



Department of Mechanical Engineering

Faculty Profile



Dr. Manoj Ramesh Dahake

PhD (Mechanical Engg.), **MTech** (Thermal), **BE** (Mechanical)

Associate Professor

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Research Areas/ Areas of Interest

IC Engine, Alternate Fuels, Heat Transfer

Personal Details

Date of Birth : 03 / 06 / 1983

Domicile: Maharashtra

Gender : Male

Blood Group: O+ve

Contact Details: Department of Mechanical Engineering,
AISSMS's College of Engineering Pune-05

Academic Background

S. NO.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Mechanical Engineering	SPPU Pune	Awarded	May 2022
2	M.Tech.	Thermal Engineering.	SGBAU Amaravati	A+	May 2008
3	B.E.	Mechanical Engineering	Mumbai	I st with Distinction	May 2005

Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	17	01
2	Research	00	00
3	Industry	1	00
Total		18	01

Subjects/Courses Taught

S. No.	Subject	UG/PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Heat Transfer/ Heat and Mass Transfer	UG	TE (Mechanical)	17
2	Heat Transfer	UG	TE (Mechanical SW)	01
3	Applied Thermodynamics	UG	TE (Mechanical)	08
4	IC Engine	UG	TE (Mechanical)	06
5	Automobile Engineering	UG	TE (Mechanical)	04
6	Advanced Fluid Mechanics	PG	FY (Mechanical – Thermal Engg.)	03

Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
Journals	00	11	00	11	--
Conferences	03	05	00	03	--

Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN
1	Utilizing red fox method for improvement of engine performance and emission control in hydrogen-cooked oil diesel Engines	M R Dahake P S Gajjal	2025	International Journal System Assurance Engineering and Management. https://doi.org/10.1007/s13198-025-02795-4	0976-4348
2	Intelligent Decision-Based Hydrogen-Biodiesel engine to improve engine performance	M R Dahake P S Gajjal	2024	International Journal of Fuel https://doi.org/10.1016/j.fuel.2024.131449	1873-7153
3	Experimental Exploration of Hydrogen Fuelled Dual Fuelled CRDI Equipped Diesel Engine Coupled with Exhaust Gas Recirculation Using ANN Approach.	M R Dahake P S Gajjal	2023	International Journal of Ambient Energy https://doi.org/10.1080/01430750.2023.2280732	2162-8246
4	CFD Analysis of 210MW Boilers Economiser For Detecting Area and Causes of Tube Failure	C L Ladekar M R Dahake	2023	International Journal of Power and Energy https://www.actapress.com/PaperInfo.aspx?PaperID=55540	1710-2243

5	A novel optimized dielectric fluid electric discharge machine using African buffalo optimization	P S Gajjal M R Dahake	2023	International Journal on Interactive Design and Manufacturing https://doi.org/10.1007/s12008-023-01591-3	1955-2513
6	An Intelligent Tribological Texture Behavior Analyzing and Optimization of Air Bearing	P S Gajjal M R Dahake	2023	Journal of Bio and Tribo-Corrosion https://doi.org/10.1007/s40735-023-00790-5	2198-4239
7	A novel optimized fault prediction in magnetic bearing using shaft vibration image database	P S Gajjal M R Dahake	2023	International Journal of Dynamics and Control https://doi.org/10.1007/s40435-023-01157-x	2195-2698
8	A novel optimized vibration analysis system for PG rotatory system	P S Gajjal M R Dahake	2023	International Journal of Dynamics and Control https://doi.org/10.1007/s40435-022-01057-6	2195-2698
9	A Novel Optimal Solution for Utilizing Plastic Waste for Making Construction Material	P S Gajjal, M R Dahake	2022	International Journal of Engineering Trends and Technology https://doi.org/10.14445/22315381/IJETT-V70I9P209	2231 -5381

10	Experimental Study on CNG Engine with Different Venturi Configuration	M R Dahake S E Patil	2022	Materials Today Proceedings https://doi.org/10.1016/j.matpr.2021.08.357	2214-7853
11	Experimental investigation of performance and emissions of CRDI diesel engine in dual fuel mode by hydrogen induction and diesel injection coupled with exhaust gas recirculation	M R Dahake, D N Malkhede	2021	Materials Today Proceedings https://doi.org/10.1016/j.matpr.2021.02.653	2214-7853.
12	Effect of hydroxy gas addition on performance and emissions of diesel engine	M R Dahake, S D Patil	2016	International Research Journal of Engineering and Technology	2395-0072
13	Performance and emission improvement through optimization of venturi type gas mixer for CNG engines	M R Dahake, S E Patil	2016	International Research Journal of Engineering and Technology	2395-0072
14	Experimental Investigation of Single Cylinder Diesel Engine with Sesame Oil and Ethanol Blends at Various Compression Ratios	A N Sahastrabuddhe, M R Dahake	2016	International Research Journal of Engineering and Technology	2395-0072
15	Performance analysis of Automobile Air Conditioning System Using Propane (R290)	A P Srivastava, M R Dahake	2016	International Research Journal of Engineering and Technology	2395-0072
16	The Effect of HHO and Biodiesel Blends on Performance and Emission of Diesel Engine- A Review	K A Kale, M R Dahake	2016	International Journal of Current Engineering and Technology	2347-5161

17	Numerical simulation and experimental investigation of Variable Geometry Turbocharged diesel engine for off-highway diesel engine	AS Kulkarni, RD Bhuva, PS Diwate, MR Dahake, DN Malkhede	2016	International Journal of Current Engineering and Technology	2347-5161
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Publication Details (Int. Conferences)

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised by
1.	Cold Storage Solutions for Sustainable Agriculture 4.0: A Design Outlook for Indian Agro Product	M S Swami M R Dahake	2024	International Conference on Technological Innovations & Applications in Industry 4.0: Challenges and War Ahead, ICTIA-2024	9781003567653	SVPCET Nagpur
2	Experimental Exploration of Effect of Hydrogen Enrichment on the Performance and Emissions of Dual Fuel Diesel Engine Equipped with CRDI by Varying Injection Duration	M R Dahake D N Malkhede	2020	International Conference on Advances in Sustainable Technologies ICAST-2020,	978-981-16-3131-3	LPU, Jalandhar
3	Experimental Investigation of Performance and Emissions of Single-Cylinder Diesel Engine Enriched by Hydroxy Gas for Various Compression Ratios	M R Dahake, S D Patil, D N Malkhede	2019	International Conference on Advances in Mechanical Processing and Design ICAMPD-2019	978-981-15-7778-9	KIIT Bhubaneswar

PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	01 (Ongoing)	06	60

Professional Memberships

Professional Body	Level (National/ International)	Type (Fellow/Life/Annual)	Membership No.
Society of Automotive Engineering	National	Annual	7180510545

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

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
1	Electric Vehicles: Its Perspective and Issues	FDP	Three Days	National	AISSMS

Details of Workshop/STTP/FDP/Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1	NEP 2020 Orientation and Sensitization Programme under MMTPP	FDP	6 th to 14 th March 2025	CIT Coimbatore	MMTTC
2	FDP on Innovative Teaching Learning Practices for	FDP	20 th to 24 th January	SNDCERC Nashik	SNDCERC Nashik

	Engineering Education		2025		
3	Industry 5.0 for Society 5.0	FDP	18 th to 22 nd March 2024	VIIT Pune	VIIT Pune
4	ATAL FDP on Exploring Perspective of AI & ML in Mechanical Engineering	FDP	28 th November to 3 rd December 2023.	KKCOER Nashik	KKCOER Nashik
5	Effective Writing	FDP	January to March 2023	NPTEL	IIT Madras
6	Advanced Pedagogy	FDP	06 th to 17 th February 2023	NITTR Kolkata	MoE Gol
7	Industry 4.0: Strategic & Technological Perspective for Indian Capital Goods Industries	STTP	8 th to 12 th December 2022	VNIT Nagpur	MHI Gol
8	"Materials & Advanced Manufacturing"	STTP	22 nd to 26 th August 2022	YTC Satara	ISTE
9	"Emerging Trends in Refrigeration and Air-conditioning"	FDP	17 th to 22 nd May 2021	COEP Pune	AICTE
10	NATE	FDP	Jan to Apr 2020	NPTEL	IISC Bangalore
11	Heat Transfer	FDP	Sep to Dec 2020	NPTEL	IIT Kharagpur
12	Renewable Energy	FDP	20 th June to 25 th July 2020	Walchand College of Engineering Sangli	TEQIP III
13	Systems using MATLAB	FDP	27 th June to 17 th April 2020	NPTEL	MHRD
14	IC Engine and Gas Turbines	FDP	27 th June to 17 th April 2020	NPTEL	MHRD
15	Reality Based welding	FDP	18 th to 22 nd May 2020	SVNIT Surat	ATAL AICTE
16	Outcome Based Education - A Step Towards Excellence	FDP	11 th May to 15 th May 2020	GCOE Karad	AICTE

17	Python 3.4.3	FDP	20 th April to 25 th April 2020	RMD Sinhgad School of Engineering Pune	Spoken Tutorial IIT Bombay
18	Three Weeks 8 credit course on “WhatsApp Outcome Based Education FDP”	FDP	24 th to 14 th April 2020	D Y Patil College of Engineering Akurdi, Pune	NPTEL & ISTE
19	Design and development of Hybrid electric vehicle	FDP	24 th February to 28 th February 2020	College of Engineering Pune	SAEINDIA & AICTE
20	Innovations in ICT Teaching Learning- A Step Towards Digital India	FDP	26 th November to 06 th December 2019	Vishwakarma Institute of Technology, Pune	AICTE
21	Vision-Mission-PEO-PSO- PO-CO: Framing, Mapping, Assessment and Attainment	FDP	10-15 June 2019	AISSMS College of Engg, Pune	ISTE

Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
1.	NAAC Criteria 3 Coordinator of institute
2.	PBAS Verification Committee member of Institute
3.	NBA Criteria 4 incharge of department
4.	Industry Institute Interaction department coordinator
5.	Heat Transfer Laboratory Incharge
6.	PAQIC Committee member
7.	Module Coordinator (Thermal Engineering)

Awards Received

S. No.	Awards
1.	Best participant Award in FDP organized by Government Polytechnic Nagpur.
2	Best Research Paper Award in International conference organized by SVPIEAT Nagpur.

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

Dr M R Dahake