



Personal Profile

Name: Dr. Swapnil Prakash Awate
Date of Birth: 22nd December 2022
Sex: Male
E-mail ID: awate.swapnil@kbtcoe.org
Marital Status: Married
Nationality: Indian
Address for correspondence: Sarthak Bungalow, Pushpaknagar, Borgad Road, Mhasrul, Nashik – 422004. (Maharashtra State)
Mobile No. +91-9922956965

Education

Degree	Institute/University	Class and percentage	Year of passing
Ph. D. (Mechanical Engineering) Specialization: Thermal and Fluid Engineering	Indian Institute of Technology Bombay	-	2020
M.Tech. (Mechanical – Design Engineering)	College of Engineering Pune	First Class with Distinction (CGPA 8.4)	2006
B.E. (Mechanical Engineering)	Government College of Engineering, Aurangabad	First Class with Distinction (70.93%)	2003

Thesis/dissertation

Degree	Supervisors	Title
Ph.D.	Prof. Arindrajit Chowdhury Prof. Sreedhara Sheshadri	Improvement in efficiency and reduction of emissions through Homogenous Charge Compression Ignition in stationary and automotive engines. (Funded by Department of Science and Technology, Government of India)
M.E	Dr. Anand M. Deshpande	Synthesis of Compliant Mechanisms using Topology Optimization & Shape Matching Algorithm (Sponsored by Tata Research Development and Design Centre, Pune – A division of Tata Consultancy Services Ltd.)

Professional experience details

Total experience as on 4th March 2022: 11.5years

Organization/institute	Department	Post	From	To	Experience
MVPS's KBT College of Engineering, Nashik (NAAC Accredited 'A' grade institute)	Mechanical Engineering	Associate Professor	07/09/2020	Currently working	1.5 years
Sandip Institute of Technology & Research Centre, Nashik (NAAC Accredited 'A' grade institute)	Mechanical Engineering (NBA Accredited program)	Assistant Professor	06/09/2010	06/08/2020	10 years
Mahindra & Mahindra Ltd., Nashik	Research & Development (Engines)	Deputy Manager (Designer)	01/10/2007	31/08/2010	3 years
Larsen & Toubro Ltd., Mumbai	Design Engg. Centre (R&D)	Post Graduate Engineer Trainee	01/09/2006	25/09/2007	1 year

Publications

Total publications: 9

Patent

Sr. No.	Name of inventor (s)	Title of inventor	Application No./Patent No.
1	1)Swapnil Prakash Awate 2)Vishnu KedariPatade	Intake Manifold With EGR Mixing Device for Automobile Engines	2948/MUM/2010 A
2	1)MahavirJivanchand Jain 2)RohitRavindra Desai 3)Sonukumar Sharma 4)Swapnil Awate	Electromagnetic Reciprocating Air Compressor	4060/MUM/2013 A
3	1)SheshadriSreedhara 2)ChowdhuryArindrajit 3)Balujeeva 4)Awate Swapnil Prakash	Compression ignition internal combustion engine operating on diesel or gasoline	3787/MUM/2014 A

Journal Papers& Conference Proceedings

- **SP Awate**, B Jeeva, A Chowdhury, S Sreedhara, “Numerical investigations of HCCI combustion”, 23rd National Conference on IC Engines and Combustion, Surat, India, 2013.
- **SP Awate**, B Jeeva, S Trivedi, A Chowdhury, S Sreedhara, “Homogenization of Gasoline Sprays”, 23rd National Conference on IC Engines and Combustion, Surat, India, 2013
- B Jeeva, **Swapnil Awate**, J Rajesh, ArindrajitChowdhury, SreedharaSheshadri, “Development of custom-made engine control unit for a research engine”, 2nd International Conference on Emerging Technology Trends in Electronics, Communication and Networking, 2014
- ShrikantGunjal, GauravSonawane, **Swapnil Awate**, Dinesh Satpute, “Design, Analysis & Fabrication of Efficycle: A Hybrid Tricycle”, International Journal of Engineering Trends and Technology, 2014.
- **S Awate**, H Kalyankar, B Jeeva, A Chowdhury, S Sreedhara, “Sequential HCCI and DI combustion in a modified diesel engine”, 10th Asia-Pacific Conference on Combustion, Beijing, 2015.
- HarshadKalyankar, **Swapnil Awate**, ArindrajitChowdhury, SheshadriSreedhara, “Characterization of Aberrant Behavior of a 3-hole Gasoline Port Fuel Injector (PFI) Spray”, 10th Asia-Pacific Conference on Combustion, Beijing, 2015.

- AnandLalwani, **Swapnil Awate**, ArindrajitChowdhury, SheshadriSreedhara, “A Practical Gasoline Homogeneous Charge Compression Ignition (HCCI) Engine”, 11th Asia-Pacific Conference on Combustion, Sydney, 2017.
- VaibhavThete, RavindraPatil, RohitSarange, TusharShinde, **Swapnil Awate**, “Design and development of a material handling trolley operated by self-weight of the job”, AIP Conference Proceedings, Vol. 1, 2018.
- AnandLalwani, **Swapnil Awate**, ArindrajitChowdhury, SheshadriSreedhara, “Conversion of a single-cylinder internal combustion engine to dual-mode homogeneous charge compression ignition engine”, Clean Technologies and Environmental Policy, Vol. 21, Issue 1, 2019

Reviewer for Journal

- Clean Technologies and Environmental Policy, Springer.

Research projects (Ongoing/completed)and other funding received

Sr. No.	Title of Project/scheme	Period	Funding agency	Amount (in lakhs)	Role
1	HCCI Mode of Operation to Reduce Emissions in Internal Combustion Engines: Experimental and Numerical Investigations (Completed)	2011-15	Science & Engineering Research Board, Department of Science & Technology, Govt. of India	56	Research Scholar
2	Journal Paper Vending Machine (Completed)	2017-18	Department of Science & Technology, Govt. of India	1	Mentor

NPTEL /Coursera Courses completed

- Foundation of Computational Fluid Dynamics
- Renewable Energy Engineering
- Accreditation and Outcome Based Learning

Subject taught

Sr. No.	Institute	Subjects
1	MVPS's KBT College of Engineering, Nashik	Automobile Engineering, Energy Engineering, Geometric Dimensioning and Tolerancing.
2	Sandip Institute of Technology & Research Centre, Nashik	Strength of Materials, Geometric Modeling, Mechanical System Design, Dynamics of Machinery, Theory of Machines, Automobile Engineering, Reliability Engineering and Applied Thermodynamics.

Administrative work and technical activities

Sr. No.	Institute	Activities
1	MVPS's KBT College of Engineering, Nashik (NAAC Accredited 'A' grade institute)	<ul style="list-style-type: none"> • Nodal Coordinator of Virtual Lab (IIT Bombay) activity. • Nodal Officer of National Institutional Ranking Framework (NIRF) activity. • President, Library Advisory Committee. • Head, Admission Committee. • Participating in curriculum development, revision and implementation meetings organized by the University. • Mentoring students on academic and related matters by meeting them periodically.
2	Sandip Institute of Technology & Research Centre, Nashik	<ul style="list-style-type: none"> • Chief coordinator of national level technical festival – Aayaam in 2011 (Year of foundation), 2012, 2013 and 2014. • Certified internal ISO Auditor. • Co-coordinator of NBA accreditation of the department • Coordinator of Criteria – 1 of NAAC accreditation • Conducting value added training programs on Ansys and GD&T (Geometrical Dimensions and Tolerances). • Working in Research committee of the institute and Project Review committee of the department. • Participating in curriculum development, revision and implementation meetings organized by the University. • Looking after development in Thermal Engineering Laboratory and experiments in it. • Mentoring students on academic and related matters by

		meeting them periodically.
3	Mahindra & Mahindra Ltd., Nashik	<ul style="list-style-type: none"> • Worked in Design CoE (Centre of Excellence) which was responsible for establishing design philosophies, setting design guidelines and conducting design reviews. • Designing mHawk E-V engine in Scorpio and Xylo. • Designing mHawk E-IV engine in Xylo • Resolution of assembly and field related concerns of mHawk Scorpio BS-III engine. • Designed EGR system of mHawk E-III engine. • Conceptualize and create new design by using design tools. • Releasing engineering orders. • Design engine components following Mahindra Quality System. • Development of design specifications and testing specifications • Studying engine validation reports and addressing the issues identified in it. • Participate in cross-functional discussion and utilize knowledge and skills from the point of view of vehicle integration • Analysis of manufacturing line issues and part failures and develop solutions to the problems • Interact with different aggregates persons and participate in Design for Assembly (DFA), Design for Service (DFS), Design for Manufacturing (DFM) and Design Failure Mode Effect Analysis (DFMEA) • Ensuring execution of solutions agreed upon • Meet project time and costs targets
4	Larsen & Toubro Ltd., Mumbai	<ul style="list-style-type: none"> • Piping Layout Exxon Mobil, Singapore Parallel Train Proposal. This activity included detail layout and modeling the same in PDS. • Estimated BOQ of Transfer Lines of Exxon Mobil, Singapore Parallel Train Project. • Equipment Layout of Highland Upgrader Project from BA Energy, Calgary, Canada. • Estimated Preliminary BOQ of Highland Upgrader Project from BA Energy, Calgary, Canada. • Designed Piperack for Highland Upgrader Project from BA Energy, Calgary, Canada.

		<ul style="list-style-type: none"> Designed Piperack for Proposal IOCL, Baroda, Gujrath, India. L & T got this project
--	--	---

Professional Membership

- Life Member (LM 99238) - ISTE, New Delhi.

Lectures delivered in seminar/workshop/STTP

Sr. No.	Topic	Event& institute	Date
1.	Design of material handling system	Expert Lecture. KVN Naik College of Engineering, Nashik.	March 2017
2.	Design of transmission of automobiles	Expert Lecture. GN Sapkal College of Engineering	October 2015
3.	ISO certificate for Laboratories	Speaker in a workshop on ISO Certification at Sandip Polytechnic	January 2013
4.	Future of IC Engines	Keynote Speaker in an International Workshop on Thermal Engineering at Amrutvahini College of Engineering	February 2020

Conferences / Seminars / Workshops participated

- Presented two research papers on research work on HCCI Engines in 23rd National Conference on I.C. Engines & Combustion held at SVNIT, Surat in December 2013.
- Presented a research paper on research work on HCCI Engines in 2nd IEEE International conference Emerging Technology Trends in Electronics, Communication and Networking held at SVNIT, Surat in December 2014
- Presented two research papers on research work on HCCI Engines in 10th Asia-Pacific Conference on Combustion at Beijing, China, in July 2015.
- Presented a research papers on research work on HCCI Engines in 11th Asia-Pacific Conference on Combustion at Sydney, Australia, in December 2017.
- Participated in eight weeks' Faculty Development Program on 'Foundation of Computational Fluid Dynamics' conducted by IIT Madras in November 2020.
- Participated in eight weeks' Faculty Development Program on 'Renewable Energy Engineering' conducted by IIT Guwahati March 2021.
- Participated in eight weeks' Faculty Development Program on 'Accreditation and Outcome Based Learning' conducted by IIT Kharagpur in September 2021.

- Participated in five days' Faculty Development Program on 'Recent Advances and Applications of ML and IoT in Mechanical Engineering' in February 2021.
-

Declaration

I consider myself familiar with Mechanical Engineering Aspects. I am also confident of my ability to work in a team. I hereby declare that the information furnished above is true to the best of my knowledge.

Place: Nashik (Maharashtra State)

(Dr. Swapnil Prakash Awate)