

DEPARTMENT OF MECHANICAL ENGINEERING

Annual Report 2020-21

1. Academic achievements:

- Final year BE student Divyam Aggarwal got selected in Jaro Education through campus placement on 25th November, 2020.
- Final year BE students Prithviraj Gupta and Vinesh Nair got selected in TCS through campus placement drive in December 2020.
- BE students from 2016-20 batch (Rohan Shettigar, Vaisakh Radhakrishnan, Armugasunder Konar, Mauli Mirajkar and Sairam Chettiar) got selected through campus placements in Bectochem Consultants & Engineers Pvt. Ltd. in January 2021.
- BE students from 2016-20 batch (Atul Agnihotri and Armugasunder Konar) got selected through campus placements in 20 Cube warehousing and distribution Pvt. Ltd. in January 2021.
- Final year BE students Thorat Shantanu and Palande Chaitanya qualified GATE 2021 in Mechanical Engineering in April 2021.
- Final year BE student Thorat Shantanu qualified GATE 2021 in Engineering Sciences (Solid mechanics, Thermodynamics) in April 2021.
- TE students Patil Atish qualified GATE 2021 in Mechanical Engineering in April 2021.
- BE student Nanote Rikin from 2016-20 batch qualified GATE 2021 in Mechanical Engineering in April 2021.
- Department got NBA accredited for 3 years (2021-22, 2022-23 and 2023-24 i.e. upto 30-6-2024) on 14th May, 2021.

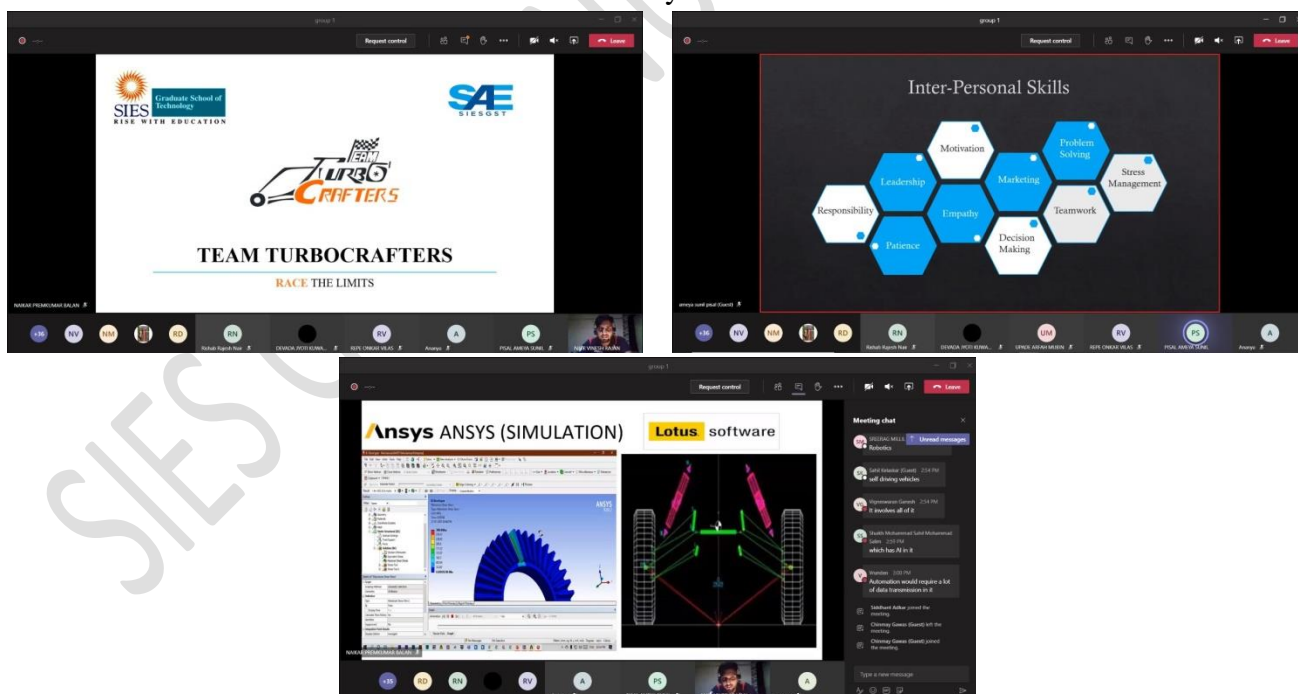
2. Department Initiatives:

- Conducted online lectures and practicals for SE, TE and BE using exclusive MS Teams platforms.
- Faculties incorporated different innovative teaching methods like digital tablet, pen tablet, digital board, interactive sessions, quizzes, etc. during online teaching sessions through MS teams.
- Conducted special extra lectures for Sem-III DSE admitted students.
- Provided guidance and orientation to BE students for selection of topics for final year projects.
- Provided guidance and orientation to SE students for selection of topics for second year mini-projects.
- Department organised various SDPs for SE, TE and BE students.
- Assisted UoM for mcq question bank preparation, paper setting, conduction and evaluation of University End Semester Exams.
- Assisted in exam results preparation.
- Motivated and facilitated students of SE, TE and BE to attend webinars, online sessions and online workshops related to technical topics, internships, higher education and job opportunities, and the information for the same were provided from time-to-time.
- NAAC and AQAR data uploading.
- Submitted three DST proposals (R&D) on waste management.

- ISHRAE student chapter installation 2020-21
- PAC meeting was conducted on 18th January 2021.
- DAB meeting was conducted on 23rd January 2021.
- Orientation and induction for FE Mechanical students was conducted by department on 6th February, 2021.
- Facilitated and coordinated online NBA peer team visit for Mechanical Department from 26-28th March, 2021.
- Organised Parents-Teachers Meet.
- Faculty-Alumni interaction.
- Training and Placement.

3. Academic/technical achievements of students:

- Final year students participated in online session of ISDI Bootcamp on ‘Data fueling the future of mankind’ by Prof. Aditya Kashyap, ISDI Mumbai on 2nd November, 2020.
- ISHRAE student chapter installation of SIES GST for academic year 2020-21 was conducted on 6th November, 2020.
- Final year student project group (Hariprasad Iyer, Disha Budage) won consolation prize for project entitled ‘Live action prosthetic leg’ in project competition Anveshana 2021 Mumbai in March 2021.
- Final year students Anandakrishna Pillai, Sowmya Ramakrishnan and Tanavi Joshi won 3rd prize in poster presentation competition held by FCRIT, Vashi on 30th April, 2021.
- BAHA students (Team Turbocrafters) from SE, TE and BE conducted a virtual interaction session on SAE/BAHA for FE Mechanical students on 3rd May 2021.



- Final Year BE students Prithviraj Gupta, Disha Budage, Hariprasad Iyer and Gurinder Saini presented paper entitled ‘Development of Dynamic Response Prosthetic Leg’ at 6th International Conference EQUINOX 2021, Terna College of Engg. During 17-18th June 2021.
- Final Year BE students Rishab Kannamvar, Onkar Repe, Yash Maurya and Nitin Shetty presented paper entitled ‘Condition Monitoring and Diagnosis of an IC Engine USING Vibration Recognition’ at 6th International Conference EQUINOX 2021, Terna College of Engg. During 17-18th June 2021.

- BE students from 2019-20 batch Anirudh K, Rikin Nanote, Saurabh Rao and Ritwik K presented paper entitled ‘Developing a Novel Approach for Crack Detection in Metal Sheet’ and won best paper award at 6th International Conference EQUINOX 2021, Terna College of Engg. during 17-18th June 2021.

5. Cultural/sports achievements:

- Students and Faculties participated in Independence Day celebration online through Google meet on 15th August, 2020.
- Team Turbocrafters ranked AIR 11th overall and 1st in Mumbai in the MBAJA virtual event held on 13th December 2020.



- Faculties and students participated in Teacher’s day celebration online through Google meet organized by student council and IQAC of SIES GST on 12th September, 2020.
- MBAJA Team Turbocrafters ranked AIR 14th overall, AIR 6th Endurance, AIR 6th 4WD, AIR 8th Cost Event, AIR 17th Maneuverability, AIR 17th Suspension and Traction, AIR 15th Overall Statistics and AIR 21st Overall Dynamics in the MBAJA Dynamic events held during 21-25th April 2021.



All Terrain Performance



Maneuverability



Hill Climb

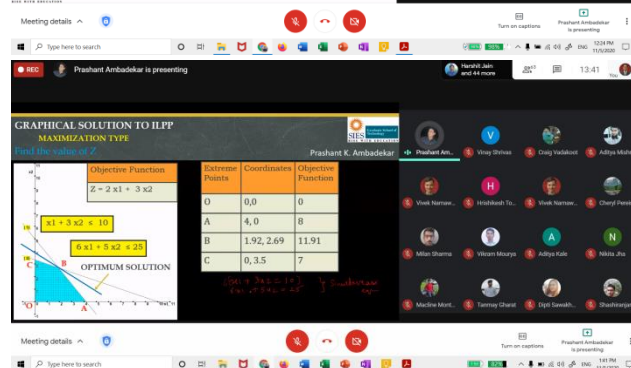
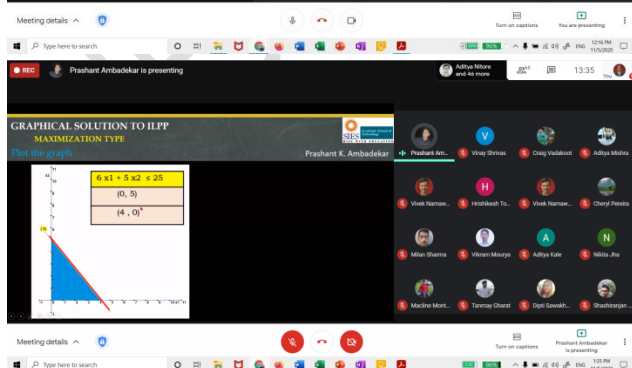
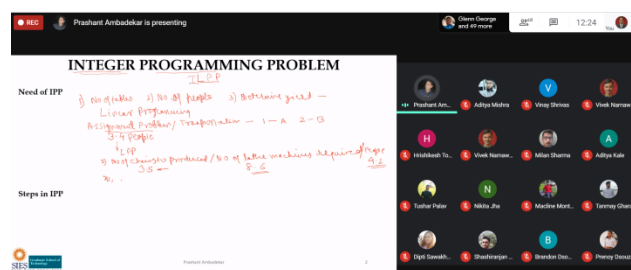
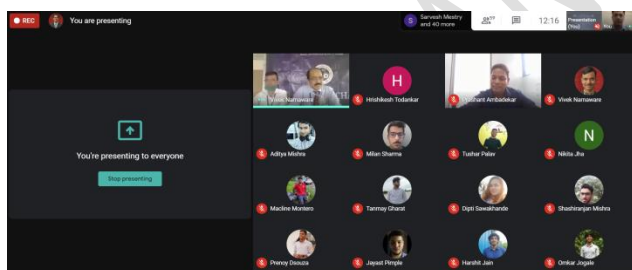


S&T Test

- Students of SE, TE and BE attended TML 2021 in online mode on 14th May 2021.

6. Faculty achievements/Research grants:

- Prof. Siddique Ahmed, Prof. Onkar Potadar, Prof. Ganesh Kadam and Prof. Prajakta Kane mentored and conducted online in-house internship for students of FE to BE on the topic 'Industrial drawing and modeling using AutoCAD and Solidworks' scheduled from 22nd June to 4th July 2020.
- Prof. Prashant Ambadekar and Dr. Pradip Patil mentored and conducted online in-house internship for students of FE to BE on the topic 'Basics of Python and introduction to image processing' scheduled from 22nd June to 4th July 2020.
- Prof. Chandan Chaudhari, Prof. Ajay Hundiware and Dr. Kaustubh Chavan mentored and conducted online in-house internship for students of FE to BE on the topic 'Heat transfer and fluid flow simulation using Ansys Fluent' scheduled from 22nd June to 4th July 2020.
- Dr. Rupendra Nehete was resource person for the orientation program on the subject of Materials and Metallurgy (MM), S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by FCRIT, Vashi through Google Meet on 22nd July 2020.
- Dr. Kaustubh Chavan coordinated the webinar session on 'Stress to Success via Strength' by Sneha Kulkarni, IPHM Services Mumbai under SIES student council and MHRD IIC on 25th July 2020.
- Prof. Lokpriya Gaikwad's paper got published in TQM International Journal from Emerald on 2nd August, 2020.
- Dr. R.S. Nehete, Dr. Pradip Patil and Prof. Ganesh Kadam filed copyright for 'Android application to compute gear production cost' under Copyright Office GOI on 13th October, 2020.
- Dr. R.S. Nehete, Dr. Pradip Patil and Dr. Kaustubh Chavan paper entitled 'Testing of insulating material for split-hopkinson pressure bar' got published in international journal Solid State Technology (Volume 63, Issue 4) in October 2020.
- Prof. Prashant Ambadekar gave an online expert lecture of Operation Research on topic 'Integer Programming Problem' at St. John College of Engineering and Management, Palghar on 5th November 2020.

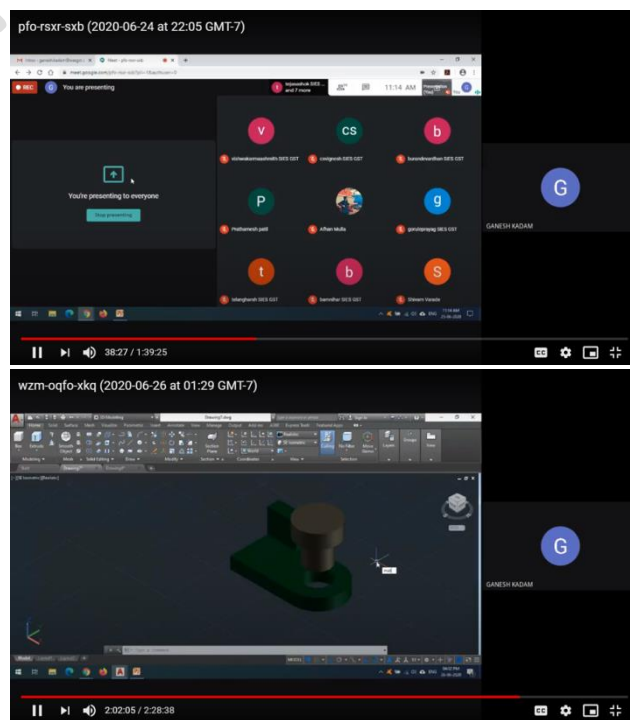
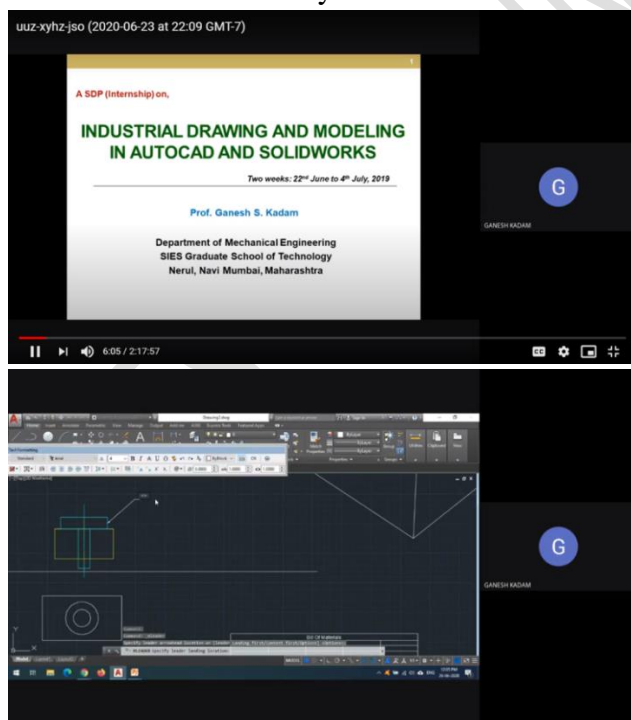


- Dr. Pradip Patil, Chandan Chaudhari and Siddique Ahmed submitted research proposal entitled 'Making Table wares from waste Straw' to DST for research funding on 27th November, 2020.
- Dr. Rupendra Nehete and Lokpriya Gaikwad submitted research proposal entitled 'Solar Operated Manure Making Machine for Paddy Straw' to DST for research funding on 28th November, 2020.

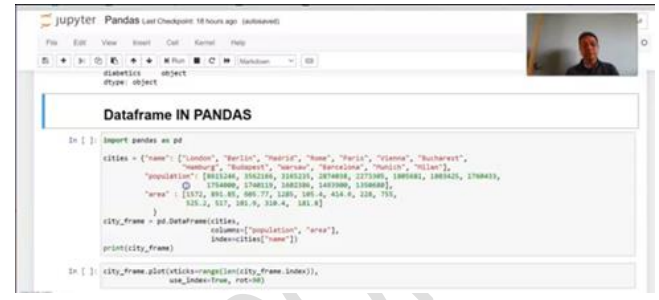
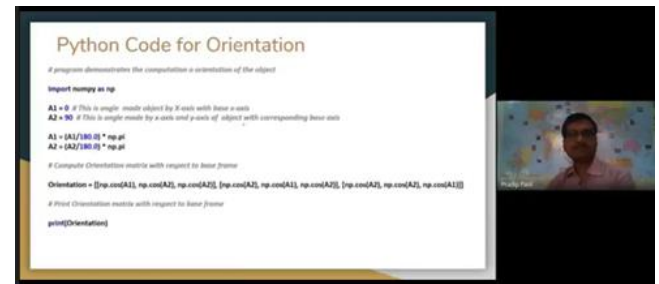
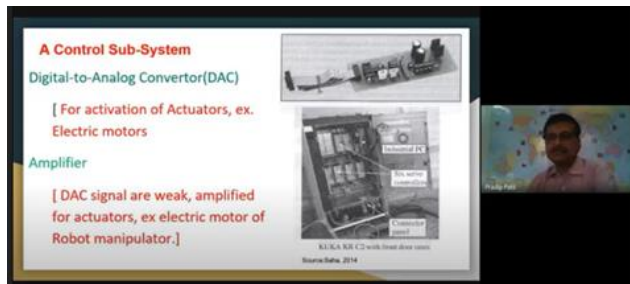
- Dr. Kautubh Chavan and Dr. Rupendra Nehete submitted research proposal entitled ‘Automobile tyre waste management and recycling’ to DST for research funding on 28th November, 2020.
- Prof. Lokpriya Gaikwad published book chapter ‘Integrated lean green six sigma practices to improve the performance of the manufacturing industry’ in book ‘Concepts, applications and emerging opportunities in industrial engineering’ by IntechOpen publications UK on 7th January, 2021.
- Prof. Lokpriya Gaikwad published book ‘Supplier selection and evaluation in auto industry’ by Lap Lambert academic publishing UK in January 2021.
- Dr. R.S. Nehete presented paper entitled ‘Numerical Analysis of Pull-in Process in Direct Chill Casting of Aluminum Ingot’ in online International conference on current trends in Material Science & Engineering organized by Institute of Engineers & Management Kolkata in March 2021.
- Prof. Lokpriya Gaikwad’s paper entitled ‘Optimum Model of Supply chain Management in a Dairy Industry’ got published in International Research Journal of Modernization in Engineering Technology and Science, Vol. 3, No. 4, pp. 1990-1995 in April 2021.
- Prof. Lokpriya Gaikwad’s paper entitled ‘A Study to Identify Factors Responsible for Milk Losses during Various Processing Operations in a Dairy Plant’ got published in GIS Science Journal, Vol. 8, No. 4, pp. 636-647 in April 2021.
- Prof. Prashant Ambadekar published paper entitled ‘Monitoring the status of cutting tool by use of sensor fusion’ in GIS Science Journal in May 2021.

7. Seminars/workshops/industry visits organised by departments:

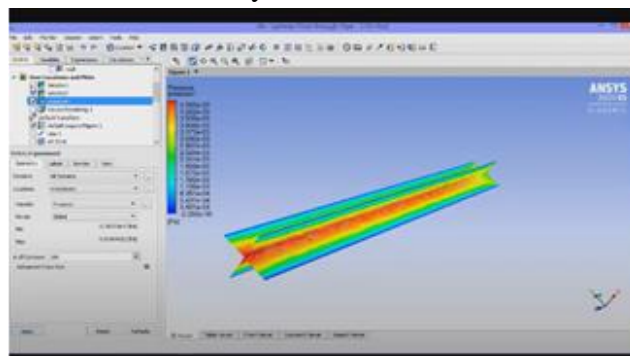
- Department conducted online in-house internship for students of FE to BE on topic ‘Industrial drawing and modeling using AutoCAD and Solidworks’ in which 38 students participated and was scheduled from 22nd June to 4th July 2020.



- Department conducted online in-house internship for students of FE to BE on topic ‘Basics of Python and introduction to image processing’ in which 54 students participated and was scheduled from 22nd June to 4th July 2020.

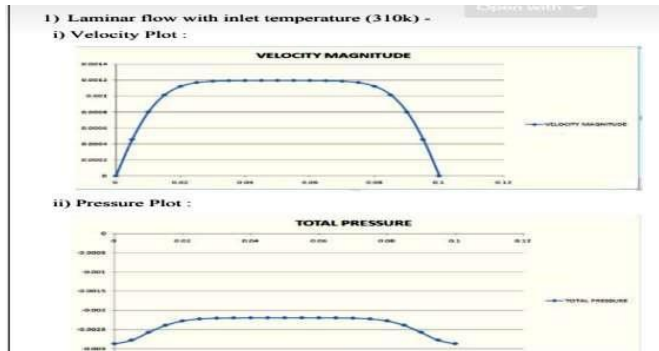
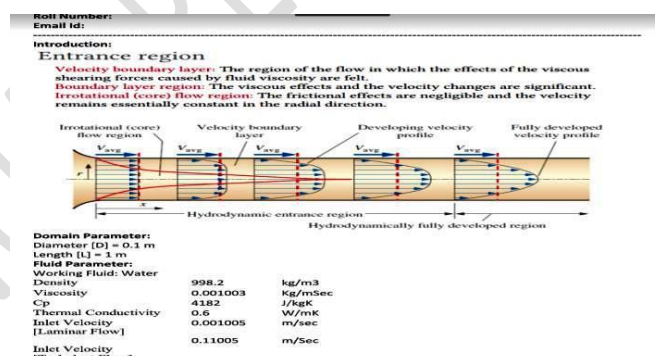
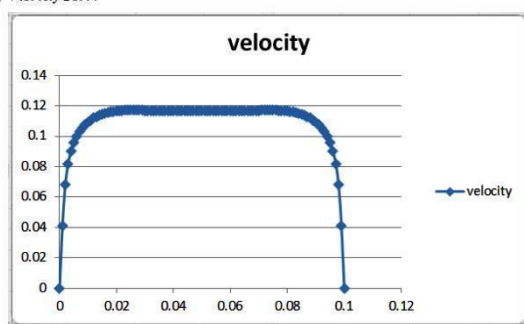


- Department conducted online in-house internship for students of FE to BE on topic 'Heat transfer and fluid flow simulation using Ansys Fluent' in which 30 students participated and was scheduled from 22nd June to 4th July 2020.

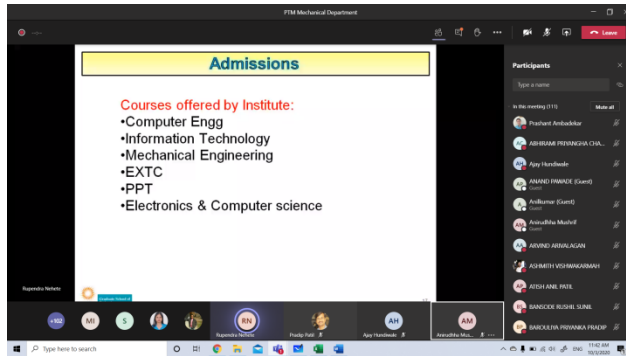


Graphs and plots-

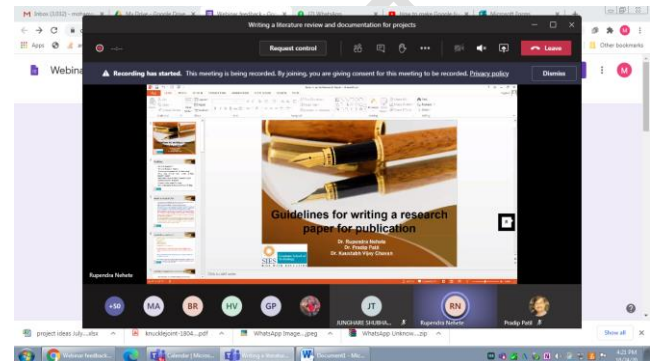
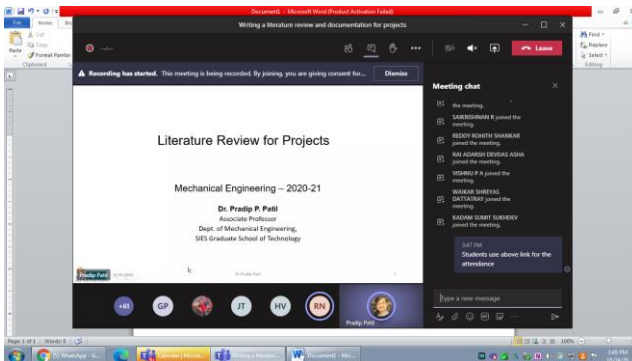
i) Velocity Plot :



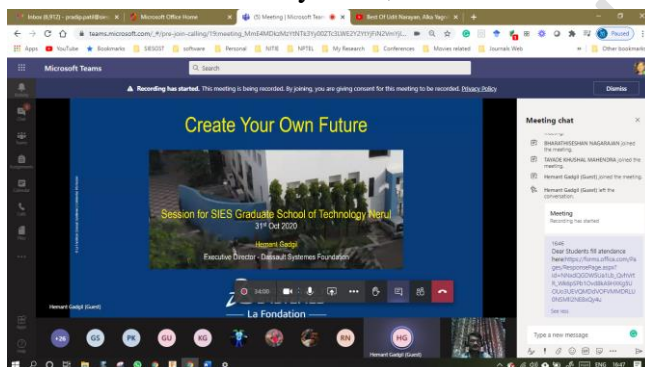
- Conducted training and placement orientation for BE students on 10th July 2020.
- Conducted online meeting in MS Teams with BE students for selection of final year project topics on 29th July, 5th August and 15th August 2020.
- Conducted online meeting using MS teams with SE students on mini-project topic selection and evaluation on 12th August, 2020.
- Department organized and conducted Parents-Teachers Meet wherein faculties interacted with parents and delivered seminars on activities of department and institute on 3rd October 2020.



- Department organized webinar on 'Writing literature review and documentation for projects' for students of SE, TE and BE on 24th October, 2020.



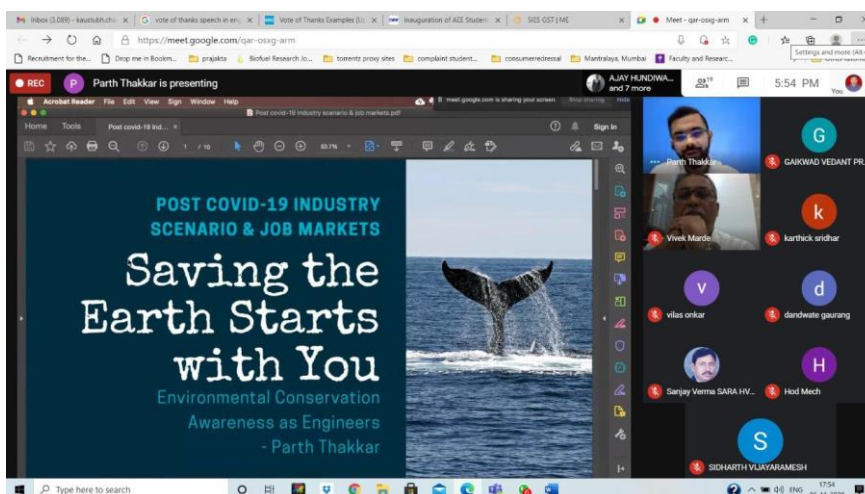
- Organised and conducted a webinar for SE, TE and BE students on 'Create your own future' by La Foundation Dassault Systems, India on 31st October 2020.



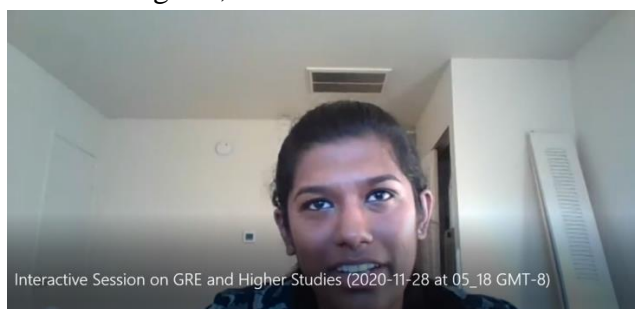
- ISHRAE student chapter installation of SIES GST for academic year 2020-21 was conducted on 6th November, 2020.



- Technical talk for ISHRAE students on ‘Job opportunity post-covid’ was conducted on 6th November, 2020.



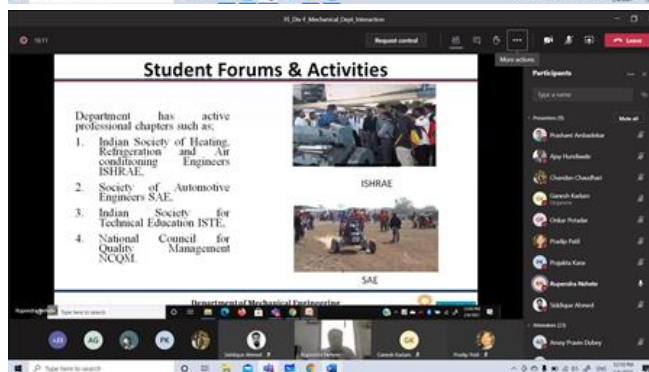
- Organised SDP for TE and BE students on ‘Preparing GRE and higher studies abroad’ by alumni Ms. Susan Culangattil, Cummins - Indiana USA on 28th November, 2020.



- Organised industry visit for ISHRAE student members at PVR controls MIDC Kopar Khairane, Navi Mumbai on 3rd February 2021.



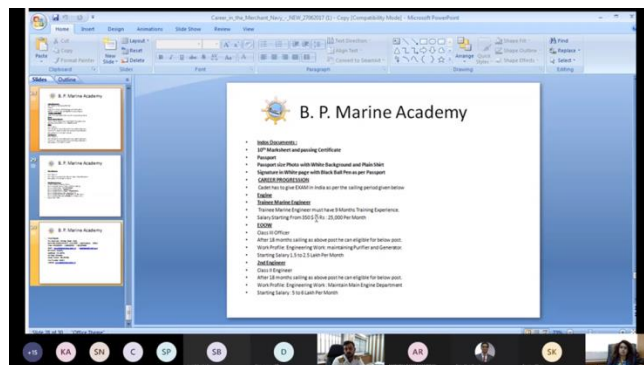
- Orientation and induction for FE Mechanical students was conducted by department on 6th February, 2021.



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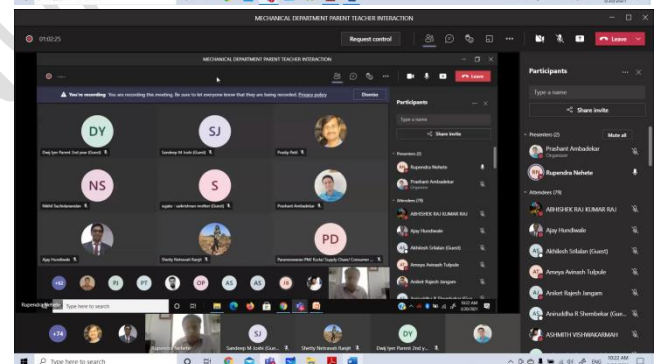
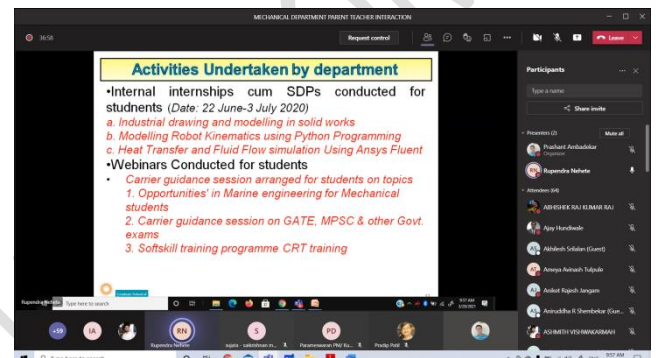
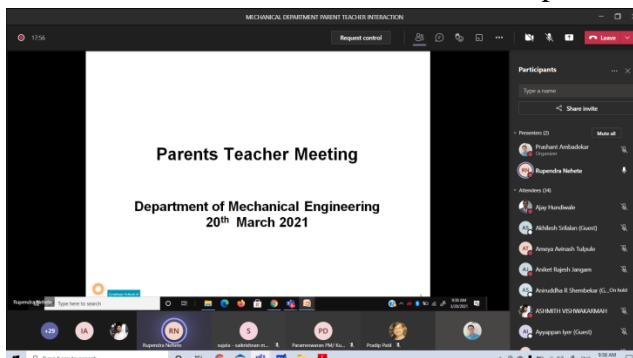
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- Annual Report Format (for website) Version 1.0



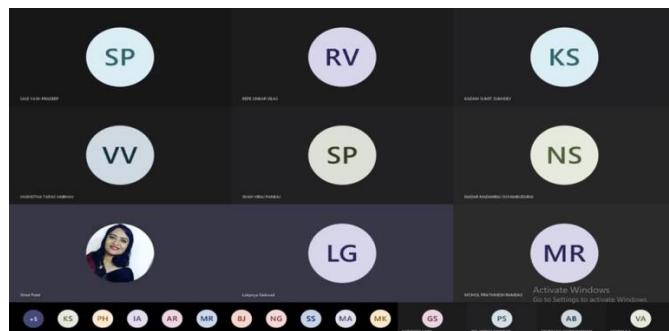
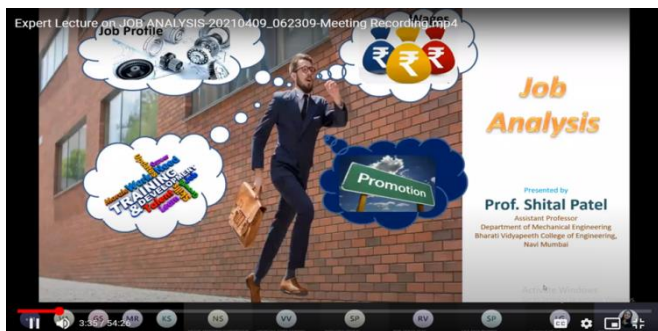
- Organised and conducted online webinar on 'How to ace you Summer Internship' for SE and TE students on 20th March, 2021.
- Department organized and conducted Parents-Teachers Meet wherein faculties interacted with parents and delivered seminars on activities of department and institute on 20th March 2021.



- Organised webinar on 'Future of jobs in HVAC and R sectors' by Mr. Parth Thakkar for ISHRAE student members on 7th April 2021.



- Organised and conducted Guest Lecture for BE students on topic 'Job Analysis' for IEM subject by Prof. Shital V. Patel from BVCOE, Navi Mumbai on 9th April, 2021.



- Organised and conducted SDP on 'Managerial communication' by Mr. Sidhant Kapoor, Manager, Kotak Mahindra Bank for SE, TE and BE students on 24th April, 2021.
- Organised and conducted SDP seminar on 'College to Corporate' by Ms. Vinutha Nayak, HR professional and industry expert, for TE and BE students on 28th April, 2021.

8. Seminars/workshops/FDPs attended by department faculty:

- Prof. Lokpriya Gaikwad participated in 5 days online FDP on 'Research techniques and Sustainable Development in Mechanical Engineering' organized by Dept. of Mechanical Engg. in association with CEMS, ISHRAE Mumbai chapter & ISTE student chapter from 29th June to 3rd July 2020.
- Prof. Lokpriya Gaikwad participated in FDP cum Workshop on 'Waste to Bioenergy' organized by Dept. of Agricultural Engineering, MIT, Aurangabad from 28th June to 4th July 2020.
- Dr. Rupendra Nehete participated in AICTE FDP 5 days online workshop on Universal Human Values on theme 'Inculcating Universal Human Values in Technical Education' by AICTE from 2nd to 6th July, 2020.
- Faculties participated in online FDP session on 'Overview of Microsoft 365 Account and MS Teams' by Prof. Prasad Iyer under SIES GST IQAC on 16th July 2020.
- Prof. Prashant Ambadekar participated in orientation program for the subject of Strength of Materials (SOM), S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by Pillai HOC COET, Rasayani through Google Meet on 20th July 2020.
- Prof. Ganesh Kadam and Prof. Lokpriya Gaikwad participated in orientation program for the subject of Production Processes (PP), S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by RGIT, Andheri through Google Meet on 21st July 2020.
- Dr. Rupendra Nehete, Prof. Prashant Ambadekar and Prof. M. Ali Ansari participated in orientation program for the subject of Materials and Metallurgy (MM) and Material Testing Lab, S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by FCRIT, Vashi through Google Meet on 22nd July 2020.
- Prof. Prajakta Kane, Prof. Ajay Hundiware and Dr. Kaustubh Chavan participated in orientation program for the subject of Thermodynamics, S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by FCRIT, Vashi through Google Meet on 23rd July 2020.
- Prof. Siddique Ahmed, Prof. M. Ali Ansari, Prof. Ganesh Kadam and Prof. Prashant Ambadekar participated in orientation program for the subject of CAD Modeling, S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by PCOE, Panvel through Google Meet on 24 July 2020.
- Faculties participated in orientation program for Mini Project-1A, S.E.(Mech), Sem-III as per revised syllabus 2019 'C' scheme organized by LTCOE through Zoom and Youtube on 25th July 2020.

- Dr. Kaustubh Chavan, Prof. Prajakta Kane and Prof. Ganesh Kadam participated in the webinar on ‘Stress to Success via Strength’ by Sneh Kulkarni, IPHM Services Mumbai organized by SIES student council and MHRD IIC on 25th July 2020.
- Prof. Siddique Ahmed participated in online FDP on ‘AICTE incorporating Universal Human Values in Technical Education’ by AICTE through zoom platform from 5-9th August, 2020.
- Prof. Ganesh Kadam and Prof. Lokpriya Gaikwad participated in webinar through MS teams platform on ‘Book writing’ by Dr. Preeti Shiroadkar, Faculty-Kohinoor Business School organized by SIES Central Training Department on 20th August, 2020.
- Faculties participated in online FDP on ‘Team Synergy’ by Mr. Gaurav Ghelani, Academic Relationship Manager - India (West & Central), Tata Consultancy Services, organized by H&AS department SIES GST through MS teams platform on 27th August, 2020.
- Faculties participated in online FDP on ‘How to create Dashboards in Microsoft Excel’ by Mr. Saurabh Sharma, Tata Consultancy Services, organized by H&AS department SIES GST through MS teams platform on 3rd September, 2020.
- Faculties participated in online FDP on ‘Use of Games and Simulations in Teaching’ by Mr. S. Shiralkar, Tata Consultancy Services, organized by EXTC department SIES GST through MS teams platform on 10th September, 2020.
- Faculties and students participated in online session on ‘Maintaining good eye health’ by Dr. Archana Biradar, Ophthalmologist online through Google meet organized by student council and IQAC of SIES GST on 12th September, 2020.
- Faculties participated in training on Juno Academic Module by Juno software team on 25th September, 2020.
- Prof. Prashant Ambadekar participated in one week STTP under TEQIP Phase-III on ‘Recent trends in deep learning’ organized by Government college of Engineering Aurangabad from 4-8th September, 2020.
- Prof. Prashant Ambadekar participated in one week STTP on ‘Artificial Intelligence’ organized by ATAL from 21-25th September, 2020.
- Prof. Prajakta Kane participated in workshop on ‘The Art of writing – How to become a published author’ on 5th and 6th November, 2020.
- Dr. Rupendra Nehete and Prof. Prajakta Kane participated in webinar on ‘Internet of Things’ by Mr. Prasad Ghag, TCS on 6th November, 2020.
- Dr. Rupendra Nehete participated in FDP on ‘Resilience Management’ by Mr. Vidhu Sharma, TCS organized by H&AS Department, SIES GST on 21st November, 2020.
- Faculties participated in FDP on ‘New Generation Technologies’ by Mr. Aniket Mhala, Global Technology Head - Microservices, DevOps and Agile Practice at Oracle organized by Computer Engg. Department, SIES GST on 5th December, 2020.
- Prof. Prashant Ambadekar participated in FDP on ‘3D Printing & Design’ from 4th to 8th January, 2021.
- Prof. Prajakta Kane participated in FDP on ‘Strategic issues in IPR and innovation’ from 11th to 16th January, 2021.
- Prof. Prajakta Kane participated in FDP on ‘Gender sensitization – A shift in perspective’ organized by UGC HRDC from 4th to 10th February, 2021.
- Prof. Lokpriya Gaikwad participated in FDP on ‘Good Laboratory Practices’ organized by Sharda University, Greater Noida from 8th to 12th February, 2021.

- Prof. Lokpriya Gaikwad participated in AICTE ATAL FDP on ‘Product Design and Additive Manufacturing’ organized by Pillai College of Engineering, Panvel from 15th to 19th February, 2021.
- Prof. Lokpriya Gaikwad participated in TEQIP-III sponsored one week FDP on ‘Advances in Mechanical Industrial Engineering and Management’ organized by NIT Raipur from 9th to 13th March, 2021.
- Prof. Lokpriya Gaikwad participated in AICTE approved STTP on ‘Composites, fracture toughness, NDE and failure analysis’ organized by Pillai College of Engineering, Rasayani from 15th to 20th March, 2020.
- Prof. Lokpriya Gaikwad participated in AICTE-ISTE approved STTP on ‘Scope of IoT and its applications in automotive and agricultural industries’ by GCE Awsari from 22nd to 27th March, 2021.
- Dr. R.S. Nehete participated in two days FDP on ‘Smart Application of Nano Sciences for Innovative Engineering Aspects’ organized by Poornima Institute of Engineering and Technology, Jaipur from 13-14 th April, 2021.
- Faculties participated in online webinar on ‘From your Ph.D./Masters Thesis to a start-up’ by Dr. Ananda Deshpande organized by MoE’s MHRD Innovation Cell AICTE on 23rd April 2021.
- Prof. Ganesh Kadam, Prof. Lokpriya Gaikwad and Dr. Kaustubh Chavan participated in webinar on ‘Decoding online e-filing IT returns’ by CA Parag Pratap organized by Ms. Suma Nair, CTD, SIES COMS on 24th April, 2021.
- Faculties participated in online webinar on ‘Why IP is important in academia?’ by Dr. Abhay Jere Chief Innovation Officer and Dr. Mohit Gambhir, Innovation Director organized by MoE’s MHRD Innovation Cell AICTE on 26th April 2021.
- Dr. Pradip Patil participated in half day workshop on ‘Additive manufacturing for competitiveness’ organized by NITIE, Mumbai on 20th May, 2021.
- Prof. Lokpriya Gaikwad participated in FDP on ‘Research methods in science, engineering and technology’ from 2-6th May, 2021.
- Prof. Ganesh Kadam participated in ATAL FDP on ‘Design Thinking in 3D Printing’ organized by IIT (BHU) Varanasi from 7-11th June 2021.

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