

## Evaluative Report of Department of Mechanical Engineering

**1. Name of the department: Department of Mechanical Engineering**

**2. Year of Establishment: 1995**

**3. Names of Programmes / Courses offered:**

Sr. No	Name of the programme	Year of Establishment	Intake
1	UG- BE Mechanical Engineering –I shift	1995	60 (1995 to 2005) 120 (2006 onwards)
2	UG- BE Mechanical Engineering –II shift	2010	60

**4. Names of Inter disciplinary courses and the departments/units involved: NIL**

**5. Annual/ semester/choice based credit system (programme wise):**

Sr. No	Name of the programme	Pattern/System(Annual/semester/choice based credit system)
1	UG- BE Mechanical Engineering –I shift	Semester wise credit based system (From A.Y. 2015-16)
2	UG- BE Mechanical Engineering –II shift	Semester wise credit based system (From A.Y. 2015-16)

**6. Participation of the department in the courses offered by other departments**

Sr. No	Name of the Department	Class	Name of the Course
1	All Departments	FE	1. Engineering Graphics-I (Semester-I) 2. Basic Mechanical Engineering , Engineering Graphics-II (Semester-II)

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.: NIL**

**8. Details of courses/programmes discontinued (if any) with reasons: NIL**

**9. Number of teaching posts:**

	Sanctioned	Filled
Professors	5	2
Associate Professors	12	3
Asst. Professors	33	38

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.)**

Sr. No.	Name of Staff	Qualification	Designation	Specialization	No. of Years of Experience (A+B)*	No. of PhD students guided for last 4
1	Milind B. Murugkar	M. Tech.	Professor	Energy Systems	29y 9m	NIL
2	Dr. Prashant B. Kushare	Ph. D.	Professor	Machine Design	15y 9m + 2y	NIL

3	Dr. Mahesh N. Shelar	Ph. D.	Associate Professor	Energy Systems	19y 7m + 1y	NIL
4	Sanjay D. Barahate	M. Tech.	Associate Professor	Energy Systems	18y 8m	NIL
5	Vijay S. Patil	M.Tech.	Associate Professor	Energy systems	16y 8m	NIL
6	Sanjay M. Joshi	B.E.	Lecturer (Senior Grade)	Mechanical	31y 5m	NIL
7	Nilesh S. Ahirrao	M.E.	Assistant Professor	Design Engineering	18y 8m	NIL
8	Vilas K. Patil	M. Des.	Assistant Professor	Design Engineering	11y 3m	NIL
9	Vaibhav V. Khond	M.E.	Assistant Professor	Mechanical	13y 8m + 4y	NIL
10	Atulkumar S. Patil	M.E.	Assistant Professor	Design Engineering	12y 8m + 2y 6m	NIL
11	Snehal V. Kadbhane	M. E.	Assistant Professor	Thermal Engineering	11y 4m	Nil
12	Pravin B. Surwade	M.Tech.	Assistant Professor	Turbo-machines	10y 8m + 1y	NIL
13	Preeda S. Pillai	M. Tech.	Assistant Professor	Thermal Engineering	10y 4m + 1y	NIL
14	Charudatta S. Mhasde	M. Tech.	Assistant Professor	Design Engineering	8y 8m	NIL
15	Ramesh V. Bhandare	M. Tech.	Assistant Professor	Machine Design	8y 3m	NIL
16	Pawan R. Rahane	B.E.	Assistant Professor	Mechanical	7y 7 m	NIL
17	Mohansing R. Pardeshi	M. Tech.	Assistant Professor	Machine Design	8y 8m +1y	NIL
18	Mangesh P. Panchbhai	M. Tech.	Assistant Professor	Machine Design	6y 8m + 1y	NIL
19	Amit D. Bhagure	M. Tech.	Assistant Professor	CAD/CAM	5y 7m	NIL
20	Shivaji S. Kale	M. Tech.	Assistant Professor	Energy Technology	6y 8m	NIL
21	Rahul D. Rakhade	M. Tech.	Assistant Professor	Industrial Process	4y 10m +1y 9m	NIL
22	Nivrutti V. Patil	M. E.	Lecturer	Design Engineering	5y 4m + 6y	NIL
23	Prashant K. Kavale	M. E.	Assistant Professor	Machine Design	7y 4m + 10y	NIL
24	Manoj S. Sonawane	M. E.	Assistant Professor	Design Engineering	7y 3m + 2y	NIL
25	Ganesh R. Rayjade	M.E	Assistant Professor	Design Engineering	5y 6m + 3y	NIL

26	Vishal G. Galande	B.E.	Assistant Professor	Mechanical	5y 4m + 2y 3m	NIL
27	Rohit V. Bhaskar	M.E.	Assistant Professor	Design Engineering	4y 5m + 1y	NIL
28	Pankaj R. Beldar	M.E.	Assistant Professor	Mechanical Design	3y 9m	NIL
29	Sonali D. Mate	M.E.	Assistant Professor	Design Engineering	3y 9m + 1y	NIL
30	Mugdha V. Bhadak	M.E.	Assistant Professor	Design Engineering	4y	NIL
31	Milind R. Bahiram	M.E.	Assistant Professor	Design Engineering	2y 10m + 3m	NIL
32	Bhushan G. Patil	M. Tech.	Assistant Professor	Thermal Engineering	2y 2m	NIL
33	Neha S. Dixit	M.E.	Assistant Professor	CAAD	2y + 2y	NIL
34	Pankaj B. Ranade	M.E.	Assistant Professor	Manufacturing and	1y 10m + 2y 9m	NIL
35	Pritamkumar D. Ahire	M. Tech.	Assistant Professor	CAD / CAM	2y	NIL
36	Yogesh V. Borse	M.Tech	Assistant Professor	Heat Power Engg	2y + 1y	NIL
37	Sneha Y. Naukarkar	M.Tech.	Assistant Professor	Heat Power Engg	2y	NIL
38	Priyanka P. Gangurde	M. E.	Assistant Professor	Design Engineering	1 y + 8 m	NIL
39	Chetan Dattaraya Valunj	M. E.	Assistant Professor	Design Engineering	6 y + 4 m	NIL
40	Bhushan S. Dalvi	M. S.	Assistant Professor	Mechanical Engineering	4y + 5 m ( Industrial)	NIL
41	Vikrant D. Nichit	M.E.	Assistant Professor	Design Engineering	3m + 4y	NIL
42	Ajay R. Patil	M. Tech.	Assistant Professor	CAD/CAM	3m + 3y	NIL
43	Ashwini V. Zoman	M.E.	Assistant Professor	Heat and Power	3m + 4y 6m	NIL

\*A – Teaching Experience in K. K. Wagh Education Society

\*B – Teaching Experience in Other institute + Industry

#### 11. List of senior visiting faculty

Years	Total number of senior visiting faculty	Name of faculty
2013 to till date	1	Mr. Gourang Ambulkar

#### 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary Faculty :

**First Shift:**

Sr. No.	Class	Semester	Lect. Delivered By temp. faculty/Total Lectures conducted for the class (A/B)	Practicals Handled By temp faculty/Total Practical Handled for the class (C/D)	Total (A+C)/(B+D)	Percentage (%)
<b>A. Y. 2016-17 First Shift</b>						
1	FE	I	97/475	109/266	0.2780	27.80
2	SE	I	76/498	59/349	0.1593	15.93
3	TE	I	96/381	101/254	0.3102	31.02
4	BE	I	0/340	0/232	0	0
<b>Second Shift</b>						
1	FE	I	0/218	9/106	0.0277	2.77
2	SE	I	40/166	0/468	0.0630	6.30
3	TE	I	0/225	0/620	0	0
4	BE	I	0/181	0/264	0	0
<b>First Shift</b>						
1	FE	II	54/465	79/343	0.1646	16.46
2	SE	II	37/322	66/806	0.0913	9.13
3	TE	II	14/406	36/862	0.0394	3.94
4	BE	II	10/346	0/542	0.0112	1.12
<b>Second Shift</b>						
1	FE	II	75/211	8/161	0.2231	22.31
2	SE	II	0/158	0/390	0	0
3	TE	II	38/184	39/384	0.1355	13.55
4	BE	II	0/178	0/180	0	0
<b>A. Y. 2017-18 First Shift</b>						
1	FE	I	18/470	65/418	0.0934	9.34
2	SE	I	0/435	0/390	0	0
3	TE	I	43/441	0/561	0.0429	4.29
4	BE	I	0/486	0/300	0	0
<b>Second Shift</b>						
1	FE	I	0/217	30/170	0.0775	7.75
2	SE	I	0/216	0/205	0	0
3	TE	I	0/233	0/265	0	0
4	BE	I	16/213	0/162	0.0426	4.26
<b>First Shift</b>						
1	FE	II	56/497	73/295	0.1628	16.28
2	SE	II	42/311	53/560	0.1090	10.90
3	TE	II	30/384	0/440	0.0364	3.64
4	BE	II	125/331	47/234	0.3044	30.44
<b>Second Shift</b>						
1	FE	II	45/227	35/145	0.2150	21.50
2	SE	II	35/161	24/282	0.1331	13.31
3	TE	II	30/206	30/218	0.1415	14.15
4	BE	II	46/164	14/142	0.1960	19.60

**13. Student -Teacher Ratio (Programme wise):**

Name of the Programme	2017-18	2016-17	2015-16	2014-15	2013-14
UG-I Shift	17.61	22.63	19.56	20.57	21.36
UG-II Shift	20.25	21.17	17.79	18.65	20.18

**14. Number of academic support staff (technical) and administrative staff:**

Sr. No	Type of Staff	Sanctioned	Filled
1	Support Staff (Technical)	--	12

**15. Qualifications of teaching faculty with D.Sc. / D.Litt. / Ph.D. / M.Phil. / PG**

Ph.D.	PG
02	39

**16. Number of faculty with on-going projects**

a) National: 5

b) International: NIL

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR and total grants Received**

Sr. No.	Project funded by	Duration	Principal Investigator	Project Title	Grant Sanctioned (in Rs.)
1	BCUD, Savitribai Phule Pune University, Pune	2014-16	Shivaji S Kale	Harvesting of Algal Biodiesel (ABD) from Local Algae Species and Testing the Suitability of ABD as a fuel in Diesel Engines	2,00,000
2	BCUD, Savitribai Phule Pune University, Pune	2016-18	Dr. Prashant B. Kushare	Experimental investigation of a novel configuration of a two lobe journal bearing	2,60,000
3	BCUD, Savitribai Phule Pune University, Pune	2016-18	Vaibhav V. Khond	Design, optimization and development of 3 D printing machine	1,80,000

**18. Research Centre /facility recognized by the University: No****19. Publications:**

Number of paper published in peer reviewed journal: 56

Number of publication listed in International Database: 24

Books with ISBN Number /ISSN Number with detail of publisher:

Dr. P. B. Kushare

"Industrial Engineering and Management", Technical Publications, Pune, ISBN No. 97881843314977

Name of Faculty	Number of paper published in peer reviewed journal	Number of publication listed in international database	Citation Index	Impact Factor	H –index/i-10 index
M. B. Murugkar	9	2	113	5	4
Dr. P.B. Kushare	7	7	50	4.355	5/1
Dr. M. N. Shelar	3	3	57	2.957	-
S.D. Barahate	1	1	-	-	-
V. S. Patil	2	-	-	-	-
V.K. Patil	1	1	-	-	-
P.S. Pillai	2	-	-	-	-
P.K.Kavale	2	1	-	-	-
G. R. Rayjade	1	1	-	-	-
P.R. Beldar	4	1	-	3.45	-
P. R. Karmase	2	-	-	-	-
P. D. Ahire	3	1	-	-	-
M. R. Pardeshi	1	1	-	-	-
M. P. Panchabhai	2	-	-	-	-
R. D. Rakhade	1	1	-	-	-
M. S. Sonawane	4	-	-	-	-
R.V. Bhaskar	2	-	-	-	-
S.D. Mate	2	-	-	-	-
M.V. Bhadak	1	-	-	-	-
B.G. Patil	2	-	-	-	-
V. G. Galande	1	1	-	-	-
N. S. Dixit	1	1	-	-	-
V. V. Khond	1	1	-	-	-
N. S. Ahirrao	1	1	-	-	-

**20. Areas of consultancy and income generated** – Energy Audit (Rs. 44005/-) from June 2017

**21. Faculty as members in**

a) **National Committees:** NIL

b) **International Committees:** Dr. Prashant B. Kushare, Reviewer of Proceedings of Institution of Mechanical Engineers Part J: Journal of Engineering Tribology, Journal of Vibration and Control by Sage Publications, Journal of Institution of Engineers (India): Series C.

c) Any other committee: NIL

**22. Student projects**

Academic Year	UG (I Shift )		UG (II Shift )	
	% of students who have done in-house projects	% projects in organization outside the Institute	% of students who have done in-house projects	% projects in organization outside the Institute
2017-18	46.15%	53.85%	30%	70%

2016-17	20.52%	79.48%	13.5%	87.5%
2015-16	33.33%	66.67	33.33%	66.67%
2014-15	42.50%	57.50%	35.29%	64.71%
2013-14	52%	48%	46.67%	53.33%

### 23. Awards / Recognitions received by faculty and students:

Academic Year	Total Number of students awards	Total Number of Faculty awards	Recognitions received by faculty
2017-18	06	0	0
2016-17	06	0	11
2015-16	03	1	4
2014-15	03	0	1
2013-14	39	1	1

### University Toppers:

Academic Year	Class	University Rank	Name of Student	Marks
2013-14	TE	Third	Neel A. Kediya	77.80%
2009-10	BE	First (Gold Medallist)	Jaspreetsingh Arora	82.40%

### 24. List of eminent academicians and scientists / visitors to the department:

Sr. No	Date	Name of visitors	Designation, Name of Affiliated Institute/ Company
<b>A.Y.17-18</b>			
1	15/2/2018	Mr. Shirish Medhi	Retired Manager Catabarry India Thane
2	10/1/2018	Dr. Nihar Walimbe	Ex Principal, PVG Engg. College Nashik
3	6/7/2017	Prof.Sagar Sonakar	Professor, IIT Bombay
<b>A.Y.16-17</b>			
1	9/2/2017	Jagdish Kulkarni	Head, Video and Film Division, YCMOU, Nashik
2	28/01/2017	Sriprashant Durugkar	DGM, L & T Hydrocarbon Ltd. Mumbai
3	27/01/2017	Dr. Vikas Phalle	Professor, VJTI, Mumbai
4	27/01/2017	Sanjeev Kamble	Sr. Manager, RCF, Mumbai
5	20/01/2017	Yuvraj Vadaje	CEO UVK Link Pvt. Ltd. Nashik
6	16/08/2016	Sandeep Patil	University of Texas
7	13/08/2016	Soheb Patel	CEO, Hackers Hook, Nashik
8	27/07/2016	Sahebrao Kharat	Member of Nashik First
9	27/07/2016	Rajendra Kulkarni	Member of Nashik First
10	27/07/2016 28/07/2016	Vasant Marathe	Director, Swift Industry, Nashik
11	21/07/2016	Ravindra Khatale	IAS selected Candidate in UPSC-2015 Exam, Nashik
12	01/07/2016	Sagar Nikam	ELC Pvt. Ltd, Nashik
<b>A.Y.15-16</b>			
1	17/03/2016	Abbas Aboojwala	Director, Technosheel Pvt. Ltd., Nashik

2	16/03/2016	Dipendrasingh Kushwaha	District Collector, Nashik
3	12/3/2016	Jitendra Kakuste	Residential Deputy Collector-RDC, Nashik
4	4/3/2016	Rajendra Bagve	MD, Precision Auto Pvt. Ltd. Nashik
5	4/3/2016	Sanjay Kothekar	CEO, Access-CADD
6	1/9/2015	Rucha Gokhale	CEO, Indyrise
<b>A.Y.14-15</b>			
1	25/2/2015	Pankaj Roy and Rupesh Jagtap	Uni-Petroleum Studies, Mumbai
2	23/2/2015	Dr. Pant R. K.	Professor, IIT Bombay
3	12/2/2015	Sagar Nikam and Madhura Shelar	ELC Pvt. Ltd, Nashik
4	12/2/2015	Shruti Kulkarni,	Marbolus Forum, Pune
5	30/12/2014	Nilesh Salgaonkar	TAACT MIDC Ambad Nashik
6	7/8/2014	Amit Gore	Founder AKSAY Study Abroad
7	24/7/2014	Satish Tambat	Director Of IGC Aurangabad
8	24/7/2014	Sanrang Bhong and Sachin Pawar	SIEMENS Tech , Pune
9	16/7/2014	Kunal Dhakate	TIMES,Nashik
10	4/7/2014	Ganesh Bhadange	GATE FORUM ,Delhi
11	2/7/2014	Amey Phatale	FACT, Nashik
<b>A.Y.13-14</b>			
1	15/3/2014	Aashish Chandra Varma ,	Managing partner at PRIME Industries Nashik
2	14/2/2014	Sagar Nikam and Madhura Shelar	ELC Pvt. Ltd , Nashik
3	4/2/2014	Satyajit Kulkarni	Staff, ARAI, Pune
4	30/12/2013	Vivek Sawant,	Director, MKCL, Pune

## 25. Seminars/ Conferences/Workshops organized & the source of funding

Sr. No	Year	Name of Seminars/ Conferences/Workshops	Level	Source of Funding
1	2017-18	Mecheaven-2018	State	Self Financed
		Emerging Trends in Mechanical Engineering (ETime-2018)	State	Self Financed
		Workshop on Syllabus Implementation of Design of Machine Element II (2015 Course)	University (Nashik & A' Nagar Region)	Self Financed
		Advanced Mobility	State	Self Financed
		Recent Practices in Refrigeration Systems	State	ISHRAE
		Recent developments in Power Sector: Technology and Policy	State	Self Financed
2	2016-17	Mecheaven-2017	State	Self Financed
		Workshop of Mechanical Engineering Design: Trends and Practices	University	Self Financed and University sponsored
3	2015-16	Mecheavan-2016	State	Self Financed



4	2014-15	Mecheavan-2015	State	Self Financed
5	2013-14	Mecheavan-2014	State	Self Financed
6	2012-13	Mecheavan-2013	State	Self Financed

## 26. Student profile programme/course wise:

Academic Year (Graduation)	First-shift					Second Shift						
	Selected (Admission in F.E.)	*CAP	Institute Level	Enrolled		Pass %	Selected (Admission in F.E.)	Enrolled		Enrolled		Pass %
				*M	*F			*CAP	Institute Level	*M	*F	
2017-18	127	86	41	106	21	N A	60	44	16	50	10	N A
2016-2017	127	98	29	105	22		60	45	15	50	10	
2015-2016	127	102	25	101	26		60	47	13	52	8	
2014-2015	127	103	24	99	28		60	48	12	52	8	
2013-2014	127	103	24	103	24		60	47	13	49	11	

CAP\*=Centralised Admission Process governed by DTE, M\* = Male, F\*= Female

## 27. Diversity of Students:

### Name of the Program: UG- Mechanical Engg.

Name of the Course	Shift	Year	% students from same state	% students from other state	% students from abroad
UG-Mechanical Engg.	I	2017-2018	98.43	1.57 (2 students)	0
	II		100	0 (0 students)	0
UG- Mechanical Engg.	I	2016-2017	99.21	1.57 (2 students)	0
	II		97.5	5 (3 students )	0
UG- Mechanical Engg	I	2015-2016	98.42	3.15 (4 students)	0
	II		99.16	1.67 (1 student)	0
UG- Mechanical Engg.	I	2014-2015	99.21	1.57 (2 students)	0
	II		99.16	1.67 (1 students)	0
UG- Mechanical Engg.	I	2013-2014	99.60	0.79 (1 students)	0
	II		100	0 (0 students)	0

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

Sr. No.	Academic Year	No. of students for Examination			
		GRE/ TOEFL	GATE	CAT	CET
1	2017-18	04	19	06	11
2	2016-17	01	15	00	00
3	2015-16	07	14	01	00
4	2014-15	17	17	00	05
5	2013-14	08	30	00	08

**29. Student progression:**

Student progression/ Year	2017-18	2016-17	2015-16	2014-15	2013-14
UG to PG	-	1.53%	7.05%	9.54%	3.92%
Employed- Campus Selection	20.34%	23.97%	25.31%	53.26%	25.49%
Employed- Other than campus recruitment	-	0%	0.41%	5.52%	12.25%
Entrepreneurship/Self-employment	-	1%	0%	1.005%	0.98%

**30. Details of Infrastructural facilities****a) Library**

Name of Programme	Total No. of Books	No. of Seminars	No. of Project Reports
UG- Mechanical Engineering	198	545	267

**b) Internet facilities for Staff & Students**

Shared 155 Mbps Leased line internet connection is available for Staff & Students.

**c) Class rooms with ICT facility: 4 ICT enabled classrooms and 1 tutorial room available****d) Laboratories**

Sr. No.	Room No.	Laboratory Name	Area ( Sq. Meter)	Equipment cost (Rs.)
1	E206-I	Heat Transfer Laboratory	105	376536.00
2	E106 I	Engine Laboratory	105	2707511.70
3	E206-II	Refrigeration and Air-conditioning Laboratory	70	1308988.00
4	E108 I	Machine Laboratory	105	1126207.00
5	E103-II	Design Software Laboratory	105	4158918.00
6	F205	CAD/CAM Laboratory	105	4129848.00
7	H101	Fluid Machinery Laboratory	100	1032828.00
8	E103-I	Mechatronics Laboratory	70	1209105.00
9	E208-I	Modelling and Simulation	105	1933438.03
10	E203I&II	Model Laboratory	175	763473.00
11	E108 II	Fluid Mechanics Laboratory	70	416000.00
12	NA	Non Conventional Energy Park	In college campus	587650.00

There are 12 well equipped Laboratories with equipments costing Rs.1,97,50,502.73

**31. Number of students receiving financial assistance from college, university, government or other agencies:**

Academic Year	Category											
	Scholarship					Free ship					EBC	Total
	SC	OBC	VJNT	SB C	ST	SC	OBC	VJNT	SBC	ST		
2017-18	34	103	48	1	10	36	95	20	5	14	65	431
2016-17	40	134	55	2	12	35	83	28	4	14	72	479
2015-16	42	117	61	4	14	49	88	27	3	19	49	473
2014-15	33	105	49	5	13	46	83	23	2	19	55	433
2013-14	32	102	48	5	14	45	84	25	2	13	62	432

### 32. Details on student enrichment programmes (special lectures / workshops /Seminar) with external experts:

Sr. No.	Date	Topic lectures / workshops	Name of Expert/Organization
1.	23/02/2018	Advance Mobility	Mr. Binu Thomas Philip, Priyadarshani Karve, Vikrant Bhalerao
2.	16/02/2018	Recent Boom in Aviation Sector	Mr. Vinukumar R, HAL Ozar township Nashik
3.	15/02/2018	Recent Development in Power Sector	Mr. Ashok Shreenivasan, Ashwini Chitnis, Ajay Chandak
4.	15/02/2018	Climate Change	Mr. Shirish Medhi
5.	08/02/2018	Recent Practices in Refrigeration System	Sanjay Nikam, Suresh Didmishe, Madhusudan Gaidhani,
6.	30/01/2018	Effective time Management in work life	Vishal Wagh, A LED light manufacturing company, Waluj Aurangabad
7.	10/01/2018	Software Training Course	Roopali Gosavi, Makhmalabad Road Nashik
8.	10/01/2018	Cryogenics	Dr. Nihar Walimbe, PVG Engg. College Nashik
9.	09/01/2018	Industry 4 & Design Philosophy	Jayesh Pai, Access CADD Nashik
10.	06/01/2018	Advance Product Management System	Satish Pagar, M & M Satpur Nashik.
11.	19/09/2017	IPR Introduction	Prof. R. Y. Ghegade , SDMSGCOE PER Nashik
12.	16/09/2017	How to prepare process sheet	Satish Pagar, M & M Satpur Nashik.
13.	13/09/2017	Performance Assessment of Electrical Utilities	Er. Bhausahab Devkar, Certified Energy Auditor
14.	9/9/2017	Advancements in Product design and Management system	Musale Mangesh, M & M Satpur Nashik.
15.	31/08/2017	Learn Science and Maths with Robotics	Sanjay Mulay, Robogenius Academy, Nashik
16.	26/08/2017	Advancements in Metrology and Quality Control	Jadhav Santosh, Dy., Manager, M&M, Satpur
17.	22/08/2017	Hyperloop Technology	Shrikant Bidwai, CAD/Cam Guru
18.	18/8/2017	Energy Conservation	Pramod Daspute, Energy Auditor

19.	18/8/2017	Guidance for self propeller Onion Harvester	Sandip Adhav, Johndeer India Pvt. Ltd, Executive Manager.
20.	26/07/2017	Social Surfing	Ms. Priyanka & Suhasini, Executive
21.	14/7/2017	Introduction to CREO software	Deepak Kale, ACCESS CAD,
22.	6/7/2017	GATE Exam Awareness Program	Prof.Sagar Sonakar, Professor, IIT Bombay
23.	5/7/2017	Expert Talk on Professional development	Sanchita Roy Sharma, Professional Consultant
24.	9/2/2017	Thermal power plant working and maintenance	Kiran Bhagat (Maharashtra Power Generation Company Limited)
25.	31/01/2017	Introduction to NDT Methods	Zibran Mirza
26.	27/1/2017 to 28/01/2017	Mechanical Engineering Design: Trends and Practices	Dr. Vikas M. Phalle VJTI, Mumbai, S. R. Durugkar, L&T Hydrocarbon, Mumbai, Sanjeev Kamble, RCF, Mumbai
27.	23/01/2017	Thermal power plant	Ashwini Chitnis
28.	6/1/2017	Design and manufacturing integration	Shrikant Bidwai
29.	17/10/2016	Performance assessment of electrical utilities	Balasaheb Devkar
30.	3/9/2016	Industrial Training courses-Importance and Applications	Chetan Kale
31.	30/8/2016	Energy Audit of HVAC	Suhas Deshpande
32.	27/8/2016	Motor Bike Overhauling	Niven Garg and Mr. Yash Pal
33.	16/08/2016	Collaborative Research area in Mechanical Engineering	Sandip Patil
34.	13/8/2016	Cyber Security	Soheb Patel
35.	28/7/2016	Design Software knowledge	A. S. Bhagwat
36.	27/7/2016	Road Safety	Sahebrao Kharat and Mr. Rajendra
37.	27/07/2016	Entrepreneurship awareness	Vasant Marathe
38.	21/07/2016	Competitive Examinations and its Preparation	Ravindra Khatale
39.	13/07/2016	CAD/CAE Rapid Prototyping	Nishant Shah
40.	7/7/2016	Higher study in MBA	Sagar Nikam
41.	2/7/2016	Importance of 3D software	Rushikesh Jadhav
42.	3/5/2016	Demonstration of Inpods	Ajay Bhagwat
43.	10/3/2016	Industrial automation	Jayant Deo
44.	9/3/2016	Explain How to solve real life problems base on mechanical Engg. using ANSYS CFD	Kartik Sundar Rajan
45.	8/3/2016	Explain How to solve real life problems base on Mechanical Engg. using ANSYS FLUENT	Kartik Sundar Rajan

46.	4/3/2016	Teaching leadership	Shri.Rajendra Bagve
47.	4/3/2016	Skills sets and opportunity in design engineering industry (E-R & D)	Sanjay Kothekar
48.	6/2/2016	Finite Element Analysis	Vijay Kumar Jatti
49.	6/2/2016	Producer Gas Engine	Bhalerao
50.	21/01/2016	Energy Conservation By PCRA	Ajitkumar Datar
51.	27/12/2015	Fixture Design	Kaustubh Tayde Nashik
52.	28/9/2015	Workshop on CATIA	Satish Tambat
53.	10/9/2015	How to solve real life problems base on mechanical engineering	Ravindra
54.	4/9/2015	Cogeneration	Ashutosh Sonawane
55.	1/9/2015	Working experience in foreign environment	Rucha Gokhale
56.	19/08/2015	Application of various hydraulics and pneumatics	Nikhil A. Bhor
57.	14/7/2015	Introduction to Solid Modelling	Deepak Kale, Amol Valhe and Nitin Talele
58.	2/7/2015	FEA and CFD Simulation	Srijit Jacoh and K. Surendra Ranjan
59.	6/4/2015	Seminar on Mathematics	Akshay Dalavi, Nashik
60.	2/4/2015	Career guidance for	Satyjit Kulkarni
61.	12/3/2015	Seminar on Aptitude test career guidance	Sagar Nikam & Madhura Shelar
62.	26/02/2015 to 02/03/2015	Workshop on ANSYS	Mr. Satish Tambat
63.	25/02/2015	Paradigm shifts in Higher Education	Pankaj Roy, Rupesh Jagtap,
64.	23/02/2015	Seminar and Demonstration on Lighter than Aircraft system	Dr .Pant R. K.
65.	17/02/2015	Employability skills & Career guidance	Nilesh Kokale
66.	16/02/2015 to	Integrated course in CAE and	Satish Tambat
67.	21/01/2015	Thermal power plant working and maintenance	Kiran Bhagat
68.	30/12/2014	Seminar on career guidance on Industrial Automation	Nilesh Salgavkar
69.	27/12/2014	Seminar on automotive component manufacturing	Kaustubh Tayde
70.	9/10/2014	Proficiency in English Language	Shyonti Talvar

71.	24/09/2014	Seminar on hydraulics and pneumatics by using automation studio.	Datta Shinde
72.	23/09/2014	Seminar on heat transfer enhancement techniques	Dr. Sandeep Sonawane
73.	20/09/2014	Climate change and appropriate technology for Disaster	Mandar Vaidya
74.	21/08/2014	Interactive session on Quality & Maintenance	Kaustubh Bonge
75.	1/8/2014	Expert Lecture on Career Option after Engg with Special	Satish Tambat
76.	24/07/2014	Seminar on Career Opportunities in Design Engineering and Introduction to	Sanrang Bhong and Sachin Pawar
77.	16/07/2014	Seminar on GD, PI and aptitude Training	Kunal Dhakate
78.	4/7/2014	Higher Studies and GATE preparation	Ganesh Bhadange
79.	2/7/2014	Higher Studies in Abroad	Amey Phatale
80.	8/6/2014	Higher Education Opportunities in abroad	Amit Gore
81.	15/02/2014	Expert Lecture on IC Engine Applications	Tushar Karnik,
82.	14/02/2014	Expert lecture on Career Guidance	Sagar Nikam and Madhura Shelar
83.	03/02/2014	Robotics Workshop	Akhileshkumar
84.	28/01/2014	Introduction to CAD/CAM/CAE Software	Satish Tambat
85.	23/08/2013	Engine testing and Performance	Sanjay Babudkar
86.	22/08/2013-24/08/2013	Industrial Hydraulics and Pneumatics	Nikhil Bhor
87.	8/1/2013	Industrial Automation	Harish Kathale and Nikhil Bhor

### 33. Teaching methods adopted to improve student learning:

- Conduction of concept review tests (CRT), quizzes for the evaluation of basic concepts of students.
- Use of power point presentations, technical videos from NPTEL related to concerned topics for the explanation.
- Organising industrial visits in small batches for updating the students with current trends and practices in industry.
- Use of simplified diagrams, Models of drawing and machine elements.
- Use of social media (like Whats-app) for floating MCQ type of questions, assignments, technical notes etc.

- Explanation with case studies related to concerned topic.
- Discussion of GATE, IES questions at the end of each practical session for pre-final year and final year students.
- Conduction of soft skill competitions like SPOTLIGHT, PIXELEDGE for enhancing the personality of students.
- Brainstorming sessions for challenging concepts/topics in various subjects.

#### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sr. No	Activity
1	Team of 4 students has participated in Hackathon-2017. Finding Solution for Govt. Problems (AICTE) in A.Y. 2016-17
2	Students of our department participated in the activities conducted under NGO Prayas Group and Swapnapurti foundation (Activities like Computer literacy, tree plantation, blood donation, pollution of rivers, education awareness programme etc.)

#### Participation in NSS activities

Sr. No	Academic Year	No. of students worked	
		Male	Female
1	2017-18	35	15
2	2016-17	41	11
3	2015-16	33	16

Sr. No	Academic Year	No. of students	
		Male	Female
4	2014-15	35	15
5	2013-14	44	07

#### 35. SWOC analysis of the department and Future plans:

Strengths	Weakness
<ul style="list-style-type: none"> <li>• Qualified and experienced faculty with post-graduation from IIT's and NIT's.</li> <li>• Multidimensional personalities of the teachers who have interests in energy policy, food and agriculture policy which helps students to have broader framework in mind.</li> <li>• Biggest department in the institute in terms of student intake.</li> <li>• Well-equipped laboratories and classrooms with ICT Facility for better learning.</li> <li>• Effective teaching learning through concept review tests, communication skill development activities and quizzes.</li> <li>• Adequate software to remain in tune with the advances in Mechanical Engineering.</li> <li>• Intensive and effective Industry Institute interaction, as most of the seminars and final year projects are supported by Industry.</li> <li>• Regular industrial visits in small groups and industrial trainings for students.</li> <li>• Personality development of students through activities likes Mecheaven, BAJA SAE INDIA, ROBOCON arranged under MESA, K. K. Motorsport and SAE INDIA club.</li> </ul>	<ul style="list-style-type: none"> <li>• As syllabus is structured by the university, the teaching learning process is confined to the same level.</li> <li>• Less number of classrooms to accommodate students.</li> <li>• More tutorial rooms needed.</li> <li>• Innovative and socio-economic projects are to be identified.</li> </ul>

<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Autonomy will bring status for the department, flexibility and better opportunities.</li> <li>• Enhanced Industry Institute interaction for better Placement.</li> <li>• More focus on industrial training to staff and students.</li> <li>• Strong alumni network.</li> <li>• Expert talk for final year &amp; third year student by experts from the Industry.</li> <li>• Compulsory industrial training.</li> <li>• Need to engage in more social activities &amp; should be more proactive in solving social issues using competence in analytical and technical field.</li> </ul>	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Recession in Industry &amp; lower G.D.P. is the biggest challenge for engineering education &amp; should be addressed.</li> <li>• In future it is likely that Institute faces problem of admission, therefore accreditation is important.</li> <li>• Retention of experienced staff.</li> <li>• Continuous efforts to improve National Ranking.</li> <li>• To retain quality of incoming students by building reputation</li> <li>• To improve placement activities.</li> </ul>
<p><b>Future plans</b></p> <ol style="list-style-type: none"> <li>1. To improve the placements of students in reputed firms.</li> <li>2. To sign MOU with local industries for exposing students to the world of work.</li> <li>3. To motivate students for setting up their own business or enterprise.</li> <li>4. To enhance consultancy, research and development activities in the department.</li> </ol>	