



AISSMS

COLLEGE OF ENGINEERING

ज्ञानम् सकलजनहिताय

Accredited by NAAC with "A+" Grade



Prof.(Dr) A V Waghmare

PhD (Mechanical Engineering), MBA (HR)

Associate Professor, Mechanical Engineering

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🔗 [Avinash Waghmare | Publons](https://publons.com/author/123456789/Avinash_Waghmare/) ResearcherID is **ABG-6681-2020**.

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Research Areas / Areas of Interest

Thermal Energy, CFD, Refrigeration, Air-conditioning, Hydraulics and Pneumatics

Personal Details

Date of Birth : 19 / 05 / 1973

Domicile: Maharashtra

Gender : Male

Blood Group: Rh B+ve

Contact Details: Flat No 11, Ganesh Garden B-3, Survey No.55/7B,
Vadgaon Budruk, Pune – 411041

Academic Background

S.N.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Mechanical Engineering	Kolhapur	Awarded	Feb 2018
2	M.E.	Mechanical-Heat Power	Pune	I st	Dec 2002
3	B.E.	Mechanical Engineering	Aurangabad	I st	May 1995
4	MBA	Human Resource	Pune	I st	Mar 2007

Work Experience

S.N.	Type of Experience	Years	Months
1	Teaching	24	00
2	Research	00	00
3	Industry	00	06
4.	Others	--	--
Total		24	06

Subjects / Courses Taught

S.N.	Subject	UG/PG	Class (FE/SE/TE/BE/ME)	No of times Subject Taught
1	Hydraulics and Pneumatics	UG	BE (Mechanical)	4+
2	Refrigeration and Air-conditioning	UG	TE (Mechanical)	4+
3	Vehicle Aerodynamics	PG	ME (Mechanical)	3+
4	Computational Fluid Dynamics	UG	BE (Mechanical)	2
5	Applied Thermodynamics	UG	SE (Mechanical)	3
6	Basics of Mechanical Engineering	UG	FE (All Branches)	3+
7.	Heat Transfer	UG	TE (Mechanical)	3+
8.	HVAC&R	UG	BE (Mechanical)	1

Research Publications

	National	International	State	SCI/ Scopus Indexed	UGC Approved	Total
Journals	01	07	-	02	06	08
Conferences	06	10	-	-	-	16

Publication Details (Journals)

Citations: 168

h-index-3

i10-index-2

Sr. No	Document Details	Other Authors	Year	Source Details	ISBN/ISSN	Publisher
1.	Alternatives to HCFC-22 for window air conditioner	Dr.S Devotta Dr. B M Domkundwar and Mr. N Sawant	Apr 2001	Applied Thermal Engineering, Vol. 21, pp.703-715	ISSN 1359-4311	Elsevier
2	Numerical Analysis of Enhancement of Heat Transfer in Phase change Material	Dr A T Pise and Mr A B Sutar	Jan 2012	International Journal of Earth Sciences and Engineering	ISSN 0974-5904	Springer
3	Enhancement of heat transfer by adding Al ₂ O ₃ nano-material in paraffin for solar thermal application	Dr A T Pise	Nov 2014	Technical Journal of The Institution of Engineers (India), Vol. 38	ISBN 978-81-924990-2-4	Institution of Engineers
4	Numerical investigation of concentric cylinder latent heat storage with / without gravity and buoyancy	Dr A T Pise	Aug 2015	Journal Energy Procedia, Vol. 75, pp. 3133-3141	ISSN: 1876-6102	Elsevier

5	Performance Analysis of Thermosyphon Heat Pipe Collector with Integrated TES of Air and PCM	Dr A T Pise Mr A A Pise Ms G A Pise	2016	Heat Pipe Science and Technology, An International Journal, Vol. 7, DOI:10.1615/HeatPipeScieTech.2017019630	ISSN:2151-7991	Begell
6	Cold start performance enhancement of motorcycle catalytic converter by latent heat storage system	Mr K K Bokde	Feb 2013	International Journal of Innovative Research in Science, Engineering and Technology <i>Vol. 2, Issue 2</i>	ISSN: 2319-8753	IJIRSET
7	Reduction in Cold Start Emissions by Using PCM Based Catalytic Converter	Mr V A Chinhole	Mar 2017	Journal of Advances in Science and Technology [JAST] Vol:13/ Issue: 1 DOI: 10.29070/JAST	ISSN: 2230-9659	Ignited Minds
8	Heat Transfer Enhancement by Using Nanomaterial in Phase Change Material for Latent Heat Thermal Energy Storage System	Dr A T Pise and Mr V Talandage	2013	Asian Journal of Engineering and Applied Technology Vol. 2 No. 2, pp. 52-57	ISSN 2249-068X	The Research Publication

Publication Details (Conferences)

S. No	Document Details	Other Authors	Year	Conference Details	Organised by
1	Alternatives to HCFC-22 for window air conditioner	Dr B M Domkundwar	30-31 Oct 1998	All India Seminar on Refrigeration and Air-conditioning	JNEC, Aurangabad
2.	Development of latent heat energy storage	Dr A T Pise	4-6 Jan 2010	20th National and 9th International ISHMT-ASME Heat and Mass Transfer Conference	IIT, Powai
3	Latent heat energy storage for solar thermal applications	Dr A T Pise	29-30 Oct 2010	National conference on recent developments in Mechanical engineering	LDIET, Alwar
4	Studies of heat transfer in vertical concentric cylinder Latent thermal energy storage	Dr A T Pise	24-26 March 2011	International Conference on Thermal Energy and Environment	Kalasalingam University
5	Augmentation of Heat Transfer Using High Thermal Conductive Material in Thermal Storage System	Dr A T Pise	27-30 Dec 2011	21 st National and 10 th International ISHMT-ASME Heat and Mass Transfer Conference	IIT, Madras
6	Numerical investigation of the process of heat transfer in concentric cylinder latent thermal energy storage	Dr A T Pise and Mr A B Sutar	27-30 Dec 2011	21 st National and 10 th International ISHMT-ASME Heat and Mass Transfer Conference	IIT, Madras
7	Numerical Analysis of Enhancement of Heat Transfer in Phase Change Material	Dr A T Pise and Mr A B Sutar	4-6 Jan 2012	International Conference on Recent Advances and Challenges in Energy	MIT, Manipal

8	Numerical Analysis of Enhancement of Heat Transfer in Phase Change Material using Radial Fins	Dr A T Pise and Mr A B Sutar	23-24 March 2012	National Conference on Emerging Trends in Energy Engineering	DIT, Dehradun
9	Reducing cold start emissions of SI engine: A Review	Mr K K Bokde	19-20 April 2012	National Conference on Innovations in Mechanical Engineering	SIT, Lonavala
10	Stability of Al ₂ O ₃ nano suspension in Phase Change Material	Dr A T Pise and Mr V G Talandage	29-31 May 2013	International Conference on Advances in Mechanical Engineering	GCOE, Pune
11	Experimentation to reduce melting time in latent heat storage for solar thermal application	Dr A T Pise	16-20 June 2013	8 th World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics	Lisbon, Portugal
12	Experimental Investigation of Heat Transfer Enhancement in AL ₂ O ₃ /Paraffin Wax Nanofluid in Thermal Energy Storage System	Dr A T Pise and Mr V G Talandage	29-31 Aug 2013	National Conference on Frontiers in Mechanical Engineering	MANIT, Bhopal
13	Heat Transfer Enhancement by using Nanomaterial in Phase Change Material for Latent Heat Thermal Energy Storage System	Dr A T Pise and Mr V G Talandage	12-13 Dec 2013	IV th International Conference on Advances in Energy Research	IIT, Powai
14	Enhancement of heat transfer by adding Al ₂ O ₃ nano-material in paraffin for solar thermal application	Dr A T Pise	18-19 Oct 2014	Annual Technical Meet	Institution of Engineers (I), Pune
15	Performance Analysis of Thermo-siphon Heat Pipe Collector with back layer of air	Dr A T Pise and Gargee Pise	17-19 Dec 2015	23 rd National Heat and Mass Transfer Conference and 1 st International ISHMT-ASTFE Heat and Mass Transfer Conference	ISRO, Trivandrum

16	Experimental Investigation of Thermosyphon Heat Pipe Collector with and without Integrated TES Unit	Dr A T Pise and Gargee Pise	12-14 Dec 2017	VI th International Conference on Advances in Energy Research	IIT, Powai
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PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)
No. of Student guided	2 (Registered)	08+01	25

Professional Memberships

Professional Body	Level (National/ International)	Type (Fellow/Life/Annual)	Membership No.
Society of Automotive Engineers (SAE) India	National	Annual	7150511058
Institution of Mechanical Engineers, UK (IMechE)	International	Annual	80335125
Indian Society of Heating Refrigeration and Air-conditioning Engineers, (ISHRAE)	National	Annual	15218
Indian Society of Technical Education, (ISTE)	National	Life Member	29700
Indian Society of Heat and Mass Transfer, (ISHMT)	National	Annual	564
Institution of Engineers (India), IE (I)	National	Life Member	M-1592267
Solar Energy Society of India, (SESI)	National	Life Member	LM-2441
Fluid Power Society of India (FPSI)	National	Annual	M-4288

Research Grants Received

S.N.	Program	Duration	Funding Agency	Grant Amount
1.	Research Proposal	2009-2011	BCUD, SPPU, Pune	INR1.5 Lac
2.	AICTE-Scheme for Promoting Interests, Creativity and Ethics among Students (SPICES)	2020-2021	AICTE	INR1.0 Lac

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

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
1	Workshop 'Revision of Structure/Syllabus of SE Mechanical Engineering (Sandwich)-2012 Course	Syllabus/ Structure	6 Dec 2012	University Level	BOS, SPPU
2	Organized TECHNOCHILL 2015	Students' competition	17 Jan 2015	Pune Chapter	ISHRAE
3	Workshop 'Revision of Structure/Syllabus of BE Mechanical Engineering (Sandwich)-2012 Course	Syllabus/ Structure	17 Apr 2015	University Level	BOS, SPPU
4	Organised a workshop on revision of syllabus for 'Hydraulics and Pneumatics' BE Mechanical Engineering, 2015 Course	Syllabus Impl. WS	23 Feb 2018	University Level	BOS, SPPU
5	Organised a workshop on 'Speak out for Engineering', IMechE Program	Inter collegiate	30 Mar 2018	Pune Level	I Mech E
6	Coordinated, 'Speak for India' a debate competition organised by Times Group	Inter collegiate	10 and 19 Aug 2019	District Level	Times Group
7	Coordinated, Syllabus Implementation Workshop on 'Systems in Mechanical Engineering'	Syllabus Impl. WS	8 July 2019	University Level	BOS, SPPU

8	Coordinated, Baja SAEINDIA 2020 “DESIGN MEGA WORKSHOP”	Students’ Training	14-15 Sep 2019	National Level	SAEINDIA
9	Co-coordinator, AICTE sponsored one week STTP on, “Advances in Tribology”	STTP	4-9 Nov 2019	National Level	AICTE
10	Coordinated, Installation of ‘Fluid Power Chapter’	Chapter Installation	30 Sept 2019	Institute Level	FPSI
11	Coordinated (Jt. With CSC) ‘Covid-19 Awareness Program’	Quiz	5 May 2020	Online	AISSMS COE
12	Coordinated (Jt. With CSC) ‘Energy conservation tips to engineers’	Webinar	23 May 2020	Online	AISSMS COE
13	Organised two ‘FACE training program of 66 hrs’ (Aptitude, programming C++, GD, PI, CV) for students of all disciplines.	Interactive	6 Apr and 14 May 2020	Online	FACE
14	Coordinated (Jt with PVD) Two week Training program on ‘Ansys Workbench’	Interactive	11 -24 June 2020	Online	AISSMS COE
15	Coordinated (Jt. With SSK) ‘Career Success Mantra’	Interactive	1 May 2021	Online	AISSMS COE

Contribution as Resource Person

Sr. No.	Place/ Organization	Topic	Level (National/Int/ State/Regional)	Date
1	Government College of Engineering, Karad	Recent Trends in Heat Exchangers	AICTE Sponsored STTP-National	1 Jan 2010 (Two week)
2	AISSMS College of Engineering, Pune	Advances in Heat Transfer	State Level Seminar	29 Feb 2012 (Two days)
3	Flora Institute (University of Pune)	Syllabus implementation of Hydraulics and Pneumatics of TE	University of Pune-Regional level	11 July 2014

		Mechanical (2012 Pattern)		
4	Adarsh Institute of Technology, Vita, Dist. Sangali	Advances in Renewable Energy & Utilization Technologies	ISTE approved one week STTP-National	11 Dec 2017
5	Rajkiya Engineering College, Ajamgadh, UP	Professional Chapters' Expert talk and Interaction	Institute level	29 Nov 2018
6	School of Energy Studies (SES), Savitribai Phule Pune University	Thermal Energy Storage	Institute level	19 Jan 2019
7	SPPU Pune and BJS Wagholi Pune	E-Resources in Teaching, Learning and Research	National Seminar	22 Jan 2019
8	AISSMS College of Engineering, Pune	ICT in Teaching-Learning process and Educational Management	FDP at Institute Level	10 and 11 June 2019
9	DYP, Akurdi	Alumni Engagements	Two Week AICTE-FDP	6 Nov 2019
10	Arvind Gavali College & Engineering, Satara	Career Options after Engineering	Induction Program	5 Nov 2020
11	Pratibha College of Commerce & Computer Studies, Chinchwad, Pune	Open Educational Resources and Research Publication	FIP on "Institutional Quality Enhancement through NAAC perspective"	10 Dec 2020
12	Amrutwahini College of Engineering Sangamner	Project Based Learning-II, Syllabus Implementation	BOS Mechanical-SPPU	12 Feb 2021
13	Arvind Gavali College & Engineering, Satara	How to prepare for good placements	Induction Program	11 Dec 2021

Details of Workshop / STTP / FDP / Conferences Attended

Sr.No.	Particulars of Training	Organization	Period	
			From	To
1	STTP:“Teachers Induction Training Programme”	ISTE, UoP, VIT Pune	30 Nov-18 Dec	1998
2	Energy Efficiency Improvement in Utilities	The Institute of Engineers (India), Pune	11-13 Sept.	2003
3	QIP: “Air-conditioning system Design”	IIT Bombay, Mumbai	2-6 Feb	2004.
4	STTP:“Modern Trend in Automobiles and Pollution	Bharati Vidyapeeth’s JNIOT, Pune	29 Mar-2 Apr.	2004.
5	FDP: “Commercialization of Renewable Energy Projects in Educational Institutions”	MITCON Pune with MNES New Delhi	13-17 Sept.	2004
6	STTP:“Energy and Cryogenic Engineering”	VIT Vellore, Tamilnadu	15-26 Nov.	2004
7	FDP: “Facilitating Knowledge Ventures”	MITCON Pune with Department of Sci. and Tech. New Delhi	21-26 Feb.	2005
8	QIP STC: Advances in materials & fuel technologies for automotive applications	IIT Kanpur	8-12 June	2006
9	Mission 10 X	Wipro Technologies	25 – 29 August	2008
10	QIP STC: CFD	IIT Roorkee	6-10 July	2009
11	Course: Measurement Uncertainty	Center for Electronics Test Engineering, Pune and	4 February	2011
12	QIP STC: Building Integrated Photovoltaic Thermal Systems	IIT Delhi	8-14 February	2011
13	Two Week workshop on Thermodynamics in Mechanical Engineering	IIT Bombay, Mumbai At MKSSS’s Cummins College Pune	14-24 June	2011
14	Seminar on Patent, Trade mark and Design	Intellectual property office, Mumbai with GMGC Pune	8 October	2011

15	Workshop: Heat Transfer	IIT Bombay, Mumbai At MKSSS's Cummins College Pune	29 Nov-10 Dec 2011
16	Seminar on CFD	Pimpri Chinchwad College of Engineering, Pune	24-25 Feb 2012
17	FDP: Computational Fluid Dynamics	Government College of Engineering, Karad	28 March-1 April 2013
18	Faculty Development Program	AISSMS College of Engineering, Pune	10-12 June 2013
19	Faculty Leadership Development Programme	Priyadarshni College of Engineering, Nagpur	21-22 June 2013
20	Ansys ICEM and Fluent	IFS Academy	September-October 2013 (One Month)
21	WHS791x : Technical communication for Scientists and Engineers	IIT Bombay	Online course, Certificate issued on 21 Dec 2015
22	GIAN on 'Second Law Analysis of Thermal Energy Storage	IIT Indore	17-22 July 2017
23	STTP on 'Efficient Energy Conversion in Harmony with Environment'	IIT (BHU) Varanasi	26 Nov-02 Dec 2018
24	Online course on 'Enhancing Soft Skills & Personality'	NPTEL	8 Week
25	Online course on ' Speaking Effectively'	NPTEL	8 Week
26	Online course on ' RAC Product Design'	NPTEL	4 Week
27	Online course on 'Accreditation of Undergraduate Engineering Programmes'	Swayam	8 Week
28	Online course on 'ICT in Teaching and Learning'	Swayam	8 Week
29	Online course on 'Fundamental of Outcome Based Curriculum in Engineering Education'	Swayam	8 Week

30	Online course on 'Power Plant Engineering'	Swayam	8 Week
31	Online course on 'NBA Accreditation and Teaching-Learning in Engineering (NATE)'	Swayam	12 Week
32	Certificate course on 'Python 3.4.3'	Spoken Tutorial	25 April 2020
33	Certificate course on 'Drupal'	Spoken Tutorial	27 April 2020
30	Two-day workshop on 'Educational Video Production'	TLC, SPPU	7-8 May 2018
31	FDP 'Outcome Based Education: A Step towards Excellence'	Government College of Engineering, Karad	11-15 May 2020
32	FDP 'Funding Opportunities for Engineering Teachers & Technical Paper Writing'	RIT Sakharale	15-19 June 2020
33	FDP 'Online Teaching & E-content'	Indian Institute of Digital Education	16-17 May 2020
34	FDP on 'Promoting Quality Culture in Technical institutions'	AISSMS College of Engineering, Pune	25-29 May 2020
35	ATAL on 'Management Information System'	AICTE Training And Learning (ATAL) Academy & Dr. D. Y. Patil Institute of Management & Research	2-6 Nov 2020
36	ATAL on 'Biomedical Instrumentation'	AICTE Training And Learning (ATAL) Academy & University B D T College Of Engineering Davanagere	7-11 Dec 2020
37	Faculty Development Program on 'Advanced Excel with Data Visualization'	E & ICT Academy, IIT Kanpur	11-16 Jan 2021
38	ATAL on 'Fundamentals of Electrical Vehicles'	AICTE Training And Learning (ATAL) Academy & IIT Jammu	25-29 Oct 2021

Major Professional Responsibilities Handled

Sr. No.	Role and Responsibilities
1	Head, Centre for Information, Training and Placement, 10 June 2019- till date
2	Head of the Department, Mechanical Engineering, 1 July 2014 –10 June 2019
3	Co-ordinator:(2007-2013): Mechanical Engineering (Sandwich)
4	Co-ordinator: (2005-2010): BE Mechanical Projects
5	In-charge: Heat Transfer, Fluid Power and Machinery Labs
6	Guide: Project (UG/PG) / Sandwich Training / Technical Paper/Seminar (UG/PG)
7	Faculty Advisor: SAE Collegiate Club, Since 2003 –till date
8	Faculty Advisor: Resonance Team in 2009,2010,2015, 2016, 2017,2018 and 2019 at BAJA Competition organized by SAEINDIA
9	Faculty Advisor: Resonance Team in 2011 and 2014at SUPRA Competition organized by SAE
10	Faculty Advisor: Endurance and Resonance Team in 2016, 2017 and 2019 respectively at Bharat Formula competition held at Coimbatore.
11	Faculty Advisor: Resonance Team in 2015, 2016, 2017, 2018 at Effi-Cycle Competition organized by SAEINDIA
12	Faculty Advisor: Garudashwa an Aero modeling competition 2016, 2017, 2018, 2019 at USA organized by SAE USA
13	Guided to Students team of Kone Cranes. Team worked on idea generation ‘Human Robot’
14	Guided to Students team of Hackathon 2019
15	Academic Liaison Officer (ALO), Institution of Mechanical Engineers, Collegiate Chapter
16	PhD Guide, Mechanical Engineering, Savitribai Phule Pune University

Interactions (Outside Institute)

Sr. No.	Interactions
1	ISHRAE Pune Local Center, 1. Student Activity Chair 2014-2015. 2. CWC member 2004-2005
2	SAEINDIA Western India Section, Governing Body Member 2013-2014
3	‘Convener’ Student Convention-2020 & 2021, Organised by SAEINDIA Western India Section
4	Reviewed papers at PGCON 2015, SPPU, Pune
5	Examined papers at PGCON2016, SPPU, Pune
6	‘Secretary’ of MECHPGCON 2018
7	Reviewed 2 papers at ICAER 2015, Abu Dhabi UAE
8	Invited as a Judge in the District/NMU-Campus Level research Convention “Avishkar 2015” for the evaluation of posters/models presented by UG/PG students and researchers held on 22 nd Nov. 2015
9	Participation: Faculty Development Program on Building Energy Efficiency organized by Center for Advanced Research in Building Science and Energy, CEPT University, Ahmadabad on 14 August 2015.
10	CSIR-URDIP Selection Committee Chairman, 12 Dec 2018.
11	Member, Board of Studies, Automobile and Mechanical Engineering, SPPU, Pune
12	Member, Engineering Education Board, SAEINDIA. (2019-2020 & 2020-2021)
13	Worked as a committee member at various levels of SPPU
14	Invitation as a Session Chair for “3rd International Conference on Ideas, Innovation, Impact in Science & Technology” on 12 May 2020. Online. Organised by SKN College of Engineering, Pune.
15	Worked as an External Examiner for BE Mechanical Engineering at Babasaheb Ambedkar Technology University. (On Virtual platform)
16	Reviewer: Journal of Thermal Engineering, Publisher: Yildiz Technical University, (E-ISSN: 2148-7847)
17	Reviewer: International Journal of Engineering Research & Technology (IJERT), (ISSN: 2278-0181)
18	Reviewer: International Journal of Applied and Computational Mathematics. (ISSN: 2199-5796)
19	Member of SAEINDIA Recognition & Awards committee.(2020-2021 & 2021-2022)

Awards Received

S. No.	Awards
1	UKIERI, British Council Award with GBP 3000
2	First Prize in paper presentation at Annual Technical Meet organized by Institution of Engineers (I) Pune Local Center on 18-10 Oct 2014.

International Interactions

Sr. No.	Interactions
1	India UK Staff Exchange Programme Developing a UK India Partnership and Support for Curriculum and Pedagogy of the ongoing work at Staffordshire University, UK Beaconside, Stafford ST18 0AD (26 January 2013-14 February 2013)
2	Presented Paper at ICAER 2015, Abu Dhabi UAE 28-31 March 2015, Masdar University
3	Faculty Advisor of Aero Design Team Team participated in SAE Aero Design competition (East), 17-25 April 2017 At Lakeland, Florida (USA)
4	Faculty Advisor of Aero Design Team Team participated in SAE Aero Design competition (West), 5-7 April 2019 At Los Angeles, California (USA)
5	Member of AISSMS COE Delegation to Binghamton University (SUNNY) New York, (USA) on 2-4 April 2019

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



Dr A V Waghmare