

STAFF PROFILE



Mr. Sanjay Mahadev Gaikwad

Assistant Professor

Mechanical Engineering

smgaikwad@aitpune.edu.in

Date of Joining
21/07/2008

Nature of Appointment
Regular

Educational Details

Qualification	Degree	University	Grade	Year
SSC	ssc	AURANGABAD	77.78	1994
HSC	HSC	AURANGABAD	61.00	1996
Graduation	BE	SRTMU NANDED	74.23	2003
PG	ME	SHIVAJI UNIVERSITY	65.83	2007

Areas of Interest

Natural Convention, Forced convection, Flow through micro and mini channels, Computational Fluid Dynamics, Heat transfer enhancements (with Ribs, vortex and Dimples), Refrigeration and Air-conditioning, Cryogenics

Experience Details

Total : 2.50 years	Teaching : 1.50 years	Research : 0.00 years	Industry : 1.00 years
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Type	Duration/ Period	Designation/ Organisation Name	Brief Job Profile
Educational	0.50 Years 6 months	Lecturer Modern College of Engineering	Lecturer
Educational	1.00 Years 6	Lecturer Walchand College of Engineering, Sangli	Lecturer
Industrial	1.00 Years 1	Supervisor Raj Auto Aurangabad	Waranty Incharge

Journal Publications

1. GAIKWAD S.M., Jd PATIL, (2015). [CFD Simulation of Natural pattern leaf shape Microchannel](#). *International jOURNAL OF Global Technology Initiatives*. 4(1), 21-26. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
2. GAIKWAD S.M., Jd PATIL, (2015). [CFD Simulation of Natural pattern leaf shape Microchannel](#). *International jOURNAL OF Global Technology Initiatives*. 4(1), 21-26. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
3. GAIKWAD S.M., (2013). [CFD Simulation on Heat Transfer Air Flow Dimple Plates with Delta Wing](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 18-22. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
4. GAIKWAD S.M., JD Patil, Gurav RB, (2013). [Computational investigation of convective heat transfer over a dimpled surface](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 31-39. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
5. GAIKWAD S.M., JD Patil, Gurav RB, (2013). [Computational investigation of convective heat transfer over a dimpled surface](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 31-39. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
6. GAIKWAD S.M., JD Patil, Gurav RB, (2013). [Computational investigation of convective heat transfer over a dimpled surface](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 31-39. ISBN/

- ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
7. GAIKWAD S.M., JD Patil, AA Ramgude, Gurav RB, (2013). [Finite Volume Analysis Of Convective Heat Transfer Augmentation From Horizontal Rectangular Fin by Elliptical Perforations](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 40-44. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 8. GAIKWAD S.M., JD Patil, AA Ramgude, Gurav RB, (2013). [Finite Volume Analysis Of Convective Heat Transfer Augmentation From Horizontal Rectangular Fin by Elliptical Perforations](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 40-44. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 9. GAIKWAD S.M., JD Patil, AA Ramgude, Gurav RB, (2013). [Finite Volume Analysis Of Convective Heat Transfer Augmentation From Horizontal Rectangular Fin by Elliptical Perforations](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 40-44. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 10. GAIKWAD S.M., JD Patil, AA Ramgude, Gurav RB, (2013). [Finite Volume Analysis Of Convective Heat Transfer Augmentation From Horizontal Rectangular Fin by Elliptical Perforations](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 40-44. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 11. GAIKWAD S.M., Gurav RB, JD Patil, Dr. Pritee Purohit, (2013). [Natural heat Convection through Dimple plates](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 69-71. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 12. GAIKWAD S.M., Gurav RB, JD Patil, Dr. Pritee Purohit, (2013). [Natural heat Convection through Dimple plates](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 69-71. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 13. GAIKWAD S.M., Gurav RB, JD Patil, Dr. Pritee Purohit, (2013). [Natural heat Convection through Dimple plates](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 69-71. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 14. GAIKWAD S.M., Gurav RB, JD Patil, Dr. Pritee Purohit, (2013). [Natural heat Convection through Dimple plates](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 69-71. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 15. GAIKWAD S.M., (2013). [Enhancement of rate of heat transfer from the surface using delta wings vortex generator](#). *International Journal of Global Technology Initiatives*. 2(1), 11-17. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 16. GAIKWAD S.M., Gurav RB, Dr.Pritee Purohit, JD Patil, (2013). [CFD Simulation on Fluid flow in Micro channel Heat Exchanger](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 23-30. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 17. GAIKWAD S.M., Gurav RB, Dr.Pritee Purohit, JD Patil, (2013). [CFD Simulation on Fluid flow in Micro channel Heat Exchanger](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 23-30. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 18. GAIKWAD S.M., Gurav RB, Dr.Pritee Purohit, JD Patil, (2013). [CFD Simulation on Fluid flow in Micro channel Heat Exchanger](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 23-30. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 19. GAIKWAD S.M., Gurav RB, Dr.Pritee Purohit, JD Patil, (2013). [CFD Simulation on Fluid flow in Micro channel Heat Exchanger](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 23-30. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 20. GAIKWAD S.M., Dr. Pritee Purohit, Gurav RB, (2013). [Experimental Investigation of Heat Transfer on Dimple and Flat Plate](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 60-63. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 21. GAIKWAD S.M., Dr. Pritee Purohit, Gurav RB, (2013). [Experimental Investigation of Heat Transfer on Dimple and Flat Plate](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 60-63. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 22. GAIKWAD S.M., Dr. Pritee Purohit, Gurav RB, (2013). [Experimental Investigation of Heat Transfer on Dimple and Flat Plate](#). *International jOURNAL OF Global Technology Initiatives*. 2(1), 60-63. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 23. GAIKWAD S.M. , RS Verma, (2013). [Delaying Boundary Layer Separation Across Hot Cylinder Using Slotted Cylindrical Plate](#). *International jOURNAL OF Global Technology Initiatives*. 1(1), 64-68. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 24. GAIKWAD S.M. , RS Verma, (2013). [Delaying Boundary Layer Separation Across Hot Cylinder Using Slotted Cylindrical Plate](#). *International jOURNAL OF Global Technology Initiatives*. 1(1), 64-68. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.
 25. GAIKWAD S.M., (2012). [CFD Simulation on Heat Transfer Characteristics of Laminar Air Flow on Dimple and Flat Plate](#). *International jOURNAL OF Global Technology Initiatives*. 1(1), 149-154. ISBN/ ISSN No : ISBN 978-93-5067-450-5. URL : <http://www.ijgti.org.in/index.php/ijgti>.

Conference Publications

1. Prof SM Gaikwad, (2020). Shape and position optimization of a static wavy flag for best heat transfer.

International Conference on Mechanical Engineering for Sustainable Development-2020 Organized by Mechanical Engg Dept, AISSMSCOE, Pune, Maharashtra, India (17-18 Feb 2020). -(-), -. ISBN/ ISSN No : -.

2. SM Gaikwad, RB Gurav, Dr Pritee Purohit, (2019). Experimental study of heat transfer enhancement in a novel Padma Heat sink minichannel. *25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference.* -(-), -. ISBN/ ISSN No : -.
3. Gaikwad S.M., (2019). Analysis of cyclic flow heat exchanger used in PTC. *27th national Symposium on Cryogenics and Superconductivity.* -(-), 110. ISBN/ ISSN No : -.
4. Gaikwad SM, (2019). Experimental Study of Oscillation Controlled Heat Transport Tube: An Application of Shuttle Heat Transfer. *27th national Symposium on Cryogenics and Superconductivity.* -(-), 224. ISBN/ ISSN No : -.
5. SM Gaikwad, (2019). Numerical Investigation of Heat Transfer and Fluid flow characteristics in wavy minichannels with water as working medium. *25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference.* -(-), -. ISBN/ ISSN No : -.
6. Dr JD Patil, SM Gaikwad, (2019). Experimental study of oscillation flow in rectangular minichannel array. *25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference.* -(-), -. ISBN/ ISSN No : -.
7. SM Gaikwad, Dr JD Patil, (2019). Experimental and numerical study of enhanced microchannel. *25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference.* -(-), -. ISBN/ ISSN No : -.
8. Gaikwad SM, (2017). Investigation of Heat Transfer and Fluid Flow Characteristics in Ashoka Microchannel Heat Sink. *24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2017).* -(-), -. ISBN/ ISSN No : -.
9. Gaikwad SM, (2017). Investigation of Heat Transfer and Fluid Flow Characteristics in Straight and Zigzag Microchannels With Water as Working Medium. *24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2017).* -(-), -. ISBN/ ISSN No : -.
10. Patil J D, (2017). Experimental and numerical study of heat transfer in rectangular microchannel under simultaneously developing flow condition. *24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference.* -(-), -. ISBN/ ISSN No : -.

Patent

1. Sanjay Mahadev Gaikwad, (2017). 201721024510 A. *PADMA HEAT SINK.* 04/08/2017, India.
2. RavirajGurav, Pritee Purohit, Mansiha Nilkanth, Abhishek Shukla, Sumit Kumar, Shivendra, (2016). 201621002035A. *A modified Silencer with unique protective shield.* 12/02/2016, India.
3. Gaikwad Sanjay M, (2016). 201621002053. *Work bench with USB Microscope for Micro art on rice.* 12/02/2016, India.
4. RAVIRAJ GURAV, PRITEE PUROHIT, SANJAY GAIKWAD, (2016). 20621012053A. [Work bench with USB microscope for Art on Rice.](#) 12/02/2016, India.
5. SANJAY GAIKWAD, PRITEE PUROHIT, RAVIRAJ GURAV, MANISHA NILKANTH, (2016). 20621012053A. [Work bench with USB microscope for Art on Rice.](#) 12/02/2016, India.
6. Gaikwad SM, (2016). 4821/MUM/2015. *ECONOMICAL MULTIPURPOSE CUTTER FOR SHANKARPALI, PURI, DISCO PAPAD AND OTHER SUCH ITEMS.* 15/01/2016, India.
7. Gaikwad SM, (2016). 4822/MUM/2015. *Breaking system with better vehicle stability using non-uniform contact pressure for two wheeler.* 15/01/2016, India.

Workshop

1. Python Programming with Industry Perspective (Attended), Python Programming with Industry Perspective, 2019, AIT Pune
2. Indian Patent Procedure (Organized), Indian Patent Procedure, 2019, DY Patil COE and Innovation, Talegaon, Pune
3. Computational Fluid Dynamics (Organized), Computational Fluid Dynamics, 2019, WCE Sangli
4. Two week FDP conducted by IITB (Attended), ICT, 2018, Pune
5. One week FDP on CFD for beginners (Attended), CFD for beginners, 2016, Pune
6. Two week FDP on "Manufacturing excellence" (Attended), Manufacturing excellence, 2015, Sangamner
7. Two week FDP on "Padagogy for Effective use of ICT in Engineering education" (Attended), Padagogy for Effective use of ICT in Engineering education, 2015, Pune
8. One week FDP on "Nanomaterials and Nanocomposites" (Attended), Nanomaterials and Nanocomposites, 2013, Pune
9. Two week FDP on "Nanotechnology: Opportunities and Challenges" (Attended), Nanotechnology: Opportunities and Challenges, 2013, Lonare
10. Two week FDP on Computational Fluid Dynamics (Attended), Computational Fluid Dynamics, 2012, Pune

Research Grants

Title Of Project	Funding Agency	Duration		Sanctioned Amount	Role of Investigator
Microchannel Heat sink	SPPU, BCUD Pune	01/07/2014	01/07/2016	150000.00	Principal Investigator

Consultancy

Title Of Project	Funding Agency	Duration		Sanctioned Amount	Investigator Role
Heat transfer enhancement in leaf Minichannel	Ashutosh Bavandikar	27/06/2018	28/06/2018	2000.00	Principal Investigator
Heat transfer enhancement in wavy winglets	Tushar DY Patil COE Ambi	05/05/2018	05/05/2018	1000.00	Principal Investigator
CFD Training	Ashutosh Bavandikar	20/04/2018	27/06/2018	15000.00	Principal Investigator
CFD Training	Mr Venkatesh Forb Marshal Pune	16/12/2017	07/01/2018	20000.00	Principal Investigator
“Heat transfer enhancement in Divergent channel with Triangular Ribs”	Student of Modern COE Pune	05/08/2017	07/08/2017	3000.00	Principal Investigator
CFD Training	Students of Modern COE Pune	04/01/2015	25/01/2015	50000.00	Principal Investigator

Professional Memberships

Society	Membership No	Duration	
ISHMT	750	01/01/2012	01/01/2030

Achievements/ Contribution

Year	Details
2014	Best Teacher Award

No of PhD Students Guided : 0 No of PG Students Guided : 0
No of PhD Awarded Students : 0