

All India Shri Shivaji Memorial Society's College of Engineering Pune-1  
**MECHANICAL ENGINEERING DEPARTMENT**  
**Achievements AY 2018-2019**

**INTRODUCTION:**

**Teaching Staff:** 36 (32 in the Department and 04 to FE), **Non-Teaching Staff:** 9

**Start of the Department:** 1992

**UG Programmes:** 2; Mechanical and Mechanical Engineering (Sandwich pattern)

**PG Programmes:** 2; Automotive and Design specialization

**Laboratories:** 18, Drawing Hall:1 and Seminar Hall: 2

**Softwares:** MATLAB, MasterCAM, ANSYS , Pro-E, AutoCAD, MSc ADAMS, Altair Hyperworks

**Unique Equipments:** Chassis Dynamometer, FFT Analyser

**AWARDS AND RECOGNITION**

SN	Name	Awards and Recognition
1	Prof.(Dr.) A V Waghmare	VC Nominee as a Member, Board of Studies, Mechanical Engineering, SPPU, Pune
		Member of Engineering Education Board and Faculty Development Committee, SAE INDIA
2	Prof.(Dr.) B D Bachchhav	VC Nominee as a Member, Board of Studies, Mechanical and Materials Technology, Dept. of Technology, SPPU, Pune
3	Prof.(Dr.) P S Gajjal	Outstanding Women in Engineering
		IARDO award for excellence
4	Dr. M.R.Phate	Best Teacher Award (Rank1), AISSMS Excellence Award 2019
		Copyright Reg (ROC-L-82418/2019) :- Analysis of 6-DOF Human Biodynamic Model for Seated Human Posture Using Artificial Neural Network
		Copyright Reg(Roc:L-81672/2019)Critical Analysis of novel fabricated Al/SiC/B4C Metal Matrix Composites Machining Performance
		Copyright Reg : (ROC:L-80752/2019)-Formulation of Experimental Data Based Model for the Machining Process using Dimensional Analysis Approach.

**MEMORANDUM OF UNDERSTANDINGS:**

SN	Name of organization	Date of MOUs	Period of validity
1	Seinumero Nirman Pvt. Ltd. Pune	07/07/2017	07/07/2020
2	Vishwadeep Enterprises, Pune	13/07/2017	13/07/2022
3	e-Addict Mobility solutions Pvt.Ltd.Pune	21/08/2017	21/08/2022
4	Engineering Cluster, Chinchwad	28/02/2018	28/02/2022
5	Suntech Landriani M/c tools Pvt. Ltd	08/08/2018	07/08/2021
6	Nemade Engineering Pvt Ltd	08/08/2018	07/08/2021
7	Indi-Tech valves Pvt. Ltd. Pune	31/08/2016	31/08/2018
8	Meher Techno Consultants Pvt. Ltd. Pune	16/09/2016	16/09/2019
9	Kakade Laser, Pune	06/09/2016	06/09/2019
10	Plazma Technologies Pvt. Ltd. Pune	01/01/2017	01/01/2020
11	S M Auto Engineering Pvt. Ltd, Pune	08/12/2016	08/12/2020

**Doctor of Philosophy (PhD)**

<b>Prof.(Dr.) S J NAVLE</b>
Title of Research: Investigations on performance of S.I.Engine fueled with hydrogen gas as an alternate fuel in comparison with pure gasoline Name of the Guide: Dr R.R.Kulkarni (Guide), Dr S.S.Thipse (Co-Guide) Research Center: VIT, Pune University: Savitribai Phule Pune University,Pune
<b>Prof.(Dr.) C S CHOUDHARI</b>
Title of Research: Design, development and performance evaluation of a refrigeration system for a new environment friendly refrigerant. Name of the Guide: Dr S N Sapali Research Center: COEP, Pune University: Savitribai Phule Pune University,Pune

**FUNDED RESEARCH PROJECT**

<b>S N</b>	<b>Title of the Project</b>	<b>Principal Investigator</b>	<b>Amount received (Rs)</b>	<b>Funding Agency</b>
1	Tribological Performance Evaluation of Non-asbestos organic Brake Pad Materials	Prof.(Dr.) B D Bachchhav	25,000	Institution of Engineers R&D Cell

**STUDENTS' CHAPTERS/CLUBS**

- 1.Society of Automotive Engineers (I) (SAEINDIA)
- 2.Indian Society for Heating Refrigeration and Air-conditioning Engineers (ISHRAE) 3.Institution of Engineers (I) (IEI)
- 4.Institution of Mechanical Engineers (UK) (IMechE)
- 5.Mechanical Engineering Students Association (MESA)

**Funded FDP/STTP/WS/Seminar/Symposium Organised by the Department:**

<b>S N</b>	<b>Title of the FDP/STTP/WS/Seminar/Symposium</b>	<b>Duration</b>	<b>Co-ordinator</b>	<b>Funding Agency (If any) and Amount (Rs.)</b>
1	One day Syllabus Implementation Program on, "Systems in Mechanical Engineering"	01 Day	Dr A V Waghmare	Planning and Development, SPPU (Rs. 10,000/-)
2	Fourth Mechanical Engineering Post Graduate Student's Conference	02 Days 13, 14 June 2018	Dr D Y Dhande Mr S R Patil	BOS, SPPU

**EVENTS ORGANISED:**

<b>SN</b>	<b>Event name</b>	<b>Event type</b>	<b>Funding source</b>	<b>Event status type</b>	<b>From date</b>	<b>To date</b>
1	Basics of Altair Hypermesh	Workshop	--	Inter Collegiate level	07/09/18	08/09/18
2	A-Quest HVAC Quiz - 2019	QUIZ	ISHRAE	National Level	05/01/19	05/01/19

3	Aero design workshop 2018	Workshop	SAEINDIA	Pune	16/09/18	17/09/18
4	MECHPULSE 2018	Technical Symposium	AISSMS COE	National Level	10/09/18	13/09/18
5	Current Trends in Vehicle Power Train	Workshop	IEI	Inter Department Level	03/01/19	03/01/19
6	Technical Quiz : RAC	Quiz	IEI	Inter Department Level	27/9/2018	27/9/2018
7	Poster presentation competition	General	IEI	Inter Department Level	27/8/2018	27/8/2018
8	BE Project Competition 2019	Exhibition	Department Alumni	Inter Department Level	29/3/2019	29/03/2019
9	Technical quiz Competition : BME	Technical	IEI	For First Year Students	28/3/2019	29/3/2019
10	Two days workshop on "Basics of Hypermesh"	Workshop	AISSMS COE	Inter Departmental	7/8/2018	8/8/2018
11	Two days workshop on "Basics of Hypermesh"	Workshop	AISSMS COE	Inter Departmental	6/2/2019	7/2/2019
12	Branding & Souvenir printing	ET-2018	Aissms COE	Central committee	10/09/2018	12/09/2018
13	One Day Training Program on Smart Data Analysis by using Minitab	One Day Training Program	AISSMS COE	Department Level	19/03/2019	19/03/2019
14	One day Workshop on "Geometric Dimensioning and Tolerancing (GD&T)"	Workshop	AISSMS COE	Department level under Industry Institute Interaction	26/03/2019	26/03/2019

15	One day Teacher's Training Workshop	Workshop	Knorr-Bremse Technology Centre, Pune	Department level under Industry Institute Interaction	22/04/2019	22/04/2019
16	Technical Quiz on Thermal and fluid Engineering	Technical Quiz	IEI	Interdepartmental	28 <sup>th</sup> September 2018	28 <sup>th</sup> September 2018
17	One day workshop on "Fault Diagnosis in Refrigeration systems"	Workshop	ISHRAE Students' Chapter	Department level under Industry Institute Interaction	27 <sup>th</sup> March 2019	27 <sup>th</sup> March 2019

#### **PUBLICATIONS:**

<b>Title of paper</b>	<b>Author</b>	<b>Name of journal</b>	<b>ISBN /ISSN</b>
Critical Property Assessment of Novel Brake pad Materials by AHP	Prof.(Dr.) B D Bachchhav	Journal of Manufacturing Engineering	0973-6867
Challenges in formatting vegetable based metalworking lubricants - A Review	Prof.(Dr.) B D Bachchhav	International Conference on tribology TRIBO-India 2018	
Screening of organic breakpad materials using MADM technique	Prof.(Dr.) B D Bachchhav	AEOTIT 2018 (Conference)	
Numerical analysis of three lobe hydrodynamic journal bearing using CFD-FSI technique based on response surface evaluation	Prof.(Dr.) D Y Dhande	Journal of Brazilian Society of Mechanical Sciences and Engineering (Springer), August 2018, 40:393	1678-5878
Implementation of CFD-FSI Technique Coupled with Response Surface Optimization method for Analysis of Three-Lobe Hydrodynamic Journal Bearing	Prof.(Dr.) D Y Dhande	Journal of The Institution of Engineers (India): Series C (Springer), October 2018, pp 1-12	Print ISSN: 2250-0545 Online ISSN: 2250-0553
Multiphase flow analysis of hydrodynamic journal bearing using CFD coupled Fluid Structure Interaction considering cavitation	Prof.(Dr.) D Y Dhande	Journal of King Saud University-Engineering Sciences, Volume 30, Issue 4, October 2018, Pages 345-354 (Elsevier)	1018-3639

Exploring Biodynamic Response (Apparent Masses) of a Seated Human Body Exposed To External Excitation in Vertical Direction	Prof.(Dr.) M R. Phate	International Journal of Industrial Engineering & Production Research, Volume 29, Issue 4 (12-2018)	2008-4889
Modeling and prediction of WEDM performance parameters for Al/SiCp MMC using Dimensional analysis and artificial neural network.	Prof.(Dr.) M R Phate	Engineering Science and Technology, an International Journal (Elsevier)	2008-4889
Analysis of Machining Parameters in WEDM of Al/SiCp20 MMC Using Taguchi based Grey-fuzzy Approach	Prof.(Dr.) M R Phate	Modeling and Simulation in Engineering (In press and Accepted for publication), (Hindawi)	
Taguchi Technique for Dry Sliding Wear Behavior of PEEK Composite Materials	Prof.(Dr.) P S Gajjal	Materials Today: Proceedings Elsevier, 5 (2018), 950-957	ISSN: 2214-7853
Effect of Volute Tongue Clearance Variation on Performance of Centrifugal Blower by Numerical and Experimental Analysis	Prof. S R Patil Prof. S S Vadgeri	Materials Today: Proceedings 5 (2018) 3883-3894 (Elsevier)	ISSN: 2214-7853
Static and Fatigue Analysis of Lathe spindle for Maximum Cutting Force	Prof. S S Vadgeri Prof. S R Patil	Materials Today: Proceedings 5 (2018) 4438-4444 (Elsevier)	ISSN: 2214-7853
Testing of environment friendly refrigerant R290 for water cooler application	Prof.(Dr.) C S Choudhari	International Journal of Engineering, Transactions A: Basic	ISSN : 10252495
Synthesis and characterisation of cashew nut shell liquid matrix composite for composite application	Prof. A R Takalkar	Biopolymer & Biomaterials	ISSN-978-1-315-1698-3
Experimental identification of non-hysteresis algebraic force model of automotive hydraulic damper	Prof.(Dr.) C S Dharankar	International Journal of Vehicle Performance (IJVP), Interscience Publisher	ISSN Online : 1745-3208 ISSN Print: 1745-3194
Electricity Generation by Using High Velocity wind produced due to motion of vehicle	Prof.V S Wagare	Proceedings of Indian Science Congress	
A Review on Optimum Tool Geometry Design to Minimize Cutting Forces for Turning of Hardened Steel	Prof. S S Vadgeri	ICIIST Proceedings	March 2019

Next generation Automotive seat Cover to improve Thermal comfort Using Thermoelectric Effect	Prof. S.V.Chaitanya	Journal Of Manufacturing Engineering	Dec 2018
Performance Analysis of Cool air ventilated seat cover	Prof. S.V.Chaitanya	International Journal of Science Technology and Engineering	July 2018 ISSN 2349-784X
Design and Development of eco friendly road cleaner.	Prof. M.P.Bauskar	MAT JOURNAL	December 2018
Insights on Supply Chain Needs and Issues in Indian SMEs	Prof. G B Narkhede	Industrial Engineering Journal	ISSN: 2581-4915
Performance Characterization & Multi Objective Optimization of Laser Beam cutting process on Steel	Prof. N.N.Gotkhindikar	International Journal for Research in applied science and Engineering Technology	ISSN: 2321-9653
Tribological Parametric Influence of Dry Sintered Iron Bearings	Dr (Mrs) P S Gajjal	Journal of Emerging Technologies and Innovative Research	ISSN 2349-5162
Wear Model of Dry Sintered Bearing Material by Dimensional Analysis	Dr (Mrs) P S Gajjal	Journal of Emerging Technologies and Innovative Research	ISSN 2349-5162
Function and Behaviour analysis of a Nanoparticle based bio-Lubricant used in hydrodynamic Bush Bearing	P V Deshmukh	Journal of Applied Science and Computations, Volume VI, Issue V, May/2019	1076-5131
Experimental Transmissibility Investigation of Shock Absorber and Comparison with MATLAB results for Two Wheeler	P V Deshmukh	International Research Journal of Engineering and Technology, Volume: 06 Issue: 05   May 2019	2395-0056
CFD analysis of diffuser augmented wind turbine	P V Deshmukh	International Journal of Advance Research, Ideas and Innovations in Technology, Volume 5, Issue 3	2454-132X

#### BOOK PUBLICATIONS:

Title of Book	Author	Name of Publisher	ISBN /ISSN
Experimental Investigation of Maximum Cutting Force Condition in Lathe	Prof. S S Vadgeri & Prof. S R Patil	LAMBERT Publication, Germany	ISBN: 978-613-9-45019-0
Springer book series - AEOTIT 2018	Prof.(Dr.) B D Bachchhav	Springer	ISBN - 978-9981-13-8196-

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Fabrication of temperature control solar dryer	Prof.(Dr.) M. S. Deshmukh & Prof.(Dr.) M R Phate	LAMBERT Publication, Germany	ISBN : 978-613-999230-0
WEDm performance analysis of AL/GR mmc using response surface method	Prof.(Dr.) M R Phate	LAMBERT Publication, Germany	ISBN : 978-613-999228-7
Operation Research	Prof.(Dr.) M R Phate	Sharp / Success	ISBN : 978-93-24457-08-2
Tribo-Behaviour of Dry Sintered Material	Prof.(Dr.) P S Gajjal	LAMBERT Publication, Germany	ISBN: 978-613-9-44952-1
Study of WCO Biofueled VCR CI Engine performance testing with DPF	Prof.(Dr.) M. S. Deshmukh	LAMBERT Publication, Germany	ISBN 978-613-9-47099-0
Tribo Behaviour of Dry Sintered Bearing Material	Dr (Mrs) Priya Gajjal	Lambert Publication Germany	978-613-9-44952-1

## INDUSTRIAL VISITS

S N	Subject	Place	Faculty involved	Date
1	RAC: Central AC system	Bal Gandharva Rang Mandir Pune	Prof.(Dr.) C S Choudhari Prof. S S Patil Prof. D S Mane	28-29th Jan 2019
2	Speciality Sintered India Pvt Ltd, Shirwal, Pune.	Shirwal, Pune.	Prof.S.R.Patil Prof. G.B.Narkhede	01st Oct, 2018
3	512 ARMY BASE WORKSHOP	Kirkee, Pune	Prof.(Dr.) D Y Dhande Prof. M P Bauskar	24th Sep 2018
4	Shree system Pvt Ltd	Pirangut,Pune	Prof. A R Takalkar & Prof. S S Vadgeri	04th Feb 2019
4	Kalyani Maxion Wheels Pvt Ltd	Chakan	Prof.(Dr.) D Y Dhande Prof. V.S.Wagare	20 Sept 2018
5	Mahindra CIE, Chakan-	Chakan	Prof. M.P.Bauskar	4th Sep 2018



	Ambhetan Road , Tal: Khed, Pune, 410 501			
6	Manufacturing of Heat Exchangers/ Boilers at Thermax	Pune	Prof.(Dr.) C S Choudhari	11th Oct 2018
7	Shreenath Mhasoba Sugar Factory	A/P. Patethan, Tal. Daund., Dist. Pune	Prof.(Dr.) M.S. Deshmukh Prof. P.V.Amte Prof. K.L.Kumbhar	7th Feb 2019
8	Kalyani Maxion Wheels Pvt Ltd, Chakan, Pune (30)	Gat No. 635, At Post - Kuruli Chakan, Taluka - Khed, Pune, Maharashtra 410501	Prof. (Dr.) M M Sayyad Prof. M P Bauskar	23rd Feb 2019
9	Solar Thermal Power Plant, Shive, Tal. Khed	A/P.Shive,	Prof.(Dr.) M.S. Deshmukh Prof. P.V.Amte Prof. K.L.Kumbhar	27th Mar 2019
10	Water Pump plant	Nigdi, Pune	Prof. P V Amate	
11	Siddheshwar Industries Pvt.Ltd,	Chinchwad	Prof.(Dr.) D Y Dhande Prof. A T Thombare	20,22 March 2019
11	Bemcho Hydraulics Pvt Ltd	Belgaum	Prof. A R Takalkar	22th March 2019
12	Ujani Hydroelectric power Plant	Ujani, Solapur	Prof. M.U.Gan Prof. K.L.Kumbhar	
13	Applied Thermodynamic s and Engineering Metallurgy	Diesel Locomotive, Ghorpadi Pune.	Prof. M. S. Swami Prof. M. R. Dahake Prof.(Dr.) S. J. Navale	30th March 2019

#### EXPERT LECTURES

S N	Title of expert lecture	Resource person	Date
1	Product Design and Development : Industry Insides	Mr Sagar B Mane	4th Feb 2019

2	Applications of CFD in Heat transfer analysis	Mr Anil Samale, Technical Leader – Aero-Thermo Group, Dresser Rand	25th Sep 2018
3	Importance of CAD, CAM and CAE in Manufacturing Industry	Mr Swapnil Panke, 9960941196	27th Sep 2018
4	Application of PERT- CPM in Industry	Prof B B Bite, Institute of Management, AISSMS Society, Pune 411001	4th Oct 2018
5	Heat Transfer in IC Engine	Mr Sagar E Patil, Sr Manager, ERC , Tata Motors Pune.	11th Oct 2018
6	Industry 4.0 and Design Thinking	Dr. Krishnaswami Srihari , Dean of The Thomas J. Watson School of engineering and Applied Science Binhamton University, New York	5th Oct 2018
7	“Orientation on Project & Operation Management”	Mr Atul Inamdar, Centre head, Synergy School of Buisness Skills, 8308838828, mh.bundgarden@synergysbs.com	04 <sup>th</sup> October 4, 2018
8	Career opportunities in Designing	Mr Sunder, DQ Labs (9637322555)	27 <sup>th</sup> February 2019
9	Refrigeration for cold storages	Mr. Sharad patil Senior consultant,Coolexpert, Cold Chain	27 <sup>th</sup> March 2019
10	Expert talk on BIM software	Expert from Building Information Modelling industry	29 <sup>th</sup> February 2019

**PROGRAMS FDP/STTP/WEBINAR/WORKSHOP etc. ATTENDED BY STAFF**

S. No.	Name of the participant	Designation	Title of the FDP / professional development / administrative training program	Dates (from-to) (DD-MM-YYYY)
<b>Term-I</b>				
1	Chandrakishor S Choudhary	Associate Professor	Short term course on "Efficient energy conversion in Harmony with environment"	29-10-2018 - 03-11-2018
2	Omprakash More	Assistant Professor	Short term course on "Machining Dynamics"	15-10-2018 - 19-10-2018
3	Narkhede Ganesh	Assistant Professor	AICTE Sponsored QIP-short term course on "Supply chain management-2018"	08-10-2018 - 13-10-2018
<b>Term-II</b>				
S. No.	Name of the participant	Designation	Title of the FDP / professional development / administrative training program	Dates (from-to) (DD-MM-YYYY)
1	Dr. P. S Gajjal	Associate Professor	Five day faculty development program on "Automotive product development & best manufacturing practices"	06-02-2019 - 10-02-2019
2	Dr. P. S Gajjal	Associate Professor	National workshop on "Solar thermal and electrical appliances"	14-12-2018 - 15-12-2018
3	Dr. P. S Gajjal	Associate Professor	One week orientation program on "Modern pedagogy and recent technological development"	10-12-2018 - 14-12-2018
4	Ashwini T.Thombare	Assistant Professor	Five day faculty development program on "Automotive product development & best manufacturing practices"	06-02-2019 - 10-02-2019
5	Manoj Dahake	Assistant Professor	Five day faculty development program on "Automotive product development & best manufacturing practices"	06-02-2019 - 10-02-2019
6	M.P.Bauskar	Assistant Professor	One week orientation program on "Modern pedagogy and recent technological development"	10-12-2018 - 14-12-2018
7	Nitin Gotkhindikar	Assistant Professor	Faculty development program in "Cyber security and data science "	11-02-2019 - 17-02-2019

**AISSMS ENGINEERING TODAY-MECH-PULSE**

S N	Name of Event	Name of Faculty		
1	Model Making	Prof. D.S.Mane Prof.(Dr.) Mannan Sayyed		
2	Robo Race	Prof. O.A.More Prof. M.U. Gan Prof N.N. Gotkhindikar		
3	Paper Presentation	Prof.(Dr.) M.R. Phate Prof.(Dr.) C.S.Dharankar Prof.(Dr.) S.J. Navale		
4	Shuttle Bug	Prof.Y.B.Karandikar	11th Sept	35 Participants

	Treasure Hunt	Prof.V.S.Wagare	2018	
5.	Rocket Launcher	Prof. M.R. Dahake Prof. S.S Vadgeri	11 & 12 th Sept. 2018	
6	CAD-War	Prof P.S.Aglawe Prof. M.P. Shah	10 th Sept. 2018	60 Teams
7	Science Exhibition	Prof.(Dr.) P.S.Gajjal Prof G.B. Narkhede		
8	Decoration	Prof. V.R.Patil Prof. S.S. Patil		
9	Campaigning	Prof. K.L.Kumbhar Prof. A.R. Takalkar		
10	Registration	Prof. A.T.,Thombare		
11	Publicity	Prof M S Swami		
12	Printing	Prof.(Dr.) D Y Dhande Prof A R Takalkar		

## GLIMPSES:



A-Quest HVAC Quiz -2019 Quarter final powered by HITACHI was held at "AISSMS COLLEGE OF ENGINEERING, PUNE on 5th January 2019 for East zone ISHRAE chapters

Two days' workshop on Basics of Altair Hypermesh by Mr. Iqbal Hussain (Teccam solution, Pune)



Industrial visit at "Sheenath Mhaskoba Sugar Factory"

Industrial Visit at "Thermax Solar Thermal Power Plant, A/P. Shive"



**BE Project Competition [Exhibition]- 2019**



**Science Exhibition, MECHPULSE 2018**

**Inauguration of Aero design One day Workshop 2018, Organised by Team Garudashwa**



**With Shri. Sunil Bhatambrekar, Head- Product Engineering at Kalyani Maxion Wheels, Pune**



Industrial Visit at “ Siddheshwar Industries Pvt.Ltd.”, Chinchwad



One day Teachers Training Workshop at “Knorr-Bremse Technology Centre, Hinjewadi, Pune”

One day workshop on “GD & T”



Technical Quiz on “Thermal and fluid Engineering “ organised by IEI students’ chapter

Industrial visit to Thermax

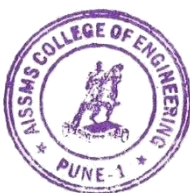


Expert talk on “Design Thinking”

Expert talk on Applications of CAD CAM in Manufacturing



Visit to Balgandhrav Rangmandir, Pune for observing Central Air Conditioning Plant



  
**PRINCIPAL**  
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COLLEGE OF ENGINEERING  
KENNEDY ROAD, PUNE-411 001