



AISSMS

COLLEGE OF ENGINEERING

ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade



Department of Mechanical Engineering

Faculty Profile

Prof. (Dr) B D Bachchhav

PhD (Mechanical-Production Engineering)

Professor

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🔗 <https://scholar.google.com/citations?user=-WYXyO4AAAAJ&hl=en>

🔗 https://www.researchgate.net/profile/Bhanudas_Bachchhav2



Research Areas / Areas of Interest

Tribology, Manufacturing Engineering, Non-conventional Machining, Material Forming

Personal Details

Date of Birth : 07 / 07 / 1978

Domicile: Maharashtra

Gender : Male

Blood Group: O+ve

Contact Details: C204, Avenir, S N 8/6, Near Utkarsha School, Sinhgad Road,
Ambegaon (Bk.), Pune – 411046

Academic Background

S. No.	Qualification	Specialization	University	Class/ Grade	Year of Passing
1	Ph.D.	Mechanical –Production Engineering	SRTMU, Nanded	--	November 2013
2	M.Tech.	Production Engineering	SPPU, Pune	FC	August 2006
3	B.E.	Production Engineering	NMU, Jalgaon	FC With Dist.	May 2000

Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	19	00
2	Teaching and Research	05	00
3	Industry	1	00
4.	Others	--	--
Total		20	--

Subjects / Courses Taught

S. No.	Subject	UG/ PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Manufacturing Processes-I	UG	SE (Mechanical)	05
2	Manufacturing Engineering	UG	SE (Mechanical SW)	05
3	Manufacturing Processes-II	UG	TE (Mechanical)	03
4	Metrology & Quality Control	UG	TE (Mechanical)	03
5	Advanced Mfg. Processes	UG	BE (Mechanical)	03
6	Reliability Engineering	UG	BE (Mechanical)	03
7	Material Forming	UG	TE (Production)	11

8	Process Planning & TS	UG	BE (Production)	08
9	Research Methodology	PG	FYME (Mechanical)	02
10	Elective III: Reliability	PG	SYME (Mechanical)	04

Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved
Journals	07	15	--	12	06
Conferences	02	07	03		--

Publication Details (Journals)

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1.	Tribological behaviour of non-asbestos brake pad material	Kishor Hendre and Bhanudas Bachchhav	2020	Materials Today: Proceedings https://doi.org/10.1016/j.matpr.2020.07.560	ISSN: 2214-7853	Elsevier
2.	Grade classification of bio-based lube oil by multi-attribute decision making methods	P. S. Kathamore and B. D. Bachchhav	2020	Materials Today: Proceedings https://doi.org/10.1016/j.matpr.2020.06.027	ISSN: 2214-7853	Elsevier
3.	Effect of surface roughness on friction and lubrication regimes	B. Bachchhav and H. Bagchi	2020	Materials Today: Proceedings https://doi.org/10.1016/j.matpr.2020.06.252	ISSN: 2214-7853	Elsevier
4.	Effect of high volume fraction reinforcement on electro-discharge machining of Al-Al ₂ O ₃ MMC	B. Bachchhav and V. Naranje	2020	Materials Today: Proceedings https://doi.org/10.1016/j.matpr.2020.06.004	ISSN: 2214-7853	Elsevier
5	Screening of organic brake pad materials using	Hendre K. N., Bachchhav B. D	2020	<i>Advances in Intelligent Syst., Computing, Vol.</i>	Print ISBN 978-981-	Springer Nature

	MADM Technique			949, : <i>Advanced Engineering Optimization Through Intelligent Techniques</i> , https://doi.org/10.1007/978-981-13-8196-6_40 .	13-8195-9 Online ISBN 978-981-13-8196-6	
6.	Tribology of drawing lubricants for low carbon steel	Bachchhav B. D., Lathkar G. S., Bagchi H.	2014	<i>Industrial Lubrication and Tribology</i> , Vol: 66, Issue: 6, pp. 640-644. DOI 10.1108/ILT-10-2012-0105	ISSN 0036-8792	Emerald
7.	Performance of Additives Concerning Synergistic Effect in Lube Oil	Pramod S. Kathmore, Bhanudas D. Bachchhav, Harijan H. Bagchi.	2020	<i>International Journal of Engineering and Advanced Technology</i> Vol: 9, Issue: 3, pp. 1874-1878	ISSN 2249 – 8958	BEIE&S
8.	Frictional Characteristics of Brake Pad Materials Alternate to Asbestos	Kishor N. Hendre, Bhanudas D. Bachchhav, Harijan H. Bagchi.,	2019	<i>International Journal of Engineering and Advanced Technology (IJEAT)</i> , Vol: 9, Issue: 2, pp. 694-698.	ISSN 2249 – 8958	BEIE&S
9.	Bio-based Lubricant Selection for Metal Cutting Operations Using MADM Technique	Kathmore P. S; Bachchhav B. D	2019	<i>International Journal of Mechanical and Production Engineering Research and Development</i> , Vol. 9, Issue 6, 845–858.	ISSN(P): 2249–6890; ISSN(E): 22498001	TRANS STELLAR
10	Friction and Wear	Kishor N.	2019	<i>International</i>	ISSN	

.	Characteristics of Rubber Resin-Bonded Metallic Brake Pad Materials	Hendre, Bhanudas D. Bachchhav		Journal of Engineering and Advanced Technology Vol: 8, Issue: 6, pp. 1312-1316.	2249 – 8958	BEIE&S
11	General tribological evaluation of deep drawing oils	Bachchhav B. D., Lathkar G. S., Bagchi H.,	2011	<i>Journal of Manufacturing Technology Today Vol. 10, Issue 9, pp. 12-16.</i>	ISSN: 0972-7396	CMTI
12	Parametric optimization of rotary electrochemical discharge machining (RECDM) on glass	Bachchhav B. D., Zope S. B., Navale L. G.,	2007	<i>Journal of Manufacturing Technology Today, Vol. 6, Issue 8, pp. 4-8</i>	ISSN: 0972-7396	CMTI
13	Strength analysis of adhesively bonded AA6082-T6 Al alloy lap joint	S. A. Patil, B. D. Bachchhav, C. S. Choudhari	2016	<i>International Journal of Scientific Research in Science, Engineering and Technology, Vol. 2, Issue: 4, pp. 327-330</i>	[Print ISSN:2395-1990; Online ISSN: 2394-4099]	
14	Effect of Injection Pressure on Vibration Performance of IC engine by using Diesel-Biodiesle Fuel	Harshal A. Arekar, S. V. Kshirsagar, B. D. Bachchhav	2016	<i>International Journal of Scientific Research in Science, Engineering and Technology, Vol. 2, Issue: 4, pp. 273-276</i>	[Print ISSN:2395-1990; Online ISSN: 2394-4099]	
15	Frictional characteristics of cold rolling oils”, <i>Journal of</i>	Bachchhav B. D., Lathkar G. S., Bagchi H	2014	<i>Journal of Tribology and Surface Engineering, Vol.</i>	[ISSN: 1949-4866]	NOVA Science Publishers, Inc.,

	<i>Tribology and Surface Engineering</i>			3, Issue: 3-4, pp.177-185.		USA
16	Tribology of ester added lubricants	Bachchhav B. D., Lathkar G. S., Bagchi H	2012	<i>Journal of Tribology and Surface Engineering, Vol. 3, Issue: 1-2, pp.87-94.</i>	[ISSN: 1949-4866]	NOVA Science Publishers, Inc., USA
17	Criticality assessment in lubricant selection for metal forming processes by AHP	Bachchhav B. D., Lathkar G. S., Bagchi H	2012	<i>International Journal of Manufacturing Technology and Industrial Engineering Vol. 3, Issue: 1, pp. 31-35</i>	ISSN: 0976-6251	
18	Critical property assessment of novel brake pad materials by AHP	Hendre K. N., Bachchhav B. D.,	2018	<i>Journal of Manufacturing Engineering, Vol: 13 Issue: 3, pp. 148-151.</i>		SME- Society of Mfg. Engineers
19	In-situ strain evaluation during cold rolling of AL 1100 H14	Bachchhav B. D., Bagchi H	2017	<i>Journal of Manufacturing Engineering, Vol: 12 Issue: 4, pp. 203-207</i>		SME - Society of Mfg. Engineers
20	Tribo-performance of wire drawing lubricants	Bachchhav B. D., Naole D. R	2016	<i>Journal of Manufacturing Engg, Vol. 11, (1), pp. 051 -054</i>		SME - Society of Mfg. Engineers
21	Wear under lubricated sliding contacts- A dimensional analysis model	Bachchhav B. D., Lathkar G. S., Reddy Y. P., Bagchi H	2013	<i>Journal of Manufacturing Engineering, Vol. 8, Issue 3, pp. 139 -144.</i>		SME- Society of Mfg. Engineers
22	A study of tribo-characteristics of deep drawing oils	Bachchhav B. D., Lathkar G. S., Bagchi H	2011	<i>Journal of Manufacturing Engineering, Vol. 6, Issue 3, pp. 147-152.</i>		SME- Society of Mfg. Engineers

Publication Details (Conferences)

S. No	Document Details	Authors	Year	Conference Details	Organised by
1.	Experimental evaluation of Mechanical Properties of Epoxy Based composite material using Taguchi Method	Vishal Naranje, Ajay Sankar, Sachin Salunkhe, Bhanudas Bachchhav	2020	International Conference on Recent Advances in Manufacturing (RAM-2020), July 3-5, 2020.	NIT Surat, India.
2.	Use of sustainable Practices in Cement Production Industry: A Case Study	Vishal Naranje, TVS Chidambaram, Rajeev Bhushan Garg, B. D. Bachchhav	2020	International Conference on Recent Advances in Manufacturing (RAM-2020), July 3-5, 2020.	NIT Surat, India.
3.	A Bio-based lubricant selection using Complex Proportional Assessment method	Kathamore P. S., Bachchhav B. D.	2020	<i>International Conference on Mechanical Engineering for Sustainable Development-2020</i> pp.104-108.Feb.17-18, 2020,	AISSMS COE Pune, India
4.	Tribological evaluation of non-asbestos brake pad materials	Kale K. P., Hendre K. N., Bachchhav B. D	2020	<i>International Conference on Mechanical Engineering for Sustainable Development-2020</i> pp.104-108. February, 17-18, 2020,	AISSMS COE Pune, India
5.	Challenges in formulating Vegetable Based Metalworking Lubricants: A Review	Bachchhav B. D.	2018	<i>International conference on Tribology- TribolIndia-2018</i> ”,Dec. 13-15, 2018, Electronic copy available at: https://ssrn.com/abstract=3332391	VJTI, Mumbai, India.
6.	Frictional	Bachchhav B.	2012	<i>International Conference</i>	Hyderabad,

	characteristics of lubricants for 1010 low carbon steel/steel in sliding contact	D., Lathkar G. S., Bagchi H.		<i>on Materials Processing and Characterization (ICMPC-2012)</i> , pp. 479-483.	India.
7.	Lubricant selection for metal forming processes by subjective and objective integrated multi-attribute decision making method	Bachchhav B. D., Lathkar G. S., Bagchi H.	2012	<i>International Conference on Industrial Tribology (ICIT-2012)</i> , TSI 812543.	Pune, India.
8.	Hydro-forming of light weight components at elevated temperature	Bachchhav B. D., Katikar R. S., Shinde B. M.	2004	<i>National Conference On Recent Advances in Manufacturing Engineering (RAIME-04)</i> .	National Engineering College, Kovilpatti, Tamilnadu
9.	An experimental study of rotary electrochemical discharge machining (RECDM) on glass	Bachchhav B. D., Zope S. B.,	2007	<i>National Conference On Emerging Trends in Mechanical Engineering(ETME)</i>	SVNIT Surat
10	Experimental Investigations into electrochemical discharge machining of ceramics/glass	Bachchhav B. D., Reddy Y. P.	2008	<i>Regional Conference of Pune University College Teachers (Innovation 2008)</i> ,	SRES's College of Engineering Kopergaon
11	Experimental Investigations into electrochemical discharge machining of ceramics/glass	Bachchhav B. D., Reddy Y. P.	2009	<i>Regional Conference of Pune University College Teachers (Innovation 2009)</i>	Amrutvahini College of Engg, Sangamner
12	Performance evaluation of cold rolling oils	Bachchhav B. D.	2013	<i>Regional Conference of Pune University College Teachers (Innovation 2013)</i> , at	Rajarshree Shahu College of Engineering Pune.

PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	-	02	> 25

Professional Memberships

Professional Body	Level (National/International)	Type (Fellow/Life /Annual)	Membership No.
Tribology Society of India	National	Life member	LM 4140
Institution of Engineers (I)	National	Fellow Member	F-124183-0
Indian Society for Technical Education	National	Life member	LM-35483

Patents / IPR Filed / Granted

S. No	Investigator Details	Title	Year	Status (Filed/Granted)	Details
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Books Published

S.No	Title	Name of the Publisher	ISBN/ISSN Number
1	Screening of organic brake pad materials using MADM Technique: Advances in Intelligent Syst., Computing, Vol. 949, : Advanced Engineering Optimization Through Intelligent Techniques, https://doi.org/10.1007/978-981-13-8196-6 40.	<i>Springer Nature</i>	Print ISBN 978-981-13-8195-9 Online ISBN 978-981-13-8196-6

Research Grants Received (Rs. 6,60,000 Research Grant + Rs. 1,00,000 Under QIP)

S. No	Program	Duration	Funding Agency	Grant Amount (Rs)
1.	Under RPS: Experimental Investigation into Electrochemical Discharge Machining of Ceramics/Glass	2007-2009	BCUD, Savitribai Phule Pune University	1,50,000
2	Under RPS: Characterization of Metal Working Lubricants	2009-2011	BCUD, Savitribai Phule Pune University	2,00,000
3	Under RPS: Performance Evaluation of Cold Rolling Oils	2012-2014	BCUD, Savitribai Phule Pune University	2,85,000
4	Under QIP: scheme to conduct National Level Seminar on, 'Achieving Make-In-India through Manufacturing Advancements'	2017	Savitribai Phule Pune University	1,00,000
5	Tribological Performance Evaluation of Non-Asbestos Organic Brake Pad Materials	2019-2020	Institution of Engineers, IEI (R&D), Kolkata	25,000

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

S. No	Title	Type	Duration	Level (State/National/International)	Sponsoring Agency
01	Syllabus Implementation workshop on "Systems in Mechanical Engineering" for First Engineering	Workshop	July 8, 2019.	University level	SPPU
02	Achieving Make-in-India Through Manufacturing Advancement	Seminar	January 20-21, 2017	State Level	SPPU
03	Two day workshop on "Industrial Tribology	Workshop	October 5-6, 2015	National Level	Self Financed

Contribution as Resource Person

S. No.	Place/ Organization	Topic	Level(National/Int/ State/Regional)	Date
1	Mattes Research Academy, Chennai	Tribology in Metal Working	International Conference (ICAMBC-2020)	July 19, 2020
2	All India Shri Shivaji Memorial Society's College of Engineering Pune	Tribological in Metal Working	AICTE sponsored FDP on "Advances in Tribology"	November 07, 2019
3	Bharati Vidyapeeth College of Engineering, Lavale,	Advances in Tribology	National Conference RAES-19	March 27, 2019
4	All India Shri Shivaji Memorial Society's College of Engineering Pune	Tribological Aspects in Sheet Metal Rolling	Two day state level workshop on "Industrial Tribology"	October 6, 2015
5	Sau. Shantidevi Chavan Institute of Engineering & Technology	Developing Good Presentation Skills	Regional	October 29, 2014

Details of Workshop / STTP / FDP / Conferences Attended

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1.	Vision-Mission-PO- PSO-Co Framing	FDP	10-15 June 2019	AISSMS COE Pune	ISTE
2.	Industrial Tribology	FDP	07-11 Dec. 2015	VJTI Mumbai	TEQIP- II
3.	Advances in Micro-manufacturing	FDP	01-12 June 2015	COEP Pune	AICTE
4.	Fundamentals of Material Processing	FDP	10-14 June 2013	SVNIT Surat	TEQIP-II
5.	Recent Trends in Precision Mechanical Measurements	FDP	26 Nov - 01 Dec 2012	SCOE Pune	TEQIP-II

6.	Excellence in Maintenance Engineering	FDP	12-24 Dec. 2011	COEP Pune	AICTE
7.	Summer School in Tribology	Summer School	21-24 January 2010	TSI, IIPM Gurgaon	IIPM Gurgaon
8.	Metallurgical Aspects of Tribology	FDP	30 Nov. To 4 Dec. 2009	SVNIT Surat	AICTE
9	General Research Methodology	FDP	19-23 January 2009	MHRD, NITTTR,Pune	MHRD, NITTTR
10	Reliability and Failure Analysis of Engineering System	FDP	22 Oct. - 3 Nov. 2007	SCOE Pune,	AICTE
11	Nano-Technology: opportunities and Challenges	FDP	19-31 Dec. 2005	BATU Lonere,	AICTE
12	Outcome Based education: A step towards Excellence	FDP	11-15 May 2020	GC karad	Margdarshan Scheme of AICTE.

Major Professional Responsibilities Handled

S. N.	Role and Responsibilities
1.	Head of the Department Since 10 th June 2019.
2.	Member- BOS
3.	Member- Local Inquiry Committee
4.	Member & Subject Expert - University Selection Panel
5.	Assistant CAP Director, ME CAP.
6.	ERP Coordinator
7.	Industry Institute Interaction Co-ordinator
8.	Member - Academic Monitoring committee
9.	College Examination Officer (CEO) SPPU, Pune Examinations at SCOE, Pune
10.	Subject chairman and Paper setter for various courses for UG and PG
11.	Participation in Syllabus Framing of Mechanical and Production courses
12.	Organized various work-shops, industrial visits for faculty as well as for students

Awards and Recognition

S. N.	Awards
1.	Recognition as PhD Research Guide in Mechanical Engineering of SPPU. (BOD/Sci & Tech/52/02/date 01/01/2019)
2.	Recognition as PhD Research Guide in Mechanical & Materials Technology of (SPPU. BUTR/Tech/14/1127 dated. 05/11/2014)
3.	PG recognition for ME(Mechanical Engineering) by SPPU vide its letter no. BUTR/Engineering/117/211 dated 24/03/2017
4.	PG recognition for ME(Production Engineering) by SPPU vide its letter no. BUTR/Engineering/03/213 dated 25/03/2017
5.	Member- BOS- Mechanical and Materials Technology, SPPU, CB/S&T/259/29/03/2019.
6.	Member- BOS- Production & Industrial Engineering, SPPU, PUN/11/Dt. 16/01/2014.

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



Dr B D Bachchhav

Professor & Head

Department of Mechanical Engineering

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