

Annual Report of Mechanical Engineering Department for the Academic Year 2019-20

It gives me immense pleasure to present before you the annual report of Mechanical Engineering department.



It includes various achievements of students and faculty members and different activities conducted during the academic year 2019-20.

We believe that teamwork divides the task and multiplies the success.

1) ACADEMIC PERFORMANCE:

Our students have shown excellent results in university examination in the academic year 2018-19. Result of S.E, T.E and B.E classes in the academic year 2018-19 examination are as follows:

A. Performance in University Exam

Rankers of the Class:

The first five rankers of SE, TE & BE Mechanical class are as follows.

BE (Mechanical)

Rank	Name of Student	Percentage
I	Chandak Onkar Laxmikant	84.54%
II	Patel Tamim Yawarpushe	83.89%
III	Dhage Vishal Bhupal	83.40%
IV	Pathan Naved Javid	83.17%
V	Pathak Tejas Santosh	82.83%

TE (Mechanical)

Rank	Name of Student	Percentage
I	Patil Shivsharan Sunil	81.39%
II	Vibhute Shubham Kantilal	80.61%
III	Koli Prasad Siddheshwar	80.36%
IV	Kalshetti Rajesh Shivanand	79.76%
V	Halole Snehal Suresh	78.24%

SE (Mechanical)

Rank	Name of Student	CGPA
I	Pawar Ashish Mahadev	9.48
II	Shaikh Ayan Sherali	9.13
III	Birajdar Amar Revansidha	9.07
	Kadagi Pravin Chandrakant	
IV	Patil Vishwesh Basavaraj	9.02
	Math Akash Chanabasayya	
V	Pardeshi Rakesh Chagan	9.00

• Class wise Passing Results:

S.E. (Mechanical) – 97.41%

T.E. (Mechanical) – 88.46%

B.E. (Mechanical) – 96.80%

B. Success in Gate 2019 Examination

Mechanical Engineering Department has conducted one month crash course in winter vacations for the preparation of GATE-2020 examination. Motivational and informative session by the experts and previous years GATE examination qualified students were conducted for SE to BE students. **Mr. Sohailkhan Patel** secured score of **404** in **GATE-2020**. Prof. D.D. Bhoge worked as coordinator for Career Counselling Cell of our Department.

C. Success in GRE/TOEFL/ IELTS Examination

Following students of Mechanical Engineering Department have cracked IELTS examination for

pursuing their Master's Degree in universities abroad. Dr. Shriniwas S. Metan, worked as coordinator and guided these students for examination preparation.

Sr. No.	Name of Student	Exam
1	Mr.Hardik Madda	IELTS
2	Mr.Rakesh Machrala	IELTS
3	Mr.Krist Sane	IELTS
4	Mr.Rohit Patil	IELTS
5	Mr.Salik Bijapure	IELTS
6	Mr.Ashish Chandane	IELTS
7	Mr. Aftab Merchant	IELTS

Admissions to Masters in Universities Abroad:

In the academic year, 2019-20, following three students are going for pursuing their Master's Degree in foreign universities.

1. Mr. Rohit Patil got admission to M.S. programme in Industrial Engineering at University of Michigan Dearborn, USA for Fall 2020. He also got admits from Western Michigan University and University of Texas at Arlington, USA.
2. Mr. Ashish Chandane got admission to M.S. program in Industrial Engineering- Agile Factory Management at Centrale De Nantes University, France. He also got admits from Toulouse INP, France and Grenoble Polytechnic Institute INP, France.
3. Mr. Krist Sane got admission to M.S. program in Supply Chain Management at SRH University of Applied Science, HAMM, Germany.
4. Mr.Faisal Sayyad has got admission to M.S. program in Design and Vibration at King Fahad University, Saudi Arabia

2) INDUSTRY- INSTITUTE INTERACTION:

A. MOU with Industries

Mechanical Engineering Department signed MOU in the previous years with following industries Dassault Systemms

Ltd, TTL, Thermax O & M Division, Pune, Saurabh Flexipack Systems Ltd, Pune; Precise Industries Ltd, Solapur, Vernier Design Solutions Pvt Ltd, Pune.

Following MoUs were signed in this academic year.

1. CADCAMGURU Solutions Pvt Ltd, Pune.

MoU is signed with CADCAMGURU Solutions Private Limited, Pune on 27th November 2019 to train the students and staff of “NK Orchid College of Engineering and Technology, Solapur” in the field of CAD/CAM and acquire the technical knowledge and industry required skills.

2. Tata Technologies Ltd, Pune

MoU is signed with Tata Technologies Ltd, Pune under Prayatna Scholarship for the innovation and development of “*Two Seater Solar Vehicle*”. TTL has sponsored 1.5 Lakh Rupees for developing this Solar Vehicle. Dr.Shriniwas S Metan is the Principal Investigator for this sponsorship.

B. Sponsored Projects

Following table shows the sponsored project from various industries in the academic year 2019-20.

1. The project entitled “Design, Development & Analysis of Suspension and Steering System for Solar Car”, under the guidance of Dr.Shriniwas. S Metan from *La Fondation Dassault Systems Ltd Pune & Tata Technologies Ltd Pune*.
2. The project entitled “Design, Development & Analysis of Chassis and Braking System for Solar Car”, under the guidance of Dr.Shriniwas. S Metan from *La Fondation Dassault Systems Ltd Pune & Tata Technologies Ltd Pune*.
3. The project entitled “Tender Sorghum Grain Separator”, under the guidance of Dr.B K Sonage from *TrioUnity, Solapur*.
4. The project entitled “Evaluation of Heat Transfer and Pressure Drop Characteristics of Green Nanofluids”, under the guidance of Dr.B K Sonage from *KAIZAN industries, Solapur, Solapur*.

5. The project entitled “Design and Development of pulverization machine”, under the guidance of Dr. N. R. Patil from *Vijay Pipes, MIDC Solapur*.
6. The project entitled “Design and Fabrication of Solar Dryer”, under the guidance of Prof.C.V. Papade from *La Fondation Dassault Systèmes Ltd Pune*.
7. The project entitled “Testing and Analysis of Solar Dryer”, under the guidance of Prof.C.V. Papade from *La Fondation Dassault Systèmes Ltd Pune*.
8. The project entitled “Design and Fabrication of Engine Operated Seed Sowing Machine”, under the guidance of Prof. B R. Birajdar from *Krushak Bhavan, Solapur*.
9. The project entitled “Design and Development of Hydraulic Pipe Bending Machine”, under the guidance of Prof. Y B. Patil from *Shree Steel Furniture Solapur*.

3) SOLAR RESEARCH CENTER:

Following courses were organized by the department for the mechanical and electrical engineering students, under different skill development program under solar domain. Prof. C. V. Papade was the coordinator for these courses.

Sr. No.	Course	No. of Students	Duration
1	Solar Ready Engineers course	54	120 hrs
2	Solar Ready Engineers course	32	120 hrs

Many activities were conducted in Solar Research Center in this academic year such as “Solar National Vehicle Competitions”, “Experts visit to the Center, School, College and even Diploma student’s workshops.”

4) CO-CURRICULAR COURSES CONDUCTED:

Department of Mechanical Engineering has conducted various Co-curricular courses which helps to enhance the

technical skills of the students to become industry ready. Prof. S. K. Khillare has worked as a coordinator for these courses.

Sr. No.	Course	No. of Students	Duration
1	RE 2.0 Training Program by TTL	46	40 hrs
2	CNC Machining	24	50 hrs
3	C ++ Programming for Scientific application	20	50 hrs
4	Basic German Language Course	18	50 hrs

5) FACULTY PUBLICATIONS:

1. Shriniwas S. Metan, Rohit. N. Patil, Abhishek R. Kshirsagar, “Six Sigma: Literature Review and Methodologies to Improve Implementation”, Test Engineering & Management, Volume 83 Issue 01, March 2020, pp 71-79 (Scopus Indexed)
2. Shriniwas S. Metan, Mr.Saleek Bijapure, Mr.Mayur Mukkawar, “Design and Simulation of Suspension System”, Test Engineering & Management, Volume 83 Issue 02, April 2020, pp 7621-7632 (Scopus Indexed)
3. Shriniwas S. Metan, Abhishek R. Kshirsagar, Govind N. Samleti, Vinayak K Patki, “Anti-Glare Headlamp a Safe Option for Better Vision to the Rider”, International Journal of Innovative Technology and Exploring Engineering, Volume-8, Issue 9S2, July 2019, pp 672- 678 (Scopus Indexed).
4. Shriniwas Metan, Shrikant Jahagirdar, Vinayak Patki, “Urban Water Distribution Network Failure Prediction Using Artificial Intelligence”, International Journal of Recent Technology and Engineering. (Under Review) (Scopus Indexed)
5. Shriniwas Metan, Shrikant Jahagirdar, Vinayak Patki, “Evaluation of Physical and Chemical Properties of OPC and PPC Cement”, International Journal of

- Recent Technology and Engineering, Volume 8, Issue 2, 11, September 2019 (Scopus Indexed)
6. Shriniwas S Metan, Rajat Ganeshari, Prashant Bhandarkavthekar, Aditya Dudka, Ajay Rathod, "Two Drive Modes for the Vehicle" International Journal of Scientific & Engineering Research, Volume 10, Issue 1, July- 2019, ISSN 2229-5518. (Thomson Router Indexing, UGC Approved Indexing)
 7. B K Sonage, SV Kumbhar, "Adaptation and implementation of solar distillation plants for pure water: a review", Journal of Water Pollution & Purification Research, 4 (1), 2019, 1-3
 8. B K Sonage, SV Kumbhar, "Experimental Investigations of Developed Solar Still for Increment in Efficiency and Rate of Distillate Experimental Investigations of Developed Solar Still for Increment in ...", International Journal of Heat and Technology, 3 (2), 2019, 471-480.
 9. BK Sonage, AB Bhosale, "Assessment of Thermal Conductivity of Liquids by Modified Parallel Plate Method", Journal of Emerging Technologies and Innovative Research 6 (6), 2019, 574-579
 10. Sonage B K, Pawar K.P, Bijja Shanti Ramchandra "synthesis and characterization of zinc oxide green nanoparticles", International Journal of Emerging Technologies and Innovative Research (www.jetir.org | UGC and issn Approved), ISSN:2349-5162, Vol.6, Issue 6, page no. pp459-462, June-2019, Available at : <http://www.jetir.org/papers/JETIR1906B73.pdf>
 11. BK Sonage, AB Bhosale, "Development and calibration of modified Parallel plate method for measurement of thermal conductivity of liquids: A review", International Research Journal of Engineering, Management & Technology (IRJET), 6 (6), 2019, 1141-1145
 12. Mohammed Samee A. D, "Optimum spacing between grooved tubes: An experimental study", Journal of Mechanical Science and Technology (Springer), Vol 34, 2020, pp 469-475.
 13. A. D. Mohammed Samee, "Thermal management of modern electric vehicle battery systems (MEVBS), Journal of Thermal Analysis and Calorimetry (Springer)", <https://doi.org/10.1007/s10973-020-09606-x>, April 2020.
 14. M. B. Mali, S. S. Kale, "Performance Evaluation of IC Engine with Preheated Fuels – A Review", International Research Journal of Engineering and Technology (IRJET), Volume: 06, Issue: 04, Apr 2019.
 15. M. B. Mali, S. S. Kale, "Performance Evaluation of IC Engine with Preheated Diesel", International Journal of Innovative Science and Research Technology (IJISRT), Volume: 4, Issue: 4, April – 2019.
 16. Mr. Ranavare V. R. & Prof. Kale S. S. 'Performance analysis of C.I. Engine by using two oils (Jatropha oil & Methanol) blended with Diesel as alternative fuel: a review' International Research Journal of Engineering & Technology (IRJET), Volume: 06; 06/June 2019.
 17. Mr. Ranavare V. R. & Prof. Kale S. S. 'Performance analysis of C.I. Engine by using two oils (Jatropha oil & Methanol) blended with Diesel as alternative fuel' Journal of Emerging Technologies & Innovative Research (JETIR), Volume: 06, Issue 5; May 2019.
 18. C.V. Papade, "Experimental Investigation of Solar Powerd Cooking Stove", IPASJ International Journal of Mechanical Engineering (IJME) Volume 8, Issue 1, January 2020 (Thomson Reuters Indexed).
 19. C.V. Papade "Day & Night Parabolic Concentrating Solar Cooker using Nano-mixed PCM", International Conference paper at ETNM-2019, 16th & 17th December 2019.
- 5. SHORT TERM COURSE / CONFERENCE/ WORKSHOPS ATTENDED / ORGANISED BY OUR FACULTY MEMBERS.**
- Following faculty members have attended the workshops/ Seminars and conferences
- 1) Dr. Shriniwas S Metan has attended "**Second Edition of Knowledge Summit**" on 17th & 18th October 2019 in

- Lyon, France organized by French and Indian Embassy & HRD Ministry of India.
- 2) Dr.Shriniwas S Metan has attended “ACMA Technology Summit 2019” on 25th and 26th November 2019 at J W Marriott Hotel, Pune, organized by Automotive Component Manufacturers Association of India.
 - 3) Dr.Shriniwas S Metan has attended “NAFED 2019 Conference” at BARC, Mumbai. 9th and 10th December 2019 organized by ISRO and BARC India.
 - 4) Dr.Shriniwas S Metan has organized and attended Two days training “BIW and Trims” conducted on 20th and 21st Dec 2019. organized by TTL Pune.
 - 5) Dr.Shriniwas S Metan has attended Two Days FDP “Do It Yourself Product Re-Engineering, Additive Manufacturing” at Vasi Reddy Venkatadri Institute of Technology, Andra Pradesh, on 6th and 7th May 2019. organized by La Foundation Dassault Systems, Bangalore.
 - 6) Dr.Shriniwas S Metan has organized Two Days Workshop on “Fundamentals of Vehicle Dynamics and Introduction to Electric and Hybrid Vehicles” on 6th and 7th March 2020.organized by SAE INDIA.
 - 7) Dr.Shriniwas S Metan has attended SAE SUPRA workshop/ Formula Race held at Buddha International Circuit, Greater Noida, UP, India on 17th to 20th July 2019 organized by Maruti Ltd & SAE India.
 - 8) Dr.Shriniwas S Metan has attended One day FDP on, “Special Topics in Industry Application”, Conducted on 03/02/2020 organized by NKOCET and DBATU.
 - 9) Dr.Shriniwas S Metan has attended One Day Workshop in” Opportunities in French Universities for Master’s Program” on 18th February 2020 organized by French Embassy India with 15 Technical Universities from France.
 - 10) Dr.Shriniwas S Metan has attended One Day Faculty Orientation Program at SAEINDIA Office Pune on 14th December 2019 organized by SAEINDIA.
 - 11) Dr.Shriniwas S Metan has attended 2 days’ workshop/meeting on “SAE AWIM, SUPRA/BAJA 2020 and funding for SAE activities in the year 2019-20, on September 20th and 21st August, 2019 at Chennai, India organized by SAE National Board.
 - 12) Dr.Shriniwas S Metan has attended in One day Workshop “Autodesk Fusion 360 Academy” in Bangalore on 22nd February 2020 organized by Autodesk India.
 - 13) Dr.Shriniwas S Metan has attended 2 days’ “SAE Automotive RoundTable 2019 Conference” and SAE EEB Meeting on “SAE BAJA and Students Conventions. on 3rd and 4th May 2019 at Chennai, India organized by SAE National Board.
 - 14) Dr.Shriniwas S Metan has organized and attended “National Level Solar Vehicle Competition” on 27th July 2019 organized by Dassult Systemes and NKOCET.
 - 15) Dr.Shriniwas S Metan has attended Two Days “Vibrant Terry Towel Global Expo Summit 2019” on 25th and 26th September 2019organized by TDF Solapur.
 - 16) Dr.Shriniwas S Metan has organized one day (Tier-I) **SAEINDIA WS Student Convention 2020** on 6th February 2020 organized by SAEINDIA and NKOCET.
 - 17) Dr.Shriniwas S Metan has attended Online Learning 3Days Certified Course 1st to 3rd April 2020 organized by QASPIR.
 - 18) Dr.Shriniwas S Metan has organized Sessions on “What should students do to be industry ready and what should they do in order to grow within the organization that they join” on 10th , 16th and 26th April 2020, organized by Mr Yatin Shah (MD/Founder Member of PCL).
 - 19) Dr.Shriniwas S Metan has organized Sessions on “What should students do to be industry ready and what should they do in order to grow within the organization that they join” on 10th , 16th and 26th April 2020, organized by Mr Yatin Shah (MD/Founder Member of PCL).
 - 20) Dr.Shriniwas S Metan has organized Sessions on “Effective Communication Skill session organised to SE & TE Mechanical Engineering students” on 25th April 2020, organized by Mr. Shrikant Ket from Eaton Ltd Pune.
 - 21) Dr.Shriniwas S Metan has attended “ Do-It-Yourself Product Re-Engineering Additive Manufacturing” on 6th

- and 7th May 2019, organized by Vasireddy Venkatreddy Institute of Technology, AP.
- 22) Dr. Shrinivas S Metan has attended in “Importance of Association with Professional Organisations for Outcome Based Education” on 30/04/2020, organized by WCE Sangli.
 - 23) Dr. Shrinivas S Metan has attended in “Learning from Lockdown: Business Management Perspective” on 12/05/2020, organized by Mr. Nitin Chalke President Hydraulics and Vehicles, Asia Pacific, Eaton.
 - 24) Dr. B K Sonage has attended One day FDP on, “Special Topics in Industry Application”, Conducted on 03/02/20, organized by NKOCET and DBATU.
 - 25) Dr. B K Sonage has attended one week National level workshop on, “Practice Based computational Fluid Dynamics”, from 23/12/19 to 27/12/19, organized by JSPM’s Imperial College of Engg. and Research.
 - 26) Dr. B K Sonage has attended One day state level workshop on, “Methodology on online AQAR submission under revised NAAC guidelines”, conducted on 27/08/19 and organized by H.N. College of Commerce, Solapur and IQAC Cluster India.
 - 27) Dr. B K Sonage has attended Two day National level awareness workshop on, “Outcome based education and NBA Accreditation”, on 01/03/20 to 02/03/20, organized by Sandipani Technical Campus, Latur and DBATU.
 - 28) Dr. B K Sonage has attended Three days’ workshop on, “Intellectual Property Rights in India”, on 24/02/20 to 26/02/20, organized by Shri Siddheshwar Women’s College of Engineering, Solapur and DBATU.
 - 29) Prof. A. S. Kashid has attended one week STTP on “Research Methodology”, organized by DBATU at KBPCOE Satara.
 - 30) Prof. A. S. Kashid has attended one week FDP on “LaTeX”, organized by IIT Bombay.
 - 31) Prof. A. S. Kashid has attended One Week STTP on “Rural Development”, organized by NITTR Bhopal.
 - 32) Prof. A. S. Kashid has attended one week STTP on “Innovations to Academicians”, organized by NSTEDB New Delhi.
 - 33) Prof. A. S. Kashid has attended one week International STTP on “Research Challenges and innovations in renewable energy systems”, organized by NSTEDB New Delhi.
 - 34) Prof. A. S. Kashid has attended one-week National level FDP on “Effective proposal writing for research and funding”, organized by SITRC Nashik.
 - 35) Prof. A. S. Kashid has attended one-week National level FDP on “Patenting for innovations”, organized by SCE Kopergaon..
 - 36) Prof. A. S. Kashid has attended one-week National level FDP on “Recent advances in modelling and optimization techniques”, organized by SIT Yadav.
 - 37) Prof. S. S. Kale has attended one week Faculty Development Program and Online Training on LATEX. Date : 27th April to 2nd May 2020, organized by Spoken Tutorial Project IIT Bombay.
 - 38) Prof. S. S. Kale has attended one week National Level Online Faculty Development Program on Innovation to Academicians, Date: 11 to 16 May 2020, organized by Dept of Science and Technology, Govt of India, New Delhi.
 - 39) Prof. S. S. Kale has attended Five Day Faculty Development Webinar on “Design And Development Of Electric And Hybrid Electric Vehicle Technology” Scheduled during 12th to 16th May 2020, organized by SAE India & NKOCET.
 - 40) Prof. S. S. Kale has attended one week workshop on “Research Challenges and innovation in Renewable Energy System” from 11/05/20 to 15/05/20, organized by Aarupadai Veedu Institute of Technology.
 - 41) Prof. S. S. Kale has attended two week International FDP on Emerging Trends in Industry 4.0, organized by JSPM College, Pune.

- 42) Prof. S. S. Kale has attended two week International FDP on Emerging Trends in Industry 4.0, organized by NKOCET.
- 43) Prof. S. S. Kale has attended webinar on “Intellectual Property Rights Process”, organized by Sanjay Bokare Group of Institute, Miraj.
- 44) Prof. S. S. Kale has attended Faculty Development Training Program under ISTE “Technical Teacher’s Training”, organized by ISTE & Vidyavardhini Institute Of Technology, Pal.
- 45) Prof. S. S. Kale has attended 3 days online workshop on "Education 4.0" held on 28th -30th April 2020, organized by IQAC, Atharva College of Engineering.
- 46) Prof. S. S. Kale has completed 8 weeks course on “Introduction to Thermodynamics: Transferring Energy” on the Coursera platform.
- 47) Prof. S. S. Kale has completed 6 weeks course on “Exploring Renewable Energy Scheme” on the Coursera platform.
- 48) Dr. N R Patil has attended one week STTP on Rural Development, organized by NITTR, Bhopal.
- 49) Dr. N R Patil has attended one week FDP on “Industrial IoTs, Industry 4.0 & Disruptive Technologies”, organized by DBATU.
- 50) Dr. N R Patil has attended 3 Days online workshop on Education 4.0, organized by Atharve College of Engg.
- 51) Dr. N R Patil has attended one week FDP on Funding Opportunities for Engg Teachers & Technical paper writing, organized by RIT.
- 52) Dr. N R Patil has attended one week STTP on Implementation of Advanced Optimization Techniques using MATLAB, organized by RIT.
- 53) Dr. N R Patil has organized one-day workshop for GP Solapur students at NKOCET.
- 54) Dr. N R Patil has organised Road show of our Quad Bike is arranged at GP Solapur.
- 55) Prof. C V Papade has attended Rural Development through Technical Institution, organized by NITTTR, Kolkata.
- 56) Prof. C V Papade has attended Special Topics in Industry Applications, organized by DBATU.
- 57) Prof. C V Papade has attended NBA accreditation and Teaching -Learning in Engineering (NATE), organized by NPTEL.
- 58) Prof. C V Papade has attended workshop on Latex, organized by SGU, Kolhapur association with IIT-Bombay.
- 59) Prof. C V Papade has attended Outcome based education: A step towards Excellence, organized by Govt. College of Engg. Karad.
- 60) Prof. C V Papade has attended Startup Lifecycle and Patent Registration, jointly organized by Ace institution Innovation Council –MHRD ,IEDC-DST, Atharva college of Engg., Mumbai.
- 61) Prof. C V Papade has attended Innovation of Academicians, jointly organized by DST, Govt. of India & Ramachandra college of Engg. ,Eluru.
- 62) Prof. C V Papade has attended Intellectual Property Rights Process, organized by Bhokare group of Institutes, Miraj.
- 63) Prof. C V Papade has attended Understanding the Universe with scientific Temperament, organized by Bhivarabai Sawant Institute of Technology and Research, Pune.
- 64) Prof. C V Papade has attended Innovation Trends in Engg. & Technology, organized by Shree L.R. Tiwari College of Engineering, Thane.
- 65) Prof. C V Papade has attended Advanced Optimization Tools & Techniques for Researchers & Engineers, organized by Shree L.R. Tiwari College of Engineering, Thane. SKN SCOE & PAHSU, Solapur.
- 66) Prof. C V Papade has attended Aspects of writing a Research Paper, organized by SKN SITC, Pune.
- 67) Prof. A S Dhobale has conducted one-week online internship program on “Product Design – Design Thinking/Innovation/Autodesk Fusion 360”, organized by Autodesk.

- 68) Prof. A S Dhobale has conducted webinar series on "Autodesk Fusion 360 webinar aligning to PDE and Engineering Graphics course, organized by Autodesk.
- 69) Prof. A S Dhobale has organized session on "Expectations of Industry from Freshers and Value System" Date – 12 January 2020, organized by Mr. Rajesh Mandlik Chief Strategist, Setco Spindles India Pvt. Ltd. Pune.
- 70) Prof. A S Dhobale has orgaoized session on "Mindsets" Date 09 May 2020 (Class TE Mech and ENTC), organized by Mr. Vishal Bhange HR Advik Hi-Tech Pvt. Ltd. Pune.
- 71) Prof. A S Dhobale has coordinated session Lecture series of Mr. Yatin Shah.
- 72) Prof. A S Dhobale has participated in Effective and Efficient Online Teaching in the Age of Corona, A Hands on Workshop' on 23-05-2020, organized by PMMMNMTT, IIT Bombay.
- 73) Prof. A S Dhobale has participated in in Two weeks International Faculty Development Program on "Emerging Trends in Industry 4.0" (18th May 2020 to 29th may 2020), organized by ACM Student Chapter and Computer Engineering Department, JSPM's Rajarshi Shahu College of Engineering, Pune.
- 74) Prof. A S Dhobale has participated in in 3 days online workshop on "Education 4.0"(28th April 2020 to 30th April 2020), organized by Atharva College of Engineering held on 28th - 30th April 2020.
- 75) Prof. A S Dhobale has participated in a webinar on "EduMeet and Panel Discussion on Education and Industry-2020" on 20th May 2020, organized by DBATU, Lonere.
- 76) Prof. A S Dhobale has organized a webinar Series on Product Design Engineering and Autodesk Fusion 360 (6th May, 13th May, 20th May 2020), organized by Autodesk & NKOCET, Solapur.
- 77) Prof. A S Dhobale has participated in Webinar a session on "CCMS-Centralized Campus Management System ERP and ICT best practices in institute" on 20/05/2020, organized by MasterSoft ERP Solutions Pvt. Ltd. Nagpur.
- 78) Prof. A S Dhobale has participated in a Webinar on "Aspects of Writing a Research Paper" on 31st May 2020.on 20/05/2020, organized by SKN Sinhgad Institute of Technology and Science, Lonavala, Pune.
- 79) Prof. A S Dhobale has participated in a Webinar on "Gearing up with Virtual Internship Program" organized by Rajarambapu Institute of Technology, Rajaramnagar (RIT) & Global Engineering Dean's Council India Chapter (GEDC India Chapter) on 28th May 2020, organized by RIT & GDEC India.
- 80) Prof. A S Dhobale has participated in a webinar series on "To guide students to select meaningful projects", organized by LA Fondation, India.
- 81) Prof. D D Bhoge has organized workshop for school Teacher "Master Teacher Training Program", organized by SAEINDIA and NKOCET.
- 82) Prof. D D Bhoge has organized AWIM-2019 Solapur Olympics for School students held at Montessori English Medium School, Solapur, organized by SAEINDIA and NKOCET.
- 83) Prof. D D Bhoge has organized 2 days workshop for SAE India Student Member on "Vehicle Dynamics", organized by SAEINDIA and NKOCET.
- 84) Prof. D D Bhoge has structured 5 Day Faculty Development Webinar on "Electric and Hybrid Vehicle" organized by SAEINDIA and NKOCET.
- 85) Prof. D D Bhoge has organized one day (Tier-I) **SAEINDIA WS Student Convention 2020** organized by SAEINDIA and NKOCET.
- 86) Prof. S K Khilare has participated in one week Faculty Development Webinar on "Design & Development of Electric and Hybrid Electric Vehicle Technology" from 12/05/2020 to 16/05/2020, organized by SAEINDIA and NKOCET.
- 87) Prof. S K Khilare has participated in one week TEQIP sponsored online FDP on "Application of FEA and CFD

- using Ansys” from 13/06/2020 to 17/06/2020., organized by Government College of Engineering, Karad.
- 88) Prof. S K Khilare has participated in five week online course on “Autodesk Fusion 360 Integrated CAD/CAM/CAE”, organized by Authorized by Autodesk and offered through Coursera.
 - 89) Prof. M B Awate has participated in 10 Days ACM India Winter Schools 2019- on Geometric Algorithms and Their Applications, organized by Dassault Systemes LA fondation & IISER, Pune.
 - 90) Prof. M B Awate has participated in Effective and Efficient Online Teaching in the Age of Corona, A Hands On Workshop' on 23-05-2020, organized by ACM Student Chapter and Computer Engineering Department, JSPM's Rajarshi Shahu College of Engineering, Pune.
 - 91) Prof. M. B Awate has participated in two weeks International Faculty Development Program on “Emerging Trends in Industry 4.0” (18th May 2020 to 29th may 2020), organized by ACM Student Chapter and Computer Engineering Department, JSPM's Rajarshi Shahu College of Engineering, Pune.
 - 92) Prof. M. B Awate has attended Five Day Faculty Development Webinar on “Design And Development Of Electric And Hybrid Electric Vehicle Technology" Scheduled during 12th to 16th May 2020, organized by SAE India & NKOCET.
 - 93) Prof. M. B Awate has participated in 3 days online workshop on "Education 4.0"(28th April 2020 to 30th April 2020), organized by Atharva College of Engineering held on 28th - 30th April 2020.
 - 94) Prof. M. B Awate has participated in a Webinar on “Post Covid 19 Science & Technology” on 29th May 2020, organized by SRM University, AP & The Hindu times.
 - 95) Prof. M. B Awate has participated in a webinar on “EduMeet and Panel Discussion on Education and Industry-2020” on 20th May 2020, organized by DBATU, Lonere.
 - 96) Prof. M. B Awate has participated in webinar Series on Product Design Engineering and Autodesk Fusion 360 (6th May, 13th May, 20th May 2020), organized by Autodesk & NKOCET, Solapur.
 - 97) Prof. M. B Awate has participated in a webinar Series on Product Design Engineering and Autodesk Fusion 360 (6th May, 13th May, 20th May 2020), organized by Autodesk & NKOCET, Solapur.
 - 98) Prof. M. B Awate has participated in a webinar on “IPR Process” 22nd May 2020, organized by Sanjay Bhokare Group of Institute, Miraj.
 - 99) Prof. M. B Awate has participated in a webinar session on "CCMS-Centralized Campus Management System ERP and ICT best practices in institute" on 20/05/2020, organized by MasterSoft ERP Solutions Pvt.Ltd. Nagpur.
 - 100) Prof. M. B Awate has participated in a webinar on “Aspects of Writing a Research Paper” on 31st May 2020. , organized by SKN Sinhgad Institute of Technology and Science , Lonavala, Pune, 410401.
 - 101) Prof. M. B Awate has participated in a Webinar on “Gearing up with Virtual Internship Program” on 28th May 2020, organized by RIT & GDEC India.
 - 102) Prof. M. B Awate has participated in a webinar series on “To guide students to select meaningful projects” on 28th May 2020, organized by LA Fondation, India.
 - 103) Prof. M. B Awate has participated in a 3 days “Webinar Series on Research Techniques & Challenges”, organized SAE India & NKOCET.
 - 104) Prof. M. B Awate has completed 5 weeks course on “Autodesk Fusion 360 Integrated CAD/CAM/CAE” on the Coursera platform.
 - 105) Prof. M. B Awate has completed 5 weeks course on “Materials Science 10 Things Every Engineer Should Know” on the Coursera platform.
 - 106) Prof.Y B Patil has participated in a in a National Level Workshop on Recent Trends in Manufacturing Technology on 3rd & 4th Feb 2012, organized by RIT Sakhrale.

- 107) Prof.Y B Patil has participated in a STTP on Pedagogy for Effective use of ICT in Engineering Education in January 2015, organized by IIT Bombay.
- 108) Prof.Y B Patil has participated in one-day workshop on bridging the gap between Industry and Engineering Institute., organized by NKOCET.
- 109) Prof.Y B Patil has participated in one week STTP on Supply Chain and Operation Management, organized by Sinhgad Pune.
- 110) Prof.Y B Patil has participated in two days FDP on Internet of Things Using Raspberry Pi, organized by NKOCET.
- 111) Prof.Y B Patil has participated in Autodesk Fusion 360 Faculty Development Program 25th – 29th OCT 2019, organized by Autodesk.
- 112) Prof.Y B Patil has participated in a STTP on NBA Accreditation organized from 22nd to 26th April 2019, organized by NITTTR, Kolkata.
- 113) Prof.Y B Patil has participated in a STTP through ICT mode on modern manufacturing systems organized on 8th – 22nd Feb 2019, organized by NITTTR, Kolkata.
- 114) Prof. B R Birajdar has participated in 10 Days ACM India Winter Schools 2019- on Geometric Algorithms and Their Applications, organized by Dassault Systemes LA fondation & IISER, Pune.
- 115) Prof. B R Birajdar has organized Industrial Expert Talk on topic “Industrial Terminologies- Basics” on 22-04-2020, organized by Mr. Ramesh Kotnur, (Sr. Manager-Supplier Quality Engineering,) Mahindra & Mahindra
- 116) Prof. B R Birajdar has participated in two weeks International Faculty Development Program on “Emerging Trends in Industry 4.0” (18th May 2020 to 29th may 2020), organized by ACM Student Chapter and Computer Engineering Department, JSPM’s Rajarshi Shahu College of Engineering, Pune.
- 117) Prof. B R Birajdar has attended Five Day Faculty Development Webinar on “Design And Development Of Electric And Hybrid Electric Vehicle Technology” Scheduled during 12th to 16th May 2020, organized by SAE India & NKOCET.
- 118) Prof. B R Birajdar has participated in 3 days online workshop on "Education 4.0"(28th April 2020 to 30th April 2020), organized by Atharva College of Engineering held on 28th - 30th April 2020.
- 119) Prof. B R Birajdar has participated in a webinar on “Post Covid 19 Science & Technology” on 29th May 2020., organized by SRM University, AP & The Hindu times.
- 120) Prof. B R Birajdar has participated in a webinar on “EduMeet and Panel Discussion on Education and Industry-2020” on 20th May 2020, organized by DBATU, Lonere.
- 121) Prof. B R Birajdar has participated in webinar Series on Product Design Engineering and Autodesk Fusion 360 (6th May, 13th May, 20th May 2020), organized by Autodesk & NKOCET, Solapur.
- 122) Prof. B R Birajdar has participated in a Webinar Series on Product Design Engineering and Autodesk Fusion 360 (6th May, 13th May, 20th May 2020), organized by Autodesk & NKOCET, Solapur.
- 123) Prof. B R Birajdar has participated in a webinar on “IPR Process” 22nd May 2020, organized by Sanjay Bhokare Group of Institute, Miraj.
- 124) Prof. B R Birajdar has participated in a webinar session on "CCMS-Centralized Campus Management System ERP and ICT best practices in institute" on 20/05/2020, organized by MasterSoft ERP Solutions Pvt.Ltd. Nagpur.
- 125) Prof. B R Birajdar has participated in a webinar on “Aspects of Writing a Research Paper” on 31st May 2020. on 20/05/2020, organized by SKN Sinhgad Institute of Technology and Science, Lonavala, Pune, 410401.
- 126) Prof. B R Birajdar has participated in a webinar on “Gearing up with Virtual Internship Program” on 28th May 2020, organized by RIT & GDEC India.
- 127) Prof. B R Birajdar has participated in a webinar series on “To guide students to select meaningful projects” on 28th May 2020, organized by LA Fondation, India.

- 128) Prof. B R Birajdar has participated in a One day Workshop “ Autodesk Fusion 360 Academy” in Bangalore on 22nd February 2020, organized by Autodesk India
- 129) Prof. B R Birajdar has participated in a One day Effective and Efficient Online Teaching in the Age of Corona, A Hands On Workshop' on 24th May 2020, organized by PMMMNMTT, IIT Bombay.
- 130) Prof. B R Birajdar has participated in a Two Days “Vibrant Terry Towel Global Expo Summit 2019” on 25th and 26th September 2019, organized by TDF Solapur.
- 131) Prof. B R Birajdar has participated in a One Day Workshop on Virtual Lab (**11th October 2019**), organized by TDF Solapur.
- 132) Prof. B R Birajdar has organised Industrial Expert Talk on Role of Design Engineer in Organization, organized by Mr. Shreyas Kulkarni (Manager- Design & Engineering) ThyssenKrupp Pvt. Ltd. Pune..
- 133) Prof. B R Birajdar has participated in a 3 days “Webinar Series on Research Techniques & Challenges”, organized SAE India & NKOCET.
- 134) Prof. B R Birajdar has completed 5 weeks course on “Autodesk Fusion 360 Integrated CAD/CAM/CAE” on the Coursera platform.
- 135) Prof. B R Birajdar has completed 5 weeks course on “Materials Science 10 Things Every Engineer Should Know” on the Coursera platform.
- 136) Prof. B R Birajdar has completed 5.5Hrs course on “Industry 4.0” on the Tata Steel platform.
- 137) Prof. B R Birajdar has completed 5 weeks course on “Machine Design Part-I” on the Coursera course - Georgia Institute of Technology platform.
- 138) Prof. B R Birajdar has completed 8 weeks course on “Introduction to Thermodynamics: Transferring Energy from Here to There” on the University of Michigan platform.
- 139) Prof. B R Birajdar has completed 1 week course on “Programming with Python” on the Udemy platform.
- 140) Prof. A B Magar has participated in a Two days NAFED 2019 Conference, organized by BARC, Mumbai.
- 141) Prof. A B Magar has organized SAE Student Convention (Round 1 Activity) organized by SAE INDIA and NKOCET.
- 142) Prof. A B Magar has completed 8 weeks course on “Accreditation & Outcome based Learning” on the NPTEL platform.
- 143) Prof. A B Magar has completed 8 weeks course on “NATE” on the NPTEL platform.
- 144) Prof. A B Magar has completed 7 weeks course on “Programming for Everybody (Getting Started with Python)” on the Coursera platform.
- 145) Prof. A B Magar has completed 6 weeks course on “C for Everyone: Programming Fundamentals” on the Coursera platform.
- 146) Prof. A B Magar has completed 4 weeks course on “Introduction to the Internet of Things and Embedded Systems” on the Coursera platform.
- 147) Prof. A B Magar has completed 4 weeks course on The Arduino Platform and C Programming” on Coursera platform.
- 148) Prof. A B Magar has completed 6 weeks course on “Python Data Structures” on Coursera platform.
- 149) Prof. A B Magar has completed 4 weeks course on “Completed Coursera course on Introduction to Mechanical Engineering Design and Manufacturing with Fusion 360” on Coursera platform.
- 150) Prof. A B Magar has completed 4 weeks course on “The Raspberry Pi Platform and Python Programming for the Raspberry Pi.” on the Coursera platform.
- 151) Prof. A B Magar has completed 4 weeks course on “AI for Everyone” on the Coursera platform.
- 152) Prof. P N Kulkarni has attended SAE SUPRA workshop/ Formula Race held at Buddha International Circuit, Greater Noida, UP, India on 17th to 20th July 2019 organized by Maruti Ltd & SAE India.

- 153) Prof. P N Kulkarni has completed 8 weeks course on “Accreditation & Outcome based Learning” on the NPTEL platform.
- 154) Prof. P N Kulkarni has completed 8 weeks course on “NATE” on the NPTEL platform.
- 155) Prof. P N Kulkarni has completed 7 weeks course on “Python for Everybody (Getting started with Python)” on the Coursera platform.
- 156) Prof. P N Kulkarni has completed 4 weeks course on “Autodesk Fusion 360 integrated CAD/CAM/CAE” on the Coursera platform.
- 157) Prof. P N Kulkarni has completed 5 weeks course on “Introduction to Thermodynamics: Transferring energy from here to there” on the Coursera platform.
- 158) Prof. P N Kulkarni has completed 4 weeks course on “Material Science: 10 things Every Engineer should know” on the Coursera platform.
- 159) Prof. P N Kulkarni has completed 5 weeks course on “Machine Design – I” on the Coursera platform.
- 160) Prof. P N Kulkarni has completed 1 week course on “BOSS Linux-Ubuntu” on the *Spoken Tutorial, IITB*.
- 161) Prof. P N Kulkarni has completed 1 week course on “Industry 4.0” on the TATA Steel.
- 162) Prof. P N Kulkarni has completed 1 week course on “Measuring Mechanical Instruments” on the TATA Steel.
- 163) Prof. P N Kulkarni has completed 1 week course on “Compressor” on the TATA Steel.
- 164) Prof. P N Kulkarni has completed 1 week course on “Fan & Blower” on the TATA Steel.
- 165) Prof. P N Kulkarni has completed 1 week FDP Webinar on EVs SAE India organized by NKOCET & SAE INDIA.
- 166) Prof. P N Kulkarni has completed 2 weeks International FDP on “Emerging Trends in Industry 4.0”organised” by JSPM’s RSCOE, Pune.
- 167) Prof. P N Kulkarni has completed 2 weeks International FDP on “Emerging Trends in Industry 4.0”organised” by JSPM’s RSCOE, Pune.
- 168) Prof. P N Kulkarni has completed Do-It-Yourself Product Re-Engineering Additive Manufacturing” on 6th and 7th May 2019 organized by Vasireddy Venkatreddy Institute of Technology, AP.
- 169) Dr. M S Dafedar has participated in one Week Workshop on “Practice Based Computational Fluid Dynamics” 23-12-2019 to 27-12-201 organized by ICOER, JSPM, Wagholi Pune, Maharashtra.
- 170) Dr. M S Dafedar has participated online FDP on Research trends in thermal engineering, from 9-06-2020 to 13-06-2020 organized by BITM, Bellari, Karnataka.
- 171) Dr. M S Dafedar has participated “online FDP on NX Additive Manufacturing on 01-06-2020” organized by CADMAXX in association with SIEMENS, Bangeluru, Karnataka.
- 172) Dr. M S Dafedar has participated in “Online Webinar on Effective Utilization for Research Publications through Knimbus digital library on 1-06-2020” organized by Dr. P.G. Halkatti College of Engineering and Technology, Vijaypur, Karnataka. In association with Knimbus, Delhi.
- 173) Prof. S V Kumbar has participated in one week FDP on “Design And Development Of Electric And Hybrid Electric Vehicle Technology" organized by SAE India
- 174) Prof. S V Kumbar has conducted Expert Lecture on Quality control charts in SVIT Polytechnic Solapur.
- 175) Prof. A H Kamble has participated in STTP through ICT mode on Rural Development through Technical Institution organized by NITTTRK.
- 176) Prof. A H Kamble has participated in FDP on Student Induction organized by AICTE.
- 177) Prof. A H Kamble has participated in Online course on Digital Marketing organized by A Globsyn Business School.
- 178) Prof. A H Kamble has participated in TEQIP Sponsored one week online FDP on Industrial IoTs, Industry 4.0 & Disruptive Technologies organized by DBATU.

- 179) Prof. A H Kamble has participated in Effective and Efficient Online Teaching in the Age of Corona, A Hands On Workshop organized by IIT Bombay.
- 180) Prof. R. J. Kyatam has participated in one week FDP on “BOSS Linux Training” on 15th to 22nd April 2020 organized by Spoken Tutorial Project, IIT Bombay.
- 181) Prof. R. J. Kyatam has participated in five day FDP on “Design and development of Electric vehicles and Hybrid Electric vehicles” on 12th to 16th May 2020 organized by SAEINDIA western section and NKOCET.
- 182) Prof. R. J. Kyatam has participated in two days workshop on “Vehicle dynamics” on 6th to 7th March 2020 organized by NKOCET.
- 183) Prof. R. J. Kyatam has participated short term course on “Industry 4.0” on 25th April 2020 organized by TATA Steel.
- 184) Prof. R. J. Kyatam has participated short term course on Basic Metallurgy” on 25th April 2020 organized by TATA Steel.
- 185) Prof. R. J. Kyatam has participated short term course on “Heat Treatment of steel” on 25th April 2020 organized by TATA Steel.
- 186) Prof. V V Birangane has participated in a one week TEQIP sponsored online FDP on “Application of FEA and CFD using Ansys” from 13/06/2020 to 17/06/2020., organized by Government College of Engineering, Karad.
- 187) Prof. V V Birangane has completed 8 weeks course on “Accreditation & Outcome based Learning” on the NPTEL platform.
- 188) Prof. V V Birangane has completed 8 weeks course on “NATE” on the NPTEL platform.
- 189) Prof. V V Birangane has completed 1 week FDP Webinar on EVs SAE India organized by NKOCET & SAE INDIA.
- 190) Prof. V V Birangane has participated in one week FDP on “BOSS Linux Training” on 15th to 22nd April 2020 organized by Spoken Tutorial Project, IIT Bombay.

7. FACULTY MEMBERS WORKED AS RESOURCE PERSON AT OTHER INSTITUTIONS

- 1) Dr. Shriniwas. S. Metan has conducted the Session on “**Career Opportunities for Master’s Degree in abroad university**” in FE Student Orientation Program on 23/08/2019 at WCE Sangli.
- 2) Dr. Shriniwas. S. Metan has conducted the Session on “Career opportunities in Mechanical Engg. Domain” in FE Student Orientation Program on 24/08/2019 at SES Polytechnic Students
- 3) Dr. Shriniwas. S. Metan has conducted the Session on “Career Opportunities in Engineering” on 18/12/2019 at Vivek Vardhini Junior College, Padharpur
- 4) Dr. Shriniwas. S. Metan has conducted the Session on “Basic German Language Course(Level A1)” 18 students of NKOCET and other Institutes were present in December 2019 at NKOCET.
- 5) Dr. Shriniwas. S. Metan has worked as a Jury Member for the National Level Students Mahindra AWIM-2019 in October 2019 at Montessori English Medium School, Solapur.
- 6) Dr. Shriniwas. S. Metan has conducted the Session on “Career opportunities in Mechanical Engg. Domain” on 03/09/2019 at Maulana Azad Polytechnic, Solapur.
- 7) Dr. Shriniwas. S. Metan has conducted the Session on “Career opportunities in Mechanical Engg. Domain” on 03/09/2019 at Maulana Azad Polytechnic, Solapur.
- 8) Dr. B. K. Sonage has delivered expert talk on,” Nanofluids: Alternative working fluid for heat exchanging devices” in one week STTP on Recent trends in heat exchangers on 17/12/19-21/12/19 at SKN Sinhgad College of Engineering, Pandharapur.
- 9) Dr. B. K. Sonage has conducted the Session on “Steam Boilers” and “Shear Force and Bending moment Diagrams” on 13/08/19 at Swami Vivekanand Institute of technology (Polytechnic), Solapur.

- 10) Prof. A.S. Kashid has conducted the Session on “Strength of Materials” on 24/8/2019 at Swami Vivekanand Institute of technology (Polytechnic), Solapur.
- 11) Prof. A.S. Kashid has conducted the Session on “Velocity and Acceleration in mechanisms” on 05/3/2020 at Swami Vivekanand Institute of technology (Polytechnic), Solapur.
- 12) Prof. S. V Kumbar has conducted the Session on “Quality Control” on 06/3/2020 at Swami Vivekanand Institute of technology (Polytechnic), Solapur.
- 13) Prof. M. B. Awate has conducted Two Days Workshop on AutoCAD on 30th and 31st Jan 2020 at “Kai. Kalyanrao (Balasaheb) Ingale Polytechnic, Akkalkot” Students.
- 14) Prof. B.R. Birajdar has conducted Two Days Workshop on AutoCAD on 30th and 31st Jan 2020 at “Kai. Kalyanrao (Balasaheb) Ingale Polytechnic, Akkalkot” Students.
- 15) Prof. S. S. Kale has conducted the Session on “Hydraulic and Pneumatic circuit” on 13/3/2020 at GP Solapur.
- 16) Prof. S. S. Kale has conducted the Session on “Recent trends in Automobile” on 23/8/19 at NKOCET.
- 17) Prof.C.V.Papade has conducted the Session on “Recent Trends in Refrigeration & Air Conditioning” on 16/01/2020 at Maulana Azad Polytechnic, Solapur.
- 18) Prof.C.V.Papade has conducted the Session on “Solar Thermal Systems” on 11/3/2020 at Govt. ITI , Solapur.
- 19) Prof.C.V.Papade has conducted the Session on “Solar PV Panel & Its Applications” on 7/2/2020 at SE Electrical Students, NKOCET Solapur.
- 20) Prof.C.V.Papade has conducted the Session on “Recent Trends in Solar Energy” on 24/3/2019 at 12th Science Students, Social Science College, Solapur

8. CONTRIBUTION OF FACULTY MEMBERS IN VARIOUS ACTIVITIES:

Following faculty members have extended Contribution towards department and college activities as additional responsibility.

Sr. No	Name of Faculty Members	Additional Responsibility
1	Dr. S. S. Metan	Study Abroad Cell/Foundation Day/ NBA Coordinator /Foreign Language Course
2	Dr. B.K. Sonage	NBA & NAAC/FDP/Research Grants/Consultancy Work
3	Prof.A.S. Kashid	HR/RO/ Term work Coordinator/ Alumni Coordinator, NAAC V Institute Level Coordinator, NBA Institute Level Co-Ordinator (Student Support Systems).
4	Prof. S. S. Kale	Boys Hostel/Academic Monitoring Member / ME Coordinator/ Class-Coordinator(TE-A)
5	Prof. N. R. Patil	Direct Second Year Admission Coordinator/Proctor/Diploma Connect
6	Prof. Y. B. Patil	Fire Fighting/Direct Second Year Admission Coordinator /MESA/Dept. Library/Class-Coordinator (SE-B)
7	Prof.C.V. Papade	R&D/Project Coordinator/ Attendance Monitor/ Time Table/Class-Coordinator (BE-B)
8	Prof. V.V. Birangane	Aptitude Test/Orchitect Dept./Faculty & Staff Meeting /NPTEL

9	Prof. D. D. Bhoge	SAE/ARAI/Competitive Exam/ICE Innovation Lab/ Carrier Counseling Cell Coordinator
10	Prof. S. K. Khillare	Ready Engineer Coordinator /ERP/Archives/Website Coordinator
11	Prof. M. B. Awate	Sports/Stationary Incharge/Test Coordinator/Discipline/ CC of TE A/ DSE admission committee
12	Prof. B. R. Birajdar	Magazine/News, Publicity / Parent Meet Coordinator /Suggestion Box Incharge
13	Prof. A. B. Magar	Avishkar/Orchitect/Project/ Library/ Expert Lecture/NBA
14	Prof. A. S. Dhobale	PMK/Training & Placement/Spoken Tutorial/3DPLM/ DAB Co-Coordinator/One of CII Departmental Coordinators
15	Prof. S. V. Kumbar	III Coordinator/News Letter Coordinator
16	Prof. A. H. Kamble	NSS/Self Learning/Industry Visit/Seminar/Conference/W/S Attendance File
17	Prof. V. P. Kulkarni	Laboratory Incharge / Result Analysis
18	Prof. M. S. Dafedar	Workshop Incharge /Student Competition
19	Prof. A. K. Patil	Record Keeping/POE Coordinator/Result Analysis Class-Coordinator(SE-A)
20	Prof. P.N. Kulkarni	Annual Report/ Students Competitions/Class-Coordinator (BE-A)

9. AWARDS WON AND SPECIAL ACHIEVEMENT BY THE STUDENTS AND FACULTY MEMBERS:

- AICTE- CII Best Industry Institute Award:** In AICTE - CII industry linked institute our institute is awarded **Platinum Band** again this year. Mechanical Engineering Department was amongst the top **36 shortlisted** institutes for the final round, which was held on held Skype on 23/10/2019. Six jury members have conducted the interview. We have been ranked in **Top Seven Mechanical Department amongst 714 participants** from all over India.
- Dr. Shrinivas S. Metan was invited *as an Expert Panelist for the Second Edition of Knowledge Summit, a High Level Franco-Indian summit dedicated to higher education, research and innovation held on 17th & 18th October 2019 in Lyon, France.*
- Dr. Shrinivas S. Metan received the **“Shikshak Ratna” (Best Teacher) award from the Kasaba Peth Ganapati Mandal on 5th September 2019.**
- Department received second time Praytna Research **1.5 Lacs** Rs Funding from TTL for “The Development of Two Seater Solar Car”. Dr. Shrinivas S. Metan is Principal Investigator for this funding.
- 3D Scanning Machine 3,50,000/- (Three Lakhs Fifty Thousand Rs) funding was received from the Dassault Systems Ltd, Pune. Dr. Shrinivas S Metan is the Chief investigator for this funding.
- Dr. B.K. Sonage received “Best Faculty Member Award of NK Orchid college of Engg. and Tech., Solapur for academic year 2018-19”, on 5th September, 2019.
- Dr. M.S. Dafedar was awarded with Ph.D. in Mechanical Engineering in July 2019 from VTU Karnataka.
- Prof. A.S. Kashid has got best project award for the project “Design and Development of Cloth Duster for Cloth Industries “in Annual Project Competition for A.Y. 2018-19.

9. A Lab Setup for “PLEXP Faculty Advisors” funded by Dassault Systems La Fondation. High configured Desktops (LENOVO Work Stations) with 3D Experience License Copies. Funding worth 6,50,000/- (Six Lakhs Fifty Thousand Rs) for PCS and @ 8,00,000/- (Eight Lakhs Rs.) for the software license by Dassault Systems La Fondation. Dr. Shrinivas S Metan, Prof. A. B. Magar, Prof. Vaibhav P Kulkarni and Prof. P. N. Kulkarni are the PLEXP Faculty Advisors.
10. Dr. N R Patil and Dr. B. K. Sonage are recognized as, “Ph.D Guide of DBATU, Lonere” under the faculty of Engineering and Technology by the approval of academic council of DBATU, Lonere.

10. NEW INITIATIVES:

1. Mechanical Engineering Department has organized first SAE Students Convention as a Local Chapter. In this, six different technical events were conducted. Total 60 students participated in this event from FE to BE class (Mechanical, Electrical Department)
2. Mechanical Engineering Department of NK Orchid College of Engineering and Technology Solapur and SAE India has organized the first on-line Five Day Faculty Development Webinar on “**Design and Development of Electrical and Hybrid Electric Vehicle**”. Total 137 faculty and industry participants from 12 states and 16 cities from Maharashtra State participants were present for five days daily 2 pm to 4:30 pm. It was a National Platform where NKOCET has organized the event. Prof. D. D. Bhoge, Prof. Vaibhav Kulkarni played important role and were the key members for conducting this FDP. Dr. Shrinivas S Metan was the Convener and Speaker for this FDP.
3. One week On-line Students/ Faculty/ Industry Internship Program conducted by Mechanical engineering department on, “Product Design - Design Thinking/Innovation/Autodesk Fusion 360”. It is conducted on line platform from 8th to 12th June 2020. More than 400 participants from Maharashtra and

Karnataka participated in the course which includes faculty, working professionals and students from various institutes. The program and entire course was coordinated by Prof. V. P. Kulkarni, Prof. A. S. Dhobale and Prof. P. N. Kulkarni along with student coordinators Mr Siddheshwar Madole (Autodesk Catalyst) and Mr Vishwesh Patil from Third Year Mechanical. Prof. V. P. Kulkarni and Prof. A. S. Dhobale were the conveners of this FDP.

4. Department has organized Industry Expert Sessions for the First Year Engineering students to create interest and awareness about Mechanical Engineering field. Different Domain experts from various industries have conducted daily 1Hr sessions and then 30 minutes Q&A. Different domain such as Indian Army, Thermal, Design, Manufacturing Domain were briefed.
5. Faculty members developed e-content/ recorded videos of various subjects and made available to students through YouTube.
6. Faculty members created recorded video for diploma connect activity and circulated to various Diploma colleges.

11. PAPER PRESENTATION & PRIZES WON BY THE STUDENTS IN VARIOUS COMPETITIONS.

Sr. No	Name of Student & Class	Title of workshop/ seminar/ conference	Organized by
1	Sourabh Phutane Tejas Pathak Zishan Pathan Kiran Patil	Best project award for the project “Design and Development of Cloth Duster for Cloth Industries” in Annual Project Competition for A.Y. 2018-19.	NKOCET

12. PARTICIPATION IN NATIONAL LEVEL TECHNICAL COMPETITIONS:

1. Team **ASHAWMEDH** secured 45th Rank at Supra SAE India Student Formula Race Car Competitions held at Greater Noida, Uttar Pradesh from 15th to 20th July 2019. Total 24 students & 2 Faculty members Prof.P.N.Kulkarni and Dr. Shriniwas S Metan were mentors and accompanied the team.
2. Product **AASAN** developed by Third Year Mechanical Engineering students, Mr.Siddheshwar Madole, Vishvesh Patil and Rishikesh Lagali bagged **1st Prize at National Level Autodesk Social Impact Challenge** held at Bangalore on 22nd February 2020. They received a prize money of Rs 25000 and Certificate. Prof Vaibhav Kulkarni and Dr.Sandeep Bhagwat, Physiotherapist from Solapur guided them.
3. Rishikesh Sagari (TE-B Mech.) has received Second Prize in Project competition held at Global Village Campus at Boramani. Project Title:- Solar Operated Milk Pasteurization System. They received a prize money of Rs 1600, Memento and Certificate. Prof. C.V.Papade was the guide.
4. Mr.Siddheshwar Madole acquired Platinum Member at AutoDesk Ambassador Hub. He was selected as an intern for AutoDesk Catalyst with stipend Rs 15000 per month.
5. Second Year Mechanical Engineering student Mr Nalband has completed his Industrial training in the international firm Al Ezzel company Al dur plant Bahrain for one month.

13. MECHANICAL ENGINEERING STUDENTS ASSOCIATION (MESA):

A) Following students were elected as the office bearers of MESA for the academic year 2019-20.

Post	Name of Student
President	Rishikesh Mone (BE-B)
Secretary	Bansode Maruti (BE-A)

Vice-President	Abhishek Bhosale (TE-B)
Joint- Secretary	Gavali Supriya (TE-A)
Treasurer	Vaishnavi Gadagi(TE-A)
MESA Cultural Coordinator	Saurabh V. Katore(TE-B)/ Vidya N. Nama (TE-B)
MESA Technical Coordinator	Aslam Shaikh (TE-B)/Nasreen Shaikh (TE-B)
MESA Sports Coordinator	Akash Math (TE-A)
Food Coordinator	Pratik Bhadkumbhe (TE-A)
Discipline Coordinator	Adarsh Kamble (TE-B)

B) Expert Lectures Arranged By Mesa For The Students:

Following lectures were conducted for the students.

Sr. No.	Name Expert	Topic
SE		
1	Miss. Madhurima Neel Patil, KSB Pump, Pune	Pump Design
2	Mr. Anand Pujari, Education Account Manager, Auto Desk Education Experience, Bangalore.	Preparing for Mechathon Competition
3	Mr. Kirat Bidkar, Proprietor, Precise Engineers, Solapur	Design, Drafting & CNC Machining.
	Mr. Dhawal D. Thakkar, Product Manager, Data M Sheet Metal Solutions, Pune	Opportunities in CAD/CAM & CAE
4	DR. Gajanan V. Parishwad, HOD Mechanical, COEP, Pune	Overview of Global & Indian Energy Scenario with focus on Solar Energy
5	Dr. Vilas Kulkarni, MD, GOD-WILL Management Company, Pune.	Art of Self presentation through innovation
6	Mr. Iranna Salimath, Managing Director, Radheya India Pvt Ltd., Pune.	Career Opportunities and Preparation for it.

7	Mr. Rajesh Chavan, Founder Jeevan Sanjeevani, Manav Sanshodhan & Vikas Sanstha.	Personality Development
TE		
8	Mr. Ramesh Pasarija, Deputy Director, SAE India WS, Pune	Automotive Filtration
9	Mr. Hemant Gadgil, Executive Director La Foundation Dassault System, Pune.	Career Planing
10	Mr.S.E.Kulkarni, Project Manager, Training & Advisory Cell, Thermax Ltd. Power Division (O&M), Pune.	Steam Turbine
11	Mr. Vijay C. Gunge, Founder Trend Innovations, Pune.	Recent Trends in Boiler & Condenser & its Performance improvement Methods.
12	Mr. Hemant Gadgil, Senior Director Academia Programs, Dassault Systems-India	Preparing for the future
13	Mr. Natha Bhosale, Laxmi Control Pvt. Ltd., Solapur	Experience Sharing of Company
14	Prof. Shrikant G. Pawar,	Performance of Automobile
15	Mr. Pradip Katariya, Managing Director, Saurabh Flexipack Systems, Pune	Opportunities in Packaging Industry
16	Mr. Satish Aralkar, Manager, IBM India Pvt Ltd., Pune.	Opportunities in Software Industry
17	Mr. Prasad Marathe, Manager, TIETO India Pvt. Ltd, Pune.	Opportunities in Software Industry
18	Mr. Gajanan Bijjaragi, Laxmi Control Pvt. Ltd, Solapur.	Experience Sharing of Company

19	Mr. Ramesh Kotanur, Supplier Quality- New Development Manager, Maruti Suzuki India Ltd, Gurgaon.	Requirements of Industry & Future of Automobile Industry
20	Prof. Suhas Jagtap, WCE, Sangli.	Recent Trends in Gas Turbine 28/09/2017
21	Prof. M. S. Deshpande Principal, SVIT, Solapur.	Professional Ethics and Human Values
BE		
22	Mr. Chaitnya Kulkarni, Project Manager, Vardeland Industries, Pune	Industry Requirements for Placements.
23	Mr. Anand Dulange, Assistant Manager, Johnsons Sontrols, Pune	Industry Requirements for Placements.
24	Miss. Madhurima Neel Patil, Assistant Manager, KSB Pump, Pune	Pump Design
	Mr. Jagadish V.K., TATA Power, Bangalore	Project Management and Inventory
25	Mr. D. K. Bera, Head- Training & Advisory Cell, Thermax Power Division (O&M), Pune.	Opportunities for Mechanical Engineers in Thermax
26	Mr. S. E. Kulkarni, Project Manager, Training & Advisory Cell, Thermax Ltd. Power Division (O&M), Pune	Operation and Maintenance Aspects of Thermal Power Plant
27	Mr. D. K. Bera, Head- Training & Advisory Cell, Thermax Power Division (O&M), Pune	Operation and Maintenance Aspects of Thermal Power Plant
28	Mr. S. E. Kulkarni, Project Manager, Training & Advisory Cell, Thermax Ltd. Power Division (O&M), Pune	Design and Maintenance of Boiler

29	Prof. Swapnil Ghogardare, TPO & Assistant Professor DY Patil College of Engg., Akurdi, Pune	Preparation for Future Placement Opportunities
----	--	--

C) Other Activities Conducted By MESA:

Sr. No.	Event	Date
1	Inauguration of MESA	27/09/2019
2	Celebration of Teacher's day	05/09/2019
3	Fresher's Party for the new comers	16/10/2019
4	Celebration of Engineer's day	15/09/2019
5	Go Green session by Mr. Parag Bhayani in ARC Hall to create awareness and enthusiasm among students to choose Bicycle over fuel based transportation.	05/02/2020
6	Saksham (Savrakshan) – 2020, which is coordinated by Petroleum Conservation Research Association (PCRA) with active involvement of the Oil & Gas PSUs i.e. IOC, BPC, HPC & GAIL. Mr. Santoshkumar Nivendkar, General Manager (Retail) (State Level Coordinator Maharashtra & Goa, Bharat Petroleum) conducted the session.	04/02/2020
6	150 th Birth Anniversary of Mahatma Gandhiji.	01/10/2019

D) Industrial Visits

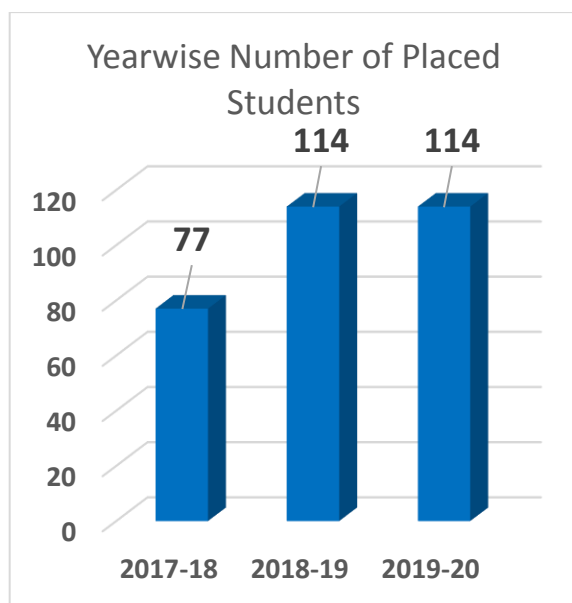
Sr. No.	Class	Industrial visit	Accompanied by
1	BE	Dudh Pandhari, Kegaon Milk Plant, Solapur. (6/9/2019)	Prof. C.V.Papade, Prof. A.B. Magar, Prof. M. S.Dafedar, Prof. P.N. Kulkarni,

			Prof. V. V. Bamane, & Prof. S. B. Nadaf.
2	TE	Laxmi Drucken Komponents Pvt. Ltd. MIDC Chincholi, Solapur (14/01/2020)	Prof. V. P. Kulkarni Prof. M. S. Dafedar Prof. A. H. Kamble, Prof. Y. B. Patil Prof. Rohan Kytam
3		Morval Engineering Pvt Ltd. MIDC Chincholi, Solapur (14/01/2020)	Prof. V. P. Kulkarni
4		Sujal Rotoplast. MIDC Chincholi, Solapur (14/01/2020)	Prof. V. P. Kulkarni Prof. M. S. Dafedar Prof. A. H. Kamble, Prof. Y. B. Patil Prof. Rohan Kytam
5		38 MW Cogeneration power plant at Shri. Siddheshwar Sugar Factory, Solapur	Prof. C.V.Papade Prof. V.V. Birangane , Prof. S.S. Kale, Prof. V.V. Bamane
6		P P Patel & Co. Tamalwadi (11.07.2019)	Prof. V. P. Kulkarni Prof. S. K. Khillare Prof. A. H. Kamble Prof. S. S. Kale
7	SE	Thirumala Precicast Ule (11.07.2019)	Prof. V. P. Kulkarni Prof. S. K. Khillare Prof. A. H. Kamble Prof. S. S. Kale
8	SE & TE	Mahindra and Mahindra, Chakan Plant, Pune on 11/10/2020 (47 Students)	Dr. Shrinivas S Metan Prof. D.D. Bhoge Prof. P.N Kulkarni

9	SE&TE	ARAI, Pune on 12/10/2020 (46 Studetns)	Prof.D.D.Bhoge Prof.P.N Kulkarni
---	-------	--	-------------------------------------

14. TRAINING & PLACEMENT:

Placement is one of the very important activities of the department. The placement season of department started with preparation for placement drives of MNCs like Tata Consultancy Services, Cognizant, Infosys with rigorous efforts on aptitude and programming Department continues its tradition of excellent placements in this academic year too. Our students got placed in reputed industries like Tata Consultancy Services, Cognizant, Infosys, Advik Hi-Tech Pvt. Ltd, Grey Atom, Dhoot Transmissions. Campus placement drives of many companies from different sectors were organized for students in which they proved their strength and bagged total **114 offers** till August 2020. The placement drives are still going on for these students.



The above table shows the placement graph of Mechanical Engineering Department in this academic year 2019-20.

The renowned companies in which students from current batch got placed are

1. Tata Consultancy Services

2. Aqua Chill Systems India Pvt. Ltd, Pune

4. Advik Hi Tech Ltd., Pune

5. Infosys

6. Grey Atom

7. Dhoot Transmissions, Pune

8. Balaji Enterprises Pvt. Ltd. Pune

9. BYJU's

10. Ronch Polymers, Pune

11. Q-Spiders, Pune

Also, students got opportunity to appear for Indian Navy, DXC Technologies Bangalore, Merchant Navy (SIMS, Lonavala). For every drive company specific training is arranged in which students are provided with the exposure to relevant subjects to revise the concepts and increase the chances of selection. In COVID-19 situation also department continued its efforts by organizing online placement drive of Saurabh Flexipack Systems, Pune and also continues its efforts of training by online Pre-placement Workshop.

15. SOCIAL ACTIVITIES BY THE STUDENT:

Students from Mechanical engineering department have participated in the various activities conducted by NSS. Around 50 students have donated blood in the blood donation camp.

16. PG ACTIVITY

- Mr. Pawar K P completed dissertation on "Evaluation of Heat Transfer and Pressure Drop Characteristics of Green Nano fluids" under the guidance of Dr. Sonage B K.
- Mr. Bhosale A B completed dissertation on, "Development of test set up for determination of thermal conductivity of liquids" under the guidance of Dr Sonage B K.
- Mr. Mahesh Mali completed dissertation on "Performance Evaluation of IC Engine with Preheated Diesel" under the guidance of Prof. S. S. Kale
- Mr. Ranavare Vinod Ramchandra completed dissertation on "Performance analysis of C.I. engine by using two oils

blended with diesel as alternative fuel” under the guidance of Prof. S S Kale.

17. NPTEL COURSES

During July- October 2019, NPTEL conducted various online courses. Out of that, 7 courses were selected for Mechanical Engineering students. Students registered for different online courses. For each course, faculties were assigned as mentor for respective students. Total **263 students** enrolled for the above courses. For the current semester (Jan- Apr 2020) 6 courses were selected. Total **181 students** enrolled for the above courses.

All faculties from Mechanical Engineering Dept. also appeared and successfully completed a course “Accreditation and Outcome based Learning” from NPTEL during July –October 2019. Prof. A.B.Magar was ranked amongst the top 5% of faculty members in that course. During current semester (Jan- Apr 2020) all faculties appeared for the course “NBA Accreditation and Teaching- Learning” in Engineering.

18. PARENT MEET

First Parent Teacher Association (PTA) meet for academic year 2019 – 2020 was held on 31st August 2019. Dr.Shriniwas S Metan briefed about our college achievement for academic year 2018-19, review of the activities & happenings in Mechanical Engineering Department for academic year 2018-19, briefed about Study Abroad Cell.

First Parents meet was conducted for S.E & T.E. class parents on 8th February 2020 in BE-A class. There were total 84 parents present for meeting. (Out of that 62 parents from S.E and 22 Parents from T.E.)

Second Parents Meet was conducted through online (Zoom Platform) on 29th May (Friday) 2020 for T.E.-A and on 30th May (Saturday) 2020 for T.E.-B. There were total 61 participants present for TE-A class meeting and, 74 participants were present for TE-B class meeting.

S.E. Parents meet was conducted on 04th June (Thursday) 2020 for S.E.-A and on 05th June (Friday) 2020 for S.E.-B. There were total 35 participants present for SE-A class meeting and, 53 participants were present for SE-B class meeting.

There was at length discussion about students’ performance in this semester and student’s appreciation for good results in exam from their parents. Also, we briefed about the placement activity during academic year 2019-20 and discussed about detail schedule of PPW session & Test to enhance the skills of the students. Parents were happy about efforts taken by Mechanical Engineering department for students Industrial Training & Placement activity.

Prof.B.R.Birajdar coordinated all the Parents meet with respective class coordinators.

19. WORKSHOP CONDUCTED FOR MECHANICAL ENGINEERING STUDENTS

- a. The department organized “Student Expert Boot camp” for 3 days in the month of January 2020. It was a good opportunity for the students in and around Solapur region to utilize resource person’s knowledge from AutoDesk.
- b. Mechanical Dept. and SAEINDIA Western Section has arranged Two Day Workshop on “Vehicle Dynamics” on 6th and 7th Mar 2020, for SAEINDIA Students and Faculty Members. Mr. Ravindra Kolhe (Director, NBT Pune) was the Speake Mr.Sudhir Vaidya (SAE WESTERN SECTION). Total 24 students and 10 Faculty attended the workshop. Dr.Shriniwas S Metan worked as a Convener and Prof. D. D. Bhoge worked as a Coordinator for the Workshop.
- c. Mechanical Dept. and SAEINDIA Western Section has arranged One Day Workshop on “Master Teachers Training Program” on Saturday, 13/07/2019, for school teachers and Student volunteers. Mr. Sagar Murugkar (Manager SAEINIDA WS) and Prof. D. D. Bhoge Trained the School teachers and

Volunteers in Jet toy and Skimmer competition. Total 29 School teachers and 12 volunteers attended the workshop. Prof. D. D. Bhoge worked as a Coordinator and Trainer for the Workshop.

d. NKOCET and SAEINDIA Collegiate Club had organized one day (Tier-I) Competition in following categories for NKOCET Student.

1. Business Plan
2. Auto Quiz competition
3. Modeling and Animation
4. Welding
5. Internet of Things
6. Solar Circuit Designing

Total 41 Student Participated in it. Winning team will get direct chance to participate in Tire-III competition which will be held in Pune. Dr.Shriniwas S Metan worked as a Convener and Prof. D. D. Bhoge worked as a Coordinator for student Convention 2020 (Tier-I).

20. PATENT FILING

1. Prof.A.S.Kashid has filed a patent for the project “Design and Development of Cloth Duster for Cloth Industries”.
2. Prof. V.P. Kulkarni has filed a patent on “A Seat for Back-pain” along with the students Siddheshwar Madole, Vishvesh Patil, Rushikesh Lagali and Dr. Sandeep Bhagwat. The Provisional Patent Number is 202021030943
3. Prof. V.P. Kulkarni has filed one more patent on “A device for Smart Washroom” along with the students Siddheshwar Madole, Vishvesh Patil, Rushikesh Lagali and Dr. Sandeep Bhagwat. The Provisional Patent Number is 202021025367.

(Dr. Shriniwas. S. Metan)

Head Department of Mechanical Engineering