | practical perform- improve | |
| 18 | Hingune Ganesh | yes | Communication skill | |



IMPROVEMENT STATUS OF MENTEES

| Roll No. | Name of the Student | Active Participation in Mentor Program (Yes / No) | Areas of Improvements Seen in Student | Remark |
|----------|---------------------|---|---------------------------------------|--------|
| 19 | Hoval Vijay | Yes | Attendance | |
| 20 | Jadhav Ankita | Yes | Attendance | |
| 21 | Jadhav Gayatri | Yes | Communication skill | |
| 22 | Jagtap Aditya | Yes | Academic performance improve | |
| 23 | Jagtap Saizav | Yes | Communication skill | |
| 24 | Jagam Ashwarya | Yes | Academic Performance improvement | |
| 25 | Jagam Mayur | Yes | Attendance | |
| | | | | |
| | | | | |



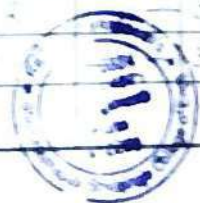
PHONE CALL RECORD SEMESTER- II

| Sl No | Roll No | Name of the Mentee | Date | Time | Call Received By | Phone No | Points Discussed | Remark |
|-------|----------|--------------------|---------|-------|------------------|------------|--|-------------------------------|
| 1 | SET11001 | Ambike Atul Vilas | 22/1/23 | 1:30 | Not Received | 7350949353 | | |
| 2 | SET21002 | Chazale Anika R | — | 1:45 | Father | 9355512246 | Regarding attendance not attending class regularly | Not attending class regularly |
| 3 | SET11003 | Dhaigude Aditya G | — | 1:55 | Brother | 7709192877 | | |
| 4 | SET21004 | Dhumal Shivraj B | — | 2:00 | Father | 7219522278 | | |
| 5 | SET21005 | Dudhane Devang D | — | 2:10 | Not Received | 7517920285 | | |
| 6 | SET21006 | Ghose Kishor R | — | 2:15 | Father | 7501802926 | Not attending class regularly | Not attending class regularly |
| 7 | SET11007 | Hovul Vijay Vikas | — | 2:20 | Not Received | 9977282114 | | |
| 8 | SET21008 | Jadhav Gayatri R | — | 2:25 | Not Received | 9405854222 | | |
| 9 | SET11009 | Jagtap Saurav P | — | 2:30 | Mother | 739083638 | Regarding class attendance | Not attending class regularly |
| 10 | SET21010 | Jangam Mayur V | — | 2:35 | Father | 9422504340 | | |
| | SET21011 | Ambike Atul Vilas | 2/2/23 | 1:30 | Not Received | 7350949353 | | |
| | SET21012 | Bekekar Sameer B | — | 11:35 | Father | 740992051 | Not attending class regularly | Not attending class regularly |
| | SET21013 | Dhaigude Aditya G | — | 11:42 | Brother | 7709192877 | | |
| | SET21014 | Dhumal Shivraj B | — | 11:48 | Father | 7219522278 | | |
| | SET21015 | Dudhane Devang | — | 11:53 | Father | 7517920285 | | |
| | SET21016 | Jangam Mayur V | — | 11:55 | Father | 9422504340 | | |



PHONE CALL RECORD SEMESTER- II

| Sl No | Roll No | Name of the Mentee | Date | Time | Call Received By | Phone No | Points Discussed | Remark |
|----------|----------|--------------------|---------|------|------------------|------------|----------------------|-----------------------------------|
| SET11001 | SET11001 | Ambike Atul Vilas | 4/3/23 | 1:30 | Father | 7350949353 | Not attend class | Some work pending |
| SET21002 | SET21002 | Deshmukh Adesh H | — | 1:35 | Father | 9850479860 | — | Not feeling well |
| SET21003 | SET21003 | Dhaigude Aditya | — | 1:45 | Father | 7709192877 | — | EBC scholarship problem |
| SET21004 | SET21004 | Dudhane Devang D | — | 1:50 | Father | 7517920285 | — | C - language class |
| SET21005 | SET21005 | Hovul Vijay Vikas | — | 1:55 | Father | 9977282114 | — | |
| SET21006 | SET21006 | Jadhav Gayatri | — | 2:00 | Father | 9405854222 | — | Not decided regular or external |
| SET21007 | SET21007 | Jangam Mayur V | — | 2:05 | Father | 9422504340 | — | Not feeling well |
| SET21008 | SET21008 | Dhaigude Aditya | 7/3/23 | 2:00 | Brother | 7709192877 | — | Submit medical certificate |
| SET21009 | SET21009 | Jagtap Saurav P | — | 4:10 | Mother | 739083638 | — | EBC problem |
| SET21010 | SET21010 | Dudhane Devang | 20/3/23 | 4:00 | Father | 7517920285 | Attendance | 6 - day absent |
| SET21011 | SET21011 | Dhaigude Aditya | — | 4:10 | Father | 7709192877 | Not Received | 20/3/23 - Not in park with Sister |
| SET21012 | SET21012 | Deshmukh Adesh H | 22/3/23 | 2:55 | Father | 9850479860 | C - class attendance | Some homework pending |
| SET21013 | SET21013 | Dhaigude Aditya | — | 3:00 | Not Received | 7709192877 | Not Received | |
| SET21014 | SET21014 | Dhumal Shivraj B | — | 3:05 | Brother | 7219522278 | C - class attendance | Not feeling well |
| SET21015 | SET21015 | Jagtap Saurav P | — | 3:25 | Mother | 739083638 | Attendance | Not feeling well |



MENTOR - MENTEE MEETING RECORD

| Meeting No. | Session Date & Time | No. of Students Present | Points Discussed |
|-------------|---------------------|-------------------------|--|
| 1 | 13/2/23 3:35pm | 13 | Discuss Objective of a mentor-mentee meeting. 1) Building a relationship 2) Setting goals 3) Guidance & Support 4) Sharing knowledge 5) Evaluating process. |
| 2 | 20/2/23 3:35pm | 11 | Assignment given to all student 1. Write 1-2 Pages on a person you know who has influenced you a lot. You should have sufficiently interacts with that person. It may be core family member/extended family member/teacher/ neighbour (Two persons) |
| 3 | 15/3/23 | 08 | Assignment given to all student Building relationship evaluation process. |
| 4 | 27/3/23 | 11 | discuss about future goals & foundation about that same goals Personality Development related Hygienic awareness about health. |



MENTOR- MENTEE MEETING ATTENDANCE RECORD

| Roll No. | Name of the Student | Session No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total |
|-------------------------------------|---------------------|-------------|---|---|---|---|---|---|---|---|---|----|-------|
| | | Date | | | | | | | | | | | |
| 1 | Ambike Atul Vilas | 13/2/2023 | | | | | | | | | | | |
| 2 | Andhalikar Akshada | | | | | | | | | | | | |
| 3 | Bhosale Ankita | | | | | | | | | | | | |
| 4 | Borkar Sameer | | | | | | | | | | | | |
| 5 | Chavan Tejas | | | | | | | | | | | | |
| 6 | Deshmukh Adesh | | | | | | | | | | | | |
| 7 | Devkar Pooja | | | | | | | | | | | | |
| 8 | Dhaigude Aditya | | | | | | | | | | | | |
| 9 | Dhum Diksha | | | | | | | | | | | | |
| 10 | Dhumal Shivanjali | | | | | | | | | | | | |
| 11 | Dhudhane Devang | | | | | | | | | | | | |
| 12 | Godre Pooja | | | | | | | | | | | | |
| 13 | Gaikwad Sakshi | | | | | | | | | | | | |
| 14 | Ghore Kishor | | | | | | | | | | | | |
| 15 | Gita Tapkar | | | | | | | | | | | | |
| 16 | Gole Pradnya | | | | | | | | | | | | |
| 17 | Gole Shruti | | | | | | | | | | | | |
| 18 | Higane Ganesh | | | | | | | | | | | | |
| 19 | Hoval Vijay | | | | | | | | | | | | |
| 20 | Jadhav Ankita | | | | | | | | | | | | |
| 21 | Jadhav Gayatri | | | | | | | | | | | | |
| 22 | Jagtap Aditya | | | | | | | | | | | | |
| 23 | Jagtap Saurav | | | | | | | | | | | | |
| 24 | Jangam Aishwarya | | | | | | | | | | | | |
| 25 | Jangam Mayur | | | | | | | | | | | | |
| Signature of Faculty | | | | | | | | | | | | | |
| Signature of Academic Co- Ordinator | | | | | | | | | | | | | |
| Signature of Head of Department | | | | | | | | | | | | | |



STUDENT COUNSELLING RECORD

Class : S.E.

Batch : 51

Name of Mentor : Prof. J.J. Bandal

| Sr. No. | Roll No. | Name of the Mentee | Date | Time | Issue | Suggestion | Remark |
|---------|----------|--------------------|---------|--------------------------|--|---|------------------|
| 1 | 04 | Barkar sameer | 13/2/23 | 11:30 Am to 11:45 | Poor Attendance | ▷ Attend Regular classes & Pr. make good friend | Improvement seen |
| 2. | 15 | Gita tepkar | 13/2/23 | 12:00 to 12:30 | Poor Communication skill. | ▷ enhance english vocabulary. | |
| 3. | 23 | Jagtey Sourav | 13/2/23 | 1:00 pm to 1:20 pm | Average marks in sem exam | Attend Regular classes of all subject | |
| 4 | 25 | Jangam Mayur | 13/2/23 | 3:00 pm to 3:10 pm | Poor Attendance Communication skill | Regular classes & Pr. | Improvement |
| | | | | | | | |
| | | | | | | | |



IMPROVEMENT STATUS OF MENTEES

| Roll No. | Name of the Student | Active Participation in Mentor Program (Yes/No) | Areas of Improvements Seen in Student | Remark |
|----------|---------------------|---|---------------------------------------|--------|
| 1 | Ambike Atul | Yes | Communication skill | |
| 2 | Adhalikar Akshada | Yes | Lab Practical Performance | |
| 3 | Bhosale Ankita | Yes | Attendance | |
| 4 | Borkar Sameer | Yes | Communication | |
| 5 | chavan Tejas | Yes | Communication | |
| 6 | Deshmukh Adesh | Yes | Attendance | |
| 7 | Derkar Pooja | Yes | SPPU TH exam paper writing | |
| 8 | Dhaigude Aditya | Yes | Attendance | |
| 9 | Dham Diksha | Yes | Communication | |



IMPROVEMENT STATUS OF MENTEES

| Roll No. | Name of the Student | Active Participation in Mentor Program (Yes/No) | Areas of Improvements Seen in Student | Remark |
|----------|---------------------|---|---------------------------------------|--------|
| 10 | Dhumal Shrawjali | Yes | Communication | |
| 11 | Dudhane Devang | Yes | Attendance | |
| 12 | Gadse Pooja | Yes | lab practical performance | |
| 13 | Gautwad Sakshi | Yes | Communication | |
| 14 | Ghose Raj Kishor | Yes | Attendance | |
| 15 | Gita Datta | Yes | TH exam preparation | |
| 16 | Gole Poojya | Yes | Communication | |
| 17 | Gole Shruti | Yes | Attendance | |
| 18 | Hingane Ganesh | Yes | TH exam preparation | |



IMPROVEMENT STATUS OF MENTEES

| Roll No. | Name of the Student | Active Participation in Mentor Program (Yes/No) | Areas of Improvements Seen in Student | Remark |
|----------|---------------------|---|---------------------------------------|--------|
| 19 | Hawal Vijay | Yes | Overall Academic growth | |
| 20 | Jadhav Ankita | Yes | Communication | |
| 21 | Jadhav Gayatri | Yes | Communication | |
| 22 | Jagtap Aditya | Yes | Attendance | |
| 23 | Jagtap Sourav | Yes | Communication | |
| 24 | Jangam Aishwarya | Yes | Attendance | |
| 25 | Jangam Mayur | Yes | lab practical performance | |
| | | | | |
| | | | | |





10. NPTEL Video

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Academic Year : 2022 -23 , SEM - II

| | |
|---------------------|-----------------------------------|
| Class: BE | Course: Fiber Optic Communication |
| Course Code: 404190 | Faculty Name: Prof. Bandal J. J. |

DIGITAL CONTENTS

| Lecture No | Topics to be covered | References (With Page No) |
|------------|----------------------|---------------------------|
|------------|----------------------|---------------------------|

UNIT I

C. DIGITAL CONTENTS

| Sr.No. | Name of Topic | NPTEL Video Link (Web Address) |
|--------|--|---|
| W1 | Fundamentals of Optical Communication: EM spectrum | https://www.youtube.com/watch?v=iZOG39v73c4&embeds_embed_url=https%3A%2F%2Fnptel.ac.in%2F&feature=emb_rel_pause |
| W2 | Shannon channel capacity | http://nitttrc.edu.in/nptel/courses/video/108104098/L35.html |
| W3 | Optical Fiber Waveguides | https://enine.digimat.in/nptel/courses/video/115107095/L19.html |

D. DIGITAL CONTENTS

| Sr.No. | Name of Topic | Other Video Links / PPT / PDF |
|--------|---|---|
| W1 | Optical fibers for 5G | https://community.fs.com/blog/5-types-of-optical-fibers-for-5g-networks.html |
| W2 | Fiber types | https://youtu.be/C8tNsfmCC6M |
| W3 | Optical Fiber Waveguides | https://youtu.be/4S5aP-LD1jg |
| W4 | Mode theory for circular waveguides | https://youtu.be/ZMoFd21QTyl |
| W5 | Signal distortion | https://youtu.be/BGUhTDWkwx8 |
| W6 | intermodal delay, intramodal dispersion or chromatic dispersion | https://youtu.be/G4OpQnJFUe |

D. DIGITAL CONTENTS

| Sr.No. | Name of Topic | e-Book |
|--------|----------------------------------|---|
| 1 | Fiber Optic Communication System | https://drive.google.com/file/d/1gCv3w5a1C3ScieAP9A0-KMX_rC3O2Gmwd/view?usp=drive_embed |



UNIT II

C. DIGITAL CONTENTS

| Sr.No. | Name of Topic | NPTL Video Link (Web Address) |
|--------|--|---|
| W1 | Optical Sources: Introduction | https://youtu.be/olurmHsRFSc |
| W2 | Optical Sources | https://youtu.be/ougKUUM3hJA |
| W3 | Analog modulation, digital modulation, | https://youtu.be/C3Vh2f_a4LI |
| W4 | Semiconductor Laser Diodes | https://youtu.be/sb9KEhKSkPc |
| W5 | Output power characteristics | https://youtu.be/oR5mcmGwOu8 |
| W6 | Semiconductor Laser Diodes | https://youtu.be/x2Ls32-jWkQ |

D. DIGITAL CONTENTS

| Sr.No. | Name of Topic | Other Video Links / PPT / PDF |
|--------|---|---|
| W1 | Optical Sources: | https://youtu.be/lz-httvciFIQ |
| W2 | LED: principle of working Quantum efficiency Optical output power characteristics | https://youtu.be/7yj8Hk3hokI |
| W3 | Analog modulation, digital modulation, | https://youtu.be/SJrwnqHFXJE |
| W4 | Semiconductor Laser | https://youtu.be/gX5vd7AZyJA |
| W5 | Laser Diode | https://youtu.be/4xiZQW-WHQQ |
| W6 | Output power characteristics of Laser | https://youtu.be/6IHyoynNKb0 |

UNIT III

C. DIGITAL CONTENTS

| Sr.No. | Name of Topic | NPTL Video Link (Web Address) |
|--------|------------------------------------|---|
| W1 | Photo Detector | https://youtu.be/1X2Xt7wlcBA |
| W2 | Photo sensors | https://youtu.be/DNSvULGsZGw |
| W3 | p-n, pin, Avalanche photo detector | https://youtu.be/H5VSrybJ6XU |
| W4 | photo diode | https://youtu.be/pCFczXCcRBU |
| W5 | | |
| W6 | Characteristics of photodetectors | https://youtu.be/N2lAs3b8H4Q |
| W7 | Bit Error rate | https://youtu.be/bBR9cPgMX-0 |

D. DIGITAL CONTENTS

| Sr.No. | Name of Topic | Other Video Links / PPT / PDF |
|--------|--|---|
| W1 | optical detectors | https://youtu.be/4Mlyb3oGBM |
| W2 | optical Sensors | https://youtu.be/DNSvULGsZGw |
| W3 | Difference between P-N & Avalanche photo diode | https://youtu.be/IQC2xra2gh |
| W4 | Construction & working of photo diode | https://youtu.be/T0OKGgMnJ6s |
| W5 | Photo diode basics | https://youtu.be/zycRCGeciVo |
| W6 | Photo transistor | https://youtu.be/DKMUGvJHbB4 |
| W7 | Photo transistor | https://youtu.be/sSTMN4rvuBo |



| | | |
|-----|------------------------------|---|
| W8 | Comparison of photodetectors | https://youtu.be/zL_PW3RZxcY |
| W9 | Photo Transistors | https://youtu.be/w7zjVM-qcxQ |
| W10 | Bit Error rate | https://youtu.be/v5jZSm6lMwU |

UNIT IV

C. DIGITAL CONTENTS

| Sr.No. | Name of Topic | NPTL Video Link (Web Address) |
|--------|-----------------------------|---|
| W1 | Point to point optical link | https://youtu.be/XgcDYxRtP_k |
| W2 | Point to point optical link | https://youtu.be/15WulWvjWEg |
| W3 | Optical power budget | https://youtu.be/ougKUUM3hJA |
| W4 | WDM Concepts & Components: | https://youtu.be/5y3jZ2UBTGo |
| W5 | WDM Concepts & Components: | https://youtu.be/NSxn15VKAUc |
| W6 | Optical Isolator | https://youtu.be/OFQhVEvBHO0 |
| W7 | Optical Amplifier | https://youtu.be/5dlYNJWkzTc |

D. DIGITAL CONTENTS

| Sr.No. | Name of Topic | Other Video Links / PPT / PDF |
|--------|------------------------------|---|
| W1 | Point to point optical link | https://youtu.be/NctDb6pWpoA |
| W2 | Optical power budget | https://youtu.be/mqKaVbo_dsE |
| W3 | WDM Concepts & Components: | https://youtu.be/uBAp-zBJho4 |
| W4 | Optical Isolator, circulator | https://youtu.be/3d7iBFRhHIA |
| W5 | Optical Amplifier | https://youtu.be/yWzZrG29_Mc |
| W6 | Optical Amplifier | https://youtu.be/h2_-m2TGdwU |

UNIT V

C. DIGITAL CONTENTS

| Sr.No. | Name of Topic | NPTL Video Link (Web Address) |
|--------|-----------------------------------|---|
| W1 | Fundamentals of Optical Networks, | https://youtu.be/olurmHsRFSc |
| W2 | Fundamentals of Optical Networks, | https://youtu.be/DpSjbt5V7E |
| | Optical network terminology | https://youtu.be/4W7hieXDAmc |
| | FTTX, FTTP, FTTH | https://youtu.be/kmaZHsin4i4 |
| W3 | | |

D. DIGITAL CONTENTS

| Sr.No. | Name of Topic | Other Video Links / PPT / PDF |
|--------|---|---|
| W1 | Fundamentals of Optical Networks, | https://youtu.be/4W7hieXDAmc |
| W2 | Optical network terminology | https://youtu.be/kChsckv9zkQ |
| W3 | Desirable properties of optical network | https://www.youtube.com/watch?v=4W7hieXDAmc |
| W4 | Elements of an optical network | https://youtu.be/bzpSApHhqt |
| W5 | optical network topology types | https://youtu.be/neitrgdOpHA |





11. Technical Quiz Competition

Rajgad Dnyanpeeth's

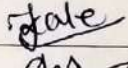
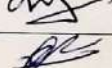

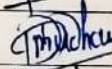

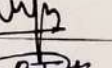
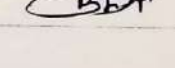

Shri Chhatrapati Shivajiraje College of Engineering

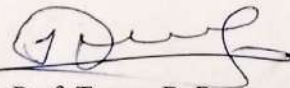
Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhor, Dist- Pune

Date: 20/01/2023

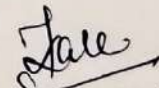
NOTICE

All faculty members of first year engineering department are here by inform that we are going to arrange Quiz Competition on 31/01/2023 on unit-I of each subject. In this concern submit the soft copy of 15 questions with four options and its correct solution to Prof. B.P. Tapare of FE department on or before 30th Jan 2023. Kindly forward soft copy of your question bank on tapare.rajgad11@gmail.com.

| Sr. No | Subject | Name of Subject Teacher | Signature |
|--------|----------------------------------|-------------------------|---|
| 1. | Engineering Mathematics-I | Prof. J. G. Kale |  |
| | | Prof. G. H. Fartade |  |
| 2. | Engineering Physics | Prof. R. B. Raut |  |
| 3. | Engineering Chemistry | Prof. A. K. Kondhalkar |  |
| 4. | Basic Electrical Engineering | Prof. T. M. Dudhane |  |
| 5. | Engineering Mechanics | Prof. A. B. Pol |  |
| 6. | System in Mechanical Engineering | Prof. L. P. Maske-Patil |  |
| 7. | Programming and Problem Solving | Prof. B. D. Thorat |  |



Prof. Tapare B. P.
Departmental Quiz
Coordinator



Prof. Kale J.G.
HOD F.E
Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206



Date: 25 / 01 / 2023

NOTICE

All faculty members of first year engineering department are here by inform that on the occasion of Quiz Competition scheduled on 31/01/2023 at 3.00 P.M in seminar hall, the responsibilities in that event are distributed as follows.

| Sr.No | Name | Responsibility | Signature |
|-------|--|--|-----------|
| 1. | Mr. Gaikwad Rohit | Seating Arrangement (Arranging Chairs; Mike; Projector; Black board) | |
| 2. | Prof. G. H. Fartade | Anchoring (Announcement of questions) | |
| 3. | Prof. B. P. Tapare | Displaying PPT 's | |
| 3. | Prof. R. B. Raut Prof. A. R. Bobade | Response checker in buzzer round | |
| 4. | Prof. R. B. Raut | Updating division wise Score | |
| 5. | Prof. J.G. Kale | Subject Expert of M-I | |
| 6. | Prof. R. B. Raut | Subject Expert of Physics and Mechanics | |
| 7. | Prof. A.K Kondhalkar | Subject Expert of Chemistry | |
| 8. | Prof. J.J Bandal | Subject Expert of BEE | |
| 10. | Prof. D. B. Shelake | Subject Expert of SME | |
| 11. | Prof. B. D. Thorat | Subject Expert of PPS | |

Prof. Tapare B. P.

Departmental Quiz Coordinator



Prof. Kale J. G.

HOD F.E
Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206



Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhore, Dist- Pune

Date: 20/01/2023

NOTICE

All students of First Year Engineering hereby inform that, we are arranging "Quiz Competition on 31/01/2023 at seminar hall from 3.00 PM onwards.

Attendance is compulsory to all students.



Prof. Tapare B. P.
**Departmental Quiz
Coordinator**

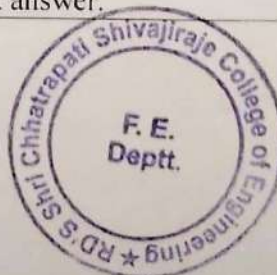
Prof. Kale J.C.
HOD F.E.
Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206



Department : First Year Engineering

RULES OF QUIZ COMPETITION 2022-23 (Sem-I)

| | |
|---------|---|
| Round 1 | <ul style="list-style-type: none">❖ Buzzer Round – Eight questions in all➤ 8 questions will be fired at all the teams one after another.➤ The teams can discuss among themselves and then press the buzzer/bell to answer the question first. No discussion is allowed after pressing the buzzer.➤ The team that presses the buzzer/bell first gets a chance to answer it.➤ 10 points for the correct answer and minus 5 points for the wrong answer.➤ If a team doesn't answer or gives a wrong answers after they press buzzer they also lose 5 points.➤ If a team presses the buzzer before the question is over they will be asked to answer it without the question being completed.➤ The question has to be answered in 30 seconds.➤ If a question is not answered by the first team who pressed the bell. The team that pressed the bell next gets to answer.➤ There are no choices in this round.➤ If two teams press the buzzer/bell together there will be a pull of cards to decide who gets the chance to answer if. If the first team answers it correctly they get a point. If they give a wrong answer they lose 5 points and the next team that pressed the buzzer gets to answer. |
| Round 2 | <ul style="list-style-type: none">❖ Compulsory Questions – Each team quota of 4 questions.➤ In this round each team has its own quota of 4 questions and other questions passed to it from the previous team that did not answer.➤ A team gets 30 seconds to answer the question intended for it, and is awarded 20 points for answering it.➤ If the team, the question intended for gives a wrong answer, the quiz master will give the correct answer. |



| | |
|---------|--|
| | <ul style="list-style-type: none"> ➤ If the team that the question intended for passes it. The next teams get 15 seconds to answer it and is awarded 10 points for the right answer. ➤ The team members can discuss before giving the answer. ➤ If a team cannot answer a question they can pass it or after 30 seconds it gets automatically passed to the next team. ➤ If a team is answering a question and the time passes, then the team gets to complete the answer and is awarded points for the right answer. ➤ There is no negative marking for wrong answer. ➤ No buzzer is used in this round |
| Round 3 | <ul style="list-style-type: none"> ❖ Scholars Round - Each team quota of 4 questions. ➤ In this round each team has selected only scholars students they play the game. ➤ Same rule as raound-2 |
| Round 4 | <ul style="list-style-type: none"> ❖ In case of a tie. ➤ In case of a tie after the 4th round, the tied teams get into a buzzer/bell round. ➤ Rules are similar to buzzer round. ➤ If a team answer right they get 25 points. If they answer wrong they get minus 25 points. |



Rajgad Dnyanpeeth's
Shri Chhatrapati ShivajiRaje College of Engineering,
Dhargwadi, Pune

FE SYLLABUS QUIZ

Academic Year: 2022-23 (Sem-I)
DEPARTMENT OF FIRST YEAR ENGINEERING

ROUND 1

BUZZER ROUND



M-I QUESTION NO.1

Q If $u = \sin^{-1}\left(\frac{x^2+y^2}{x+y}\right)$ is homogeneous function of degree

- A. 1
- B. $\frac{1}{2}$
- C. 2
- D. 0

M-I QUESTION NO.2

Q If $u = x^y$, then $\frac{du}{dy}$ is equal to

- A. 0
- B. yx^{y-1}
- C. $x^y \log y$
- D. None

MI QUESTION NO.3

Q Two functions $u(x,y)$ and $v(x,y)$ are functionally dependent if their jacobian $\frac{\partial(u,v)}{\partial(x,y)}$ is equal to

- A. 1
- B. 0
- C. xy
- D. uv

M-I QUESTION NO.4

Q With usual notations, the condition of maximum for function of two variable is

- A. $rt - s^2 < 0$ and $r > 0$
- B. $rt - s^2 = 0$ and $r > 0$
- C. $rt - s^2 > 0$ and $r < 0$
- D. None



EXTRA M-I
QUESTION NO.5

Q If $u = x^2 + y^2$ and $v = 2xy$ then the value of $\frac{\partial(u,v)}{\partial(x,y)}$ is

- A. $4(x^2 + y^2)$
- B. $-4(x^2 + y^2)$
- C. $4(x^2 - y^2)$
- D. 0

EXTRA M-I
QUESTION NO.6

Q The percentage error in the area of a rectangle when an error of 1% is made in measuring its length and breadth is

- A. 1%
- B. 2%
- C. 0
- D. 3%

SME
QUESTION NO.7

Q Connecting rods are generally of following form _____

- A. Forged I section
- B. Forged round section
- C. Cast iron round section
- D. Forged C section

SME
QUESTION NO.8

Q When No.1 piston of 4 cylinder inline engine is performing the power stroke then No.4 piston is on the stroke called _____

- A. exhaust
- B. Suction
- C. compression
- D. power

SME
QUESTION NO.9

Q A 4*4 drive vehicle implies that

- A. it has 4*4=16 wheels
- B. it has 4 spare wheels and 4 road wheels
- C. it has 4 wheels out of 4 are drive wheels
- D. none of the above

SME
QUESTION NO.10

Q 1 H.P. is equal to ----- watts

- A. 810
- B. 545
- C. 634
- D. 746



EXTRA SME
QUESTION NO.11

Which type of wheels are preferred in a sport car

- A. disc
- B. wire
- C. magnesium alloy
- D. Al alloy

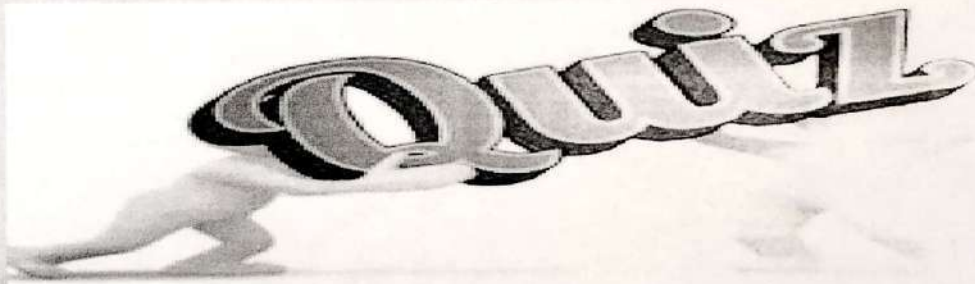
EXTRA SME
QUESTION NO.12

Which suspension type is famous in passenger cars

- A. Leaf spring
- B. Air suspension
- C. Mac pherson
- D. All of above

ROUND 2

COMPULSORY
ROUND



Chem
QUESTION NO.13

Bomb calorimeter is used to determine _____

- A. GCV at constant pressure
- B. GCV at constant volume
- C. NCV at constant pressure
- D. NCV at constant volume

Chem
QUESTION NO.14

Which of the following has property of absorbing water _____

- A. KOH solution
- B. BaCl_2
- C. Anhydrous CaCl_2
- D. Sulphuric acid



EXTRA Chem
QUESTION NO.15

Q3 CNG is used for _____

- A. Power generation
- B. Electric generators
- C. Solvent
- D. Universal solvent

EXTRA Chem
QUESTION NO.16

Q3 Electrochemical corrosion takes place on _____

- A. Anodic area
- B. Cathodic area
- C. Near anode
- D. Near cathod

Phy
QUESTION NO.17

Q3 The concept of matter wave was suggested by _____

- A. Heisenberg
- B. de Broglie
- C. Schrodinger
- D. Laplace

Phy
QUESTION NO.18

Q3 The square of the magnitude of the wave function is called _____

- A. current density
- B. zero density
- C. volume density
- D. probability density

EXTRA Phy
QUESTION NO.19

Q3 Intrinsic semiconductor at room temperature will have, available for conduction

- A. Electrons
- B. Holes
- C. Both electrons and holes
- D. None of the above

EXTRA Phy
QUESTION NO.20

Q3 That radiation and matter have properties both of particles and of waves is called what?

- A. Mixing
- B. Confusion
- C. Wave-particle duality
- D. Entanglement



BXE
QUESTION NO.21

Q. If lower voltage level represents logic 0 and higher voltage level represents logic 1, the system is called _____ logic system.

- A. positive
- B. negative
- C. neutral

BXE
QUESTION NO.22

Q. A _____ gate represents a complement function.

- A. NOT
- B. NOR
- C. NAND

EXTRA BXE
QUESTION NO.23

Q. A 14 pin NOT gate IC has _____ NOT gates.

- A. 8
- B. 6
- C. 5
- D. 4

EXTRA BXE
QUESTION NO.24

Q. The _____ circuits do not contain any memory elements

- A. combinational
- B. sequential
- C. none of these

PPS
QUESTION NO.25

Q. Which of the following refers to mathematical function?

- A. Sqrt
- B. Rhombus
- C. Add
- D. None of these

PPS
QUESTION NO.26

Q. What will be the output of the following Python code?

1. `>>>str1="helloworld"`
2. `>>>str1[::1]`

- A. Dlrowolleh
- B. Hello
- C. World
- D. helloworld



Extra PPS
QUESTION NO.27

☞ Which of the following is the use of function in python?

- A. Functions are reusable pieces of programs
- B. Functions don't provide better modularity for your application
- C. you can't also create your own functions
- D. All of the mentioned

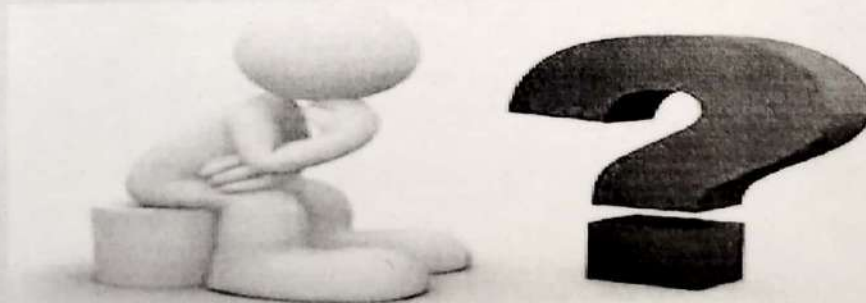
EXTRA PPS
QUESTION NO.28

☞ What are the two main types of functions?

- A. Custom function
- B. Built-in function & User defined function
- C. User function
- D. System function

ROUND 3

SCHOLARS ROUND



M-I
QUESTION NO.29

Q. If $u = f\left(\frac{y}{x}\right)$ then

- A. $x \frac{\partial u}{\partial x} - \frac{\partial u}{\partial y} = 0$
- B. $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = 0$
- C. $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = 1$
- D. $y \frac{\partial u}{\partial x} + x \frac{\partial u}{\partial y} = 0$

EXTRA M-I
QUESTION NO.30

Q. If $f(x, y) = 0$ then $\frac{dy}{dx}$ is equal to

- A. $\frac{(\partial f)}{(\partial x)}$
- B. $\frac{(\partial f)}{(\partial y)}$
- C. $-\frac{(\partial f)}{(\partial x)}$
- D. $-\frac{(\partial f)}{(\partial y)}$

SME
QUESTION NO.31

Q. Which of these is not a part of transmission system

- A. clutch
- B. axles
- C. wheels
- D. gear box

EXTRA SME
QUESTION NO.32

Q. In a diesel cycle engine combustion occurs at constant

- A. Pressure
- B. Volume
- C. temperature
- D. heat

EM
QUESTION NO.33

Q. Which of the following is correct for the stability of equilibrium configuration?

- A. The application of the conditions of the equilibrium of the body is valid only in the 2D
- B. The application of the conditions of the equilibrium of the body is valid only in the 3D
- C. The application of the conditions of the equilibrium of the body is valid only in the 1D
- D. The application of the conditions of the equilibrium of the body is valid throughout

EXTRA EM
QUESTION NO.34

Q. If a truss consists of 8 joints, 10 members and 4 reaction components then, it is a

- A. cantilever truss
- B. deficient truss
- C. redundant truss
- D. none of the above



PPS
QUESTION NO.35

Q. What arithmetic operators cannot be used with strings?

- A. +
- B. -
- C. *
- D. All of the mentioned

EXTRA PPS
QUESTION NO.36

Q. What will be the output of the following Python code?

```
1. def cube(x):  
2.     return x * x * x  
3. x = cube(3)  
4. print x
```

- A. 9
- B. 3
- C. 27
- D. 30

Chem
QUESTION NO.37

Q. The enzyme which converts glucose, fructose into ethyl alcohol is _____

- A. Invertase
- B. Zymase
- C. Lypase
- D. Pepsin

EXTRA Chem
QUESTION NO.38

Q. Chemical formula of rust is _____

- A. Fe_2O_3
- B. FeO
- C. Fe_3O_4
- D. $Fe_2O_3 \cdot xH_2O$

Phy
QUESTION NO.39

Q. The operator ∇ is called _____ operator

- A. vector
- B. Hamiltonian
- C. Laplacian
- D. Poisson

EXTRA Phy
QUESTION NO.40

Q. The function representing matter waves must be _____

- A. complex
- B. real
- C. Zero
- D. infinity



BXE
QUESTION NO.41

Q. When all the inputs of a NAND gate are zero, the output of it is ____.

- A. High
- B. Low
- C. None

EXTRA BXE
QUESTION NO.42

Q. A NOT gate has _____.

- A. two inputs and one output
- B. one input and one output
- C. one input and two output
- D. none of above

PPS
QUESTION NO.43

Q. Where is function defined?

- A. Module
- B. Class
- C. Another function
- D. All of the mentioned

EXTRA PPS
QUESTION NO.44

Q. What will be the output of the following Python code?

1. >>> str1 = 'hello'
2. >>> str2 = '/'
3. >>> str3 = 'world'
4. >>> str1[-1:]

- A. l
- B. /
- C. h
- D. o

EXTRA M-I
QUESTION NO.45

Q. If $u = \sin^{-1}\left(\frac{\sqrt{x^2+y^2}}{x+y}\right)$ is homogeneous function of degree

- A. 1
- B. $\frac{1}{2}$
- C. 2
- D. 0

EXTRA M-I
QUESTION NO.46

Q. If $\phi(x, y, z) = 0$ then $\left(\frac{\partial \phi}{\partial x}\right), \left(\frac{\partial \phi}{\partial y}\right), \left(\frac{\partial \phi}{\partial z}\right)$ is equal to

- A. 0
- B. 1
- C. -1
- D. 2



EXTRA M-I
QUESTION NO.47

Q With usual notations, the saddle Point present in function of two variable is

- A. $rt - s^2 = 0$
- B. $rt - s^2 > 0$
- C. $rt - s^2 < 0$
- D. None

EXTRA SME
QUESTION NO.48

Q What was the initial price tag of TATA Nano

- A. Rs. 500000
- B. Rs.300000
- C. Rs.150000
- D. Rs.100000

EXTRA SME
QUESTION NO.49

Q Actual power delivered by the engine is known as

- A. Shaft power
- B. Indicated power
- C. Brake horse power
- D. None of the above

EXTRA SME
QUESTION NO.50

Q Engine pistons are generally made of Al alloy because _____

- A. It is lighter
- B. It is stronger
- C. It has less wear
- D. It absorbs shock

END





Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhor, Dist- Pune (Maharashtra)

Quiz Competition Answer Sheet Department : First Year Engineering Academic Year: 2022-23

| Que. No | Subject | Answer |
|-----------------|------------|--------|
| Round-I | | |
| 1 | M-I | D |
| 2 | M-I | C |
| 3 | M-I | B |
| 4 | M-I | C |
| 5 | Extra M-I | A |
| 6 | Extra M-I | B |
| 7 | SME | A |
| 8 | SME | B |
| 9 | SME | C |
| 10 | SME | D |
| 11 | Extra SME | C |
| 12 | Extra SME | C |
| Round-II | | |
| 13 | Chem | B |
| 14 | Chem | C |
| 15 | Extra Chem | A |
| 16 | Extra Chem | D |
| 17 | Phy | B |
| 18 | Phy | D |
| 19 | Extra Phy | C |
| 20 | Extra Phy | C |
| 21 | BXE | A |
| 22 | BXE | A |
| 23 | Extra BXE | B |
| 24 | Extra BXE | A |
| 25 | PPS | A |

| Que. No | Subject | Answer |
|------------------|------------|--------|
| 26 | PPS | c |
| 27 | Extra PPS | A |
| 28 | Extra PPS | B |
| Round-III | | |
| 29 | M-I | B |
| 30 | Extra M-I | D |
| 31 | SME | C |
| 32 | Extra SME | A |
| 33 | EM | D |
| 34 | Extra EM | B |
| 35 | PPS | C |
| 36 | Extra PPS | C |
| 37 | Chem | B |
| 38 | Extra Chem | D |
| 39 | Phy | C |
| 40 | Extra Phy | A |
| 41 | BXE | A |
| 42 | Extra BXE | B |
| 43 | PPS | D |
| 44 | Extra PPS | D |
| 45 | Extra M-I | D |
| 46 | Extra M-I | C |
| 47 | Extra M-I | C |
| 48 | Extra SME | D |
| 49 | Extra SME | C |
| 50 | Extra SME | A |
| End | | |





Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhor, Dist- Pune (Maharashtra)

Date : 31/01/2023

Department : First Year Engineering ATTENDANCE DURING QUIZ COMPITITION (Div-A, B & C)

| Sr. No. | Name of Student | Sign |
|---------|------------------------------|-------------|
| 1 | Shinde Sanika Ravindra | Shinde |
| 2 | Nidhan Brijesh Mishra | Nidhan |
| 3 | Kadekar Rihan Inmukham | Kadekar |
| 4 | Pardeshi Harsh Santosh | Pardeshi |
| 5 | Kharat Sonali Baban | Kharat |
| 6 | Katkar Shivani Sudam | Katkar |
| 7 | Mandhare Diya Sitaram | DSM |
| 8 | chandanshiv Priyanka Santosh | Chandanshiv |
| 9 | Bhosale Vaishnavi Vijay | Bhosale |
| 10 | Seekar Swapnil Shivaji | Seekar |
| 11 | Mulik Aditya Kaushik | Mulik |
| 12 | Khatwad Rohan Mohan | Khatwad |
| 13 | Sarode Namrata Bhimraj | Sarode |
| 14 | Thopate Shweta Ramesh | S.R.Thopate |
| 15 | Sonawane Rutuja Prasad | Rutuja |
| 16 | Shinde Siddhi Ramachandra | Shinde |
| 17 | S Mandhare Diya Sitaram | DSmandhare |
| 18 | Mandhare Nisha Rohidas | Mandhare |
| 19 | Grod Vaishnavi Dada | Grod |
| 20 | Patil Kalyani Pramod | Patil |
| 21 | Bagal Mayuraj Santosh | Bagal |
| 22 | Bhosale Vaishnavi Vijay | Bhosale |
| 23 | Shinde Pournima Pandurang | Shinde |
| 24 | Jagtap Sanika Santosh | Jagtap |
| 25 | Ravalekar Tanvi Shamrao | Ravalekar |
| 26 | Bhandalkar Pragati Krushna | Bhandalkar |
| 27 | Petkar Pooja Suresh | Petkar |
| 28 | Nimbalkar Shivani Rajendra | Nimbalkar |
| 29 | Sonawane Prayakta Shivaji | Sonawane |
| 30 | Urale Anagha Yogesh | Urale |
| 31 | Jorgal Shrutika Horalakh | S.H.Jorgal |
| 32 | Mahedik Vaibhavi Chandrakant | Mahedik |
| 33 | Kharat Sonali Baban | Kharat |
| 34 | Jambe Vaishnavi Arjun | Jambe |





Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhor, Dist- Pune (Maharashtra)

Date: 31/01/2023

Department : First Year Engineering ATTENDANCE DURING QUIZ COMPITITION (Div-A, B & C)

| Sr. No. | Name of Student | Sign |
|---------|--------------------------------|--------------|
| 1 | Harshada Kupir Turange | Turange |
| 2 | Payal sanjay more | Payal |
| 3 | Swamini Maruti Bhor | MB |
| 4 | Asmita Rajendra Bandal | Abanal |
| 5 | Sarode Namrata Bhimraj | CSB |
| 6 | Shelke Sakshi Vilas | Sivshelke |
| 7 | Aditya santosh Mangade | Aditya |
| 8 | Pratik Himmat Jadhav | Pratik |
| 9 | AKSHAY Ramkisan Gihule | AKSHAY |
| 10 | Harshvardhan Nemichand Mahajan | Harsh |
| 11 | Jadhav Jaydip Dhanondaji | J. D. Jadhav |
| 12 | Chakrate Mayur Anand | Chakrate |
| 13 | Parthe Mayur Jagannath | Parthe |
| 14 | Ghorpade Sandeep Sanjay | Ghorpade |
| 15 | Shreyash Uddhav Lawate | Shreyash |
| 16 | CHUDHARI PRATHAMESH SANTOSH | Chudhari |
| 17 | Kodekar Rihon Imurkhan | Kodekar |
| 18 | Pujari Vishal Vilas | Pujari |
| 19 | Junghe Hemant Shankar | Junghe |
| 20 | Galande Rohit Navnath | Galande |
| 21 | Tingare Aditya Vitthal | Tingare |
| 22 | Virkar Vivek Vinayak | Virkar |
| 23 | Ranveer Rajendra Patil | Ranveer |
| 24 | Vataad Vyankatesh Patil | Vataad |
| 25 | | |
| 26 | | |
| 27 | | |
| 28 | | |
| 29 | | |
| 30 | | |
| 31 | | |
| 32 | | |
| 33 | | |
| 34 | | |





Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhor, Dist- Pune (Maharashtra)

| | Que. No | Subject | Marksheet for quiz competition | | | |
|----------------------|---------|---------|--------------------------------|----|----|------|
| | | | A | B | C | |
| Buzzer Round | 1 | M-I | - | - | 10 | |
| | 2 | M-I | 10 | - | - | A-20 |
| | 3 | M-I | - | - | 10 | B-20 |
| | 4 | M-I | - | 10 | - | C-40 |
| | 5 | SME | - | - | 10 | |
| | 6 | SME | 10 | - | - | |
| | 7 | SME | - | 10 | - | |
| | 8 | SME | - | - | 10 | |
| Compulsory Questions | 9 | Chem | 10 | - | - | A-30 |
| | 10 | Chem | 10 | - | - | B-30 |
| | 11 | Phy | - | 10 | - | C-20 |
| | 12 | Phy | - | - | 10 | |
| | 13 | BXE | 10 | - | - | |
| | 14 | BXE | - | 10 | - | |
| | 15 | EM | - | - | 10 | |
| | 16 | PPS | - | 10 | - | |
| Scholars Round | 21 | M-I | 10 | - | - | A-30 |
| | 22 | SME | 10 | - | - | B-20 |
| | 23 | EM | - | 10 | - | C-30 |
| | 24 | PPS | - | - | 10 | |
| | 25 | Chem | - | 10 | - | |
| | 26 | Phy | - | - | 10 | |
| | 27 | BXE | 10 | - | - | |
| | 28 | PPS | - | - | 10 | |
| | 29 | Other | | | | |
| | 30 | Other | | | | |
| Total Score | | | 80 | 70 | 90 | |





Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal- Bhor, Dist- Pune (Maharashtra)

Quiz Competition
Department : First Year Engineering
Academic Year: 2022-23

| Sr. No. | Result of Event | Div | Remark / Sign |
|---------|-----------------|-------|---------------|
| 1 | Winner | Div-C | |
| 2 | Runner Up | Div-A | |

Prof. B. P. Tapare
Event Co-ordinator

Prof. A. G. Kale
HOD (FE)
Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206





Department : First Year Engineering

REPORT OF QUIZ COMPETITION 2021-22 (Sem-I)

Date: - 31/01/2023

1. **Department:** First Year Engineering
2. **Day & Date:** Thursday, 31st Jan 2023
3. **Event Coordinator:** Prof. J. G. Kale
4. **Departmental Event Coordinator:** Prof. B. P. Tapare
5. **Designation:** Asst. Professor
6. **Subject:** All Subjects.
7. **Class:** First Year (Div A, B & C).
8. **Purpose:** Encourages team work

Objective:

The Main objective of the Quiz competition was to improve knowledge base of student and to know our guesswork and ability to crack questions through hints improves. With practicing quizzes, students can do critical thinking, and get into a habit of innovative learning. This will help students to perform and enables students to think from different angles or simply 'to think out of the box.

Description:

The "Quiz Competition-2022-23 (SEM-I)" was opened by Head of Department Prof. J. G. Kale in presence of faculty members and students. Total 3 rounds were conducted in Quiz Competition. 3 Rounds were held which included technical questions related to their subjects. There were four members in the jury committee. The final evaluation process was completed by jury members. Prof. R. B. Raut announced the winner of competition which is Div-C (FE).

Conclusion:


This competition has provided a platform to the budding engineers to showcase their knowledge and smart ideas to compete in Quiz competition. Improvement in student's confidence to face questions is seen during the quiz.

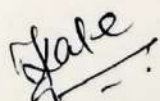



The following photographs show the sweet memories of this event.

Event Photos:




Prof. B. P. Tapare
Coordinator


Prof. J. G. Kale
HOD (F.E.)
Head of Department
First Year Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206


Prof. Dr. S. B. Patil
Principal
Principal
Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412 205



12.Seminar/ Workshop

Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

List of workshop/ Seminar

| S.No | Subject | Date | Number of Participant |
|--|---|--------------------------|-----------------------|
| Department of Computer Engineering | | | |
| 1 | Seminar on 'Deep Learning' | 07/02/2023 | 45 |
| Department of Electronics and Telecommunication | | | |
| 2 | Workshop on 'Arduino Interfacing and Programming' | 05/12/2022 to 07/12/2022 | 77 |



**Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Dhangwadi, Tal-Bhor, Dist. – Pune – 412206.
Department of Computer Engineering**

Department of Computer Engineering

Date- 3/2/2023

NOTICE

All B.E students are hereby informed that Computer Department has organized a Seminar on "**Deep Learning**" on 07th of February 2023 at 12:00 pm to 2:00 pm.

Note:

1. Seminar will be offline
2. Attendance is mandatory to all
3. Seminar will start and end as per schedule time.

PMARNE

Prof. P. M. Marne

Coordinator



B.D.T.

Prof. B. D. Thorat

Head of Department
H. O. D.
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206



Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Dhangwadi, Tal-Bhor, Dist. – Pune – 412206.
Department of Computer Engineering

INVITATION LETTER

Date- 3/2/2023

To

Mr. Bapu Arkas

Founder, Pro Azure

Subject: Invitation for conducting Seminar on “Deep Learning”

Respected sir,

This gives Department of Computer Department of SCSCOE, great pleasure to request you to conduct Seminar on **“Deep Learning”** for B. E students of SCSCOE in RDTC-SCSCOE, Dhangawadi.

We will be thankful to you if you can schedule on 07th of February 2023.

Waiting for your positive reply.




Prof. B. D. Thorat
Head of Department
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206



Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Dhangwadi, Tal-Bhor, Dist. – Pune – 412206.
Department of Computer Engineering

PERMISSION LETTER

Date- 3/2/2023

To,
The Principal,
RD's SCSCOE,
Dhangawadi, Bhor.

Subject: Regarding permission of Seminar on Deep Learning & Sanctioning of remuneration.

Respected sir,

Computer Dept. is going to conduct Seminar on “**Deep Learning**” for B. E students.

Mr. Babu Arkas has been invited as a speaker for the lecture of Computer engineering student.

The lecture will be held in his presence. He will deliver the lecture on following day and date.

| Sr. No. | Day | Date | Subject | Class |
|---------|---------|------------|--------------------------|-----------------|
| 1. | Tuesday | 07-02-2023 | Seminar on Deep Learning | B. E.(Computer) |

Kindly Sanction the remuneration of total amount Rs. 2000/-

Thanking you.

PMARNE
Prof. P. M. Marne
Coordinator



B.D.
Prof B. D. Thorat
Head of Department
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206

Remark

By B 2001/-
[Signature]
3/2/23



**Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Dhangwadi, Tal-Bhor, Dist. – Pune – 412206.
Department of Computer Engineering**

CONDUCTION LETTER

Date-7/2/2023

To

Mr. Bapu Arkas

Founder, ProAzure,

Pune

We express our immense gratitude for having you at our college to conduct a fabulous Seminar on “**Deep Learning**”. It was our pleasure for having a person like you at our institute. We take this opportunity to tell you this with pride that our student thoroughly enjoyed your entire sessions. We would like to know if you ever need our support.

Thank You so much.



Recieved

A.


Prof. B. D. Thorat
Head of Department
(H. O. D.)
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206



Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

REPORT OF SEMINAR ON DEEP LEARNING

TOPIC : "SEMINAR ON DEEP LEARNING"

DAY/ DATE : 07/02/2023, Friday

DURATION OF EVENT : 12:00 pm to 2:00 pm

OBJECTIVE

1. Provide student a conceptual overview of Deep Learning
2. Understand and use essential technique of Deep Learning

SUMMARY

The Seminar has started with Bapu Arkas briefing the students about Deep Learning and then provided the students with some free sources and sites from which they can get more information about the topic and probably can make something good out of it. Prof B. D. Thorat(Head of Department) welcome the Guest Mr. Bapu Arkas.

The lecture covered the basic techniques that help students to build and apply prediction function with an emphasis on practical applications.

The course outcome of the Seminar:

1. Familiarize the functional/operational aspects of Machine Learning Algorithms.
2. Understand emerging abstract models for Deep Learning.

Many important key terms were also introduced for a better understanding like Supervised Learning, Unsupervised Learning, Clustering, Data Extraction, Various Machine Learning Algorithms. To make the students understand better, the presentation barely had any technical terms and was explained well with many examples. The session was very interactive and multiple questions were presented giving everyone a chance to think including the speaker.





PMARNE

Prof. P. M. Marne
Co-ordinator



BPT

Prof. B. D. Thorat
Head of Department
HOD
Dept. Computer Engineering
Shri Chh. Shivaji Maharaj College of Engg
Dhangawadi, Pune-412206



Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Dhangwadi, Tal-Bhor, Dist. – Pune – 412206.
Department of Computer Engineering

Seminar on "Deep Learning".

Student Feedback Form

Students are required to rate the course on the following attributes using the 4 -point scale shown.

Course: [tick (✓) in the relevant cell]

| Parameters | A Very Good | B Good | C Satisfactory | D Unsatisfactory |
|---|-------------------|-----------|-------------------|---------------------|
| 1. Overall rating of the course content | | ✓ | | |
| 2. Course objectives were clear | | | | |
| 3. Clarity and relevance of textual reading material | | ✓ | | |
| 4. The teacher was effective in communicating the content of the course | ✓ | | | |
| 5. The teacher responded to questions in an informative, appropriate and satisfactory manner. | ✓ | | | |
| 6. Do you have any suggestions for future workshops that you would like us to organize? | No | | | |
| 7. Would you recommend this course to other students? | Yes | | | |
| Any Other Comments- | | | | |



Thank you for participating, we appreciate your feedback!!!!!!!



Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhansawadi, Tal: Bhor, Dist: Pune

DEPARTMENT OF COMPUTER ENGINEERING

Academic Year : 2022 - 2023

Topic Seminar on
Deep Learning

Date: 21/12/2023

| Sr. No. | Name of the Student | Sign |
|-----------|------------------------------|------------|
| BC018F067 | Sonawane Shivam Lakman | Shivam |
| BC019F065 | Shinde Sandhya Prabhakar | Sandhya |
| BC020D068 | Sonawane Sonal Eknath | Sonal |
| BC020D072 | Thimbare Chandan Shekhar | Chandran |
| BC020D063 | Shilimkar Namrata Rajendra | Namrata |
| BC019F062 | Shilimkar Ashwini Vijay | Ashwini |
| BC020D075 | Wadkar Mohini Ganjay | Mohini |
| BC019F058 | Raut Pooja Sharad | Pooja |
| BC020D057 | Pophale Kishori Vijay | Kishore |
| BC019F059 | Golunke Gangram Manohar | Manohar |
| BC019F061 | Shedje Pooja Sambhaji | Pooja |
| BC020D056 | Pawar Snehal Sunil | Snehal |
| BC019F036 | Khandale Kiran Prakash | Khandale |
| BC020D049 | More Preeti Arvind | Preeti |
| BC020D023 | Ingale Yash Sudhir | Yash |
| BC018F009 | Chavan Ritambhara Sunil | Ritambhara |
| BC020D035 | Khaira Prajakta | Prajakta |
| BC020D030 | Kachi Aditi Jagdish | Aditi |
| BC019F014 | Dhadve Pragati Uddesh | Pragati |
| BC020D054 | Patil Vaishnavi Devendra | Vaishnavi |
| BC019F006 | Bobade Prachi Santosh | Prachi |
| BC019F078 | Yewale Yash Dattaram | Yash |
| BC018D079 | Jadhav Avinash Hanumant | Avinash |
| BC019F025 | Jadhav Dhiraaj Anna | Dhiraaj |
| BC020D016 | Bruikwad Pujal Balkrishna | Pujal |
| BC019F050 | Munde Abhijeet Bhagwan | A.B.Munde |
| BC019F077 | Yele Pratiksha Jagdish | P.J.Yele |
| BC019F003 | Bhelke Shreyas Umesh | Bhelke |
| BC019F060 | Saste Shubham Jalinder | Shubham |
| BC019F046 | Lawande Swapnil B. | Lawande |
| 722086015 | Shreeharsh Suras Purnambekar | Shreeharsh |





Rajgad Dnyanpeeth's
**SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF
ENGINEERING**

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

**A Three day hands on
Workshop On
“Arduino Programming &
Interfacing”**

(05th, 06th & 07th December 2022)

Organized By

Department of Electronics and Telecom. Engineering

In association with

(Institute's Innovation Cell)



Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering, Dhangwadi
Department of Electronics and Telecommunication Engineering
Institute Innovation Cell

NOTICE

18/09/2022

This is to inform all students of second year E & TC and Mechanical engineering that the Institute's Innovation Cell & Department of E & TC Engineering jointly organizing a three day workshop on Arduino Programming & Interfacing. This workshop is useful to improve your technical skill.

For registration & detail information contact Prof. Sandeep R. Nalage E&TC Department.

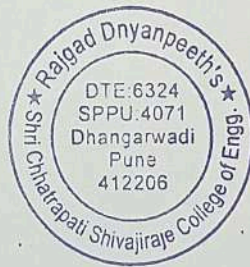
Date: 05-07 December 2022

Venue: Department of E &TC Engineering

Time: 11.00am to 3.00pm

Prof. S.R. Nalage

IIC, Vice President



Prof. T.M. Dudhane

HoD E & TC Engg

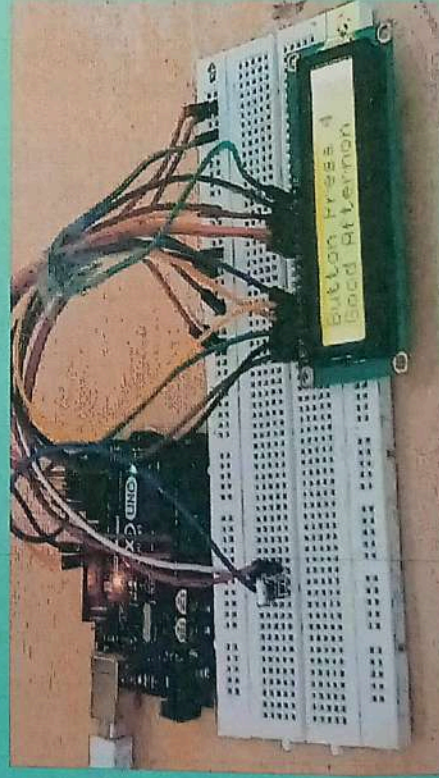


Rajgad Dyanpeeth's | SINCE 1972 Shri Chhatrapati Shivajiraje College of Engineering, Pune



Institution's Innovation Cell &

Department of Electronics & Telecommunication Engineering Jointly organizing
A Three day Hands on Workshop on Arduino Programming & Interfacing



Prof.S.D.Pasalkar
Co-Coordinator

Dr.S.I.Nipankar
Coordinator



Prof.S.R.Nalage
Resource Person

Date: 5, 6 & 7th Dec.2022
from 11.30AM to 03.00PM

Venue:

**(Computer Lab E&TC
Department)**

For S.E.(MECH & ENTC)

Prof.T.M.Dudhane.
Head of E & TC Dept.

Dr.S.B.Patil
Principal

Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi Tal- Bhor, Dist-
Pune

Department of Electronics & Telecommunication Engineering

Organizing

"A Three Day Hands on Workshop on Arduino Programming & Interfacing"

Course Objectives

- The structure of an Arduino Uno board and how to use it
- The basic terms and components of electrical engineering as background knowledge
- What is the Arduino IDE, what is it used for and how is it structured?
- Programming basics: block-based programming
- Programming basics: text-based programming
- How to create a system with an Arduino and how to write the required program code
- Hands-on learning based on exciting DIY projects
- temperature-based LED control, light-dependent control of a motor, gas detection alarm, password-protected system, remote-controlled system

Course Outcomes

- Students will be able to write program on their own
- Students will be able to select components while designing an embedded system
- Students will be able to design a professional embedded system
- Students will be able to install and update required library in Arduino IDE
- Students Will be able to design a prototype

Program Schedule & Syllabus

| Date | Contents | Practical | Time |
|--------------------------|--|--|--------------|
| 05/12/2022 | Inauguration Function | | 11.30-12.00 |
| | Introduction to Arduino UNO <ul style="list-style-type: none"> • Pin diagram • Processor • Peripheral devices • Importance • Applications • Why to use | | 12.00- 12.30 |
| | Installing Arduino IDE on computer | | 12.30-1.00 |
| | Basic Structure of Arduino Programming | | 2.00 -3.00 |
| | Difference between analog and digital signals | <ul style="list-style-type: none"> • Turning LED on/off • Connecting Potentiometer to analog pin • Controlling Brightness of LED according to value received on analog pin • Reading status of switch and taking action as per requirement | |
| | How to read status of pin | | |
| | How to send signal to pin | | |
| | How to read analog value | | |
| How to send analog value | | | |
| 06/12/2022 | Interfacing Temperature sensor with Arduino | Interfacing LM35 Sensor with arduino and Display its value on serial monitor | 11.30-12.00 |
| | Interfacing DHT11 With Arduino UNO (Downloading DHT11 Library) | Interfacing DHT11With Arduino UNO and display Temp. & Humidity on serial monitor | 12.00-12.30 |
| | Using Map function | | |
| | Interfacing Ultrasonic sensor with Arduino | Interfacing Ultrasonic sensor with arduino and display distance on serial monitor | 12.30-1.00 |

| | | | |
|-------------------|--|--|-------------------|
| | Interfacing MQ-6 Sensor | Interfacing MQ-6 Sensor | 2.00-4.00 |
| | Interfacing PIR Sensor | Interfacing PIR Sensor | |
| | Interfacing IR Sensor | Interfacing IR Sensor | |
| | Interfacing Rain Drop Sensor | Interfacing Rain Drop Sensor | |
| 07/12/2022 | Interfacing 16X2 LCD with arduino and its commands | <ul style="list-style-type: none"> • Display " Hello" on LCD • Display Temp on LCD using DHT11 • Display Distance on LCD using HC SR 05 | 11.30-1.00 |
| | Interfacing Relay with arduino | <ul style="list-style-type: none"> • Water Level indicator and controller • Automatic Water Dispenser | 2.00-4.00 |
| | Interfacing Motor with arduino | <ul style="list-style-type: none"> • Smoke Detector and Alarm | |
| | Interfacing Buzzer with Arduino | <ul style="list-style-type: none"> • Reverse Parking Horn/Indicator • Automatic porch Light • Automatic Wiper using rain drop sensor | |

****Event Report: A Three-Day Hands-On Workshop on Arduino Programming & Interfacing****

****Date:**** December 5-7, 2022

****Venue:**** RD's SCSCOE, Dhangwadi

****Organized by:**** Department of Electronics & Telecommunication Engineering and Institution's Innovation Cell

****Resource Person:**** Prof. Sandeep R. Nalage

****Coordinators:**** Dr. S. I. Nipanikar and Prof. S. D. Pasalkar

****Introduction:****

A three-day hands-on workshop on Arduino programming and interfacing was held at RD's SCSCOE, Dhangwadi, from October 6th to October 8th, 2022. The workshop was organized jointly by the Department of Electronics & Telecommunication Engineering and the Institution's Innovation Cell. With Prof. Sandeep R. Nalage as the resource person, this event aimed to enhance the practical skills and knowledge of second-year engineering students in the E&TC and Mechanical Engineering departments.

****Participants:****

The workshop witnessed enthusiastic participation from a total of 100 students from both the E&TC and Mechanical Engineering departments of RD's SCSCOE, Dhangwadi.

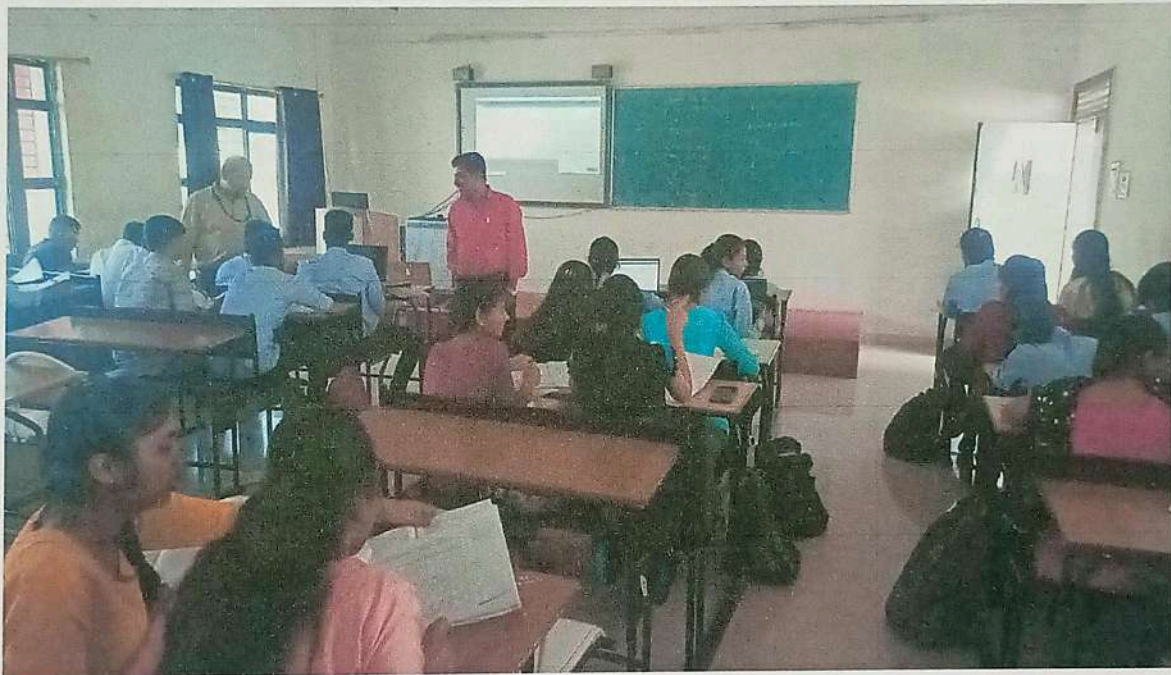
****Workshop Highlights:****

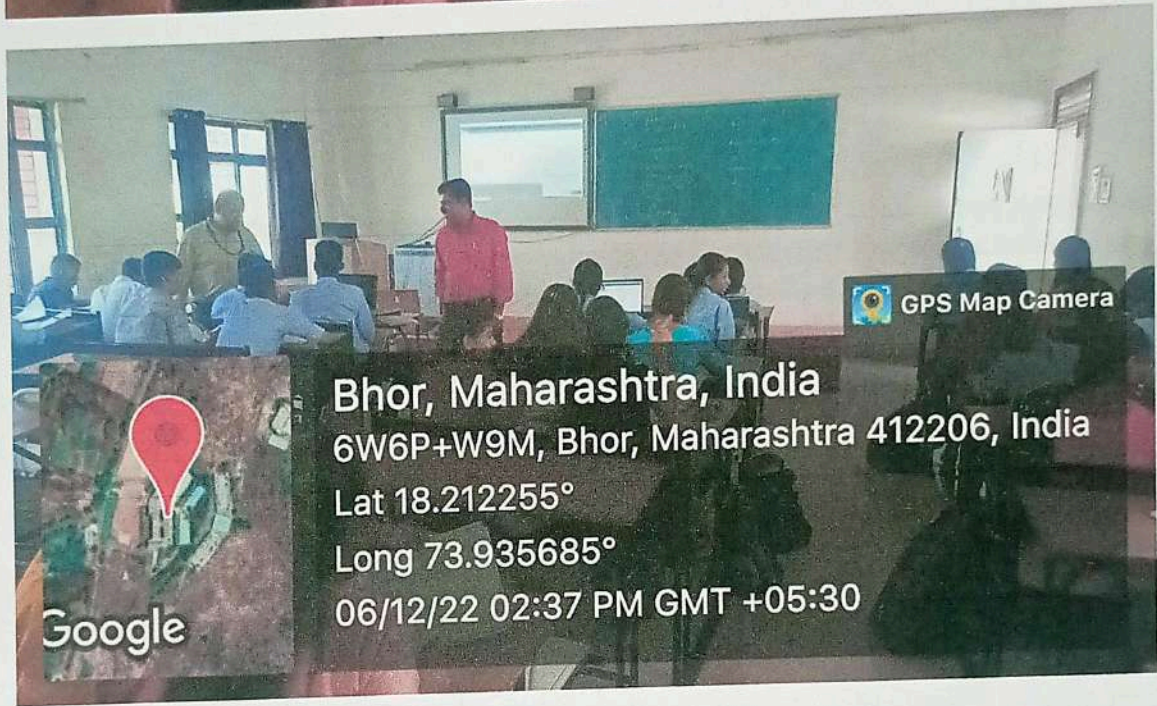
The workshop spanned three days and was designed to be highly practical-oriented, providing students with hands-on experience in Arduino programming and interfacing. Prof. Sandeep R. Nalage, an expert in the field, led the sessions with great expertise and enthusiasm. Participants were exposed to various aspects of Arduino, from basic programming to advanced interfacing techniques.

****Feedback:****

Feedback from the participants was overwhelmingly positive. Students appreciated the practical approach of the workshop, stating that it greatly enhanced their understanding of Arduino programming and interfacing. Prof. Sandeep R. Nalage's practical skills and teaching methodology were highly admired by the participants.

****Photographs:****





****Acknowledgments:****

The success of this workshop would not have been possible without the dedication and hard work of our coordinators, Dr. S. I. Nipanikar and Prof. S. D. Pasalkar, who ensured that all logistical aspects were well-organized.

On the third day of the workshop, Dr. T. M. Dudhane, Head of the Department of Electronics & Telecommunication Engineering, expressed his gratitude to all participants, resource persons, and coordinators. He also emphasized the importance of such practical workshops in enhancing the skillset of engineering students.

We would like to extend our heartfelt thanks to Dr. S. B. Patil, the Principal of RD's SCSCOE, for his continuous encouragement and support in organizing such events.

****Conclusion:****

The three-day hands-on workshop on Arduino programming and interfacing was a resounding success, providing valuable practical knowledge to the participating students. It served as a testament to the commitment of RD's SCSCOE to provide quality education and practical exposure to its students. The event concluded with a sense of achievement and a commitment to organizing more such workshops in the future.

Prof S.D.Pasalkar.

Member- IIC

Prof. S.R. Nalage.

Vice President IIC.

Prof. T.M.Dudhane

HoD, E&TC Department.

Prof. Dr. S.B.Patil
Principal

Rajendra Patil's
Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412 205



Rajgad Dnyanpeeth's Shri Chhatrapati Shivajiraje College of Engineering
Institution's Innovation Cell & Department of E & TC Engineering jointly organizing
A Three Day Hands on Workshop on Arduino Programming & Interfacing on 05,06, & 07th Dec.2022

Attendandce of Participants

| SN | Name | 05-12-2022 | | 06-12-2022 | | 07-12-2022 | |
|----|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 1 | KHALADKAR DEEPAK SAMPAT | Shalke | Shalke | Shalke | Shalke | Shalke | Shalke |
| 2 | Gole pradnya laxman | | | | | | |
| 3 | Abhishek Sambhaji Mangutkar | A | A | A | A | A | A |
| 4 | Gaikwad Sakshi Bhimaji | Spaikwad | Spaikwad | Spaikwad | Spaikwad | Spaikwad | Spaikwad |
| 5 | Andhalikar Akshada Yashwant | AYT | AYT | AYT | AYT | AYT | AYT |
| 6 | Phadatare Arpita Sunil | A.P | A.P | A.P | A.P | A.P | A.P |
| 7 | Patil Preeti Mahaveer | P.M.Patil | P.M.Patil | P.M.Patil | P.M.Patil | P.M.Patil | P.M.Patil |
| 8 | Pol Rutuja Rajaram | Pujya | Pujya | Pujya | Pujya | Pujya | Pujya |
| 9 | Sawant Omkar Prasad | omk | omk | omk | omk | omk | omk |
| 10 | Prachi balasaheb salunkhe | Balunkhe | Balunkhe | Balunkhe | Balunkhe | Balunkhe | Balunkhe |
| 11 | Maheshwari kharat | Mkharat | Mkharat | Mkharat | Mkharat | Mkharat | Mkharat |
| 12 | Jedhe Deep Satish | Jedhe | Jedhe | Jedhe | Jedhe | Jedhe | Jedhe |
| 13 | Dudhane Devang Dattatray | Dudhane | Dudhane | Dudhane | Dudhane | Dudhane | Dudhane |
| 14 | Margaje Rutuja Rajendra | Margaje | Margaje | Margaje | Margaje | Margaje | Margaje |
| 15 | Zende Atharva Sunil | Zende | Zende | Zende | Zende | Zende | Zende |
| 16 | Tanpure Shivam Ramchandra | S.R.Tanpure | S.R.Tanpure | S.R.Tanpure | S.R.Tanpure | S.R.Tanpure | S.R.Tanpure |
| 17 | Prajakta Vilas pawar | Pawar | Pawar | Pawar | Pawar | Pawar | Pawar |
| 18 | Bhosale Ankita Ramchandra | Abhosale | Abhosale | Abhosale | Abhosale | Abhosale | Abhosale |
| 19 | Gade raj vijay | | | | | | |
| 20 | Shivam Pralhad Rathod | | | | | | |
| 21 | JAMBHALE SIDDHI RAMCHANDRA | S.Jambhale | S.Jambhale | S.Jambhale | S.Jambhale | S.Jambhale | S.Jambhale |
| 22 | Abrar mirde | | | | | | |
| 23 | Ajay Prajapati | | | | | | |
| 24 | Devkar Pooja Dhanaji | | | | | | |
| 25 | BHANDALKAR ANIKET PRAMOD | | | | | | |
| 26 | Dokhe Kshitij dattatray | | | | | | |
| 27 | Sanjay Nipanikar | | | | | | |
| 28 | Rahul Mohite | | | | | | |
| 29 | Yadav Pratik Kishor | | | | | | |
| 30 | Shinde Omkar Hanumant | | | | | | |
| 31 | Thorat Sandip Lahu | | | | | | |
| 32 | Rohan devidas satav | Rsat | Rsat | Rsat | Rsat | Rsat | Rsat |
| 33 | Jadhav Rutuja Ashok | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav |
| 34 | Rithe Sanket Prashant | Rithe | Rithe | Rithe | Rithe | Rithe | Rithe |
| 35 | HOLKa Prajwal Deepak | | | | | | |

Rajgad Dnyanpeeth's Shri Chhatrapati Shivajiraje College of Engineering
Institution's Innovation Cell & Department of E & TC Engineering jointly organizing
A Three Day Hands on Workshop on Arduino Programming & Interfacing on 05,06, & 07th Dec.2022

Attendandce of Participants

| SN | Name | 05-12-2022 | | 06-12-2022 | | 07-12-2022 | |
|----|---------------------------|------------|------------|------------|------------|------------|------------|
| | | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 36 | Dhamal Aditya Rohidas | A.R.Dhamal | A.R.Dhamal | A.R.Dhamal | A.R.Dhamal | A.R.Dhamal | A.R.Dhamal |
| 37 | Shete Aditya Ganesh | | | | | | |
| 38 | Vishwakarma vinod Bharat | Vinod | Vinod | Vinod | Vinod | Vinod | Vinod |
| 39 | Bhosale Digvijay Ramesh | | | | | | |
| 40 | Pranav Shahaji Sawant | | | | | | |
| 41 | Jangam Mayur Vinayak | Mayur | Mayur | Mayur | Mayur | Mayur | Mayur |
| 42 | SHENDAGE KISHOR DASHARATH | | | | | | |
| 43 | VEER SAHIL NILESH | Sahil | Sahil | Sahil | Sahil | Sahil | Sahil |
| 44 | VEER SAYEE RAVINDRA | Sayee | Sayee | Sayee | Sayee | Sayee | Sayee |
| 45 | TEKAWADE PRANAV RAMESH | Pranav | Pranav | Pranav | Pranav | Pranav | Pranav |
| 46 | Dhumal Shivanjali Santosh | Shivanjali | Shivanjali | Shivanjali | Shivanjali | Shivanjali | Shivanjali |
| 47 | Mankar Priyanka Bharat | Mankar P.B | Mankar P.B | Mankar P.B | Mankar P.B | Mankar P.B | Mankar P.B |
| 48 | Shedge Suraj Ashok | | | | | | |

49 Mohole Priyal Latit Priyal Priyal Priyal Priyal Priyal Priyal
 50) Shikhaee Swati Ravindra Shikhaee Shikhaee Shikhaee Shikhaee Shikhaee Shikhaee
 51) Shere Shraddha Dhananjay Shere Shere Shere Shere Shere Shere

Co Coordinator: Sutar Amruta Rajendra
 Coordiantor: A.R. Dhamal A.R. Dhamal A.R. Dhamal
 Resource Person: A.R. Dhamal A.R. Dhamal A.R. Dhamal

52) Gole Shruti Sunil Shruti Shruti Shruti Shruti
 53) Pawar Kajal Rajendra Kajal Kajal Kajal Kajal Kajal Kajal
 54) Khopade Rutuja Sandip Rutuja Rutuja Rutuja Rutuja Rutuja Rutuja
 55) Pangul Reshma Tanaji Reshma Reshma Reshma Reshma Reshma Reshma
 56) veer Samiksha Ganesh Samiksha Samiksha Samiksha Samiksha Samiksha Samiksha
 57) Bhosule Ankita Ramesh Ankita Ankita Ankita Ankita Ankita Ankita
 58) konde Rutik Lahu Rutik Rutik Rutik Rutik Rutik Rutik
 59) Dhargude Aditya Ganpat Aditya Aditya Aditya Aditya Aditya Aditya
 60) Deshmuth Adesh Hemant Adesh Adesh Adesh Adesh Adesh Adesh
 61) Hoval Vijay Vikas Vijay Vijay Vijay Vijay Vijay Vijay
 62) shinde omkar suresh Omkar Omkar Omkar Omkar Omkar Omkar
 63) Shelke Aniket Shivaji Aniket Aniket Aniket Aniket Aniket Aniket
 64) Sawar Pramod Jagtap Pramod Pramod Pramod Pramod Pramod Pramod
 65)

- 66) Aniket Dagadu shingade.
- 67) Shinde Peasad. Dattateay
- 68) Magar Pranoti Mahadev
- 69) Sawant sanket sanjay
- 70) SMujumale Shravani Chintamani

~~ADshingade~~ A.Dshingade. ~~Ashingade~~ Ashingade ~~Ashingade~~ Ashingade

~~Shinde~~ Shinde ~~Shinde~~ Shinde ~~Shinde~~ Shinde

~~Peas~~ Peas. ~~Peas~~ Peas. ~~Peas~~ Peas. ~~Peas~~ Peas

~~Sanke~~ Sanke ~~Sanke~~ Sanke ~~Sanke~~ Sanke

~~SMujumale~~ SMujumale ~~SMujumale~~ SMujumale ~~SMujumale~~ SMujumale

Ambike Atul Vilas
 Hoval Vijay Vikas
 Shelke Aniket Shivaji
 Shinde Omkar Suresh
 Konde Rutik Lahy
 Dhaigude Aditya Ganpat.
 Jagtap Aditya Sanjay

~~Ambike~~ Ambike ~~Ambike~~ Ambike ~~Ambike~~ Ambike ~~Ambike~~ Ambike

~~Hoval~~ Hoval ~~Hoval~~ Hoval ~~Hoval~~ Hoval ~~Hoval~~ Hoval

~~Ashelke~~ Ashelke ~~Ashelke~~ Ashelke ~~Ashelke~~ Ashelke ~~Ashelke~~ Ashelke

~~Om~~ Om ~~Om~~ Om ~~Om~~ Om

~~A~~ A ~~A~~ A ~~A~~ A ~~A~~ A

~~Asy~~ Asy ~~Asy~~ Asy ~~Asy~~ Asy ~~Asy~~ Asy

Interfacing 16X2 LCD with Arduino

Functions used to interface LCD

- » `LiquidCrystal object_name(rs,rw,en,d0,d1,d2,d3,d4,d5,d6,d7)`
`LiquidCrystal object_name(rs,rw,en,d4,d5,d6,d7)`
 This function defines an object named `object_name` of the class `LiquidCrystal`. `rs`, `rw` and `en` are the pin numbers of the Arduino board that are connected to `rs`, `rw` and `en` of LCD.
`d0`, `d1`, `d2`, `d3`, `d4`, `d5`, `d6` and `d7` are the pin numbers of the Arduino board that are connected to data pins D1, D2, D3, D4, D5, D6 and D7 of LCD.
 Example, `LiquidCrystal lcd(13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3)`. This makes use of LCD in 8-bit mode.
 Example, `LiquidCrystal lcd(13, 12, 11, 6, 5, 4, 3)`. This makes use of LCD in 4-bit mode.

Interfacing 16X2 LCD with Arduino

- » `lcd.begin(cols,rows)`
 This function is used to define the number of rows and columns the LCD has and to initialize the LCD.
 Needs to be called before calling other functions, once the object is defined using the function in point 1.
 Example, for 16x2 LCD we write `lcd.begin(16,2)`. `lcd` is the name of the object of the class `LiquidCrystal`. 16 is the number of columns and 2 is the number of rows.
- » `lcd.setCursor(col,row)`
 This function positions the cursor of the LCD to a location specified by the row and column parameters.
`col` is the column number at which the cursor should be at (0 for column 1, 4 for column 5 and so on).
`row` is the row number at which the cursor should be at (0 for row 1, 1 for row 2).
 Example, for setting the cursor at the 5th column in the 2nd row, `lcd.setCursor(4,1)`. `lcd` is the name of the object of the class `LiquidCrystal`.

Interfacing 16X2 LCD with Arduino

```

#include <LiquidCrystal.h>
// initialize the library with the numbers of the interface pins
LiquidCrystal lcd(0, 1, 8, 9, 10, 11); // REGISTER SELECT PIN,ENABLE PIND, PULSES PNL, D0 PNL, D7 PNL
void setup()
{
    // set up the LCD's number of columns and rows:
    lcd.begin(16, 2);
}

void loop()
{
    // set the cursor to column 0, line 1
    lcd.setCursor(0, 1);
    lcd.print("ROTC"); //lcd.print name
    lcd.setCursor(0, 1); // set the cursor to column 0, line 2
    lcd.print("SCACDC"); //lcd.print name
    delay(100); //delay of 0.1 second
    lcd.setCursor(0, 1); // set the cursor to column 0, line 1
    lcd.setCursor(0, 0); // set the cursor to column 0, line 1
}
    
```

Interfacing Ultrasonic Sensor with Arduino



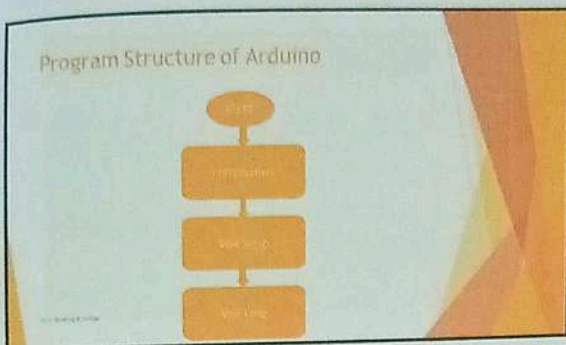
$$\text{Time} = \text{Distance} / \text{Speed of sound}$$

$$\text{Speed of sound} = 340 \text{ Meter/Second}$$

$$= 0.034 \text{ cm/ussecond}$$

$$\text{Distance} = \text{time} \times \text{Speed of sound}$$

<https://create.arduino.cc/projecthub/akshay10sen666/interface-ultrasonic-sensor-with-arduino-pin-2d9927fret-us-ethr-id-6004998offset-1>



Program 1: Led Blinking

```

#define LED 11
void setup() {
  pinMode(LED, OUTPUT);
}
void loop() {
  digitalWrite(LED, HIGH);
  delay(1000);
  digitalWrite(LED, LOW);
  delay(1000);
}
  
```

Program 2: Analog read

```

#define Pot A0
int P=0;
void setup() {
  pinMode(Pot, INPUT);
  Serial.begin(9600);
}
void loop() {
  P= analogRead(Pot);
  Serial.println(P);
  delay(500);
}
  
```

Program 3: Controlling Brightness of LED

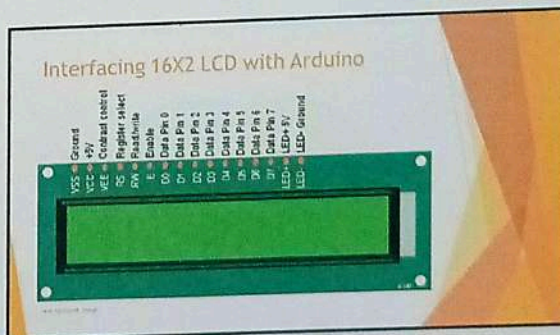
```

#define Pot A0
#define LED 11
int P=0;
void setup() {
  pinMode(Pot, INPUT);
  pinMode(LED, OUTPUT);
  Serial.begin(9600);
}
void loop() {
  P= analogRead (Pot);
  Serial.println(P);
  analogWrite (LED, P);
}
  
```

Program 4: Use of 'if' statement

```

#define Pot A0
#define LED 11
int P=0;
void setup() {
  Serial.begin(9600);
  pinMode(Pot, INPUT);
  pinMode(LED, OUTPUT);
}
void loop() {
  P= analogRead(Pot);
  Serial.println(P);
  if (P>500) {
    digitalWrite(LED, HIGH);
  }
  if (P<500) {
    digitalWrite(LED, LOW);
  }
}
  
```



Rajgad Dyanpeetha | Shri Chhatrapati Shivaji Raj College of Engineering, Pune

Institution's Innovation Cell
 &
 Department of Electronics & Telecommunication Engineering Jointly organizing
A Three-day Hands on Workshop on Arduino Programming & Interfacing

Date: 6, 6 & 7th Dec. 2022
from 11.30AM to 03.00PM

Venue:
 (Computer Lab E&TC Department)
For B.E.(MECH & ENTC)

Prof. S. Parulkar (Coordinator)
Dr. S. Nigamkar (Co-ordinator)
Prof. S. K. Patil (Resource Person)
Prof. L. H. Bhatnagar (Head of E & TC Dept.)
Dr. S. S. Patil (Principal)

"A Three Day Hands on Workshop on Arduino Programming & Interfacing"

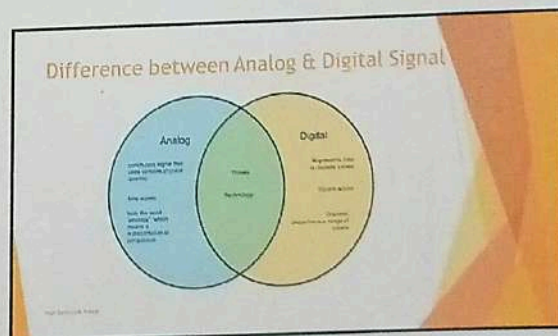
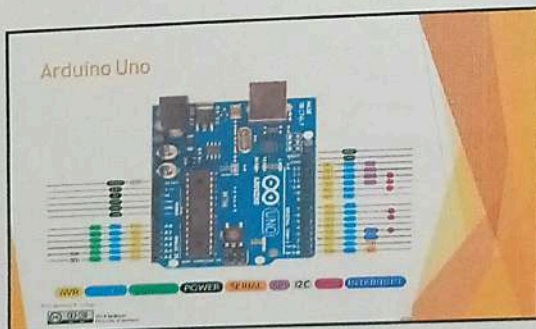
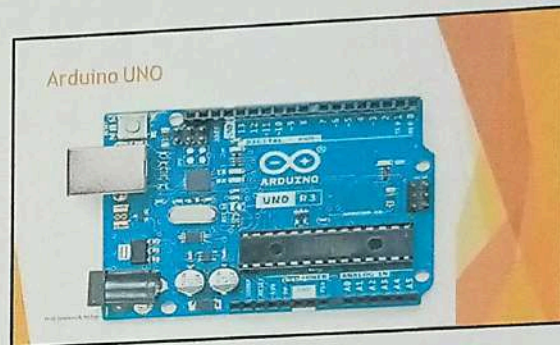
Course Objectives

- The structure of an Arduino Uno board and how to use it
- The basic terms and components of electrical engineering as background knowledge
- What is the Arduino IDE, what is it used for and how is it structured?
- Programming basics: block-based programming
- Programming basics: text-based programming
- How to create a system with an Arduino and how to write the required program code
- Hands-on learning based on exciting DIY projects

"A Three Day Hands on Workshop on Arduino Programming & Interfacing"

Course Outcomes

- Students will be able to write program on their own
- Students will be able to select components while designing an embedded system
- Students will be able to design a professional embedded system
- Students will be able to install and update required library in Arduino IDE
- Students Will be able to design a prototype

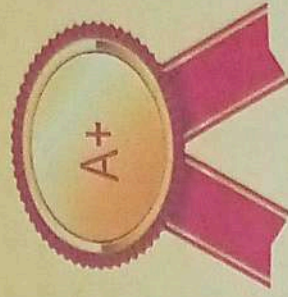




Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering, Dhangwadi

S.No. 237 Satara-Pune, NH-4, Dhangwadi, Tal- Bhor, Dist- Pune, 412206 (MS), India



Certificate of Participation

This is to certify that **KHALADKAR DEEPAK SAMPAT** has successfully attended, *Three Days Hands on Workshop on "Arduino Programming & Interfacing"* on 05th, 06th, & 07th December 2022 Organized by Department of Electronics & Telecommunication Engineering, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune.

Prof. S.D. Pasalfiar
Asst. Coordinator

Prof. Dr. S.I. Nipanifiar
Coordinator

Prof. S.R. Nalage
Resource Person

Prof. T.M. Dhadhane
HOD E&TC Dept.

Prof. Dr. S.S. Patil
Principal

Made for free with Certify'em

13. Guest lectures

Rajgad Dnyanpeeth's



SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

List of Guest Lecture

| S.No | Subject | Name of Expert | Date | Number of Participant |
|---|--|-----------------------|------------|-----------------------|
| Department of Civil Engineering | | | | |
| 1 | Guest Lecture on 'Introduction of Auto Cad Software' | Mr. Alok Sasane | 14/10/2022 | 50 |
| Department of Computer Engineering | | | | |
| 2 | Guest Lecture on 'Carrier Guidance' | Mr. Abhishik Wakodkar | 21/03/2023 | 113 |



Rajgad Dnyanpeeth's
**SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF
ENGINEERING**

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

Guest Lecture On
**“Introduction of Auto Cad
Software”**

(14th October 2022)

Organized By

Department of Civil Engineering

**Savitribai Phule Pune
University Pune, India**



Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

Date- 10/10/2022

NOTICE

All the students of **SE & TE Civil** are hereby informed that, the Department is going to organized
"Guest Lecture on **"Introduction to Auto CAD Software"** dated on 14th October 2022 at 11:00 am
To 01:30 pm in civil department digital classroom. Attendance is compulsory to all



Prof. S. S. Jadhav

Coordinator



Prof. S. P. Salunkhe.

Head of Department
Dept. of Civil Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206





Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Approved by AICTE, New Delhi, Recognized by Govt. of Maharashtra and Affiliated to Savitribai Phule
Pune University, Pune (ID. PUPN/Engg./376/2009), DTE CODE: EN6324, AISHE CODE : C-41588



Anantrao Thopte
Founder President, Ex. Edu. Minister

Sangram Thopte
MLA, Executive President

Dr. Bhagyashri Patil
Hon. Secretary

Dr. S. B. Patil
Principal

Date: 10/10/2022

INVITATION LETTER

To,
Mr. Alok Sasane
Manager
CAD Centre Pvt. Ltd. Pune.

Subject: Invitation for conducting Guest Lecture on **“Introduction to Auto Cad Software”** on
14th October 2022 Friday


Dear Sir,

Our department of Civil Engineering is going to organise Guest Lecture on **“Introduction to Auto Cad Software”** on 14th October 2022 Friday for students of in and outside the Institute

Considering your expertise and experience in the same field, it gives us immense pleasure to invite you as a guest speaker for above said Guest lecture.

Kindly, accept the invitation and acknowledge the same.

Thanking You.


Prof. S. S. Jadhav

Coordinator


10/10/22

Prof. S. P. Salunkhe

Head, Department of Civil
Engineering



Prof. Dr. S. B. Patil

Principal
RD's SCSCOE Pune

Received
Alok
10/10/22





Date: 15/10/2022

DEPARTMENT OF CIVIL ENGINEERING**Report on "Introduction to Auto Cad Software"**

1. **Program type:** Guest Lecture
2. **Event Name:** "Introduction to Auto Cad Software"
3. **Attendees:** Students from Civil Engineering department in the institute.
4. **Name and Designation of Resource Person :** Mr. Alok Sasane (Manager)
5. **Company / Institute of Resource Person:** CAD Centre Pvt.Ltd. Pune.
6. **Event coordinator:** Prof. S.S. Jadhav
7. **Day & Date of Execution:** Friday 14th October 2022
8. **Time:** 11 am to 01.30 pm
9. **Duration of Event:** One day
10. **Venue of event :** Civil Department Digital Classroom
11. **Number of Participants:** 50
12. **Fee details:** Free
13. **Objectives:** The main objective of the program was to guide students about the Auto CAD software. Also guided about How to implement Auto CAD software knowledge in civil engineering field.
14. **Outcomes:** Building planning in accordance with Auto CAD software
15. **Description (program conduction details) / speaker topic explanation:**

Rajgad Dnyanpeeth's Shri Chhatrapati College of Engineering Civil Department Dhangwadi, Pune has conducted a guest lecture on "**Introduction to Auto Cad Software**" on **14th October 2022** for SE and TE students of Civil Engineering to give information about "**Introduction to Auto Cad Software**" The ultimate objective of the study is to AutoCAD is a program extensively used by civil engineers and other professionals all over the world. It allows a designer to analyse, design and plan easily and efficiently. If you are a professional in this field or aspire to become a civil engineer. AutoCAD software is adaptable and flexible to use in a variety of sectors. The software is easily available and you can take a monthly or lifetime subscription. Because of wide availability and ease of use, AutoCAD is one of the most





commonly used software for professionals in the fields of architecture, construction and manufacturing.

16. Conclusion: The Guest lecture on “**Introduction to Auto Cad Software**” explained it is a very user-friendly software program that allows individuals with a basic understanding of drafting to work on it. It is also an effective way to design a product, building or machine. There are multiple tools which allow you to view your drawing from different perspectives and in a variety of styles. All these can be useful while working on complex drawings with a large number of components. And also Auto Cad Software increases professional opportunities for students.

Photos with caption



Mr. Alok Sasane Sir guiding to students





RajgadDnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (MH)



Mr. Alok Sasane Sir guiding to students

Prof.S.S. Jadhav

Co-ordinator

Prof. S. P. Salunkhe

Head of Department

Dept. of Civil Engineering

**Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206**

Dr. S. B. Patil

Principal

Rajgad Dnyanpeeth's

**Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412 205**





RajgadDnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

Date:- 14/10/2022

Department of Civil Engineering
Guest Lecture on "Introduction to Auto Cad Software"
Attendance Sheet

| Sr. No. | Name of Students | Class | Sign |
|---------|---------------------------|--------|------------|
| 1) | Ghoshalge Sainath Bajirao | S.E | Sainath |
| 2) | Ansari Hasnain Haider | S.E | Hasnain |
| 3) | Tanmay pandurang bhargude | S.E | Bhargude |
| 4) | Narendra Tulsiram Rajput | S.E | Rajput |
| 5) | Kale Rutuja Dnyaneshwar | GE | Kale |
| 6) | Shilimkar Monika Uday | -11- | mshilimkar |
| 7) | Pawar Sayali Ravindra | -11- | Pawar |
| 8) | Bhandalkar Pooja Mansing | -11- | Pooja |
| 9) | Lokhande Vaibhav Dilip | -11- | Lokhande |
| 10) | Pharande Atish Ashak | -11- | Pharande |
| 11) | Shinde Aditya Nandkumar | -11- | Shinde |
| 12) | Kshirsagar Saurabh Sunil | -11- | Kshirsagar |
| 13) | Sable Vijaya Rohidas. | T.E. | Sable |
| 14) | Ranjane Sandhya Sanjay | T.E. | Ranjane |
| 15) | Kendre Sainath Tatarao | T.E. | Kendre |
| 16) | Dasgude Aditya Sachish | D.S.Y | Dasgude |
| 17) | ROHAN laxman Gole | S.Y | Gole |
| 18) | Avinash Dinkar Patthe | S.Y | Patthe |
| 19) | Datta Balaso Yaday | d.S.Y | Datta |
| 20) | Dhanraj vijay Parke | d.S.Y | Dhanraj |
| 21) | Vicky Vinod sharma. | d.S.Y. | sharma |
| 22) | Pratik Sambhaji Khutwad | S.Y. | Khutwad |
| 23) | Jaysing Ganesh kamble | | |
| 24) | Siddhi Rajendra Pawar | S.Y. | Sapawar |



| | | | |
|-----|----------------------------|-------|---------------------------|
| 25) | Mokashi Payal Vasant | SY | P. Mokashi |
| 26 | Kadam Vrshali Jaywant | SY | V. Kadam |
| 27] | Bondre Harkli Ganesh | S.Y | H. Bondre |
| 28] | Gnehal Shilving Guttledon | SY | G. Guttledon |
| 29] | Chaitrali Snehl Kulkarni | S.Y | S. Kulkarni |
| 20 | Shrutika Vijay Veelpatthek | SY | S. Veelpatthek |
| 31] | Abhijit Rasendra Jagdale | SY | A. Jagdale |
| 32] | Khandale Kamlesh Krishna | D.S.Y | K. Khandale |
| 33] | Rohan Chandrakant Tamkar | D.S.Y | R. Tamkar |
| 34] | Avinish Tarachand Salkar | D.S.Y | A. Salkar |
| 35] | yash Ramesh Dhawale | D.S.Y | Y. Dhawale |
| 36] | Prem Mohan More | S.Y | P. More |
| 37] | Rahul Sambhaji Butar | S.Y | R. Butar |
| 38] | Manoj Ananda Gole | S.Y | M. Gole |
| 39] | Dnyandatt Sachin Bandal | D-S-Y | D. S. Bandal |
| 40] | Kimanshu Yuvraj Sapkal | SY | K. Sapkal |
| 41] | Prem Hemant Tathe | SY | P. H. Tathe |
| 42] | Shrawari Laxman Uthalkar. | S.Y. | S. Uthalkar |
| 43] | Gauri Tukaram Mohite. | S.Y | G. Mohite |
| 44] | Aayush Bhanudas Kate. | S.Y | A. Kate |





Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Approved by AICTE, New Delhi, Recognized by Govt. of Maharashtra and Affiliated to Savitribai Phule Pune University, Pune (ID. PU/PN/Engg./376/2009), DTE CODE: EN6324, AISHE CODE : C-41588



Since - 1972

Anantrao Thopte
Founder President, Ex. Edu. Minister

Sangram Thopte
M.L.A. Executive President

Dr. Bhagyashri Patil
Hon. Secretary

Dr. S. B. Patil
Principal

APPRECIATION LETTER

To,

Mr. Alok Sasane ,

Cad Centre Pvt. Ltd.

Pune

On behalf of the Rajgad Dnyanpeeth's Shri Chhatrapati College of Engineering Dhangwadi, Pune, we wanted to express our deep gratitude to you for conduction of Guest Lecture on the topic "**Introduction to Auto Cad Software**" on 14th October 2022. It was really informative and useful. Definitely all the participants have benefited from your talk.

We are very much thankful to you for making it convenient to be with us.

Once again, thank you for making the webinar successful, and we expecting your continues support in future also.

Your's truly,


14/10/2022

Prof. S. P. Salunkhe

Head, Department of Civil Engineering



Prof. Dr. S. B. Patil

Principal

RD's SCSCOE Pune

Received
Alok
14/10/22





Rajgad Dnyanpeeth's

**SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF
ENGINEERING**

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

**Guest lecture on
“Career Guidance”**

(21th March 2023)

Organized By

Department of Computer Engineering

**Savitribai Phule Pune
University Pune, India**



Department of Computer Engineering

Date- 18/03/2023

NOTICE

All S.E & T. E students are hereby informed that Computer Department has organized a Guest Lecture on “**Career Guidance**” on 21st of March 2023, Tuesday at 02:30 am to 5:00 pm.

Note:

1. Guest Lecture will be offline
2. Attendance is mandatory to all
3. Guest Lecture will start and end as per schedule time.

P. MARNE

Prof. P. M. Marne
(Coordinator)

B. D. THORAT

Prof. B. D. Thorat
(H. O. D)

Head of Department
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg.
Dhangawadi, Pune-412206





INVITATION LETTER

Date- 18/03/2023

To

Mr. Abhishek Wakodkar,

Abhishri Academy,

(Founder & Director), Pune.

Subject: Invitation for conducting Guest Lecture on "Career Guidance"

Respected sir,

This gives Department of Computer Department of SCSCOE, great pleasure to request you to conduct Guest Lecture on "**Career Guidance**" for S. E. students of SCSCOE in RDTC-SCSCOE, Dhangawadi.

We will be thankful to you if you can schedule on 21st of March 2023.

Waiting for your positive reply.


Prof. B. D. Thorat
(H. O. D)

Head of Department
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206





PERMISSION LETTER

Date- 18/03/2023

To,

The Principal,

RD's SCSCOE,

Dhangwadi, Bhor.

Subject: Regarding permission of Guest Lecture on "Career Guidance" & Sanctioning of remuneration.

Respected sir,

Computer Dept. is going to conduct Guest Lecture on "**Career Guidance**" for S. E. & T. E. students. **Mr. Abhishek Wakodkar** has been invited as a speaker for the lecture of Computer engineering student. The lecture will be held in his presence. He will deliver the lecture on following day and date.


| Sr. No. | Day | Date | Subject | Class |
|---------|---------|------------|----------------------------------|-----------------------------|
| 1. | Tuesday | 21-03-2023 | Guest Lecture on Career Guidance | S. E. & T. E. (Computer) |

Kindly Sanction the remuneration of total amount Rs. 2000/-

Thanking you.


Prof. P. M. Marne
(Coordinator)

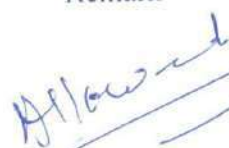



Prof. B. D. Thorat
(H. O. D)

Head of Department
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206

Remark

Principal
Rajgad Dnyanpeeth's
Shri Chhatrapati Shivajiraje College of Engineering
Dhangawadi, Pune-412206







CONDUCTION LETTER

Date-18/03/2023

To

Mr. Abhishek Wakodkar,

Abhisri Academy,

(Founder & Director), Pune.

We express our immense gratitude for having you at our college to conduct a fabulous Guest Lecture on “**Career Guidance**” .It was our pleasure for having a person like you at our institute. We take this opportunity to tell you this with pride that our student thoroughly enjoyed your entire sessions. We would like to know if you ever need our support.

Thank You so much.

Received Abhi.



BT4
Prof. B. D. Thorat
(H. O. D)

Head of Department
Dept. Computer Engineering
Shri Chh. Shivajiraje College of Engg
Dhangawadi, Pune-412206

REPORT OF GUEST LECTURE ON CAREER GUIDANCE

TOPIC: "GUEST LECTURE ON CAREER GUIDANCE"

DAY/ DATE: 21st of March 2023, Tuesday.

DURATION OF EVENT: 11:00 am to 1:00 pm.

OBJECTIVE

1. Provide student a conceptual overview of Career Guidance.
2. Understand and use essential technique of Career Guidance.

SUMMARY

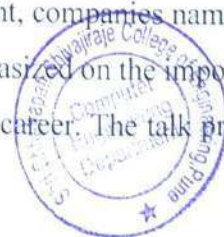
The guest lecture has started Mr. Abhishek Wakodkar briefing the students about "Career Guidance" and then provided the students with some free sources and sites from which they can get more information about the topic and probably can make something good out of it. Prof B. D. Thorat (Head of Department) welcome the Guest Mr. Abhishek Wakodkar.

The guest lecture covered the basic techniques that help students to build and apply prediction function with an emphasis on practical applications.

The course outcome of the guest lecture:

1. Familiarize the functional/operational aspects of Career Guidance.
2. Understand emerging concepts of Career Guidance.

Mr. Abhishek Wakodkar, started the talk with giving a brief statistics on the current employability status of engineering students. He highlighted the growth of VLSI and Embedded industry, which has increased demand for fresh engineers. His talk also focused on the recent industry trends in core engineering field. He listed down more than fifteen roles/designation currently being practiced in the core companies; their skill set requirement, companies name, job responsibilities etc and explained the career growth ladder. He then emphasized on the importance of right mix of knowledge, attitude and additional skills for a successful career. The talk provided the students a



platform for sharing their thoughts and was endowed with proper guidance regarding all the aspects of career in core VFSI & Embedded field.





Marne

Prof. P. M. Marne
(Co-ordinator)



B. D. Thorat

Prof. B. D. Thorat
(HOD)

Head of Department
Dept. Computer Engineering
Shri Chh. Shivaji College of Engg.
Dhangawadi, Pune-412206



Guest Lecture on “Career Guidance”.

Student Feedback Form

Students are required to rate the course on the following attributes using the 4 -point scale shown.

Course: [tick (✓) in the relevant cell]

| Parameters | A Very Good | B Good | C Satisfactory | D Unsatisfactory |
|---|-------------------|-----------|-------------------|---------------------|
| 1. Overall rating of the course content | ✓ | | | |
| 2. Course objectives were clear | ✓ | | | |
| 3. Clarity and relevance of textual reading material | ✓ | | | |
| 4. The teacher was effective in communicating the content of the course | ✓ | | | |
| 5. The teacher responded to questions in an informative, appropriate and satisfactory manner. | | ✓ | | |
| 6. Do you have any suggestions for future workshops that you would like us to organize? | No | | | |
| 7. Would you recommend this course to other students? | Yes | | | |
| Any Other Comments- | | | | |



Thank you for participating, we appreciate your feedback!!!!!!!



Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune

DEPARTMENT OF COMPUTER ENGINEERING

Academic Year: 2022-23

Class: SE

| S. No | Roll No. | Student Name | Sign |
|-------|-----------|-------------------------------|------|
| 1 | SCO21F001 | Adsul Swarup Sunil | |
| 2 | SCO21F002 | Bansode Niranjana Shrikrishna | |
| 3 | SCO21F003 | Belhekar Mahesh Sunil | |
| 4 | SCO21F004 | Beloshe Atharv Ramesh | |
| 5 | SCO21F005 | Bhagat Dikshant Ravindra | |
| 6 | SCO21F006 | Bhilare Pooja Kisan | |
| 7 | SCO21F007 | Bhoite Sanket Sanjay | |
| 8 | SCO21F008 | Bhosale Shreya Sanjay | |
| 9 | SCO21F009 | Birdawade Rohit Sandip | |
| 10 | SCO21F010 | Bire Akash Sachin | |
| 11 | SCO21F011 | Budgude Shrivane Navnath | |
| 12 | SCO21F012 | Chivhe Sanket Sambhaji | |
| 13 | SCO21F013 | Dabhole Atharva Gajanan | |
| 14 | SCO21F014 | Danavale Rutik Sunil | |
| 15 | SCO21F015 | Dere Ekata Santosh | |
| 16 | SCO21F016 | Doiphode Harshada Tukaram | |
| 17 | SCO21F017 | Gade Gaurav Baburao | |
| 18 | SCO21F018 | Gaikwad Neha Ajay | |
| 19 | SCO21F019 | Gaikwad Rachana Amol | |
| 20 | SCO21F020 | Gajbhiye Sahil Hansraj | |
| 21 | SCO21F021 | Gawade Sahil Sham | |
| 22 | SCO21F022 | Gopad Eshwar Abhay | |
| 23 | SCO21F023 | Haral Apurva Sandip | |
| 24 | SCO21F024 | Jagdale Aniket Chandrakant | |
| 25 | SCO21F025 | Jangid Rohan Biharilal | |
| 26 | SCO21F026 | Kadam Sushant Prataprao | |
| 27 | SCO21F027 | Karape Milind Nitin | |
| 28 | SCO21F028 | Karape Nikita Nitin | |
| 29 | SCO21F029 | Kasabe Akshay Shahadev | |
| 30 | SCO21F030 | Kashid Vaishnavi Vilas | |
| 31 | SCO21F031 | Khamkar Vivek Suresh | |
| 32 | SCO21F032 | Khan Arbaz Khurshid | |
| 33 | SCO21F033 | Khopade Sakshi Suresh | |
| 34 | SCO21F034 | Kolapkar Mangesh Kakasaheb | |
| 35 | SCO21F035 | Kondhalkar Dipak Pandurang | |
| 36 | SCO21F036 | Kshirsagar Samrudhhi Umesh | |



| S. No | Roll No. | Student Name | Sign |
|-------|-----------|---------------------------------|----------------------|
| 37 | SCO21F037 | Kudale Omkar Sampat | <u>Kudale</u> |
| 38 | SCO21F038 | Kute Aniket Bandu | <u>Aniket Bk</u> |
| 39 | SCO21F039 | Mahajan Kaushal Shamkant | <u>Kfr</u> |
| 40 | SCO21F040 | Mhaske Preeti Dnyaneshwar | <u>Mhaske</u> |
| 41 | SCO21F041 | Mohite Akanksha Sudhakar | <u>Akanksha</u> |
| 42 | SCO21F042 | Mohite Hrishikesh Shrinivas | <u>Hrishikesh</u> |
| 43 | SCO21F043 | More Ankita Sudam | <u>Ankita</u> |
| 44 | SCO21F044 | More Pratik Pandurang | <u>Pratik</u> |
| 45 | SCO21F045 | Nevase Komal Bhauso | <u>Komal</u> |
| 46 | SCO21F046 | Nigade Utakarsh Uday | <u>Utkarsh</u> |
| 47 | SCO21F047 | Parthe Durgesh Bharat | |
| 48 | SCO21F048 | Popale Vaishnavi Pandurang | <u>Vaishnavi</u> |
| 49 | SCO21F049 | Raval Shraddha Bankim | <u>Shraddha</u> |
| 50 | SCO21F050 | Ruchke Baba Bhausaheb | |
| 51 | SCO21F051 | Salekar Omkar Dattatray | <u>Omkar</u> |
| 52 | SCO21F052 | Salunkhe Anuja Dhanaji | <u>Anuja</u> |
| 53 | SCO21F053 | Sayyad Amaan Rafik | |
| 54 | SCO21F054 | Tagad Suyash Anil | |
| 55 | SCO21F055 | Upparbawde Sneha Rajkumar | <u>Sneha</u> |
| 56 | SCO21F056 | Vibhute Yash Jitendra | |
| 57 | SCO21F057 | Vyahalkar Digant Abhijeet | <u>Digant</u> |
| 58 | SCO21F058 | Waghmare Sahil Kishor | <u>Sahil</u> |
| 59 | SCO21F059 | Zanje Aditi Shivaji | <u>Aditi</u> |
| 60 | SCO22D060 | Apet Shruti Surykant | |
| 61 | SCO22D061 | Bhalerao Pratiksha Vasant | <u>P.V. Bhalerao</u> |
| 62 | SCO22D062 | Chavan Sakshi Adhik | <u>Sakshi</u> |
| 63 | SCO22D063 | Devade Mitali Uttam | <u>Mitali</u> |
| 64 | SCO22D064 | Fargade saurabha Anil | |
| 65 | SCO22D065 | Gaikwad Sanika Dilip | <u>Sanika</u> |
| 66 | SCO22D066 | Ghogare Kunal Sudhakar | |
| 67 | SCO22D067 | Ghule Samruddhi Shivaji | <u>Samruddhi</u> |
| 68 | SCO22D068 | Jadhav Mayuri Vilas | <u>Mayuri</u> |
| 69 | SCO22D069 | Kazi Lubna Gulabsha | <u>L.G. Kazi</u> |
| 70 | SCO22D070 | Kodlinge Dnyaneshwari Prabhakar | <u>Dnyaneshwari</u> |
| 71 | SCO22D071 | Kondhalkar Payal Pandurang | <u>Payal</u> |
| 72 | SCO22D072 | Mane Vaishanvi Ganesh | <u>Vaishanvi</u> |
| 73 | SCO22D073 | Pawar Hemant Patangrao | <u>Hemant</u> |
| 74 | SCO22D074 | Sakat Sagar Mahadeo | <u>Sagar</u> |
| 75 | SCO22D075 | Salvi Riya Sandeep | <u>Riya</u> |
| 76 | SCO22D076 | Shinde Rutuja Keshav | <u>Rutuja</u> |
| 77 | SCO22D077 | Sonawane Abhijit Rajaram | <u>Abhijit</u> |





Rajgad Dnyanpeeth's
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune. NH-4, Dhangawadi, Tal: Bhore, Dist: Pune

DEPARTMENT OF COMPUTER ENGINEERING

Academic Year: 2022-23

Attendance Sheet

Class: TE

Subject :

Date:

| Roll No. | PRN No | Student Name | Signature | Marks |
|-------------|--------|-----------------------------|-----------|-------|
| ✓ BCO19F001 | | Asfiyan Nazim Attar | | |
| BCO20D002 | | Bait Rukshita Dinesh | | |
| ✓ BCO19F003 | | Bhelke Shereya Umesh | | |
| BCO20D004 | | Bhingare Isha Dilip | | |
| BCO20D005 | | Bhosale Shweta Sharad | | |
| ✓ BCO19F006 | | Bobade Prachi Santosh | | |
| BCO19F007 | | Borane Shubham Sandip | | |
| BCO20D008 | | Borsare Shubham Tarudutta | | |
| ✓ BCO18F009 | | Chavan Ritambara Shankar | | |
| BCO19F010 | | Dabade Suyash Sunil | | |
| BCO20D011 | | Dere Sunanda Muktaran | | |
| BCO20D012 | | Devgirikar Vidya Sambhaji | | |
| BCO19F013 | | Dhadave Ajinkya Rohidas | | |
| ✓ BCO19F014 | | Dhadve Pragati Uddesh | | |
| BCO20D015 | | Dighe Supriya Dattatray | | |
| ✓ BCO20D016 | | Gaikwad Puja Balkrushna | | |
| ✓ BCO19F017 | | Gaikwad Shubhangi Suryakant | | |
| BCO18F018 | | Gaikwad Sushil Pandurang | | |
| ✓ BCO19F019 | | Garud Akshada Anil | | |
| BCO19F020 | | Gawali Kartik Rakesh | | |
| ✓ BCO18F021 | | Gorad Akshada Rajendra | | |
| ✓ BCO20D022 | | Gujar Sayali Satish | | |
| BCO20D023 | | Ingale Yash Sudhir | | |
| ✓ BCO19F024 | | Ithape Shreya Santosh | | |
| BCO19F025 | | Jadhav Dhiraj Anna | | |
| BCO20D026 | | Jadhav Harshad Arjun | | |
| ✓ BCO20D027 | | Jadhav Shweta Yashwant | | |
| ✓ BCO19F028 | | Jagdale Harshada Shivaji | | |
| ✓ BCO20D029 | | Jagtap Gauravi Sopan | | |
| ✓ BCO20D030 | | Kachi Aditi Jagdish | | |
| BCO19F031 | | Kaluse Sahil Sanjay | | |
| BCO18F032 | | Kamble Prashant Mohan | | |
| BCO19F033 | | Kanade Datta Chetan | | |
| BCO20D034 | | Kanade Omkar Rajesh | | |
| BCO20D035 | | Khaire Prajakta | | |
| ✓ BCO19F036 | | Khandale Kiran Prakash | | |



| | | |
|-----------|--------------------------------|-------------|
| BCO19F037 | Khopade Ajit Dattatraya | Khopade |
| BCO17F038 | Kinhale Kajal Mohan | |
| BCO19F039 | Kirve Makrand Shashikant | |
| BCO19F040 | Koli Gaurav Rajendra | |
| BCO19F041 | Korade Tujay Kamlakar | Korade |
| BCO20D042 | Kshirsagar Akash Mahesh | Kshirsagar |
| BCO19F043 | Kshirsagar Prathamesh Dilip | |
| BCO20D044 | Kshirsagar Vaibhav Mohan | |
| BCO19F045 | Kumbhar Rutuja Dattatraya | Kumbhar |
| BCO19F046 | Lawande Swapnil Bhalchandra | Lawande |
| BCO19F047 | Mahandave Kunal Dilip | |
| BCO20D048 | Mandhare Rupali Laxman | |
| BCO20D049 | More Preeti Arvind | More |
| BCO19F050 | Munde Abhijeet Bhagwat | |
| BCO19F051 | Padale Tejas Chandrakant | Padale |
| BCO19F052 | Pandit Akash Fakirehand | Akash |
| BCO18F053 | Patankar Samarjeet Satish | Patankar |
| BCO20D054 | Patil Vaishnavi Devendra | Patil |
| BCO20D055 | Pawar Mayur Ravindra | Pawar |
| BCO20D056 | Pawar Snehal Sunil | Snehal |
| BCO20D057 | Pophale Kishori Vijay | Pophale |
| BCO19F058 | Raut Pooja Sharad | Raut |
| BCO17F059 | Salunke Sangram Manohar | |
| BCO19F060 | Saste Shubham Jalindar | Saste |
| BCO19F061 | Shedge Pooja Sambhaji | Pooja |
| BCO19F062 | Shilimkar Ashwini Vijay | Shilimkar |
| BCO20D063 | Shilimkar Namrata Rajendra | Shilimkar |
| BCO19F064 | Shinde Dipak Naresh | Shinde |
| BCO19F065 | Shinde Sandhya Prabhat | Shinde |
| BCO19F066 | Shivtare Harshada Sanjay | Shivtare |
| BCO18F067 | Sonawane Shivam Laxman | Sonawane |
| BCO20D068 | Sonwane Sonal Eknath | Sonwane |
| BCO19F069 | Suryawanshi Aniket Sunil | Suryawanshi |
| BCO19F070 | Suryawanshi Komal Bhanudas | Komal |
| BCO20D071 | Theurkar Priyadarshan Dnyanoba | Theurkar |
| BCO20D072 | Thombare Chandan Shekhar | |
| BCO19F073 | Todkar Omkumar Murlidhar | |
| BCO19F074 | Umbarkar Kunal Sunil | |
| BCO20D075 | Wadkar Mohini Sanjay | Wadkar |
| BCO20D076 | Walekar Abhinav Navnath | Walekar |
| BCO19F077 | Yele Pratiksha Jagdish | Yele |
| BCO19F078 | Yewale Yash Dattatray | |
| BCO18D079 | Jadhav Avinash Hanumant | Jadhav |



(B.D.)

Prof. B. D. Thorat
Head of Department



14. Internship programme

Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal - Bhor, Dist- Pune (Maharashtra)

Details of Internship Programme A.Y. 2022-2023

| S.No | Name of Student | Name of Sponsored Industry /Research Institute/ Partner in Institution | Duration | Name Of Department |
|------|-------------------------|--|--------------------------|--------------------|
| 1 | Kendre Sainath Taterao | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 2 | Jigtap Vivek Sanjeev | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 3 | Lambe Durgesh Vishnu | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 4 | More Apurva Shrikant | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 5 | Power Pratibha Sagar | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 6 | Bharekar Manavi Manohar | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 7 | Chavan Umesh Shankar | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |



| | | | | |
|----|-------------------------------|--|--------------------------|-------|
| 8 | Karme Kartik Bhimrao | Matru Chhaya Construction, Karve Nagar Pune | 28/01/2023 To 28/02/2023 | Civil |
| 9 | Sahale Vijaya Robidas | Z.P.Sub Division (Works) Purandar,Pune | 20/01/2023 To 05/03/2023 | Civil |
| 10 | Ranjane Sandhya Sanjay | Vastu Tech Construction & Vastushastra,Bhor, Pune | 20/04/2023 To 05/05/2023 | Civil |
| 11 | Yadav Prajwal Santosh | Taj Creations Buildtech Llp,Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 12 | Tupe Aditya Navnath | Taj Creations Buildtech Llp,Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 13 | Devrase Ganesh Santosh | Taj Creations Buildtech Llp,Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 14 | Pawar Vaibhav Dilip | Taj Creations Buildtech Llp,Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 15 | Olekar Prakash Dnyaneshwar | Taj Creations Buildtech Llp,Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 16 | Bhokare Harshal Prakash | Shree Sai Shradhanand Developers, Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 17 | Babar Rajat Ravindra | Shree Sai Shradhanand Developers, Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |
| 18 | Jadhav Tejas Ramesh | Shree Sai Shradhanand Developers, Khandala Dist – Satara | 23/01/2023 To 15/02/2023 | Civil |



| | | | | |
|----|--------------------------------|---|--------------------------|-------|
| 19 | Jadhav Tejas Naresh | Vta Engineering Services , Cbd Belapur , Navi Mumbai | 1/02/2023 To 15/03/2023 | Civil |
| 20 | Keskar Rohini Ravindra | Vta Engineering Services,Cbd Belapur , Navi Mumbai | 1/02/2023 To 15/03/2023 | Civil |
| 21 | Mane Akanksha Anant | Vta Engineering Services,Cbd Belapur , Navi Mumbai | 1/02/2023 To 15/03/2023 | Civil |
| 22 | Mandhare Ganesh Sanjay | Goel Ganga India Private Limited, Bundgarden Road ,Pune | 15/02/2023 To 30/03/2023 | Civil |
| 23 | Kanekar Aadil Abdul Wahab | S.A.Sheth Engineers & Govt.Contractors, Thane | 28/02/2023 To 28/03/2023 | Civil |
| 24 | Rajiwade Ketan Narayan | Sai Balaji Developers, Pune | 15/01/2023 To 30/04/2023 | Civil |
| 25 | Barkade Kishor Uttam | Gagan Developers, Pune | 01/02/2023 To 31/05/2023 | Civil |
| 26 | Achalere Baburao Shivanand | SSA Steel ,Pune | 01/02/2023 To 15/03/2023 | Civil |
| 27 | Bansode Rushikesh Shankar | SSA Steel ,Pune | 01/02/2023 To 15/03/2023 | Civil |
| 28 | Bhoite Abhijeet Kanchan | SSA Steel ,Pune | 01/02/2023 To 15/03/2023 | Civil |
| 29 | Bodare Kaushtub Mohan | SSA Steel ,Pune | 01/02/2023 To 15/03/2023 | Civil |
| 30 | Charegaonkar Pratik Shailendra | SSA Steel ,Pune | 01/02/2023 To 15/03/2023 | Civil |
| 31 | Pawar Makrand Sanjay | SSA Steel ,Pune | 01/02/2023 To 15/03/2023 | Civil |



| | | | | |
|----|-------------------------------|--|--------------------------|-------|
| 32 | Gaud Mamta Satyanarayan | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 33 | Ghadge Om Sanjay | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 34 | Ghone Pritam Rohidas | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 35 | Jadhav Anil Naganath | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 36 | Jori Aditya Ram | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 37 | Pawar Prathmesh Rajendra | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 38 | Kadam Vaibhav Vikas | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 01/02/2023 To 01/03/2023 | Civil |
| 39 | Kambale Vaibhav Tatyasaheb | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 01/02/2023 To 01/03/2023 | Civil |
| 40 | Kasar Akash Madan | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 01/02/2023 To 01/03/2023 | Civil |
| 41 | Lagad Rajkumar Gajanan | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 01/02/2023 To 01/03/2023 | Civil |
| 42 | Mane Suraj Arjun | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 01/02/2023 To 01/03/2023 | Civil |
| 43 | Pawar Dhammadip Laxman | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 01/02/2023 To 01/03/2023 | Civil |
| 44 | Madam Pooja Satish | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 45 | Matale Rushikesh Kaluran | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 46 | More Sunanda Shrikant | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 47 | Pangare Megha Rajendra | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 48 | Pisal Sanika Arun | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |
| 49 | Pawar Avinash Santosh | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/02/2023 To 15/03/2023 | Civil |



| | | | | |
|----|--------------------------------|--|--------------------------|-------|
| 50 | Pinpratiwar Akash Babruwan | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 51 | Relekar Aditya Arun | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 52 | Salunkhe Shrikant Popathbhai | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 53 | Shinde Aniket Vitthal | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 54 | Surwase Tejas Tatyasaheb | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 55 | Thorave sonali Mahadev | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 56 | Tupe Sandesh Ashok | Sarvesh Construction Company, Satara | 01/02/2023 To 15/03/2023 | Civil |
| 57 | Bahurupi Touhit Sardar | Sanjivani Enterprizes, Pune | 15/02/2023 To 15/03/2023 | E&TC |
| 58 | Baikar Shrutika Ashok | Xresilient & SXT IT Solutions Pune | 15/02/2023 To 15/03/2023 | E&TC |
| 59 | Bandal Alisha Jayendra | VCB Electronics | 14/07/2023 To 14/08/2023 | E&TC |
| 60 | Bhandare Pankaj Sanjay | Axis Systems , Automation and Softare Solutions, Shindewadi Pune | 24/02/2023 To 13/04/2023 | E&TC |
| 61 | Chavan Aditya Dipak | M.S.K. Electricals & Electronics | 15/03/2023 To 25/04/2023 | E&TC |
| 62 | Dalvi Swati Shivaji | Philips GBS LLP Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 63 | Devkar Aishwarya Chaitanyanath | Innotronix labs & Trading Pvt. Ltd. Sasewadi Tal Bhore Pune | 27/03/2023 To 14/05/2023 | E&TC |
| 64 | Gadhawe Ankita Sambhaji | Arete Manufacturing Services Pvt.Ltd. Pune | 02/02/2023 To 25/03/2023 | E&TC |
| 65 | Gadhawe Prathamesh Prashant | TARA Engineering, Pargaon Khandola | 01/03/2023 To 05/04/20 | E&TC |
| 66 | Gaikwad Priya Popat | VTA Engineering | 01/03/2023 To 05/04/2023 | E&TC |



| | | Services | | |
|----|------------------------------|--|--------------------------|------|
| 67 | Ghadge Saurabh Dilip | Sanjivani Enterprizes, Pune | 10/04/2023 To 15/05/2023 | E&TC |
| 68 | Ghavare Sushant Sunil | VTA Engineering Services | 01/03/2023 To 05/04/2023 | E&TC |
| 69 | Jadhav Kartik Arun | Sky Connect Software & Technologies | 01/03/2023 To 05/04/2023 | E&TC |
| 70 | Jadhav Rohit Sanjay | IDLE Solutions Private Limited Pune | 10/04/2023 To 15/05/2023 | E&TC |
| 71 | Jadhav Vaibhavi Santosh | GTL Infotech Pune | 25/01/2023 To 09/03/2023 | E&TC |
| 72 | Jagtap Apurva Sudhakar | VCB Electronics | 14/07/2023 To 14/08/2023 | E&TC |
| 73 | Jagtap Manasi Arjun | EXL Service.com(India) Private Limited | 21/01/2023 To 24/02/2023 | E&TC |
| 74 | Kagade Amit Santosh | IDLE Solutions Private Limited Pune | 10/04/2023 To 15/05/2023 | E&TC |
| 75 | Khomane Shubhangi Bapu | Philips GBS LLP Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 76 | Khopade Chaitrali Balkrushna | Kinetic Communications Ltd. Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 77 | Khot Pratiksha Pandurang | Philips GBS LLP Pune | 21/01/2023 To 25/02/2023 | E&TC |
| 78 | Kiran Prakash Jujare | Philips GBS LLP Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 79 | Konde Satwika Sanjay | Shoreline IoT India Private Limited | 05/02/2023 To 10/04/2023 | E&TC |
| 80 | Liman Harshada Pandurang | Chheda Electricals & Electronics Pvt. Ltd. | 02/11/2022 To 23/03/2023 | E&TC |
| 81 | Lohar Jayant Suryakant | IDLE Solutions Private Limited Pune | 10/04/2023 To 15/05/2023 | E&TC |



| | | | | |
|----|-----------------------------|---|--------------------------|------|
| 82 | Mahamuni Pooja Santosh | Philips GBS LLP Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 83 | Mule Atharva Sunil | IDLE Solutions Private Limited Pune | 10/04/2023 To 15/05/2023 | E&TC |
| 84 | Mulla Moin Tajuddin | IDLE Solutions Private Limited Pune | 10/04/2023 To 15/05/2023 | E&TC |
| 85 | Nailkar Dnyaneshwari Tanaji | GTL Infotech Pune | 25/01/2023 To 09/03/2023 | E&TC |
| 86 | Nevase Aaditi Mugutrav | Accurate Solutions , Pune | 01/2/2023 To 27/03/2023 | E&TC |
| 87 | Nigade Shweta Uttam | Cummins India Ltd, Phaltan | 07/03/2023 To 07/04/2023 | E&TC |
| 88 | Nikam Komal Manohar | Unicore Autocat Indiaq Pvt.Ltd. Shirwal | 01/04/2023 To 30/04/2023 | E&TC |
| 89 | Palke Rupesh Shrikisan | Perks Links & Services Pvt.Ltd. Mumbai | 01/04/2023 To 30/04/2023 | E&TC |
| 90 | Pandekar Prajakta Navnath | VCB Electronics | 14/07/2023 To 14/08/2023 | E&TC |
| 91 | Pardeshi Atharva Manojising | Swara Enterprizes ,Wai | 01/03/2023 To 05/04/20 | E&TC |
| 92 | Patil Rohit Rajaram | IDLE Solutions Private Limited Pune | 10/04/2023 To 15/05/2023 | E&TC |
| 93 | Patil Shraddha Dilip | ioGenies Solutions LLP Bavdhan Pune | 03/02/2023 To 06/04/2023 | E&TC |
| 94 | Pawar Swapnita Rajabhau | GTL Infotech Pune | 25/01/2023 To 09/03/2023 | E&TC |
| 95 | Phadtare Shweta Anil | Swara Enterprizes ,Wai | 01/03/2023 To 05/04/203 | E&TC |
| 96 | Rajpure Rutuja Chandrakant | Swara Enterprizes ,Wai | 01/03/2023 To 05/04/2023 | E&TC |
| 97 | Raut Anuradha | M.S.K. Electronics | 15/04/2023 To 25/04/2023 | E&TC |



| | | | | |
|-----|-----------------------------|--|---------------------------|----------|
| | Jitendra | Electronics | | |
| 98 | Reddi Smita Lakhan | Swara Enterprizes , Wai | 01/03/2023 To 05/04/2023 | E&TC |
| 99 | Renuse Pranali Bapu | India Tech Soft Pune | 24/02/2023 To 13/04/2023 | E&TC |
| 100 | Salunke Reshma Vilas | Kinetic Communications Ltd. Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 101 | Salunkhe Omkar Rajaram | Sanjivani Enterprizes, Pune | 01/03/2023 To 05/04/2023 | E&TC |
| 102 | Sawant Ajay Rajaram | Pantech Solutions | 0/04/2023 To 12/0/2023 | E&TC |
| 103 | Sayyadadnan Sarfraj Patel | Philips GBS LLP Pune | 21/01/2023 To 24/02/2023 | E&TC |
| 104 | Shikalgar Arbaj Niyaj | M.S.K. Electricals & Electronics | 15/03/2023 To 25/04/2023 | E&TC |
| 105 | Shinde Siddhi Rajendra | M.S.K. Electricals & Electronics | 15/03/2023 To 25/04/2023 | E&TC |
| 106 | Shirke Kranti Baburao | Q.H. Talbros Pvt. Ltd Shirwal | 01/02/2023 To 15/03/2023 | E&TC |
| 107 | Shirodkar Rachana Vishnu | GE India Industrial Pvt Ltd Pune | 13/02/2023 To 22/03/2023 | E&TC |
| 108 | Swami Sangmeshwar Virbhadra | ish Infra Services Pvt.Ltd. | 01/03/2023 To 31/03/2023 | E&TC |
| 109 | Vaishnavi Ramdas Utekar | Xresilient & SXT IT Solutions Pune | 15/02/2023 To 15/03/2023 | E&TC |
| 110 | Waghmare Ajay Sanjay | Arete Manufacturing Services Pvt.Ltd. Pune | 05/12/2022 To 05/02/2023 | E&TC |
| 111 | Zanzane Prafulla Dharmaraj | Arete Manufacturing Services Pvt.Ltd. Pune | 05/12/2022 To 05/02/2023 | E&TC |
| 112 | Karan Anil Rajiwade | Computer | 01/03/2023 to 08/04/ 2023 | Computer |



| | | | | |
|-----|-------------------------------|---|--------------------------|----------|
| 113 | Yash Pradeep Shinde | Data Analytics | 02/05/2023 - 30/06/2023 | Computer |
| 114 | Bhaskar Vaishnavi Dadasaheb | Easy Shiksha | 11/02/2023 To 10/03/2023 | Computer |
| 115 | Bhosale Sayali Pravin | Elite Softwares | 17/03/2023 -04/05/2023 | Computer |
| 116 | Chinchakar Giridhar Ramesh | Grow More | 01/02/2023 to 01/03/2023 | Computer |
| 117 | Khopade Bhagyashree Shantaram | IANT Computer Education | 04/03/2023 to 08/04/2023 | Computer |
| 118 | Jadhav Rupa Dattatray | IANT Institute of Advanced Network Technology | 04/03/2023 to 08/04/2023 | Computer |
| 119 | Vaishnavi Sharad Vedpathak | IANT Institute of Advanced Network Technology | 04/03/2023 to 08/04/2023 | Computer |
| 120 | Dhamal Nikita Himmat | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 121 | Vaishnavi Santosh Danavale | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 122 | Talekar Prerana Vijay | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 123 | Salunke Gauri Dattatray | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 124 | Yadav Rutuja Deepak | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 125 | Akanksha Ashok Pawar | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 126 | Malusare Shamal Mukund | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |



| | | | | |
|-----|----------------------------|-----------------------------|--------------------------|----------|
| 127 | Dhurnal Sanika Kanhaiyalal | India Techsoft Pune | 01/03/2023 to 30/04/2023 | Computer |
| 128 | Salunke Gauri Dattatray | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 129 | Jagtap Vaishnavi Sanjay | India Techsoft Pune | 24/2/2023 to 13/04/2023 | Computer |
| 130 | Dharpale Nikita Ankush | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 131 | Gavhane Sanika Dashrath | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 132 | Kudale Harshada Bharat | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 133 | Malekar Pratiksha Sharad | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 134 | Jankar Tejaswini Vijay | India Techsoft Pune | 24/02/2023 to 13/04/2023 | Computer |
| 135 | Prajakta Ulhas Medhekar | Internepe | 27/03/2023 to 26/04/2023 | Computer |
| 136 | Anuradha Mallayya Bhandari | Intempe | 27/03/2023 to 26/04/2023 | Computer |
| 137 | Sejal Sunil Dhamal | Internepe | 27/03/2023 to 26/04/2023 | Computer |
| 138 | Tanpure Sneha Pradip | Internepe | 27/03/2023 to 26/04/2023 | Computer |
| 139 | Rutuja Dattatray Bandal | Information Tech | 01/02/2023 to 29/04/23 | Computer |
| 140 | Deep Sandeep Shah | Kasnet Technologies Pvt Ltd | 07/03/2022 - 09/04/2022 | Computer |
| 141 | Shreyash Jagannath Tarade | Let's GrowMore | 05/03/2023 to 05/04/2023 | Computer |
| 142 | Apeksha Sanjay Vatte | OASIS Infobyte | 03/03/2023 to 05/04/2023 | Computer |



| | | | | |
|-----|--------------------------------|----------------------|--------------------------|----------|
| 143 | Salvi Sankita Sudhakar | OASIS Infobyte | 16/03/2023 to 15/04/2023 | Computer |
| 144 | Shreyash Jaywant Mokashi | OASIS Infobyte | 05/09/2023 To 05/10/2023 | Computer |
| 145 | Kale Renuka Nivrutti | OASIS Infobyte | 15/04/2023 to 15/05/2023 | Computer |
| 146 | Neha Santosh Jadhav | Pantech Solutions | 01/04/2023 to 30/04/2023 | Computer |
| 147 | Rutuja Dattatray Bandal | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 148 | Gawade Nikita Mahendra | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 149 | Gaikwad Akshada Ajit | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 150 | Kamble Priyanka Shankar | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 151 | Ganeshkar Gayatri Anil | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 152 | Jagtap Sayali Sunil | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 153 | Shinde Rashmi Ravindra | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 154 | Hema Tanaji Deshmukh | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 155 | Badadhe Damayanti Dnyandeve | Scorpy Tech, Pune | 01/02/2023 to 29/04/2023 | Computer |
| 156 | Bhujbal Shravan Vijaykumar | Shreyash IT Solution | 02/03/2023 to 02/05/2023 | Computer |
| 157 | Pujari Mahesh Mandappa | Shreyash IT Solution | 02/03/2023 to 02/05/2023 | Computer |
| 158 | Ghodekar Suyog Bhagwan | Shreyash IT Solution | 02/03/2023 to 02/05/2023 | Computer |
| 159 | Bhome Akash Rajendra | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 160 | Bhosale Sanket Pradip | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |



| | | | | |
|-----|-------------------------------|---------------------------|--------------------------|------------|
| 161 | Bhosale Suraj Dadaso | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 162 | Chourasiya Darshan Rajesh | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 163 | Deshmukh Sanika Parag | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 164 | Deshpande Amey Chintamani | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 165 | Gadhawe Rohit Sudhir | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 166 | Gaikwad Sakshi Abasaheb | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 167 | Jagtap Mayur Sanjay | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 168 | Jamadar Asim Zhakirhusen | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 169 | Salunkhe Sakshi Sandip | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 170 | Bhandare Karan Sunil | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 171 | Jarad Devyani Vishwas | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 172 | Shreeharsh Suhas Puntambekar | Smart-Bit Info Tech | 10-02-2022 to 10-04-2022 | Computer |
| 173 | Katkar Yash Pramod | VIM Digitech Services Ltd | 10-02-2022 to 10-04-2022 | Computer |
| 174 | Kondhalkar Mangesh Shashikant | VIM Digitech Services Ltd | 10-02-2022 to 10-04-2022 | Computer |
| 175 | Vishwakarma Rohit Pappu | VIM Digitech Services Ltd | 10-02-2022 to 10-04-2022 | Computer |
| 176 | Wavhal Pranav Sachin | VIM Digitech Services Ltd | 10-02-2022 to 10-04-2022 | Computer |
| 177 | Barge Sumit Dipak | Phaltan Garage | 10-03-2022 to 10-05-2022 | Mechanical |



| | | Service Center | | |
|-----|--------------------------------------|--|------------------|------------|
| 178 | Gurav Suyog Yogesh | Snehal Automotive | 21 feb-21 march | Mechanical |
| 179 | Jadhav Nikita Santosh | Nigro india corporation PVT.LTD | 1 dec-15 jan | Mechanical |
| 180 | Kindre Soham Jayant | S.K.Engineering | 21 march-10 may | Mechanical |
| 181 | Pawar Akshay Arun | Phaltan Garage and Service Center | 21 march-10 may | Mechanical |
| 182 | Pisal Sanika Naryan | Snehal Automotive | 21 feb-21 march | Mechanical |
| 183 | Shaikh Adil Musta | Wai Engineering works | 28 april-30 may | Mechanical |
| 184 | Tanpure Kunal Chandrakant | S.K.Engineering | 21 march-10 may | Mechanical |
| 185 | Tanpure Tejas Sandip | S.K.Engineering | 21 march-10 may | Mechanical |
| 186 | Bhalerao Pranodkumar Prabhakar | Shravani Enterprises | 1 dec-15 jan | Mechanical |
| 187 | Jadhav Omkar Popat | TATA Cummins PVT LTD | 25 march- 25 may | Mechanical |
| 188 | Khaire Saurabh Popat | S.K.Engineering | 21 march-10 may | Mechanical |
| 189 | Kokare Ajay Kamlakar | TATA Cummins PVT LTD | 25 march- 25 may | Mechanical |
| 190 | Kokare Arkush Salu | TATA Cummins PVT LTD | 28 april-30 may | Mechanical |
| 191 | Kulkarni Sanket Sunil | KSB Pumps Company | 2 jan-15 feb | Mechanical |
| 192 | Kumbhar Deep Laxman | E CADD | 1 dec-15 jan | Mechanical |
| 193 | Tejas ashok Pol | TOOL ROOM AND ENGINEERING SERVICES | 1 jan-12 feb | Mechanical |
| 194 | Kurade Abhijit Babu | KSB Pumps Company | 2 jan-15 feb | Mechanical |
| 195 | Rajane Nikhil Laxman | Snehal Automotive | 21 feb-21 march | Mechanical |
| 196 | Patel Vikas Ramakant | BOSCH | 20 dec-28 feb | Mechanical |



| | | | | |
|-----|-------------------------------|---------------------------|-----------------|------------|
| 197 | Suryawarshi Ajay Bhausabeb | S.K.Engineering | 21 march-10 may | Mechanical |
| 198 | Nanaware Ashish Arun | TATA Cummins PVT LTD | 25 march-25 may | Mechanical |
| 199 | Nimbalkar Pratik Ramesh | TATA Cummins PVT LTD | 25 march-25 may | Mechanical |
| 200 | Newase Siddhesh Sanjay | HY-Tech Engineers LTD. | 21 march-10 may | Mechanical |
| 201 | Raut Shubham Rohidas | Wai Engineering works | 28 april-30 may | Mechanical |
| 202 | Shinde Shreyash Anil | Wai Engineering works | 28 april-30 may | Mechanical |
| 203 | Sangle Omkar Dattatrya | AUTO CAD | 19 feb-19 april | Mechanical |
| 204 | Sonkamble Niraj Pirappa | AUTO CAD | 19 feb-19 april | Mechanical |



Principal

Rajgad Dnyanpeeth's
Shri Chhatrapati Shivaji Maharaj College of Engg.,
Dhangawadi, Pune-412 205

CERTIFICATE NO : CERT_6QFZNBMG

CIN NO : U80900TN2012PTC085936

PARTECH SOLUTIONS

CERTIFICATE OF INTERNSHIP

This is to certify that

AJAY RAJARAM SAWANT

has successfully completed

INTERNSHIP ON EMBEDDED C PROGRAMMING

at Partech Protabs Private Ltd.

12-05-2023

DATE



M.K. JEEVARAJAN

Director
Partech Protabs Private Ltd.
www.partechsolutions.com



M/s.

SARVESH CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuij , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Colony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Mrs.PINPATRIWAR AKASH BABRUWAN**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 45 days (From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)



SARVESH

M/s.

CONSTR CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuinj , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Mr. RELEKAR ADITYA ARUN**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 45days(From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)

SARVESH



M/s.
CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuij , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Salunkhe Shrikant Popatbhai**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 45days (From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)

SARVESH



M/s.

CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhujinj , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Colony, Dist. Shivajinagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Mr. SHINDE ANIKET VITTHAL**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 45 days (From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)

SARVESH



M/s.

CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuinj , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Ms. Surwase Tejas Tatyasaheb**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 1 Month (From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

SARVESH

Sarvesh Construction Company



Proprietor

(Authorized Signature)



M/s.

CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuinj , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Ms Thorave Sonali Mahadev**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 45days (From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company



Proprietor

(Authorized Signature)



M/s.

SARVESH CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuinj , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/03/2023

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Tupe Sandesh Ashok**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 45days (From 01/02/2023 to 15/03/2023) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)



SARVESH

M/s.

CONSTR CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhujinj , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/04/2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Karale Pravin Sudhir**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 1 Month (From 15/01/2022 to 10/04/2022) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)

SARVESH



M/s.
CONSTRUCTION COMPANY

ENGINEERS & GOVT. CONTRACTORS

A. A. Pawar

H.O. :At Padmavati. Post - Bhuij , Tai Wai, Dist Satara. ☎ : (02167) 285371

Branch Office: "BASERA" ITI Road, Near P & T Col ony, Dist. ShivajiNagar, Dist Ratnagiri ☎ : 02352)225521

Date: 15/04/2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Katta Sachin Sanju**, a student of Department of Civil Engineering, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune has successfully completed 1 Month (From 15/01/2022 to 10/04/2022) Internship program on our project site. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in life.

Sarvesh Construction Company

Proprietor

(Authorized Signature)

15. Workshop

Rajgad Dnyanpeeth's



SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.
Website: www.rajgad.edu.in, Email Id: sescoe@gmail.com

Date: 26/02/2023

INVITATION LETTER

To,

Mr. Irfan Soni

Excelr, 101 A ,1st Floor, Siddh Icon,
Baner Rd, opposite Lane To Royal Enfield Showroom,
beside Asian Box Restaurant, Baner, Pune,
Maharashtra 411045

Subject: Invitation for conducting Student development program (Add on course) "**Basic Programming with Java**" in between **27th Feb2023 to 3rd March2023**

Dear Sir,

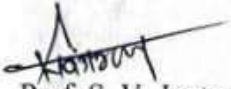
Our College_is going to organize a Student development program (Add on course) on "**Basic Programming with Java**" from 4th to **27th Feb2023 to 3rd March2023**. for students in our Institute.

Considering your expertise and experience in the same field, it gives us immense pleasure to invite you as a guest speaker for the above said Student development program (Add on course).


Kindly, accept the invitation and acknowledge the same.

Thanking You.

Yours truly,


Prof. S. V. Jagtap
Program Coordinator




Prof. Dr. S. B. Patil
Principal

Principal
Rajgad Dnyanpeeth Technical Campus
Shri Chhatrapati Shivajiraje College of Engineering
Dhanqawadi, Bhor, Pune- 412 205



Rajgad Dyanpeeth's SINCE 1972
Shri Chhatrapati Shivajiraje
College of Engineering, Pune



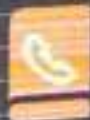
Join Our **30 Hours** Free
Training Program On

Basic Programming With Java

27th to 3rd March 2023

11am to 5 pm (6 hour Per Day)

Get Certificate Of Participation
for Free



Call For More Information

+91 9606957287

www.excelr.com

edl@excelr.com



Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS).
Website: www.rajgad.edu.in, Email Id: sescce@gmail.com

Date: 12th Feb 2023

PERMISSION LETTER

To,
The Principal,
Rajgad Dnyanpeeth's
Shri Chhatrapati College of Engineering
Dhangwadi, Pune

Subject: Permission for conducting 30 Hour Training Program on "**Basic Programming with Java**" from 27th Feb 2023 to 3rd March 2023.

Respected Sir,

We would like to conduct a 30 Hour Training Program on "**Basic Programming with Java**" from 27th Feb 2023 to 3rd March 2023 for students of our Institute through Training and Placement Cell.

The main objective of the program is to guide students about how to think innovative idea and how to know about novelty. Also guided about industrial training experience.

The guest speaker will be **Mr. Irfan Soni** who is working as a trainer in Excelr, Pune. He is having more than **12 years** of vast training experience. **Mr. Irfan Soni** has conducted more than **170 training programs** to different colleges.

It gives us great pleasure to invite him as a guest speaker for above said training program. Kindly, allow us for the training program for mentioned dates.

Thanking You,
Yours truly,


Event Coordinator

Remark:



RAJGAD DNYANPEETH'S
SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING
Gat .No-237, Pune Bangalore Highway, Dhangawadi, Tal-Bhor, Dist-Pune (Maharashtra)

Date: 15/01/2023

NOTICE

All Mechanical Engineering students hereby informed that, A Student development program (Add on course) on the topic “**Basic Programming with Java**” from 4th to “27th Feb2023 to 3rd March2023” . All students are instructed to register the workshop till 25/02/2023 and attend the same. Attendance is mandatory to all.

Venue: Seminar Hall

Speaker Details -

Mr. Irfan Soni
Head, Learning & Development Coordinator,
ExcelR, Pune

Prof. S. V. Jagtap
Program Coordinator

Prof. Dr. S. B. Patil
Principal

Principal

Rajgad Dnyanpeeth Technical Campus
Shri Chhatrapati Shivajiraje College of Engineering
Dhangawadi, Bhor, Pune- 412 205





TRAINING AND PLACEMENT CELL

Report of 30 Hours Training Program on "Basic Programming with Java"

Date: 04/03/2023

1. **Program type:** Training Program
2. **Event Name:** "Basic Programming with Java"
3. **Attendees:** TE and BE Students from All Departments
4. **Name and Designation of Resource Person :** Mr. Irfan Soni, Trainer
5. **Company / Institute of Resource Person:** Excelr
6. **Event coordinator:** Prof. S. V. Jagtap
7. **Date of Execution:** 27th Feb to 3rd March
8. **Duration of Event:** Six Days (30 Hour)
9. **Venue of event / Link:** Seminar Hall, SCSCOE, Dhangwadi, Pune
10. **Number of Participants:** 31
11. **Fee details:** Free
12. **Objectives:** As the Demand for Java programming Skills in an IT Technocrat are growing, this Specialized Training will solve their needs. The main purpose of this workshop helps students understand the fundamentals of Java programming. It walks them through real world implementations and first-hand experiences of implementing cloud computing. It also provides students with details on what kind of skill sets are needed and what job profiles are available.
13. **Outcomes:**
 - ✓ To understand the concepts and features of object oriented programming
 - ✓ To examine key aspects of java Standard API library such as util, io, applets, swings, GUI based controls.
 - ✓ To learn java's exception handling mechanism, multithreading, packages and interfaces.
 - ✓ To develop skills in internet programming using applets and swings



14. Description / speaker topic explanation:

Training and Placement Cell planned to conduct Workshop on “Basic Programming with Java” organize by Prof. S. V. Jagtap in Association with Excelr for TE & BE Students and Prof. S. K. Pawar, Head of the Computer Department, introduced the resource persons and welcomed all the participants to the training program. Resource Person have discussed the following points

Day 1: Introduction to Basic of Java, Class

Day 2: Overview of Objects, and Types of Classes, Packages in Java
Data Types in Java

Day 3: Variables, Constraints, and Literals, Methods in Java, Constructor in Java

Day 4: Modifiers in Java, Static Keyword, Final Keyword, Inner Class in Java

Day 5: Super and this keyword, Encapsulation, Inheritance, Polymorphism, Abstraction

Prof. S. V. Jagtap Coordinator thanked the resource person for his valuable, outstanding, and overwhelming presentation. He expressed this session has given more knowledge on Basic Programming with Java to students insights of implementing it. He also thanked every participant for their active participation during entire session.

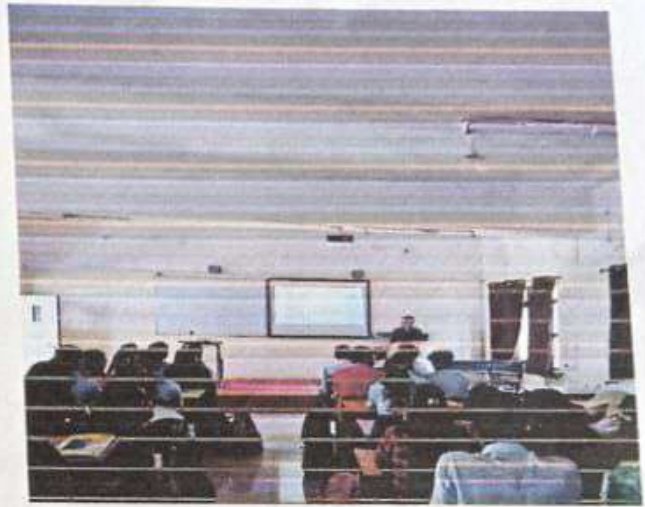
15. Conclusion: All the participants expressed very positive feedback. They expressed it's an outstanding and motivational. This session on Basic Programming with Java met the program objectives.



16. Photos with caption



Session Conducted By Mr. Irfan Soni



Question and answers session

Prof. S. V. Jagtap

Coordinator

Prof. Dr. S. B. Patil

Principal

Principal

Rajgad Dnyanpeeth Technical Campus
Shri Chhatrapati Shivajiraje College of Engine
Dhangawadi, Bhor, Pune- 412 205





Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

S. No. 237, Satara-Pune, NH-4, Dhangawadi, Tal: Bhor, Dist: Pune -412205 (MS), India.

Website: www.rajgad.edu.in, Email Id: sescoc@gmail.com

Date: 03/03/2023

APPRECIATION LETTER

To,

Mr. Irfan Soni

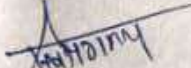
101 A ,1st Floor, Siddh Icon,
Baner Rd, opposite Lane To Royal Enfield Showroom,
beside Asian Box Restaurant, Baner, Pune,
Maharashtra 411045


On behalf of the **Rajgad Dnyanpeeth's Shri Chhatrapati College of Engineering Dhangwadi, Pune**, we wanted to express our deep gratitude to you for conduction of Student development program (Add on course) on the topic "**Basic Programming with Java**" from 4th to "27th Feb 2023 to 3rd March 2023." It was really informative and useful. Definitely all the participants have benefited from your sessions.

We are very much thankful to you for making it convenient to be with us.

Once again, thank you for making the workshop successful, and we expect your continued support in future also.

Yours Truly,


Prof. S. V. Jagtap
Program Coordinator


Prof. Dr. S. B. Patil
Principal

Principal

Rajgad Dnyanpeeth Technical Campus
Shri Chhatrapati Shivajiraje College of Engineering
Dhangawadi, Bhor, Pune- 412 205





Training and Placement Cell

Title of Program: Student development program (Add on course)

Attendance Sheet

| Sr. No. | Full Name | Department | Sign | | | | |
|---------|-----------------------------|------------|--------------|--------------|--------------|--------------|--------------|
| | | | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
| 1 | BAHURUPI TOUHIT SARDAR | BE MECH | A | R | R | R | R |
| 2 | BAIKAR SHRUTIKA ASHOK | BE MECH | S | A | B | T | A |
| 3 | BANDAL ALISHA JAYENDRA | BE MECH | Bj | Bj | Bj | Bj | Bj |
| 4 | BABAR RUTUJA PRADIP | BE MECH | Rj | Rj | Rj | | Rj |
| 5 | BHARATI ROHINI LAXMAN | BE MECH | Bl | Bl | Bl | Bl | Bl |
| 6 | BHIMANAVARV BASAVARAJ ARJUN | BE E&TC | R | R | R | I | R |
| 7 | DESHMUKH SAMEER SATISH | BE E&TC | S | T | S | S | |
| 8 | DEVKAR POONAM DHANAJI | BE E&TC | Dev | Dev | Dev | Dev | Dev |
| 9 | DHONDE ABHIJEET VITTHAL | BE E&TC | De | De | De | De | De |
| 10 | DUDHANE TEJAS TANAJI | BE E&TC | Tej | Tej | Tej | Tej | Tej |
| 11 | NIKALAJE SURAJ RAJENDRA | BE E&TC | N | N | N | | N |
| 12 | ALGUDE SWAPNIL DILIP | TE E&TC | Ak | Ak | Ak | Ak | Ak |
| 13 | SHAIKH ASSAD GAFFAR | TE E&TC | S | A | S | S | S |
| 14 | GHADGE ATISH SAYAJI | TE E&TC | G | G | G | | G |
| 15 | AWADE SHRIKANT SUNIL | TE E&TC | A | A | A | A | A |
| 16 | Asfiyan Nazim Attar | TE COMP | NA | NA | NA | NA | NA |
| 17 | Bait Rukshita Dinesh | TE COMP | Bait | Bait | Bait | Bait | Bait |
| 18 | Bhelke Shereya Umesh | TE COMP | Bh | Bh | | Bh | Bh |
| 19 | Bhingare Isha Dilip | TE COMP | BD | BD | BD | BD | BD |
| 20 | Bhosale Shweta Sharad | TE COMP | Bs | Bs | | Bs | Bs |
| 21 | Bobade Prachi Santosh | TE COMP | SB | SA | SB | SB | SD |
| 22 | Borane Shubham Sandip | TE COMP | B | B | B | B | B |

| | | | | | | | |
|----|----------------------------|---------|---------------|---------------|---------------|---------------|---------------|
| 23 | Badadhe Damayanti Dnyandev | BE COMP | Bd | Bd | Bd | Bd | Bd |
| 24 | Bandal Rutuja Dattatray | BE COMP | | Ra | Ra | Ra | Ra |
| 25 | Bhandari Anuradha Mallayya | BE COMP | Anu | Anu | Anu | Anu | Anu |
| 26 | Bhome Akash Rajendra | BE COMP | KaB | KaB | KaB | KaB | |
| 27 | Bhosale Sanket Pradip | BE COMP | Pr | Pr | Pr | Pr | Pr |
| 28 | Bhosale Suraj Dadaso | BE COMP | Pr | Pr | Pr | Pr | |
| 29 | Bhujbal Shravan Vijaykumar | BE COMP | Shb | Shb | Shb | Shb | Shb |
| 30 | Chourasiya Darshan Rajesh | BE COMP | Da | Da | Da | Da | Da |
| 31 | Jagtap Gauravi Sopan | BE COMP | Ga | Ga | Ga | Ga | Ga |


Program Coordinator

16. MOU



Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

MOU with Institute/Industries

A. Y. 2022-2023

| S.No | Name of industry/ Company Research Institute / Partnering Institution | Date of Commencement | Name Of Department | Duration |
|------|---|-------------------------|--------------------|----------|
| 1 | SSA Steel Pvt. Ltd., Pune | 15/07/2020 | Civil | 5 Years |
| 2 | Rajgad Sahakari Sakhar Karkhana, Nigde, Bhor, Pune | 15/03/2013 | Civil | 10 Years |
| 3 | Anant Dudh Pvt. Ltd. , Kikavi, Pune | 10/04/2013 | Civil | 10 Years |
| 4 | Sarvesh Construction Company, Satara | 05/01/2016 | Civil | 10 Years |
| 5 | ECADD Computer Institute, Bhor, Pune | 17/07/2021 | Civil | 10 Years |
| 6 | Shrinath Developers, At post-Gunand, Bhor, Pune | 15/06/2021 | Civil | 5 Years |
| 7 | VA-Computer Institute, Bhor, Pune | 15/06/2021 | Civil | 5 Years |



| | | | | |
|----|--|------------|------------|----------|
| 8 | Karmyogi College of Engineering, Shelve, Taluka Pandharpur, Dist Solapur, Pin-413304 | 15/07/2016 | Civil | 10 Years |
| 9 | Constrotrait Material Testing & Services LLP, Songirwadi Wai, Tal-Wai, Dist-Satara | 01/02/2023 | Civil | 10 Years |
| 10 | Matruchhaya Construction Karvenagar, Pune | 01/12/2022 | Civil | 10 Years |
| 11 | Vastu Tech Construction and Vastushastra, Bhor, Pune | 02/12/2023 | Civil | 10 Years |
| 12 | Microdynamic Software Pvt. Ltd., Pune | 10-07-2017 | Computer | 5 Years |
| 13 | Genius World Centre Pvt. Ltd. | 08-08-2016 | Computer | 10 Years |
| 14 | Web Minds IT Solutions, Pune | 20-10-2020 | Computer | 5 Years |
| 15 | L & D Infotech Pvt. Ltd., Pune. | 17-12-2021 | Computer | 5 Years |
| 16 | Petronix Technologies Pvt. Ltd., Pune. | 03-03-2022 | Computer | 5 Years |
| 17 | Speciality Sintered products Pvt Ltd. | 20/12/2014 | Mechanical | 10 Years |
| 18 | Saturn Rings & Forgings Pvt Ltd. | 01/12/2020 | Mechanical | 05 Years |
| 19 | High Power Engineering Co.Pvt.Ltd. | 04/01/2019 | Mechanical | 05 Years |
| 20 | TestBook Edu Solution Pvt. Ltd. | 20/08/2020 | E&TC | 01 Year |



| | | | | |
|----|---|------------|------|----------|
| 21 | Udya Gujar Foundation | 12/01/2023 | E&TC | 10 Years |
| 22 | Go-Green Technologies Pvt.Ltd. | 26/04/2023 | E&TC | 10 years |
| 23 | KDN Infotech Pvt.Ltd & V And K Softech Solution Pvt. Ltd. | 1/4/2023 | E&TC | 05Years |
| 24 | Swara Enterprises, Ratnagiri | 1/05/2020 | E&TC | 10Years |




Principal
 Rajgad Dnyanpeeth's
 Shri Chhatrapati Shivajiraje College of Engg.,
 Dhange wadi, Pune-412 205



Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Approved by AICTE, New Delhi, Recognized by Govt. of Maharashtra & DTE, Mumbai, and Affiliated to Savitribai Phule Pune University, Pune (ID. PU/PN/Engg./376/2009), DTE CODE : EN3624,



Since-1972

Anantrao Thopte

Founder President, Ex. Edu. Minister

Sangram Thopte

MLA, Executive President

Sau. Swarupa S. Thopte

Hon. Secretary

Dr. S. B. Patil

Principal

Memorandum of Understanding between RD's-Shri Chhatrapati Shivajiraje College of Engineering & UDAY GUJAR FOUNDATION

This Memorandum of Understanding (hereinafter referred to as "MoU") is entered into on this day **Thursday** and date **12/01/2023**.

Between:

RD's-Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Tal- Bhor, Dist- Pune, Maharashtra, (hereinafter referred to as "The College" an institution of higher learning founded in 2009 Affiliated to Savitribai Phule Pune University's approved by AICTE, New Delhi.

And

Uday Gujar Foundation - Gat No. 1145 At post – Wing, Mahangare Vasti, Shirwal - Bhor Road, Tal – Khandala, Dist - Satara – 412801.(hereinafter referred to as "UGF")

The College and The UGF shall be collectively referred to as "The Parties"

In furtherance of their mutual interest in improvement of Academics, Technical Enhancements and Improvising Employability Skills of the students as a contribution to the Social and Economic development of the region, The Parties mentioned above hereby agree to and adopt the following Memorandum of Understanding.

Article 1: The Purpose of the Agreement

The Parties are committed to enhancement of academic skills of the students of the college, educational excellence, collaborative work, intellectual freedom and equality of educational and employment opportunities.

Some broad goals of this MoU are:

1. Take into consideration the aspects of the subject required by the industries for possible future inclusion in the curricula
2. Enhance the understanding of the students through field experience
3. Make students independent and responsible towards learning and social inclination
4. Build a network of learning community & Industries.

Article 2: General Activities and Services

The Parties will voluntarily undertake the following:

1. Organising workshops and other activities.
2. Create scope for curriculum development and enrichment
3. Encourage joint research activities
4. Extension Activities and dissemination of new knowledge





Rajgad Dnyanpeeth's

Shri Chhatrapati Shivajiraje College of Engineering

Approved by AICTE, New Delhi, Recognized by Govt. of Maharashtra & DTE, Mumbai, and Affiliated to Savitribai Phule Pune University, Pune (ID. PUPN/Engg./376/2009), DTE CODE : EN3624,

॥ प्रजासिद्धो ज्ञानमया, प्रसिद्ध ॥



Since-1972

Anantrao Thopte
Founder President, Ex. Edu. Minister

Sangram Thopte
MLA, Executive President

Sau. Swarupa S. Thopte
Hon. Secretary

Dr. S. B. Patil
Principal

Article 3: Role of the College

Following are the roles identified for The College

1. Provide academic support to the Industry.
2. Provide assistance in the form of student interns as and when required.
3. Support and promote employees to pursue their higher education.
4. Initiate and support exchange of human resource on case to case basis.

Article 4: Role of the Uday Gujar Foundation

Following are the roles identified

1. Provide opportunities for students and faculty members to upgrade their skills in allied industries.
2. Grant access to the industry its facilities as and when required with prior approval
3. Voluntarily Support research efforts in exploring new ideas.
4. Initiate and support exchange of human resource on case to case basis.

Article 5: Duration and Termination of MoU

This MoU shall remain in force for a period of ten years commencing from the date of signing of this document. The Parties reserve the right to terminate this MoU by either party giving one month written notice to the other. Where such termination occurs, the provisions of this Memorandum shall continue to apply to ongoing activities until their completion.

Article 6: Amendments

Amendments to this MoU must be in writing and approved by the designated representatives of each party. The terms / clauses / articles in this MoU can be reviewed by mutual consent by serving one month written notice to the other party. New or amended terms / clauses / articles may be agreed as part of a renewed MoU.

Article 7: Statement of Intent

Nothing in this MoU shall be construed to as creating any legal relationships between The Parties. This MoU is a statement of intent to foster genuine and mutually beneficial collaboration.

Uday Gujar Foundation

Name: _____

Designation: _____

Date: 12 Jan 23

Stamp: _____



Prof. Dr. S.B. Patil

Principal- RD's SCSCOE, Dhangwadi

Shri Chhatrapati Shivajiraje College of Engg.,
Dhangawadi, Pune-412206

Date: 12.1.2023

Stamp: _____



TM

JOB BUZZER

Job site where Recruiters connect to Jobseekers

Contact us: +91 9881014410 Mail us : info@jobbuzzer.in,

Web site - <http://www.jobbuzzer.in>

MEMORANDUM OF UNDERSTANDING

(Here in after referred to as 'MOU') is made on the 16th day of January year 2023.

BETWEEN

(College Name) RD's Skri Chhatrapati Shivajiraje College of Engineering, Dhongawadi, Bhor Pune.

Approved by Principal

Recognized by Principal Dr. S. B. Patil.

& Affiliated to University, SPPU, Pune.

Represented by Its Principal Dr. S. B. Patil.

Having registered office RDTC, Bhor, Pune.

Phone: +91 Website: www.rajgad.org.in

Email address: principal@rajgad.edu.in

Hereinafter called as PARTY-I.



1



JOB BUZZER (power by Nexus Placement and Manpower services)

Represented by its **Founder and C.E.O Mr. Santosh dhondiba dhamal, having**

Registered office : Office No 7, Yash Sankul, Beside HDFC Bank, On Pune Bangalore Highway, Shirwal, Dist. - Satara Pin 412801 ,Maharashtra , India.

Another Office: At Kesurdi, Tal-Khandala, Dist.-Satara, and Pin- 412801, Maharashtra.

Phone: +91-98810 14410, **Email Id:** Info@jobbuzzer.in **website:** www.jobbuzzer.in

Hereinafter called as **PARTY-II.**

WHEREAS

- A. To provide online platform or app to the jobseekers on **www.jobbuzzer.in** including 24*7 online profiles to attract companies, Inviting companies and other entities to view users profiles online and providing access to them.
- B. **Job buzzer** dedicated corporate sales team will endeavor to help in making available opportunities from companies as well as small & medium enterprises.
- C. To provide awareness through various means thereby resulting into increased chances of employment of user.
- D. **Party-I** and **Party-II** wish to co-operate to promote, facilitate and implement co-operation in the programs and activities.
- E. **Party-II** wants to promote job buzzer at the College website and social media app with **Party- I** and **Party-I** will allow **Party-II** an official platform for promotion of an app and ask all students to download and use it.
- F. **Party-I** will not allow any other third party job board or portal or website or app while MOU is in effect.
- G. **Party-II** will not sale or distribute sensitive data of college students unless individual user consent is taken. If individual user agrees to share any part of their data to companies related to its job openings, **Party-I** will not have any further objection.
- H. **Party-II** will show relevant advertisements to app users such as sports, training-hubs, fashion, brands, and stationeries, Pens, Shoes, and Personal Hygiene and related to young crowd demand **Party-I** will not any objections regarding them.



- I. **Party-II** will send direct job opening related notifications to jobseekers and there will be no intervention from party I or permission necessity.
- J. **Party-II** will not charge **party-I** for any sort of features provided by **Party-II**, unless **Party-I** wants any custom feature to be integrated with app related to their college by mutual understanding by both.
- K. **Party-II** takes direct responsibility of app user's support with dedicated service numbers availability.
- L. **Party-II** will make college reviews ratings and users testimonials public. And **Party-I** will not have any objections regarding same.

ACTION PLAN:

- 1) A Committee shall be formed under the joint leadership of both **Party- I** and **Party- II**, which shall maintain Minutes of Meeting.
- 2) The institute shall designate a liaison officer to develop and co-ordinate the specific activities agreed upon.
- 3) The committee shall meet quarterly or as per need, to plan activities, obtain internal approvals in case costs are involved & take them to satisfactory conclusion.
- 4) Joint Certification: At the time of any joint exercise, the participant will be issued a certificate of merit duly signed by **Party- I** and **Party- II**.

TERMS and CONDITIONS:

- 1) The purpose of this MOU is only to express the intentions of the party and is not intended to be legally bound on either parties.
- 2) The terms of co-operation for each specific activity contemplated under this MOU including costs involved shall be mutually discussed and agreed upon in writing by both parties prior to the initiation of that activity.
- 3) This MOU imposes no financial obligations on either party.
- 4) Each party recognizes that the other party has, may have or will have arrangements of a similar or different nature with other institutions.
- 5) Each party shall keep confidential any information that it receives from the other party. Publication of any material that is jointly developed by the two institutes will be considered as confidential and will not be shared in any public forum or with any third party, without prior consent/ approval of the other in writing, obtained from the authorized signatory.



6) This MOU shall remain in effect for the period of 5 years from the date of its execution by both parties. Either party may terminate this MOU by giving calendar 30 days' notice in writing to other party.

7) The terms of co-operation may be extended beyond the terms mentioned in this MOU, on the basis of discussion & upon mutual agreement.

8) Dispute Resolution: Any disputes and differences with respect to or in relation with this MOU shall be settled by mutual discussions of the Institutes within a period of 30 days. In case parties fails to amicably settle the disputes or differences within the aforesaid period, this MOU shall stand terminated.

Miscellaneous Provisions:

1. The Memorandum of understanding (MOU) as outlined in this document is not intended to be a legally binding document. Rather, it is meant to describe the nature and cooperative intentions of institute and service provider to suggest guidelines for cooperation. Nothing, therefore, shall diminish the full autonomy of either party, nor any constraints be imposed by either party upon the each other, and nothing in this Agreement shall be deemed to create a partnership, joint venture, or agency relationship between the parties.

2. The use of the name, logo and/or official emblem of any of the parties on any publication, document and/or paper is allowed only, after seeking explicit prior permission in writing by either party.

3. The Memorandum of understanding or any part thereof may be amended at any time during its tenure only by consent in writing of the parties.

4. Through this Memorandum of Understanding party-1 and party-2 affirm their commitment to fulfil and achieve the objectives mutually agreed upon in this Memorandum of understanding.

5. The Memorandum of Understanding is not intended to create any legal relation of employer-employee or of principal and agent amongst the parties.

AMENDMENTS:

- This MOU may only be amended by mutual agreement evidenced in writing by a duly authorized representative from each of Party- I and Party- II.
- In witness thereof, Party- I and Party- II have caused this Memorandum of Understanding to be executed by their duly authorized representatives, on the date, month and year hereinabove mentioned.

This MOU is a statement of intent to foster genuine and mutually beneficial co-operation.



| On Behalf of Party 1 | | On Behalf of Party 2 | |
|----------------------|---|----------------------|---|
| Name : | Dr Sanjay B. Patil | Name : | Mr.Santosh D. Dhamal |
| Designation: | PRINCIPAL | Designation: | Client Relations Manager |
| Contact: | +91- 9970397698 | Contact: | +91 -9881014410 |
| Signature: |  | Signature: |  JOB BUZZER Authorized signatory |
| Stamp: |  | Stamp: |  |

| Witness: | | On Behalf of Party 1 | | On Behalf of Party 1 | |
|--------------|---|----------------------|---|----------------------|--------|
| Name : | Prof S.D. Patilkar | Name : | — | Name : | — |
| Designation: | Training and Placement Officer(TPO) | Designation: | — | Designation: | — |
| Contact: | +91- 8605592551 | Contact: | — | Contact: | +91- — |
| Signature: |  | Signature: | — | Signature: | — |



MEMORANDUM OF UNDERSTANDING

Between

**Rajgad Dyanpeeth's Technical Campus
Shri Chhatrapati Shivajiraje College of Engineering, Dhangawadi, Pune
Department of Civil Engineering**



AND

**Vastu Tech,
Construction and Vastushastra,
Bhor, Pune, Maharashtra -412206**



Ref No. RD/SCSCOE/Civil/2022-23/113

Date: 2/12/2022

PREAMBLE:

RDTC is established in year 2009 in order to achieve excellence of students in the field of science and technology. It is approved by AICTE, New Delhi and Government of Maharashtra and is affiliated to the Savitribai Phule Pune University.

The Institutes have state of the art infrastructure appropriate to conduct engineering education. RDTC'S SCSCOE runs 04 UG programs. The Department of Civil Engineering of RDTC's SCSCOE Dhangawadi, Bhor is established in 2009 with an intake of 60 students. It has experienced faculty Engaged in teaching and research. Laboratories of all the departments are well equipped with modern equipment's and experimental setups. Besides conventional teaching, college puts special emphasis on ebased learning, subject-oriented advanced inputs.

The goal of the Civil Engineering Department is to train the students to face the challenges of ever changing technology and maintaining high ethical and moral standards. The departmental advisory committees consisting of well-known academicians and experts from industry guide the departments in their academic activities. The students' chapters established in the departments provide professional touch to the education. The department organizes the workshops and seminars on advance technology for the UG students.

The Agreement is signed between,

Whereas, Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangwadi, Tal: Bhor, Dist: Pune, Maharashtra 412206, (Hence forth referred as **Party 1**)

AND

Whereas, Vastu Tech ,Civil Engg & Vastu Expert, Bhor, Pune, Maharashtra -412206, (**Hence forth referred as Party 2**)

Whereas, both party no. 1 and party no. 2 are interested to develop the knowledge of advances in concrete technology in all respect at student's study level, which are helpful personally to students and future quality improvement.

Whereas, both parties have decided to agree to establish industry-academic collaboration in the areas of mutual interest and in accordance with terms and conditions set forth in this memorandum of understanding (MOU).



Objective of MOU:

1. To strengthen the industry-institute interaction to provide high quality and up to date technology supports and value added programs to the Engineering students, Masons and Contractors practicing on sites.
2. To establish common platform between Company and Institute to plan and execute activities for the development of Industrial Institute interaction.
3. Planning and utilizing resource like staff and infrastructure for joint R&D works, industry based joint consultancy work.
4. Sharing of latest Technical trends in Educational and Industrial field.
5. To get exposure and training to student under the supervision of industry experts.
6. To get access of the trained engineers.

AGREEMENTS OF MOU:

Both Party 1 and Party 2 shall encourage interaction between the engineers, research fellows, faculty members and students through following arrangements.

1. Party 2 - shall share their knowledge and experience by way of joint conferences and seminars/workshops.
2. Party 2 - agrees to provide all documents like brochures, leaflets, CD, DVD and their devices (computer etc.) including lecturers, skilled staff, helping staff, for above activity.
3. Party 1 - agrees to provide audio-visual projector and screen facility and appropriate seminar hall, inclusive of required electrical devices and supply system etc.
4. Party 2 - agrees to provide material and tool tackles, which are necessary for demo, and practical.
5. Party 2 - agrees to conduct above mentioned programs in campus of Rajgad Dnyanpeeth Technical Campus, Shri Chhatrapati Shivajiraje College of Engineering, Dhangwadi, Tal: Bhor, Dist: Pune, Maharashtra 412206.
6. Party 1 - agrees to provide open space, covered space, electricity, water, and washroom facilities as per requirements and institutional working days and time.
7. Party 2- may seek assistance/guidance of Party 1 faculty members in technical or any trouble shoot issues.

FINANCIAL ARRANGEMENTS:

1. The collaborative program between Party 1 and Party 2 shall be coordinated by a coordination committee appointed by Directors of both Institute (Parties).
2. Financial arrangements for each specific collaboration will be decided on case to case basis and brought on record in each case after due approval from heads of both institutions (Parties).



INTELLECTUAL PROPERTY RIGHTS:

Rights regarding publications, patents, royalty, ownership of software/design/product developed under scope of MOU shall be decided by two parties by mutual consent.

CONFIDENTIALITY:

Both the parties agree to hold in confidence all information/data which is obtained from either side or created during the performance of MOU and will not disclose the same to any third party without written consent of other side.

COORDINATORS:

Both sides will designate persons who will have responsibility for coordination and implementation of this agreement.

DURATION OF MOU:

This MOU will take effect from the date it is signed by the representatives of the parties, This MOU is binding on both parties for the duration of Ten academic year, 2021-22, 2022-23, 2023-24, 2024-25, 2025-26, 2026-27, 2027-28, 2028-29, 2029-2030, 2031-2032.

Either party may terminate the MOU by giving 1 month's written advance notice to the other party, once terminated neither Party 1 or Party 2 will be responsible for any losses, financial or otherwise, which the other party may suffer. This MOU is signed subjective approval of representatives of both the parties' academic/administrative bodies.

SCHEDULE FOR ACTIVITIES:

Various activities to achieve the objectives of MOU mentioned, will be conducted as per mutual convenience of both parties with minimum 15 days of advance planning.

