

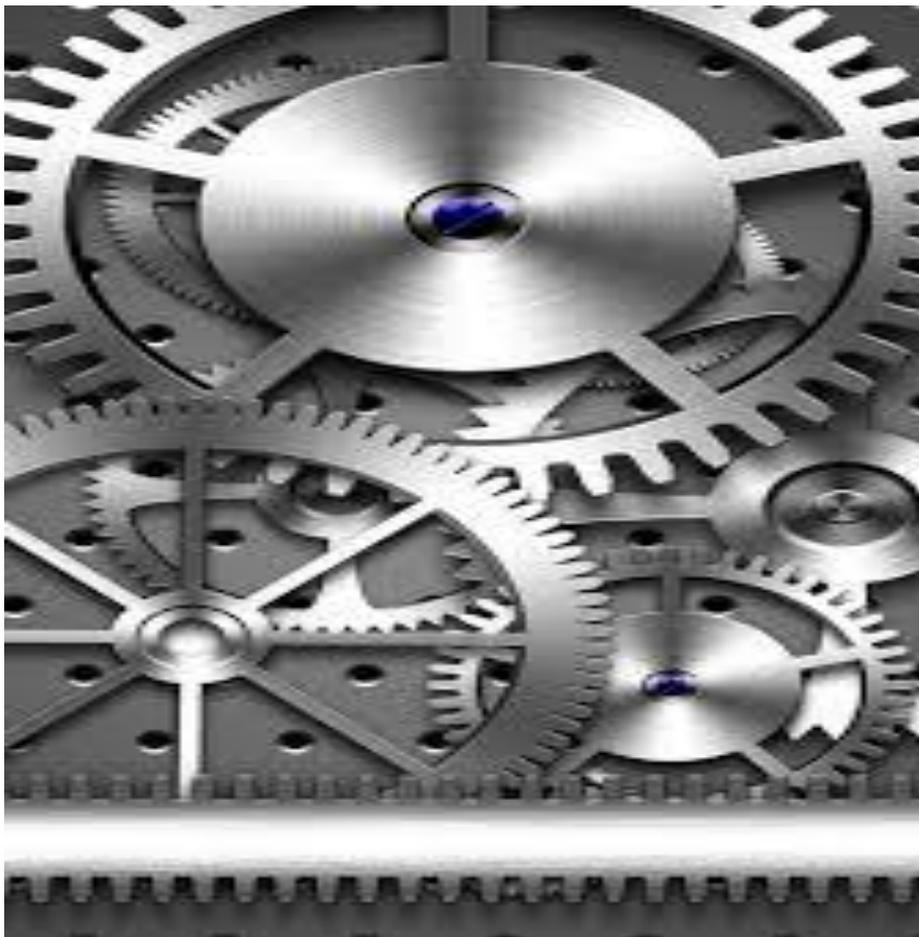


Shri Vile Parle Kelavani Mandal's
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)



ACADEMIC REPORT

Academic Report of the Department of Mechanical Engineering
(2019 - 2020)



Editors:

Dr K N Vijay Kumar
P Frank Crasta

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1. DEPARTMENTAL VISION, MISSION, PEOs AND PSOs

Vision:

To create academic excellence by developing competent mechanical engineers, capable of facing global challenges, with human values and skills for research and sustainable development.

Mission:

1. To impart fundamental concepts of basic sciences and allied areas of engineering and technology.
2. To enable students, to develop into competent engineering professionals.
3. To promote research activities.
4. To promote interaction and involvement with professional bodies and industries
5. To inculcate soft skills and professional ethics and mold students as socially responsible citizens.
6. To promote exposure to green technology for sustainable growth and development.

Program Educational Objectives (PEO's):

1. To prepare students with a sound engineering knowledge and a multi-disciplinary approach.
2. To enable students, to innovate, design and develop engineering systems using modern engineering practices and tools.
3. To motivate students, to interact with industry and professional bodies and participate in various professional activities.
4. To develop logical approach, analytical thinking and problem solving capabilities in students & facilitate them to undertake research/project work.
5. To impart training in soft skills and value education.

Program Specific Outcomes (PSO's):

1. Students will acquire analytical and application skills, specifically in areas of mechanical design, thermal engineering and manufacturing systems.
2. Students will be able to explore various methodologies & software and select appropriate process to bring about improvements.
3. Students will acquire soft skills, value education and competency in pursuing higher studies and finally lead a professional career while working in a global environment.
4. Students will be exposed to green technology and develop inter-disciplinary skills in mechanical systems.

2. ABOUT THE DEPARTMENT

- Department of Mechanical Engineering instituted in the year 2011 with undergraduate (BE) and post graduate (ME) programmes permanently affiliated to the University of Mumbai.
- The department is accredited by National Board of Accreditation (NBA) for a period of three years with effect from the Academic Year 2018-19
- The department has Ph.D. (Technology) programme since 2013, which is affiliated to the University of Mumbai.
- Intake- BE : 120, ME : 18, Ph.D. : 10
- The department runs four professional student chapters viz. SAE, ISME, ISHRAE and RAS which help to enhance the skills of the student and also to add value in the process of acquiring knowledge.

3. ADMINISTRATION

Dr. K. N. Vijaya Kumar

Professor & Head

Teaching Staff

Dr. Satish Takalikar

Professor

Dr Sanjeev Thool

Assistant Professor

Prof. Vyankatesh Bagal

Assistant Professor

Prof. P Frank Crasta

Assistant Professor

Prof. Dhaval Birajdar

Assistant Professor

Prof. Rohit Chaurasia

Assistant Professor

Prof. Pavan Rayar

Assistant Professor

Prof. Greegory Mathew

Assistant Professor

Prof. Karthik Ajugia

Assistant Professor

Prof. Ravikant Hattale

Assistant Professor

Prof. N. C. Deshpande

Assistant Professor

Prof. Dhiraj Nigade

Assistant Professor

Dr. Vinayak Khatwate

Associate Professor

Prof. Prasad Shirodkar

Assistant Professor

Prof. Rajnarayan Yadav

Assistant Professor

Prof. Prashant R Patankar

Assistant Professor

Prof. Vinit Katira

Assistant Professor

Prof. Ramesh R Rajguru

Assistant Professor

Prof. Bronin Cyriac

Assistant Professor

Prof. Dhananjay Shukla

Assistant Professor

Prof. Shashikant Auti

Assistant Professor

Prof. Avadhut Samant

Assistant Professor

Prof. Sachin Kamble

Assistant Professor

Non-Teaching Staff

Mrs. Vaishali Joshi
Lab. Assistant

Mr. Suresh Mohite
Lab. Attendant

Mr. Gaurav Sapte
Lab. Assistant

Committees

SAE

Prof. Rajnarayan Yadav
Prof. Rohit Chaurasia
Prof. Ravikant Hattale
Prof. Bronin Cyriac

Prof. Vinit Katira
Prof. Shashikant Auti
Prof. Gregory Mathew
Prof. Dharam V. Ranka

ISME

Prof. P Frank Crasta

Prof. Ramesh Rajguru

ISHRAE

Prof. Vyankatesh Bagal

Prof. Dhaval Birajdar

RAS

Prof. Pavan Rayar

Project Committee

Prof. Vinit Katira

Prof. Ramesh Rajguru

NBA Committee

Prof. Prashant Patankar- PC

Prof. Rajnarayan Yadav

NAAC Committee

Prof. Prashant Patankar

Prof. P. Frank Crasta

Time-Table Committee

Prof. Vyankatesh Bagal

Prof. Rohit Chaurasia

Placement Coordinator

Prof. Rohit Chaurasia

Exam Coordinator

Prof. Dhaval Birajdar

Prof. Karthik Ajugia

U. G. Coordinator

Prof. Bronin Cyriac

P. G. Coordinator

Prof. Gregory Mathew

Ph. D Coordinator

Prof. P. Frank Crasta

Cultural Committee

Prof. Gregory Mathew

Sports Committee

Prof. Ramesh Rajguru

Alumni Coordinator:

Prof. Shashikant Auti

F. E. Coordinator

Prof. Prasad Shirodkar

Prof. Ravikant Hattale

4. STUDENT CHAPTERS

Department of Mechanical Engineering organizes various co-curricular activities in-line with its vision of creating competent Mechanical Engineers capable of facing global challenges. The Department motivates students to participate in various national and international competitions and exhibit proficiency. By creating a competitive ambience exclusively suited for their development, the department inspires students to push their limits. This year too, students brought accolades to the department by winning awards in competitions of International and National repute. Under the guidance of the Head of Department Dr. K N Vijaya Kumar and faculty members, the future engineers of DJSCE are set to make a difference to the society.

The various student chapters of SAE, ISME, ISHRAE and RAS regularly organizes Seminars, Workshops and Guest Lectures to motivate students to go beyond the university curriculum and to create awareness about the trending developments in the Mechanical field. Following is a brief description of activities conducted by various Student Chapters.

Indian Society of Manufacturing Engineers (ISME)

1. Value Added Programs:

- (i) **Event Title:** Two days workshop on PLC and Fabrication.
Event dates: 30th September and 1st October 2019.
Event location: M/s L & T, C-TEA Division, Madh
Conducted by: Mr. Firdosh Mistry, Chief of Training

The ISME chapter of our college conducted a two day workshop on 30th September and 1st October 2019 on the “PLC & Fabrication” at M/s L&T Madh training campus. The workshops were conducted by industry experts who shared their knowledge and experience with our students. A total of 34 students of SE Mechanical Engineering students benefitted through this training programme.



Students doing Fabrication at L&T Madh C-TEA Division

2. Industrial Visits

- (i) **Event Title :** Industrial Visit to M/s United Rubber Industries Pvt. Ltd. Bhayander
Event dates: 3rd – 4th February 2020
Event location: M/s United Rubber Industries Pvt. Ltd. Bhayander

SE Mechanical Engineering students visited M/s United Rubber Industries Pvt. Limited, Bhayander. They could feel the actual Production Processes involved in rubber manufacturing.

3. Guest Lectures

- (i) **Event Title :** Guest Lecture on “Trends and Advances in Manufacturing”
Event dates: 24th February 2020.
Event location: Seminar hall at D. J. Sanghvi College of Engineering, Vile Parle West
Event conducted by: Dr. Amit Jariwala, Professor, Georgia Tech., USA

An enriching seminar was conducted by an eminent Professor, Dr. Amit Jariwala, Georgia Tech. USA for the students of Mechanical and Production departments. The seminar highlighted the various aspects of evolution Manufacturing, emphasizing Industry 4.0 aspects. It was an interactive session, the faculty members and the students were immensely benefitted by this seminar.



Dr. Amit Jariwala, Georgia Tech. Guest Lecture

- (ii) **Event Title :** Guest Lecture on “Additive Manufacturing (3D Printing)”
Event dates: 8th February 2020.
Event location: Seminar hall at D. J. Sanghvi College of Engineering, Vile Parle West
Event conducted by: Mr. Dharendra Mishra, Assistant Professor, MPSTE

An edifying seminar was conducted by Mr. Dharendra Mishra, Assistant Professor, MPSTE for the students of Mechanical and Production departments. The seminar highlighted the various aspects of Additive Manufacturing, emphasizing practical aspects of Manufacturing using 3 D Printing Technologies.



3D Printing Seminar by Mr. Dharendra Mishra

Society of Automotive Engineers (SAE)

1. Value Added Programmes

i. MATLAB

DATE: 21 st & 22 nd September, 2019.	TIME: 9:00am to 5:00pm
VENUE: EXTC lab	Number of Attendees: 34

Instructor: Mr. Suhas Deshmukh

Objectives of the event:

The MATLAB allows matrix manipulations, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other languages, including C, C++, C#, Java, Fortran and Python.



ii. DJS Skylark's Aeromodelling Workshop

DATE(s): 28 th , 29 th September and 5 th October, 2019.	TIME: 8 am to 5 pm
VENUE: Dwarkadas J Sanghvi College of Engineering.	Number of Attendees: 200

Summary of the event:

Aeronautics is the widest and most adored field of interest involving people from all departments. The basic building of an aircraft involves the aerodynamics, avionics and engineering concepts of all fields.

Pictures of the event



iii. Electric Vehicle Workshop

DATE: 23 rd & 24 th January, 2020.	TIME: 10:00 am to 5:00 pm
VENUE: 3 rd Floor Seminar Hall	Number of Attendees: 43
Speaker: Mr. Rakesh Sharma, Ex-Design Engineer, Indian Navy	

Summary:

The workshop was conducted in our college, Dwarkadas J Sanghvi College of Engineering by SAE. The workshop was both theoretical and practical based. The topics covered were:-

- Steering and Suspension System
- Traction Concepts and Braking
- Controllers, Sensors, Battery Technology, IC Engine, etc.

Photos of the event



2. Guest lectures

DATE: 4th Feb, 2020.	TIME: 10:30 pm to 12:00 pm
VENUE: 3 rd Floor Seminar Hall.	Number of Attendees: 80
Subject: Jet Propulsions	

Speaker: Mr. F. A. Shaikh (Assistant general manager in Technical services, Air India.)

Summary of the Event:

Jet Propulsion Engines has changed the way airplanes fly. It is the most important factor that decides the cruise condition of the flight. It was and will always be the most vital part if the aviation industry. The talk was delivered to a packed audience of undergraduate students from Mechanical and Production Departments. The talk was helpful to students as it introduced them to the widely used technology of Jet Propulsion Engines. Also, he threw light on the factors for newly graduated students in job point of view.

DATE: 3 rd March, 2020.	TIME: 12:00 pm to 1:30 pm
VENUE: Classroom-41	Number of Attendees : 100
Subject: The Geometry of Mechanism	

Speaker: Mr. Ujjwal Rane

- B.E. (Mechanical) – University of Mumbai
- M. Tech. (Machine Dynamics) – I.I.T. Madras
- M.S. (Computer Aided Geometric Design) – Arizona State University, Tempe, AZ, USA

Photos of the event



3. Industrial Visits

DATE: 27 th February, 2020.	TIME: 11:00 am to 12:30 pm
VENUE: Kumaram Sports Tenex, Boisar.	Number of Attendees : 43

Summary:



The Industrial visit was conducted by SAE at Kumaram Sports Tenex. The students were guided by **Mr. Gopal Maheshwari** and by Prof. Gregory Mathew. The Industrial Visit was organized specially for BE students. A total of **43** students visited the industry. The products discussed were rubber ball and tennis ball and accordingly they explained their production briefly based on manual labor skills. Few machines were introduced as well, which consisted of moulding, cutting processes.

Photos of the event



DJS SAE Teams

1) DJS Racing



DJS Racing is the formula student team of Dwarkadas J. Sanghvi College of Engineering. It designs and manufactures fully functional racecars every year for the national Formula Bharat and international Formula Student competitions. Having won seven national and three international titles. It is one of the most successful teams in India.

Achievements

- FSG 2019 - Never Give Up Award
- FB 2019 - Only Indian team to design and manufacture 2 cars in a single calendar year
 - 4th in EV and CV category
- FB 2020 - 1st in Cost event
- FSEV 2020 - Best powertrain design

2) DJS Kronos



DJS Kronos India is a team of passionate young undergraduates that design manufacture and validate an all-terrain vehicle (ATV) every year from scratch. We take this car to competitions in India and internationally to interact with other teams and professionals from this field, learn from them and pit our car against theirs to produce a better car next year.

Competition & Achievements:

ESI 2019

- 3rd Overall in India
- 1st in Maneuverability
- 2nd in Sales

Baja SAE India, 2019

- 1st in maneuverability
- 1st in Innovation
- 1st in Mumbai

Baja SAE India, 2020

- 16th in India
- 1st in Mumbai

Baja SAE Arizona, 2020

- 5th Overall
- 3rd Overall in Statics
- 1st in India

3) DJS Skylark



At DJS Skylark, we design and fabricate RC aircrafts and are the leading Aero-design team of India. We participate in SAE Aero Design, an annual international competition for Radio Controlled aircraft, held in March, in the US. In this competition, aero enthusiasts from leading universities worldwide come together to showcase their talents.

SAE Aero Design 2019:

Regular Class

- 4th Worldwide
- 8th in Design Report
- 7th in Technical Presentation

Micro Class

- 8th Worldwide
- 2nd in Design Report

SAE Aero Design 2020:

Regular Class

- 4th in Asia-Pacific
- 9th in Technical Presentation

Micro Class

- 3rd Worldwide
- 2nd in Mission Performance
- 3rd in Technical Presentation

4) DJS Karting



DJS KARTING INDIA, is the official Go-kart team of DJSCE. We manufacture, design and fabricate karts and compete in national level competitions. Last season we made the first Electric go kart in the city of Mumbai and competed at various competitions from teams all over the country.

2018-2019 Competitions- GKDC & IKC

GKDC

- 1st in Acceleration
- 3rd in Cost
- 4th in Autocross

IKC

- Best CAE
- 2nd in Design

2019-2020 Competitions- GKDC & IKC

GKDC

- EV: -3rd in acceleration 4th in Design
- CV: - 1st in Design
- 3rd in Acceleration 3rd in skidpad
- 9th overall

IKC

- EV: - 1st in Design Evaluation 4th in Endurance
- 4th Overall
- CV: - 4th in Design Evaluation

5) DJS Helios



Founded in 2015, DJS Helios designs, builds and races their solar car in various national level competitions and provide an opportunity for students to gain hands-on engineering and business experience, while raising community awareness of clean energy vehicles.

Competition:

2018:

- Crowned Asian champions, for being overall winners at ESVC & IASC (Adventure Class)

2019:

- 1st in Bplan & Cost Report
- 2nd in Acceleration Round
- 7th rank overall, of 120 participating teams

2020:

- 1st in Pre Virtual Event
- 2nd in Acceleration Round
- 2nd in BPlan & Cost Report

6) DJS Speedsters



Asian E-Bike Challenge

Date: 25th -29th September 2019

Location: Raghu Engineering College, Vishakapatnam, AP

Achievements:-

- Overall Winners- 1st Rank
- Best Engineering Design
- Best Start-up Idea
- Best Project Plan
- Overall Static Events Winner
- Acceleration & Brakes Test- 2nd Rank
- Endurance Test- 3rd Rank

E-Bike Racing Challenge

Date: 13th- 16th January 2020

Location: O.P. Jindal University, Raigarh, Chattisgarh

Achievements:-

- Overall Runner Up- 2nd Rank
- Acceleration & Brakes Test- 2nd Rank
- Endurance Test- 3rd Rank

National Online E-Bike Design Competition

Organiser: FMAE (Fraternity of Mechanical & Automotive Engineers)

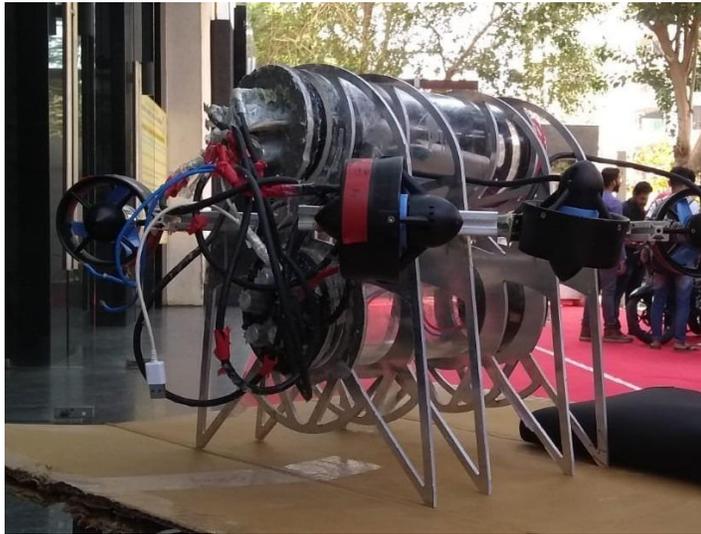
Date: 13th September 2020

Location: Virtual competition (Zoom Meet)

Achievement:-

- Overall 2nd Runner Up- 3rd rank

7) **DJS Vagsheer**



DJS Vagsheer is a multidisciplinary undergraduate-run, consisting of over 20 highly enthusiastic and hardworking technocrats meant to facilitate research, development and prototyping of Underwater Robotics. The team works towards participating in SAUVC, which is held annually at Singapore and in MATE ROV Competition as well.

8) **DJS Phoenix**



DJS Phoenix is the team where we design, analyse, manufacture, assemble and pilot drones. Our mission is to create a spark in young enthusiastic minds to gather innovative ideas and implement it in the real world.

Our Feats:

- 5th at Technoxian - Technoxian 2017
- 3rd at Innovation Pavilion - MET & HTS 2018
- Nominated amongst top 25 teams in the World- IMAV 2019
- Nominated for India Stem Summit & Awards – STEM 2020

9) DJS Miles



DJS Miles is the Official Super mileage vehicle team of DJ Sanghvi College of Engineering. We conceptualise, design and manufacture an energy efficient electric vehicle, with the primary aim of increasing the mileage of the vehicle.

Competitions and Achievements:

- Runners Up in Long Distance Mobility challenge in Asia, Pitch the Future 2020, Shell Eco Marathon
- 1st place in Digital Literacy Award by Adobe among 132 other teams globally, Pitch the Future 2020, Shell Eco Marathon.
- 4th in Asia in Bonus Quiz Challenge 2021, Shell Eco Marathon.

Indian Society of Heating, Refrigeration and Air-conditioning Engineers (ISHRAE)

1. Guest lecture

Topic : Energy efficiency and sustainable Energy
Venue : Mechanical Department Room No.41
Date : 19th August 2019
Resource Person: Dr Roshini Easow



2) **Event** : Jamboree 7
Venue : Saraswati College of Engineering, Kharghar, Navi Mumbai.
Date : 25th January 2020



Jamboree 7 was organized by ISHRAE, Mumbai chapter in association with Saraswati College of Engineering, Kharghar, Navi Mumbai on 25th January 2020. It is a technical fest held especially for student members of ISHRAE Mumbai Chapter. It consists of various events like Technical Paper Presentation, Tech Charades, Mock interview, Mad Ads, Technical Quiz, etc. The mega event witnessed participation from more than 15 colleges. The event focused on building personal qualities, IQ and sparking an interest in young minds towards HVAC industry.

- 3) **Event** : ISTL
Venue : Dadar
Date : 25th January 2020



ISTL (Ishrae student technical league) is a competition organised officially by the Ishrae Mumbai chapter. It is a kind of competition in which students are able to build and show their technical as well as soft skills. The format of ISTL is very unique in which they give a design of any kind of hospitality (this time it was a hotel) for air conditioning and cooling. They provide the lectures for heat load calculation and for presentation skills.

There will be an ishrae handbook as reference for calculations. Along with all this the best part of it is they provide a mentor to each team. DJ's ishrae was participated in this competition. The mentor which was provided to us was Mr.C.L. Prasad, he is the owner of Enpal HVAC solutions.

- 4) **Event** : Treasure Hunt
Date : 14th May 2020



This was the first successful online event organized by DJSCE ISHRAE Mumbai Chapter .It was conducted with the help of 'whatsApp' and with cash prize upto Rs.1000. The event Witnessed over 160 participation from more than 10 colleges.

Robotics and Automation Society (RAS)

1. Workshop : Avr Atmega 32

Speaker : Mr. Shreyas Shah (Alumni, Department of Electronics Engineering)

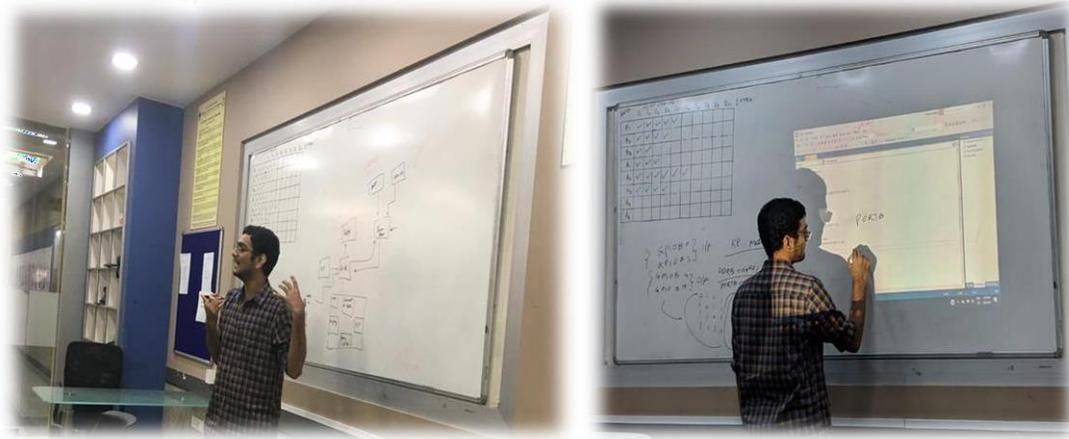
Date : October 2019

Location : CAMD LAB, Mechanical Engineering

Students Present: 40

About the event: Microcontrollers are an inevitable part of a mixed circuit design. They have a wide range of applications like embedded systems, power electronics, modern Electrical systems, instruments etc.





2. Guest Lectures

Topic : AI Enabled Robots and Home Automation

Speaker: Ashish Patil, CEO Cluebots

Date : 7th February, 2020

Location: Seminar Hall, 3rd Floor

Students Present: 120

About the event:



Artificial Intelligence is rapidly taking on the world. It is helping scientists design such marvels that were once the subject of science fiction. From smart homes powered by IoT and intelligent personal assistants like Siri and Alexa to autonomous cars, AI is paving the way for the new age Digital Revolution.



5. PERFORMANCE IN END SEMESTER EXAMINATIONS

S.E. SEM IV

Result Analysis of May 2020 Examinations

No. of Students Appeared	140
No. of Students Passed	140
Percentage Result	100%

CGPA	No. of Students
10	20
≥ 9	42
< 9 and ≥ 8	55
< 8 and ≥ 7	23
< 7 and ≥ 6	Nil
< 6 and ≥ 5	Nil
Failed	Nil

T.E. SEM VI

Result Analysis of May 2020 Examinations

No. of Students Appeared	147
No. of Students Passed	147
Percentage Result	100%

CGPA	No. of Students
10	5
≥ 9	49
< 9 and ≥ 8	47
< 8 and ≥ 7	39
< 7 and ≥ 6	7
< 6 and ≥ 5	NIL
Failed	NIL

B.E. SEM VIII
Result Analysis of May 2020 Examinations

No. of Students Appeared	142
No. of Students Passed	142
Percentage Result	100%

CGPA	No. of Students
10	Nil
≥ 9	17
< 9 and ≥ 8	50
< 8 and ≥ 7	59
< 7 and ≥ 6	16
< 6 and ≥ 5	00
Failed	00

6. PLACEMENTS

Name of the Student	PLACED IN COMPANY 1	PLACED IN COMPANY 2
Dhairya Vora	Jaro(12 LPA)	Nerolac (4.5 LPA)
Chaitanya Shah	Axxela (11 LPA)	
Shravani Salunkhe	Infosys (3.6 LPA)	Hindustan Unilever (7LPA)
Dhairya Desai	Edelwiess (7 LPA)	
Harshal Mehta	TCS (3.5 LPA)	LTI (5 LPA)
Shubham Pandya	LTI (5 LPA)	
Parth Kothari	Saffron stays(5LPA)	
Shekhar Devkar	Burns & McDonell(4.5 LPA)	
Dinesh Papal	Burns & McDonell(4.5 LPA)	
Urvi Joshi	Media.net(4.5LPA)	
Aakash Gohil	Infosys (3.6 LPA)	Godrej(4.20LPA)
Natasha Mehta	Media.net(4.5 LPA)	
Sahil thonse	Godrej (4.20LPA)	
Danish bhatkar	Godrej(4.20LPA)	
Ronak Bhanushali	Godrej(4.20LPA)	
Godwin Dbritto	Infosys (3.6 LPA)	Worley (4LPA)
Vinayak Joshi	Worley (4LPA)	
Pinak Malnika	Worley (4LPA)	
Prathamesh Indulkar	Worley (4LPA)	
Riddhi Soman	Infosys (3.6 LPA)	Worley(4LPA)
Omesh Shah	Infosys (3.6 LPA)	Worley (4LPA)
Jay shah	Worley (4LPA)	
Hamza neemuchwala	Worley (4LPA)	
Prakriti tulasyan	Worley (4LPA)	
Aditya anil Tiwari	Worley (4LPA)	
Sachin kshirsagar	Techint(3.6LPA)	
Jay Mistry	Techint (3.6 LPA)	
Ganesh Chavan	Techint(3.6LPA)	
Elroy Menezes	Sanmar	
Mihir Sanghvi	Technimont	
Devanshi nathawani	Jayshree polymers	
Gulammoim kasmani	Jayshree polymers	
Shivam Khatri	Jayshree polymers	Qspiders
Prasad thorat	Jayshree polymers	
Harrangad Uppal	Jayshree polymers	
Dhrumil Mehta	Mirraw(3.6LPA)	
Gurav Shukla	Avalon Research()	
Abhijeet aabesange	Avalon Reaserch()	

Murtaza Gheewala	Logiquid	
Suvajit Paul	TCS (3.5 LPA)	Infosys (3.6 LPA)
Hitesh Sisodia	TCS (3.5 LPA)	
Harshal Popat	TCS (3.5 LPA)	
Harshvardhan Pandya	TCS (3.5 LPA)	
Meet Dhanki	TCS (3.5 LPA)	
Zenith Bhatt	Infosys (3.6 LPA)	
Bhavya Kochar	Infosys (3.6 LPA)	
Abhishek Gupta	Infosys (3.6 LPA)	
Harsh Niphadkar	Infosys (3.6 LPA)	
Herin Savla	Infosys (3.6 LPA)	
Karan Shah	Infosys (3.6 LPA)	
Karankumar Shah	Infosys (3.6 LPA)	
Vipul Patel	Infosys (3.6 LPA)	
VaibhavShah	Infosys (3.6 LPA)	
Ashish Kamat	Infosys (3.6 LPA)	
Deep Shah	Infosys (3.6 LPA)	
Chintan Doshi	Infosys (3.6 LPA)	
Parth Raval	Infosys (3.6 LPA)	
Mayuri Vaidya	Infosys (3.6 LPA)	

7. RESEARCH WORK OF THE FACULTY MEMBERS

(i) Sponsored Projects/Research Work

Name of the faculty	Project Title	Project Type Research/ Consultancy	Funding Agency	Amount	Duration
Dr. Hari Vasudevan	Predictive modelling of surface roughness in the machining of Inconel 625 using ANN	Research	University of Mumbai Minor Research Grant	50,000/-	1 year
Dr. K.N.Vijaya Kumar	Generation of Tyre Pyrolysis and performance testing of it on Diesel Engine	Research	University of Mumbai Minor Research Grant	40,000/-	1 year
Dr. Vinayak H. Khatawate	Analysis of load bearing capacity of endodontic restorations	Research	University of Mumbai Minor Research Grant	40,000/-	1 year
Prof. Prashant kumar R. Patankar	Design and manufacturing of shredder for tyre and plastic parts of an ELV	Research	University of Mumbai Minor Research Grant	47,000/-	1 year

(ii) **Publications :**

Title of the paper	Name of the author	Title of the journal
Performance Analysis of Crash box in Automobiles	Vinayak H. Khatwate	IEEE Technically Co-Sponsored International Conference on Nascent Technologies in Engineering (ICNTE-2019) organized by Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai, India, January 04-05, 2019.
Evaluation Of Site Core Damage Frequency Of Multi-Unit Nuclear Power Plant Using Probabilistic Safety Assessment	Vinayak H. Khatwate	IEEE Technically Co-Sponsored International Conference on Nascent Technologies in Engineering (ICNTE-2019)
Analysis of stress and strain concentration factors on notched plate beyond yield point of the material	Vinayak H. Khatwate	Australian Journal of Mechanical Engineering, 2019, Vol.17, pp.76-89
Effect of Machining Parameters on Surface Integrity in End Milling of Inconel 625	Ramesh R. Rajguru	Advances in Forming, Machining and Automation, Lecture Notes on Multidisciplinary Industrial Engineering,
Optimization of Process Parameters in the Turning Operation of Inconel 625	Ramesh R. Rajguru	Materials Science Forum ISSN: 1662-9752, Vol. 969, pp 756-761, 2019 Trans Tech Publications Ltd, Switzerland
Electric Skateboard Incorporating Foot Operated Ackerman Steering System	Rohit Chaurasia	International Journal of Innovative Science and Research Technology ISSN No:-2456-2165 Volume 4, Issue 4, April – 2019
Optimization of Transmission of a Roll Forming Machine using a Planetary Gearbox	Rohit Chaurasia	International Journal of Innovative Science and Research Technology ISSN No:-2456-2165 Volume 4, Issue 5, May– 2019
Automobile Radiator Design and Validation	Vinit Katira	International Research Journal of Engineering and Technology(IRJET)

Machining Induced Surface Integrity Aspects of Stainless Steels: A review	Naresh Deshpande	Materials Today Proceedings 22 (2020) 1499-1506
Predictive Modeling of Surface Roughness in the Machining of Inconel 625 Using Artificial Neural Network	Hari Vasudevan and Ramesh R. Rajguru	Proceedings of International Conference on Intelligent Manufacturing and Automation
Exploring Ideal Process Parameters to Enhance the Surface Integrity Using Grey Fuzzy Integrated Technique.	Ramesh R. Rajguru and Hari Vasudevan	Proceedings of International Conference on Intelligent Manufacturing and Automation
Optimization of Surface Roughness During High Speed Milling of Inconel 825 Using Grey Relation Analysis	Vyankatesh Bagal, Prashantkumar Patankar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Development of Cost-Effective Solar Water Heating System	Vijaya Kumar N. Kottur, and Prasad Shirodkar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Lateral Force Modelling Using Magic Formula Tire Model	Prasad S. Shirodkar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Evaluation of Piping Isometric Drawings Using Six Sigma Process,	Prasad Shirodkar, Vijaya Kumar N. Kottur, and Rajendra Khavekar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Embodied Design of 4-Legged Adult Walker	Dr. K.N.Vijaykumar, Prasad S. Shirodkar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Assessment of Local Stresses and Strains Using NSSC Rules	Vinayak H. Khatawate	Proceedings of International Conference on Intelligent Manufacturing and Automation
Structural Analysis of the Upright of a FSAE Race Car	Vinayak H. Khatawate	Proceedings of International Conference on Intelligent Manufacturing and Automation

Analysis of Compound Column-Based Supporting Structures Used in Suburban Railway Transport System: Use of Stiffener Plates	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Analysis of Brake Hub Used in Automobiles	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Static Analysis of Tripod Housing Using FEA and Its Validation	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Optimization of Brake Rotor Slotting Using Finite Element Analysis	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Topology Optimization of Wheel Hub Used in Automobiles	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Remote Data Acquisition System for Measurement of Ambient Climatic Conditions and SPV Battery Status	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Development of Easy Access Crisper/Shelf in a Refrigerator	Vinayak H. Khatawate.	Proceedings of International Conference on Intelligent Manufacturing and Automation
Comparative Study of Aluminum and Composite Stub Axle Using FEA	Yadav R., Vinayak H. Khatawate	Proceedings of International Conference on Intelligent Manufacturing and Automation
Drilling Process Quality Improvement by Grey Relation Analysis	Vijaya Kumar N. Kottur	Proceedings of International Conference on Intelligent Manufacturing and Automation
Analysis and Manufacturing of Aerodynamic Components	Rajnarayan Yadav, Vinit Katira	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design, Analysis and Optimization of a Single-Pass Straight Pipe Resonator for an Exhaust System of a Single Cylinder Engine	Vinit Katira	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Performance Evaluation of a Cost-Effective Radiant Cooling System	Vinit Katira	Proceedings of International Conference on Intelligent Manufacturing and Automation

Implementation of 6R Paradigm in the Life Cycle of Automobiles for Sustainability	Satish Takalikar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Implementation of 5S to Set Up Inventory Control System with HTML Coded Spare Management System	Shashikant Auti, and Rohit Chaurasia	Proceedings of International Conference on Intelligent Manufacturing and Automation
A Review on Squeeze Casting of Aluminium-Based Alloys and Its Composites	Dhiraj Nigade, Dhananjay Shukla, and Ravikant Hattale	Proceedings of International Conference on Intelligent Manufacturing and Automation
Development of Spring Life Test Apparatus and Life-Cycle Assessment of Extension Springs	Gregory Mathew	Proceedings of International Conference on Intelligent Manufacturing and Automation
Reliability Estimation of Molded Case Circuit Breaker in Development Phase	Gregory Mathew	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Manufacturing of Test Rig for Pyrolysis of Waste Tyres of Two-Wheeler Vehicles (ELVs)	S. M. Auti	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design of Shredder Machine for ELV Tyres	S. M. Auti	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Development of an Anti-rolling Mechanism for Hand-Driven Tricycles	Gregory Mathew	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Analysis of Components of a Rotary Car Parking System	Rajnarayan Yadav	Proceedings of International Conference on Intelligent Manufacturing and Automation
Design and Analysis of 'Kangaroo' Boots	Kartik Ajugia	Proceedings of International Conference on Intelligent Manufacturing and Automation

Design of an Accumulator Container for a Formula Student Electric Race Car	Dhaval Birajdar	Proceedings of International Conference on Intelligent Manufacturing and Automation
Review of Application of Nitinol in the Manufacture of Bone Staples” ,, Proceedings of International Conference on Intelligent Manufacturing and Automation,	Frank Crasta and Vijaya Kumar N. Kottur	Proceedings of International Conference on Intelligent Manufacturing and Automation
A Review on Carbon Nanotubes as Novel drug Carriers in Cancer Therapy	Frank Crasta and Vijaya Kumar N. Kottur	Proceedings of International Conference on Intelligent Manufacturing and Automation
A Review on Vibration Suppression of Flexible Structures Using Piezoelectric Actuators	Frank Crasta and Vijaya Kumar N. Kottur	Proceedings of International Conference on Intelligent Manufacturing and Automation
A Review on Carbon Fibre Reinforced Polymer Composites and the Methods of their Manufacture, Disposal and Reclamation	Frank Crasta and Vijaya Kumar N. Kottur	Proceedings of International Conference on Intelligent Manufacturing and Automation
A Review on Stress Relaxation Cracking in Austenitic Stainless Steel	Frank Crasta	Proceedings of International Conference on Intelligent Manufacturing and Automation
Investigating the effect of cutting conditions and tool geometry on surface roughness in dry end milling of Inconel 625 using TiAlSiN ultra hard coated solid carbide tool	Dr. Hari Vasudevan and Ramesh Rajguru	Advances in Materials and Processing Technologies Taylor&Francis

8. FACULTY AS PARTICIPANTS IN FACULTY DEVELOPMENT PROGRAMMES/STTPS

Faculty name	FDP Attended		
	Topic	Date	Organizer
Dr. K.N. Vijaya Kumar	Outcome Based Education: A Step Towards Excellence	11-15 May 2020	Government College of Engineering Karad
	IOT	27-29 May 2020	Lendi Institute of Engineering and Technology
Dr. Vinayak H Khatawate	A Journey into the Manufacturing Sector in India in view of Industry 4.0	9th to 13th June, 2020	DJSCE Mumbai
	Artificial Intelligence	22 May to 26 May (MAY 18-22, 2020)	Universal College of Engineering
Prof. Prasad S. Shirodkar	Digi-Tech Teaching Learning- 2020	01st June 2020 to 07th June 2020.	SINHGAD INSTITUTE OF TECHNOLOGY, LONAVALA
	SCILAB		DJSCE
	OpenFOAM FDP		Shri Vile Parle Kelavani Mandal's Institute of Technology Dhule
	ROLE OF ENGINEER IN POST COVID ERA	(MAY 11-15, 2020)	Sandip Institute of Engineering and Management.
	GREEN MANUFACTURING : THE PRESENT & THE FUTURE	(15.05.2020 to 20.05.2020).	Santhiram Engineering College, Nandyal
	Artificial Intelligence	22.05.2020 to 26.05.2020.	Universal College of Engineering
	A Journey into the Manufacturing Sector in India in View of Industry 4.0	9th June to 13th June 2020	Department of Production Engineering, Dwarkadas J. Sanghvi College of Engineering
	Practices and Covid 19		
	Improving Teaching Experience using Best Practices	15th June to 19th June 2020	Department of Information Technology, Dwarkadas J. Sanghvi
	Reliability Engineering	1 - 6 July 2019	S S JHONDHIGALE COLLEGE OF ENGINEER
Prof. Rajnarayan Yadav	Product Lifecycle Management	24-29 June 2019	S S JHONDHIGALE COLLEGE OF ENGINEER
	NBA: National Board of Accreditation's Self Assessment Report and its Criteria	17 -21 June 2019	VIVA Institute of Technology
Prof. Vyankatesh U. Bagal	Engineering, Education and Industry covid -19 prospective	01june to 05 june	RGIT
	innovative teaching pedagogy in technical institute	01june to 05 june	KBT COLLEGE OF ENGINEERING
Prof. P. Frank Crasta	Innovation, Entrepreneurship and its Relevance in Industry 4.0 Practices	25 May to 29 May 2020	Terna college of engineering
	A Journey into the Manufacturing Sector in India in View of Industry 4.0	9th June to 13th June 2020	Department of Production Engineering, Dwarkadas J. Sanghvi
Prof. Vinit Katira	Improving Teaching Experience using Best Practices	15th June to 19th June 2020	Department of Information Technology, Dwarkadas J. Sanghvi
	Basic Statistical Analysis for Research	18th May to 22nd May 2020	REST Society for Research International (RSRI)
Prof. Patankar Prashant Ramesh	Artificial Intelligence	22 May to 26 May	Universal College of Engineering
	Engineering Education and the Industry: A post Covid 19 perspective	01st June to 05th June 2020	Rajiv Gandhi Institute of Technology, Mumbai
Prof. Rohitkumar Chaurasia	Emerging Trends in Refrigeration & Air Conditioning	1st June to 6th June 2020	Pimpri Chinchwad College of Engineering
	A Journey into the Manufacturing Sector in India in view of Industry 4.0	9th June to 13th June 2020	D. J. Sanghvi College Of Engineering, Mumbai
Prof. Ramesh R. Rajguru	Advanced & Research Opportunities In Internal Combustion Engines	16th June to 20th June 2020	Jyothishmathi Institute of Technology and
	Transformation in Engine Technology and Electric Vehicles	22nd June to 27th June 2020	Anjuman College of Engineering and Technology, Nagpur
Prof. Bronin Cyriac	Innovation, Entrepreneurship and its Relevance in Industry 4.0 Practices	25 May to 29 May	Terna Engineering College, Nerul, Navi Mumbai
	A Journey into the Manufacturing Sector in India in View of Industry 4.0	9th June to 13th June 2020	Department of Production Engineering, Dwarkadas J. Sanghvi
Prof. Greegory Mathew	Improving Teaching Experience using Best Practices	15th June to 19th June 2020	Department of Information Technology, Dwarkadas J. Sanghvi
	Outcome Based Education: A Step Towards Excellence	11-15 May 2020	Government College of Engineering Karad
Prof. Avadhut A. Samant	innovative teaching pedagogy in technical institute	1-5 JUNE 2020	KABGT, COE, NASHIK
	Revised Accreditation framework for NAAC	10 DEC 2019	VJTI, MUMBAI
Prof. Sachin Kamble	One week online Faculty Development Program on "R"	May 5th, 2020 to May 9th, 2020.	S. B. JAIN INSTITUTE OF TECHNOLOGY, MANAGEMENT & RE
	NAAC Awareness Programme for Faculty	08/05/2020 to 14/05/2020.	Marathwada Mitramandal's INSTITUTE OF TECHNOLOGY (MI
Prof. Dhananjay S. Shukla	Green manufacturing ""The Present and The Futuer""	15/5/2020-20/5/2020	Santhiram College of Engineering Nandyal
	One week online Faculty Development Program, "Srujan-The way Ahead"	1st June to 5th June 2020	Saraswati Institute of Technology/Saraswati Education Society
Prof. Avadhut A. Samant	Basics of Engineering mechanics and Engineering Drawing	18-23 may 2020	Anjuman i Islams Kalsekar Technical Campus
	"Computational Tools and Techniques: MATLAB, ANSYS"	27 April to 1 may 2020	Government College of Engineering Karad
Prof. Sanjeev Thool	Innovation, IPR, Entrepreneurship, and Start-ups among HEIs	28 april to 22 may 2020	Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi
	Design Thinking, Innovation and IPR	9 to 13 Dec 2019	Bharti vidyapeeth college of Engineering
Prof. Avadhut A. Samant	Industry 4.0	16th to 20 Dec 2019	Sarsawati college of engineering
	A Journey into the Manufacturing Sector in India in View of Industry 4.0	April to 22nd May 2020	Department of Production Engineering, Dwarkadas J. Sanghvi
Prof. Avadhut A. Samant	Improving Teaching Experience using Best Practices	th April to 1	Department of Information Technology, Dwarkadas J. Sanghvi
	Digital Teaching and Learning Environment		Pillai College of Arts Commerce and Science in association with
Prof. Avadhut A. Samant	Advances in Composite Materials and Manufacturing Process	st May, 2020.	St. Ann'S College of Engineering and Technology, Andhra Pradesh
	A Journey into the Manufacturing Sector in India in view of Industry 4.0	09 June 2020 to 13 June 2020	Dwarkadas J. Sanghvi College of Engineering, Mumbai
Prof. Avadhut A. Samant	Innovation, Entrepreneurship and its Relevance in Industry 4.0 Practices in	25 May 2020 to 29 May 2020	Terna Engineering College, Navi Mumbai
	Artificial Intelligence	22 May 2020 to 26 May 2020	Bharati Vidyapeeth College Of Engineering, Navi Mumbai
Prof. Avadhut A. Samant	Digital Teaching and Learning Environment	11 May 2020 to 13 May 2020	Pillai College of Arts, Commerce and Science
	Artificial Intelligence	22 May to 26 May	Universal College of Engineering
Prof. Avadhut A. Samant	NAAC Awareness Programme for	08/05/2020 to 14/05/2020.	Marathwada Mitramandal's INSTITUTE OF TECHNOLOGY (MI
	Design Thinking, Innovation and IPR	9 to 13 Dec 2019	Bharti vidyapeeth college of Engineering
Prof. Avadhut A. Samant	Industry 4.0	16th to 20 Dec 2019	Sarsawati college of engineering
	Emerging Trends in Refrigeration & Air-Conditioning	01st June 2020 to 06th June 2020	Pimpri Chinchwad College of Engineering & Research, Pune
Prof. Avadhut A. Samant	A Journey into the Manufacturing Sector in India in view of Industry 4.0	09th June 2020 to 13th June 2020	Dwarkadas J. Sanghvi College of Engineering, Mumbai - 56
	A Journey into the Manufacturing Sector in India in View of Industry 4.0 Pr	09-13 June 2020	D. J Sanghvi College of Engineering , Mumbai ,, Maharashtra
Prof. Avadhut A. Samant	Pytho Programming and its Interdisciplinary Application	8-12 June 2020	Pillai HOC College of Engineering and Technology, Raigad, Mahara
	Skilling Teachers for Online Education	2-6 June 2020	Uka Tarsadia University , Bardoli , Gujrat
Prof. Avadhut A. Samant	Innovation, Entprrenurship and its Relevance in Industry 4.0 Practices in the	25-29 May 2020	Terna Engineering College, Navi Mumbai, Maharashtra
	Enhansing Research and Consultancy Skills	22-26 June 2020	Rajarambapu Institute of Technology, Kolhapur , Maharashtra
Prof. Avadhut A. Samant	Improving Teaching Learning Experience using Best Practices	15-19 June 2020	D. J Sanghvi College of Engineering, Mumbai , Maharashtra
	Research opportunities and challenges in manufacturing sector	1-6 June 2020	SVERIS College of engg, Pandharpur
Prof. Avadhut A. Samant	SCILAB FDP	1-7 June 2020	SVKMS Institute of technology, Dhule
	Faculty development program on OpenFOAM	1-7 June 2020	SVKM's Int. of Tech. Dhule
Prof. Avadhut A. Samant	A Journey into the Manufacturing Sector in India in view of Industry 4.0 pra	09-13 June 2020	D J Sanghvi College of Engineering, Mumbai
	Statistical Analysis in SPSS software	1st - 6th June 2020	REST Society for Research International , Tamilnadu
Prof. Avadhut A. Samant	Material Science and Engineering	22nd to 27th June 2020	REST Society for Research International , Tamilnadu
	Technical Teacher's Training	22nd to 27th May 2020	Vidyavardhini Institute of Technology, Pal.
Prof. Avadhut A. Samant	Advances in composite materials and manufacturing processes	22nd to 26th June 2020	St. Ann'S College of Engineering and Technology, Chirala
	Systematic Innovation through TRIZ	15th - 17th May 2020	Gurugovind Singh College if Engineering and Research Centre, Nas
Prof. Avadhut A. Samant	Artificial Intelligence	22nd to 26th May 2020	Universal College of Engineering, Mumbai
	Python	3rd to 7th May 2020	Spoket Tutorial , IIT Bombay
Prof. Avadhut A. Samant	Outcome Based Education: A step towards Excellence	11-15 May 2020	Government college of Engineering , Karad

9. INTERACTION WITH OUTSIDE WORLD

Name of the Faculty	Nature of Interaction	Date	Organized by
Dr Satish Takalikar	Invited as Session Chair during National Conference	13th January 2020	THEEM college of Engineering, Boisar
	Invited as Resource Person to deliver lectures	25th and 26th June 2019	Vidyavardhini's College of Engineering, Vasai
	Invited as Resource Person to deliver a lecture	28th June 2019	Vidyavardhini's College of Engineering, Vasai
	Convener, Syllabus committee, DJSCE, Vile Parle	July 2019-June 2020	DJSCE, Vile Parle