



## Department of Mechanical Engineering

### Faculty Profile

#### Prof.(Dr) Priya S Gajjal

PhD (Mechanical Engineering)

Associate Professor

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#### Research Areas / Areas of Interest

Design Engineering, Electric Vehicle, Tribology, Bio Engineering materials, Composite Materials

#### Personal Details

**Date of Birth :** 23 / 06/ 1979

**Domicile:** Maharashtra

**Gender :** Female

**Blood Group:** B+ve

**Contact Details:** 214, Mechanical Engineering Department,  
AISSMS's College of Engineering  
Shivaji Nagar, Pune-411005

## Academic Background

S. NO.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Mechanical Engineering	SRTM	Awarded	June 2016
2	M.E.	Mechanical – Design Engg.	Pune	I <sup>st</sup>	April 2007
3	B.E.	Mechanical Engineering	Nagpur	I <sup>st</sup>	June 2000

## Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	20	06
2	Research	--	--
3	Industry	--	--
4.	Others	--	--
Total		20	06

## Subjects / Courses Taught

S. No.	Subject	UG/PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Strength of Materials	UG	SE (Mechanical & Mechanical SW)	11
2	Solid Mechanics	UG	SE (Mechanical & Mechanical SW)	03
3	Mechanical System Design	UG	BE (Mechanical & Mechanical SW)	08
4	Electric Vehicle	UG	TE to BE (Mechanical	02

			& Mechanical SW)	
5	Mechanical Measurement System	PG	ME (Mechanical – Design)	08
6	Advance Stress Analysis	PG	ME (Mechanical – Design)	04
7.	Process Equipment Design	PG	ME (Mechanical - Design)	04
8	Industrial Tribology	PG/UG	Mechanical Engg	04

### Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
<b>Journals</b>		17		12	05
<b>Conferences</b>	01	05		02	04

### Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ISSN	Publisher
1.	A novel tuned ant lion-grey relational dry sintered bearing for bore application,	Priya Gajjal, G S Lathkar	2022	Journal of the Brazilian Society of Mechanical Sciences and Engineering <a href="https://doi.org/10.1007/s40430-022-03521-y">https://doi.org/10.1007/s40430-022-03521-y</a> volume 44, 238 2022		Elsevier
2	Fault diagnosis in an optimized rolling bearing using an intelligent approach,	Priya Gajjal, G S Lathkar	2022	Archive of Applied Mechanics, <a href="https://doi.org/10.1007/s00419-022-02134-0">https://doi.org/10.1007/s00419-022-02134-0</a> 2022		Elsevier
3	Mathematical Model of Planetary Gear Train for Geared Rotary Actuator	P S Gajjal, Yadnik Kude	April , 2022,	International Journal of Mechanical Engineering, Vol. 7 No. 4 April, 2022, Pp 619 – 624, ISSN: 0974-5823		Scopus

	International					
4	Optimisation using Taguchi of PEEK material in dry sliding,	Priya Gajjal, Shekhar Gajjal	2022	Materials Today: Proceedings, <a href="https://doi.org/10.1016/j.matpr.2022.01.358">https://doi.org/10.1016/j.matpr.2022.01.358</a> Volume 55, Part 2, 2022, Pages 419-424,		Scopus
5	Wear behaviour of sintered bearings using additives in dry sliding,	Priya Gajjal, G S Lathkar	2021	Materials Today: Proceedings, <a href="https://doi.org/10.1016/j.matpr.2021.01.413">https://doi.org/10.1016/j.matpr.2021.01.413</a> Volume 46, Part 7, 2021, Pages 2483-2488,		Scopus
6	Design of Planetary Gear Train for Geared Rotary Actuator,	P S Gajjal, Yadnik Kude	2021	IOP Conf. Ser.: Mater. Sci. Eng. 1170 012005 <a href="https://doi.org/10.1088/1757-899X/1170/1/012005">https://doi.org/10.1088/1757-899X/1170/1/012005</a>		IOP
7	Performance evaluation of EN24 for planetary gear transmission of CNC bending machine	P S Gajjal, Yadnik Kude	2020	Journal of the Brazilian Society of Mechanical Sciences and Engineering, <a href="https://link.springer.com/article/10.1007/s40430-020-02392-5">https://link.springer.com/article/10.1007/s40430-020-02392-5</a> volume 42, Article number: 298 (2020)		Elsevier
8	Taguchi Technique for Dry Sliding Wear Behavior of PEEK Composite Material	P S Gajjal, S Y Gajjal	2018	Materials Today: Proceedings <a href="https://doi.org/10.1016/j.matpr.2017.11.170">https://doi.org/10.1016/j.matpr.2017.11.170</a> Volume 5, Issue 1, Part 1, 2018, Pages 950-957.		Elsevier
9	Investigations of Wear Behavior of Journal Bearing Materials,	Priya Gajjal	2021	Recent Trends in Industrial and Production Engineering. LNME, Springer, <a href="https://doi.org/10.1007/978-981-16-3135-1_15">https://doi.org/10.1007/978-981-16-3135-1_15</a> . Singapore. pp 133–143		Springer
10	Wear Behavior of Polytetrafluoro ethylene and Its Composites in Dry Conditions	P S Gajjal, S Y Gajjal	2021	Advances in Engineering Design. LNME, Singapore. 2021, , <a href="https://doi.org/10.1007/978-981-33-4684-0_75">https://doi.org/10.1007/978-981-33-4684-0_75</a> pp 743–750		Springer
11	Tribo-Behaviour of	P S Gajjal, S	Nov 2020	Advances in Mechanical Processing and Design		Springer

	Tin-Based Dry Bearing Material	Y Gajjal		<a href="https://doi.org/10.1007/978-981-15-7779-6_33">https://doi.org/10.1007/978-981-15-7779-6_33</a> Nov 2020, pp 389-397,		
13	Tribological Parametric Influence of dry Sintered Iron Bearings	Priya Gajjal, Shekhar Gajjal	May 2019	Journal of emerging Technologies and Innovative Research	UGC-63975	
14	Wear Model of Dry Sintered Bearing Material by Dimensional Analysis	Priya Gajjal, Shekhar Gajjal	May 2019	Journal of emerging Technologies and Innovative Research	UGC-63975	
15	Low cost 3D printer for Home Users	Yugwini Deshmukh P S Gajjal	July 2020	International Journal of Advance Scientific Research and Engineering Trends	ISSN 2456-0774	
16	Tribological Behaviour for friction of composite dry journal bearing	P S Gajjal, Tanay Shinde	Aug 2017	International journal of Engineering Technology Science and Research	ISSN 2394-3386	
17	Review: Manufacturing Systems And Industry 4.0	P S Gajjal	2018	International Journal of Advance Research in Science and engineering	UGC-47721 ISSN 2319-8354	

### Publication Details (Conferences)

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised by
1.	Optimisation of Tribological Performance of polyether ketone material via taguchi”,	P S Gajjal.	Feb, 7-8 2019	Mumbai, International conference on Mechanical and materials Engineering		Mumbai
2	Effect of Round Cross Member on Torsional Stiffness for AMW 3116HL Frame	P S Gajjal	2016	International Journal of current engineering and technology, 2016	ISSN-2277-4106.	Pune

3	Taguchi Technique for Dry Sliding Wear Behavior of PEEK Composite material	P S Gajjal	2016	International conference proceeding of Minerals, Materials and Energy, 2016.		Hyderabad
4	Parametric Influence on coefficient of friction of dry sintered iron bearings	P S Gajjal	2018	11th International Conference on Recent Innovations in Science, Engg and Mangmt 2018		Bangkok, Thailand
5	Parametric Influence on Tribology of Dry sintered iron bearings	P S Gajjal	2016	International Conference on recent trends in Engg and Tech, VISHWACON 2016-17		Pune
6	A study of tribological behaviour of tin based and plastic dry bearing material	P S Gajjal	2012	National Conference NCNTE, Vashi Mumbai Feb-2012		Mumbai

#### PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	-	15+	30+

#### Professional Memberships

Professional Body	Level ( National/ International)	Type (Fellow/Life/Annual)	Membership No.
Tribology Society of India	National	Life	LM5783
SAE	National	Annual	7200510079
SESI	National	Life	LM/2560/2021
Indian women Scientists Association (IWSA)	National	Life	WS21689
International	International	Life	F3140900432

Society for Research and Development (ISRD)			
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### Patents / IPR Filed / Granted

S. No	Investigator Details	Title	Year	Status (Filed/Granted)	Details
1	Dr P S Gajjal	Directional Approach Method	2021	Granted	L-105542/2021

### Books Published

S. No	Title	Name of the Publisher	ISBN/ISSN Number
1	Tribo Behaviour of Dry Sintered Material	Lambert Publication Germany	978-613-9-44952-1
2	Tribological Behaviour of Bronze and Plastic Material	Lambert Publication Germany	978-81-946643-9-0

### Research Grants Received

S. No	Program	Duration	Funding Agency	Grant Amount
1	Study of Internal grooves in dry bearing	2006-2008	AICTE Delhi	INR2.5 Lacs
2	Experimental Investigation of Dry Journal Bearing	2007-2008	BCUD, SPPU, Pune	INR1.5 Lacs
3	Experimental Investigation of Dry Sintered Journal Bearing	2011-2013	BCUD, SPPU, Pune	INR1.5 Lacs

### Details of Workshop / STTP / FDP / Seminar / Conferences Organized

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
01	Advances in Tribology	STTP	01 week	National	AICTE, New Delhi
02	Electric Vehicle Its Perspective and Issues”	FDP	03 days	State	AISSMSCOE

### Details of Workshop / STTP / FDP / Conferences Attended

Sr No	Title of the FDP/STTP	Organized by	Date
1	Innovations in ICT Teaching Learning- A Step Towards Digital India	VIT Pune	Two week
2	National Level Webinar series entitled “Women Empowerment Through women entrepreneurship	GURU SHREE SHANTIVIJAI JAIN COLLEGE FOR WOMEN Vepery , Chennai - 600007	22nd September 2021 to 24th September 2021.
3	AICTE-ISTE approved Five days FDP on “Electric Mobility as a Future”	D Y Patil Institute of Engineering Management and Research Pune	25 <sup>th</sup> – 29 <sup>th</sup> October 2021
4	ISTE approved Five days FDP on “Hydrogen, Ethanol, and Natural Gas as an Alternative and Sustainable Fuels for Transportation”.	VIIT Pune	07 <sup>th</sup> – 11 <sup>th</sup> December 2021
5	AICTE-ISTE approved Five days FDP on “Advances in	AISSMSCOE Pune	08 <sup>th</sup> – 14 <sup>th</sup> December 2021



	Engineering”		
6	Syllabus implementation workshop for FPCL for 2019 Course	SPPU Pune	15 February 2022
7	13 <sup>th</sup> Summer School in Tribology	Tribology Society of India	31st August – 4th September, 2021
8	"Electric Vehicles"	ATAL FDP Mangalore Institute of Technology and Engineering.	04/10/2021 to 08/10/2021
9	NATE: NBA Accreditation in Teaching Learning in Engineering	NPTEL	12 Week course from 27 Jan to 17 April, 2020 and Exam Passed in December 2020
10	Fundamental of Artificial Intelligence	NPTEL	12 Week course from Sep to Dec and Exam Passed in December 2020
11	Future of Mechanical Engineering with AI	KSRCOT Tiruchengode	17 <sup>th</sup> to 20 <sup>th</sup> June 2020
12	Nanotechnology and Its Application in Mechanical Engineering	KDKCOE Nagpur	25 <sup>th</sup> June to 01 <sup>st</sup> July 2020
13	Research Techniques and Sustainable Development in Mechanical Engineering	St.JCOEM Palghar	29 <sup>th</sup> June to 03 <sup>rd</sup> July 2020

14	“Nanotechnology & Its Application in Mechanical Engineering	K. D. K. College of Engineering, Nagpur.	25 <sup>th</sup> June 2020 to 1 <sup>st</sup> July 2020
15	RESEARCH IN ENGINEERING – A Way Forward”	A. P. Shah Institute of Technology, Thane.	6 <sup>th</sup> to 10 <sup>th</sup> July,2020
16	Innovative Approaches In Management	BV (DU), COE, Pune	13 <sup>th</sup> to 19 <sup>th</sup> July 2020
17	Advances in Additive Manufacturing	YCCOE Nagpur	20 <sup>th</sup> to 25 July 2020
18	Sustainable Mobility Solutions in the Indian Context	VNRVJ IOET, Hyderabad	27 <sup>th</sup> to 31 <sup>st</sup> July 2020
19	Modeling and Simulation of Renewable Systems using MATLAB	MNMJEC Chennai	03 <sup>rd</sup> to 08 <sup>th</sup> August 2020
20	Perspective on Bharat Stage (BS) VI Norms in IC Engines	DAE, GP Nagpur	24 <sup>th</sup> to 29 <sup>th</sup> August 2020
21	ATAL FDP on Electric Vehicles	AISSMSCOE Pune	05 <sup>th</sup> to 09 <sup>th</sup> October 2020
22	ATAL FDP on Systems Engineering	COE Pune	01 <sup>st</sup> to 05 <sup>th</sup> February 2021
23	National Workshop on IPR and IP Management for Start Ups	MIT ADT University Pune	27 <sup>th</sup> -28 <sup>th</sup> April 2021
24	Emerging Trends in RAC	COEP Pune	17 <sup>th</sup> – 22 <sup>th</sup> May 2021

### Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
1.	Vishkha and Women' Grievance cell Coordinator
2	Dept. Academic Coordinator
3	Dept NBA Coordinator
4	Dept NAAC Criteria II Coordinator
5	SE, TE Subject Coordinator

### Awards Received

S. No.	Awards
1	Outstanding Woman In Engineering” for developments in the field of Mechanical Engineering by VIWA 2018 Chennai.
2	IARDO Excellence Award 2018

**Declaration:** I hereby declare that all the statement made above are correct to the best of my knowledge and belief.

**Dr Priya S Gajjal**