ACADEMIC PROFILE

Name	Prof. Dr. Nitin Parashram Gulhane						
Date of Birth Date of Joining	30th June 1971 28th July, 2011 and Date of Joining MPSC services : 16th Aug., 2001						
Designation at the time of Joining	Associate Professor, Mechanical Engineering						
Current designation	Professor in charge for Training and Placement, VJTI, Former Head of Mechanical Engineering Department and Former Head of Mathematics Department						
Personal Homepage	https://www.vjti.ac.in/images/biodata/mech/191202_Resu meProf_Dr_NPGulhane_VJTI.pdf						
Phone (Office)	+(91)(22) 24198121, 122, 219 (O), FAX : +(91)(22) 24198100						
Mobile	9322080056						
Email	npgulhane@me.vjti.ac.in, nitingulhane@gmail.com						
Academic Qualification • B.E.(Mech. E							
-							
 M.E.(Therma 	ll Engg. 1998)						
 Ph. D.(Microt 	luidics. 2010), Dept. of Aerospace Engg., IIT Bombay, Best PhD Thesis IITB Award						
Career History							
Teaching :	24 Yrs, Industry : 2 Yrs and Research : 3 Yrs (Total Exp.: 26 Yrs)						
Eligible for P	rofessor under CAS, Department of Mechanical Engineering, VJTI, from Aug. 2014.						
 Associate Pression 	ofessor, Department of Mechanical Engineering, VJTI, from 2011.						
 Selection G 	r. Lecturer, Department of Mechanical Engineering, Government Polytechnic,						
	Pune/Thane 2001-2011.						
 IIT Bombay. 	Post held: Research Fellow Since 2010 to 2013 (full time & part time associate						
researcher)							
 Lecturer, De 	partment of Mechanical Engineering, Distance Learning Programme Division, BITS						
Pilani, 2000-2	2001.						
 Sr. Lecturer, 1995-2000. 	 Sr. Lecturer, Department of Mechanical Engineering, Anuradha Engineering College, Chikhali 1995-2000 						
	cturer, Department of Mechanical Engineering, Prof. Ram Meghe college of						
 Part Time Lecturer, Department of Mechanical Engineering, Prof. Ram Meghe conege of Engineering and Management, Badnera 1994-1995. Nitin Castings Ltd. Eastern Express Highway, Wagle Estate Thane, Fabrication and Quality Control Dept., Since 1992 to 1994 							
Areas of Academic Ir							
Micro fluidics	, Convective Heat Transfer						
Computation	Computational Fluid Dynamics						
MEMS Desig	MEMS Design and Micro channel Cooling						
	Optimization in Thermal Devices and Energy Conservation and Management						
Membership in Academic Bodies / Board of Studies / Editorial Board (Journals) Membership of professional bodies:							
1. LMISTE,							
2. Institution of							

- 3. SAE,
- 4. ISHARE,
- 5. IGBC,
- 6. SAE BAJA,
- 7. IET

Editor for the following technical journals:

8. Associate editor for the International Journal of Petrochemical Science & Engineering (IPCSE)

Reviewer for the following technical journals:

- 9. Int. Conf. on Nanochannel, minichannel and microchannel, ASME 2016 ICNMM, Washington DC
- 10. Int. Conf. at College of Engg. Pune, 2013
- 11. Int. Conf. at Sardar Patel College of Engg. Mumbai, 2012
- 12. Int. J of Engg. Technology and Research (IJETR)
- 13. Int. J of Heat and Mass Transfer, Elsevier publication
- 14. J. of Heat Transfer, Taylor Francis Publication,
- 15. J. of Nuclear Energy, Elsevier publication
- 16. Int. J. of Solar Energy, Elsevier publication
- 17. Int. Journal, Nanoscale and Microscale Thermophysical Engineering, Elsevier publication
- 18. Associate Editor for, Int. J of Petrochemical Science & Engineering, MedCrave Group.
- 19. International Journal of Petrochemical Science & Engineering
- 20. Journal of Thermal Engineering
- 21. Solar Energy, Elsevier

Major Academic Publications

Patent Filed:

- Patent submitted and pending with Indian Govt. on, 'Non Dimensional Parameter representing heat transfer augmentation using pulse jet' Application Number: 2016 21 004403, CBR Number: 2283 and Form Number : E-2/359/2016/Mumbai, E-3/603/2016/Mumbai, E-5/349/2016/Mumbai, Docket Number 3200 date of submission 8th Feb., 2016.
- 2. Non Dimensional Parameter Representing the Range for the Occurrence of Non Uniformity in Nusselt Distribution Profile, Reference CBR No. 5831.

Books Published/Review articles/Book chapters: -

- N. P. Gulhane, & Mahulikar, S.P., 2011, Laminar Micro-Convection of Gas and Liquid, ISBN 978-3-8433-9189-4, LAP Lambert Academic Publishing GmbH & Co. KG, Saarbrücken, F.R. Germany, 144 pgs.
- 2. **Istanbul, Turkey** for 7th International Conference on Computational Heat and Mass transfer.

Article published on "Pressure drop in laminar micro-convective flow due to variable properties of Compressible fluid", (Mahulikar, S.P., Gulhane, N.P., Pradhan, S.D., & Prabhu, S.V.), Jul. 2011.

- Popular News Articles/Letters: Micro-convective Heat Flow published in TU Hamburg-Harburg Besuchaus Indien: Für die Forschungnach Harburg, Germany, Europe dated 5th Jan. 2012.
- 4. Amarnath D. Landge, Gulhane, N.P., & Manishkumar G. Gadle., 2016, Application of Venturi Scrubber

in Nuclear Engineering, ISBN 978-3-330-32974-4, LAP Lambert Academic Publishing GmbH & Co. KG, Saarbrücken, F.R. Germany, 93 pgs. (with M Tech student).

- Kaustubh V Chavhan, N.P. Gulhane, Amarnath D. Landge, Applications of Compound Parabolic Collectors in Solar PV-Thermal System- Performance of PVT System, LAP Lambert Academic Publishing, ISBN-13: 978-3-330-34785-4, Date:10/07/2017.
- Umair Siddique Mohmmed & Gulhane N. P. 2017, Heat Transfer Augmentation with steady air jet impingement, ISBN 978-613-9-87973-1, LAP Lambert Academic Publishing GmbH & Co. KG, Saarbrücken, F.R. Germany, 173 pgs. (with PhD student).
- Tata McGraw Hill Education / Review work on Heat and Mass Transfer Chapter 1 and chapter 15, 2014 email dated Dec., 16th 2014.
- Course Material for Tata McGraw Hill Education / Review work on Thermodynamics Chapter 1, Chapter 2 and chapter 3, 2015 email dated April, 30th 2015.

Paper Presentations in National / International Journals (In last 5 years)

<u>2015</u>

- Dr. N. P. Gulhane, Satish Patil, "Selection of TEMA Type and Thermal Design Optimization of Shell and Tube Heat Exchanger", Journal of Material science and Mechanical engineering (JMSME), Print ISSN: 2339-9095; Online, ISSN: 2393-9109; Volume 2, pp. 18-23, April-June 2015.
- Gulhane, N., Patil, S., Singh, K, "Acoustic Analysis of Condenser Fan of split Air-conditioner using Numerical and Experimental Method", International journal of Air-conditioning and Refrigeration, Volume 23, Issue 2, 1-12, April 2015.
- Dr. N. P. Gulhane, Harish Kadam, "Analysis of Pressure and Velocity at the throat of self-priming Venturi scrubbe", Journal of Material science and Mechanical engineering (JMSME), ISSN: 2339-9095; Online, ISSN: 2393-9109, Volume 2, pp. 57-61, April-June 2015.
- Dr. N. P. Gulhane, Vikrant Salunke, "Analysis and Prediction of thermal behavior of current path for circuit breaker using FEA model and DOE Approach", Journal of Material science and Mechanical engineering (JMSME), ISSN: 2339- 9095, Online ISSN: 2393-9109, Volume 2, 76-79.
- Dr. N. P. Gulhane, Sagar Pare, Modelling and Calibration of Charge Air Cooler in GT-Power, Cummins Functional Excellence Practice (FEP), work performed along with Thermal and Fluid Science (System Simulation) team at Cummins Research and Technology India (CRTi), Balewadi, Pune during Sept 2014 to Jun 2015.
- Dr. N. P. Gulhane, Chaitali Shirke, "Effect of shroud gas injection on thermal and fluid behavior of RF plasma tube used for Nano synthesis of Alumina, Journal of Material science and Mechanical engineering (JMSME), ISSN: 2393- 9095, Online ISSN: 2393-9109, Volume 2,48-52, April-June 2015.
- N. P. Gulhane, , K. Chavan, "Experimental And Fluid structure Interaction Study of Triangular Receiver with Square Fin Arrangement Using CPC", Royal University Journal, Bhutan, Vol. 2, ISSN 2059-2353, ISBN 978-0-9932795-1-5, June 2015.

<u>2016</u>

 Siddique Mohd Umair, N.P. Gulhane, "On Numerical Investigation of Heat Transfer Augmentation through Pin Fin Heat Sink by Laterally Impinging Air Jet, Energy", Procedia Engineering (Elsevier Publication), Vol.157, PP: 89 -97, 2016.

- Siddique Mohd Umair, N.P. Gulhane, "On Numerical Investigation of Non-dimensional Constant Representing the Occurrence of Secondary Peaks in the Nusselt Distribution Curves", International Journal of Engineering, Transaction A, Vol. 29 (10), PP: 1431-1440, Oct. 2016.
- 10. Sainath Waghmare, Nitin Gulhane, "Design and Ray Tracing of a compound parabolic collector", Elsevier -Solar Energy, 137 (2016), pp. 165-172.
- Gulhane N.P and Chawane Chetan, "Swirl flow characteristics in a can type combustion chamber of gas turbine", Proceedings of the Asian Congress on Gas Turbines, Indian Institute of Technology Bombay, Mumbai, India, 14th -16th November 2016.
- Chavan Kaustubh, Gulhane Nitin, "Performance investigation of compound parabolic collector system with triangular receiver with and without internal fins", International Journal of Energy and Statistics (IJES), World Scientific Publication (Journal online ISSN No. 2335-6812), Vol.: 04 (1) 1650004, 2016.

<u>2017</u>

- Umair, S.M., Kolawale, A.R., Bhise, G.A., Gulhane, N.P., "On numerical heat transfer characteristic study of flat surface subjected to variation in geometric thickness", International Journal of Computational Materials Science and Engineering, World Scientific publication, Vol. 6 (02), article: 1750010, 2017.
- Siddique Mohd Umair, N.P. Gulhane, On Numerical investigation of non-uniformity in cooling characteristic for different materials of target surfaces being exposed to impingement of air jet, International Journal of Modeling, Simulation, and Scientific Computing, Vol. 8 (03), article: 1750024, 2017.
- 15. Chavan Kaustubh and Gulhane Nitin, "Performance analysis of compound parabolic collector with extended surfaces inside the triangular receiver", International Journal of Renewable Energy Technology (IJRET), Inderscience Publication, ISSN online: 1757-398X, Vol. 8 (1), pp. 24-46, 2017.
- Sainath Waghmare, Nitin Gulhane, "Flux concentration on tubular receiver of compound parabolic collector by surface areal irradiance method of ray tracing", Elsevier - Optik, Vol. 136, pp: 470-479, 2017.
- 17. Anil Kumbhar, Nitin Gulhane, Sachin Pandure."Theoretical Analysis of Hybrid Chiller", Energy Procedia, Vol. 109, pp 487-496, 2017.
- Anil Kumbhar, Nitin Gulhane, Sachin Pandure. "Effect of various parameters on working condition of chiller", Energy Procedia, 109, pp. 479 – 486, 2017.
- Divyesh Ubale, S. S. Umale, N. P. Gulhane, "Experimental Investigation of Condensation heat transfer in vertical Shell and Helical coil Heat Exchanger", Advanced Science, Engineering and Medicine, Vol : 10 (3-4) pp. 398-402, March 2018.
- 20. Sainath Waghmare, Chavan, K.V., Muntode, P.B., N. P. Gulhane, Experimentation of surface areal irradiance method for solar flux measurement in compound parabolic collector. Elsevier- Optik-International Journal for Light and Electron Optics, 147, pp. 373-384, 2017.
- 21. Sainath Waghmare, N. P. Gulhane, "Optical evaluation of compound parabolic collector with low acceptance angle", Elsevier- Optik, IJLEO, 149, pp. 359-371, 2017.
- 22. D K Dond, Dr N P Gulhane, "Experimental Investigations on Fuel Properties Under the Influence of

Magnetic Field", International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Published by, www.ijert.org ICRTME - 2016 Conference Proceedings, 2017.

<u>2018</u>

- Siddique Mohd Umair, Ganesh Bhise, N.P. Gulhane, "On numerical investigation of local Nusselt distribution between flat surface and impinging air jet from straight circular nozzle and power law correlations generation", Journal of heat transfer, Asian Research Publication, Vol. 47, pp. 126-149, 2018.
- 24. Sainath Waghmare, Chavan, K.V., Muntode, P.B., N. P. Gulhane, "Evaluation and optimization of receiver height in compound parabolic collector with low acceptance angle, Taylor and Francis- Int. Journal of Ambient Energy, Vol. 40, No. 7, pp.675-686, 2018.
- 25. Ali, R., & Gulhane, N. P., "Experimental Analysis of Condensation in Helical Coil Tube", Pertanika Journal of Science & Technology, Vol. 26 (3), 2018.
- 26. Nitin Pandey, Ishant Jain, Sudhakar Reddy, Nitin P Gulhane, "Electro-thermal Analysis of Contact resistance", AIP Conference Proceedings, Vol 1966 (1), Page: 020017, 15/05/2018.
- 27. Sainath Waghmare, N. P. Gulhane, Optimization of receiver height in compound parabolic collector by optical analysis and experimental method, Elsevier- Optik IJLEO, 157, pp. 1331-1341, 2018.
- Rashid Ali, N.P. Gulhane, "Experimental study on Condensation Heat Transfer in Vertical helically Coil Tubes, International Journal of Process Systems Engineering (MS_IJPSE_207370) Vol. 4 (4), pp. 257-274, 2018.
- Satpute Jitendra, Chavan Kaustubh, Gulhane Nitin, "Thermal Performance Investigation of Concentrated Solar Collector Using Novel Aluminium Absorber", in Materials Today: Proceeding in Science Direct, Volume 5, Issue 2, Part 1, 2018, Pages 4059-4065.

<u>2019</u>

- Waghmare, S.A. and Gulhane, N.P., "Design configurations and possibilities of reflector shape for solar compound parabolic collector by ray tracing simulation", Elsevier-Optik IJLEO, Vol. 176, pp. 315-323, Jan 2019.
- Sainath Waghmare, Kaustubh Chavan, Nitin Gulhane, "Numerical simulation of tracking modes for compound parabolic collector with tubular receiver", IEEE Transactions on Industry Applications, Vol 55(2), pp. 1882-1889, March-April 2019.
- 32. Siddique Mohd Umair, N. P. Gulhane, Sher Afghan Khan, Jan Taler, Arthur Cebula, Pawel Oclon, Rajesh Patil, "Numerical investigation of semi-empirical relations representing the local Nusselt number magnitude of a pin fin heat sink", Journal of Heat Transfer, Wiley Publication, Vol. 48, pp. 1857-188, 2019.
- Siddique Mohd Umair, N. P. Gulhane, A. Al. Robaian, Sher Afghan Khan, "On numerical investigation of semi-impirical relations representing local Nusselt number at lower Nozzle-target spacing's", International Journal of Engineering, Vol. : 32(1), pp 135-145, 2019.
- Ramola Sinha, Nitin P. Gulhane, Jan Taler & Paweł Ocłoń, "Heat loss analysis of three coil cylindrical solar cavity receiver of parabolic dish for process heat", Thermal Science Journal, Vol. 23, Suppl. 4, pp. S1-S10, 2019, Vinča Institute of Nuclear Sciences, Belgrade, Serbia.

- 35. Waghmare, S.A., Chavan, K.V., Gulhane, N.P., "Numerical simulation of tracking modes for compound parabolic collector with tubular receiver", IEEE Transaction on Industry Application, Vol. 55, Issue. 2, pp. 1882-1889, 2019.
- 36. Siddique Mohd Umair, N. P. Gulhane, "Numerical Investigation of mathematical non dimensional constant and Empirical relation representing Non-uniformity in Nusselt Profile", Journal of Thermophysics and Heat Transfer, https://doi.org/10.2514/1.T5828, Dec 2019.

<u>2020</u>

- 37. Ramola Sinha, Nitin P. Gulhane, "Heat loss analysis of three coil solar cavity receiver of parabolic dish collector under wind condition", International Journal of Renewable Energy Technology, Inder science Publisher. (Accepted for Publication)
- Ramola Sinha, Nitin P. Gulhane, Numerical study of Radiation Heat Loss from Cavity Receiver of Parabolic Dish Collector, Numerical Heat Transfer Part B: Fundamental, Taylor and Francis. (Accepted for publication, DOI Issued: https://doi.org/10.1080/10407782.2020.1714366)
- 39. Dipak Dond, Nitin Gulhane, "Optimization of combustion parameter for modified CRDI small cylinder diesel engine by using response surface method" in the journal ", Sadhana: Indian Academy of Sciences" SCI journal (Under review).
- 40. Dipak Dond, Nitin Gulhane, "Effect of Combustion Parameters on Performance, Combustion and Emission Characteristics of a Modified Small Single-Cylinder Diesel Engine" in the "International journal of Energy & Environmental Engineering", Springer publication (Under review).
- 41. Dipak Dond, "Predict the effect of combustion parameter on the performance and combustion characteristics of small single cylinder diesel engine", Combustion modelling and Science journal, SCI journal (under review).

Paper Presentations in National / International Conferences / Seminars (In last 5 years)

<u>2015</u>

- Paper presented in International Seminar on Renewable Energy and Sustainable Development (RESD-2015), on "Experimental and fluid structure interaction study of triangular receiver with square fin arrangement using compound parabolic collector", Royal University of Bhutan, 15th -17th June 2015, Bhutan.
- Paper presented in 2nd Mechanical Engineering Graduate Research Symposium (MEGRES 2015), on "Comparative Study of Photovoltaic / Thermal (PV/T) Performance using Compound Parabolic Collector", by Kaustubh Chavan, Jitendra Satpute, Nitin Gulhane at IIT Bombay, 2015.
- Paper presented in 5th International Conference on Advances in Energy Research at IIT Bombay on "Effect of Extended Surfaces and Fluid Structure Interaction on the Performance of Triangular Receiver using Compound Parabolic Concentrator" during 15-17th Dec. 2015.

<u>2016</u>

4. Paper presented in 9th International Conference on Computational heat and Mass transfer-2016 by N.P. Gulhane, Siddique Mohd. Umair, on "Numerical Investigation of Heat Transfer Augmentation through Pin fin Heat sink by laterally impinging Air Jet", at Cracow, Poland, during 23-26 May 2016.

Elsevier, Procedia Engineering 157, pp. 89-97, 2016.

- Sainath Waghmare, Kaustubh Chavan and Nitin P. Gulhane "Numerical simulation of tracking modes for compound parabolic collector with tubular receiver", proceeding of 1st IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016), Delhi Technological University, New Delhi, pp. 731-735, during 04th to 6th July 2016.
- Rashed Ali, Nitin P Gulhane, Experimental Investigation on condensation in helical coiled tube, International Conference on Recent Trends in Engineering, Science and Technology (ICRTEST- 2016) organizing by St. Peters Engineering College, Hyderabad during 25th- 27th October 2016.
- Paper presented by Umair Siddique, Dr. N. P. Gulhane, Ganesh Bhise, Abhijeet Kolawale entitled 'On Numerical Investigation of Nusselt Distribution Profile of Flat plate using Lateral Impingement of Air jet', Proceedings of International Conference on Advance Technologies for societal Applications organised by COEP, Pandharpur, Techno-Societal Springer Publications, 20th -21st Dec 2016.

<u>2017</u>

- Jitendra Satpute, Kaustubh Chavan, Nitin Gulhane, "Thermal Performance Investigation of Concentrated Solar Collector Using Novel Aluminium Absorber" 7th International Conference on Material Processing and Characterisation (ICMPC-2017), organised by Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, 17th to 19th March 2017. Materials Today: Proceedings, 5(2), pp. 4059-4065.
- Divyesh Ubale, S. S. Umale, N. P. Gulhane, "Experimental Investigation of Condensation heat transfer in vertical Shell and Helical coil Heat Exchanger", 2nd international conference on Mechanical and Manufacturing Engineering ICMME-2017, organised by SCSVMV University Enathur, Kanchipuram, India during 6th and 7th April 2017.
- Siddique Mohd. Umair, N.P. Gulhane, On Numerical Investigation of Semi-Empirical relations representing local Nusselt number at Lower nozzle-target spacing's, ICCHM2T, Seoul, South Korea, 28th May – 1st June 2017, Journal of Power Technology.
- Rashed Ali, Nitin P Gulhane, "Experimental study on condensation heat transfer in helical tube", Sixth International Congress on Computational Mechanics and Simulation (ICCMS), 27th June-1st July 2017, IIT, Bombay jointly organised by IIT Bombay and VJTI.
- Umair Siddique, N.P. Gulhane, "On Numerical Investigation of Empirical Relations representing the Non-Uniformity concerned with the Nusselt Profile", UK Heat Transfer Conference, London, September 2017.
- Ramola Sinha, Nitin P. Gulhane, Mathematical Modeling of Heat Losses from Cylindrical Cavity Receiver in Solar Parabolic Dish, Energy Procedia-International Conference on Advances in Energy Research (ICAER-2017), IIT during 12th -14th, Dec. 2017
- Ramola Sinha, Vijay Tamboli and Nitin P. Gulhane, Numerical Investigation of Total heat loss from Cylindrical Solar Cavity Receiver under Wind Conditions, International Conference on Advances in Energy Research (ICAER-2017), IIT Bombay, 12th -14th December 2017.
- DK Dond, Nitin P Gulhane, CL Dhamejani, "Mathematical Modelling and MATLAB Simulation of Diesel Engine", International Conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017) December 21, 2017.

- Rashed Ali, Nitin P Gulhane, "Experimental Study of condensation heat transfer in helical coil heat exchanger", International Conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017) December 21, 2017.
- Siddique, Umair M. and Shaikh, Salman A. and Gulhane, Nitin P., "Heat Transfer Augmentation using Pulse Jet with Lateral Impingement of Air on Flat Plate", International Conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017) December 21, 2017.
- Ramola Sinha, Nitin P. Gulhane, Effect of Boundary Condition on Heat Losses from Solar Cavity Receiver, International Conference on Advances in Thermal System, Material and Design Engineering (ATSMDE-2017) VJTI, Mumbai. 21st -22nd December 2017.
- Ramola Sinha, Nitin P. Gulhane, "Heat loss from cylindrical cavity receiver in solar parabolic dish system: a review, Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-ASTFE-2017), BITS-Pilani Hyderabad, India. 27th -30th December 2017.
- 20. Paper presented in International Conference by Dr. N. P. Gulhane, Kanwaljeet Jaura on "Design Optimization of Water cooled chillers using 3D computational tools for effective distribution of Refrigerant in Evaporator Tubes".
- Prasanna Godbole, Nitin P Gulhane, Manish Kulkarni, Alexander Berg, "CFD Analysis ofHot air Recirculation in cooling system of off road vehicles", International Conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017) VJTI, Mumbai. 21st -22nd December 2017.

<u>2018</u>

- 22. Kumbhar, V., Bhingare, S., Kadam, S., Mohite, S., Gulhane, N.P., Gejage, S., Lidhade, S., Jadhav, V. Numerical analysis and optimization of thermohydraulic performance in tube provided with thin wire rib roughness by taguchi approach", 5th International Conference on Computational Methods for Thermal Problems, THERMACOMP 2018, Bengaluru, India, 9 July to 11 July 2018, pp. 668-674.
- 23. Nitin Pandey, Ishant Jain, E Sudhakar Reddy, Nitin P Gulhane, "Experimental Analysis of Electro-Thermal Contact Resistance of Al and Cu Surfaces", 5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), IEEE, pp 1-7, 2018.
- 24. Umair Siddique, Gulhane Nitin, Abdul rahman A. Al-Robaian, Sher Afghan Khan, "On Numerical Investigation of Heat Transfer Augmentation study of flat plate with lower nozzle-target spacing", Proceedings of the 7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP). December 10-12, 2018, IIT Bombay, Mumbai, India.

<u>2019</u>

- 25. Deepak D. Gupta, Nitin P. Gulhane, Sachin B. Paramane, "Dynamics of Hot Streaks and its effect on Flow Distribution in Transformer Winding", 12th International Conference on Thermal Engineering: Theory and Applications, February 23-26, 2019, Gandhinagar, India.
- Kadam, S.B. and Gulhane, Nitin P., Performance Review of Venturi Scrubber, Proceedings 2019: Conference on Technologies for Future Cities (CTFC). (March 29, 2019). Available at SSRN: https://ssrn.com/abstract=3362216 or http://dx.doi.org/10.2139/ssrn.3362216.
- 27. Sinha, R and Gulhane, Nitin P. Gulhane, Paweł Ocłoń, Jan Taler, Rahimi Gorji, "The wind test on heat

loss from three coil cavity receiver for a parabolic dish collector", ICCHMT 2019, e3s web of Conference 128- 01006, 2019 12th international conference on heat, mass and momentum transfer (ICCHMT-2019), Rome, Italy, 3rd -6th September 2019.

- 28. K. S. Wasankar, S C. Yadav, R. Sinha, N. P. Gulhane, "Numerical investigation of heat losses through cascaded fully open cavity receiver at high temperatures up to 500^oC", ICCHMT 2019, e3s web of Conference 128- 01018, 2019 -12th International Conference on Computational Heat, Mass and Momentum Transfer (ICCHMT-2019), September 3rd-6th, Rome, Italy, 2019.
- Sinha, R and Gulhane, Nitin P., Mathematical Analysis of Convection Heat Loss from Solar Cavity Receiver Dish Concentrator, Energy Procedia- 7th International Conference on Advances in Energy Research (ICAER) 2019, held on 10-12 December 2019. Springer Proceedings in Energy.
- 30. D K Dond, N P Gulhane, "Predict the Effect of Combustion Parameter on Performance & Combustion Characteristics of Small Single Cylinder Diesel Engine", 7th International Conference on Advances in Energy Research (ICAER 2019) held on 10-12 December 2019, IIT Bombay, Springer Proceedings in Energy.

Attendance in Conferences / Seminars / Workshops (In last 5 years)

Institute (VJTI)

Technical University of Harburg, Hamburg, Germany, Delft University of Technology, Netherlands and Pilitus Aircraft Ltd. Switzerland for research collaboration under TEQIP II during 3-18 Dec. 2014 Cracow University of Technology, Poland, IX International Conference in Computational Heat and Mass Transfer. 22nd – 28th May 2016. Presented a research article. Seoul, Korea XI International Conference on Computational Heat and Mass and Momentum Transfer. 28th May – 1st June 2017. Article presented and accepted in journal. Letter No: 10-29/RIFD/TG/Policy-1/2016-17 Dated: March 2017. Cracow University of Technology, Poland, Worked as Visiting Professor during April 2018. • Rome, Italy, XII International Conference on Computational Heat, Mass and Momentum Transfer (ICCHMT-2019), 03rd Sept. - 06th Sept. 2019. Article presented and accepted in journal. Sponsored by AICTE under Travel Grant Scheme via Letter No: 10-10/RIFD/TG/Policy - 1/2019-20 Dated: 01/08/2019. Visiting Professor at TOR VERGATA University on 05th and 06th Sept 2019. Invited as Visiting Professor at Cracow University of Technology, Poland, during April-May 2020 (Not Attended due to COVID 19 restrictions). Participation in Professional Development Programmes (In last 5 years) Attended Continuing Education Centre for Distance Engineering Education programme on, Teaching Applied Mathematics to Post Graduate Students in Engineering during 13-15th May, 2015 at IIT Bombay One week AICTE Sponsored under QIP training program on Renewable Energy Source for sustainable development: Need, Technologies & Policies, during 14th to 18th Dec 2015 at Veermata Jijabai Technological Institute (VJTI) One week AICTE Sponsored under QIP training program on Fluid Flow Behaviour using Computational Methods during 28th Dec 2015 to 1st Jan 2016 at Veermata Jijabai Technological

- AICTE QIP Course Fluid Flow and computational method during 13th -18th Feb, 2017.
- One Week FDP, MHRD sponsored under PMMMNMTT, organised by Faculty Development Center, VJTI on "Advanced Data Analysis and Decision Making" during 30th Dec 2019 to 03rd Jan 2020.
- One Week FDP, MHRD Sponsored under TEQIP-III KITE, organised by IIT Bombay on "Internet of Things" during 24th Feb to 29th Feb 2020.

Guidance / Supervision of M.Tech & Ph.D. Dissertations

Ph. D Supervised:

- Mr. Kaustubh Chavhan, on Experimental investigation & performance analysis of a single pass Solar Photovoltaic thermal (PVT) system using Compound parabolic collector, awarded PhD in April 2017.
- Mr. Umair Siddiqui (Heat transfer augmentation using pin fin arrays exposed to pulsating impingement of air with heat sink module surrounded by varying magnetic field, Reg. Aug. 2014, Full time stipendiary candidate under TEQIP II funded scheme). Awarded PhD in May. 2018
- Mr. Rashid Ali, Part time candidate (Experimentation on enhancement in heat transfer coefficient using helical coil low Re, single phase regime thermal device Reg. Aug. 2012). Awarded PhD in Feb 2019.
- Mr. Sainath Waghmare (Graphical ray tracing and experimental analysis of compound parabolic collector with low acceptance angle, reg. in Aug 2016) in association with BARTI Pune. Awarded PhD in May 2019.

Ongoing PhD students at VJTI

- Mr. S. B. Kadam, Part Time candidate (Reg. Aug. 2012, Course work completed) working on Venturi scrubber for iodine removal.
- Mrs. Ramola Sinha (reg. in Aug 2015, course work completed) working on, Experimental and Numerical Investigation on Double Cavity Three Stage Cascade Solar Receiver to Reduce Internal Heat Loss.
- Mr. Dinesh Dond (reg. in Aug 2016, course work completed) working on Performance investigation of Single Cylinder diesel engine.
- Mr. Kushal Wasankar (reg. in 2018, Corse work completed) working on Solar Cavity Receiver heat loss analysis for high temperature range.
- Mr. Swapnil Shinde (reg.in 2018, Course work completed) working on Cooling tower performance improvement.

Project Guidance: PhD students at VJTI = 09 (04 PhD awarded).

Project Guidance: M. Tech students in VJTI

Completed : 52, ongoing (2019-20): 05

Project Guidance: B. Tech students in VJTI

Completed : 50, ongoing (2019-20): 01 Research Projects Undertaken

- 1. AICTE–MODROB Grant of Rs. 7.2 Lacs for Heat Transfer Equipment's, 2013 Letter No:F.No.12/AICTE/RIFD/MOD/(Policy-2)-127/2012-13 Dated: 06/02/2013.
- TEQIP-II R&D Grant Rs. 3.42 Lacs for "Experimental Study for Analysing electrical thermal performance characteristics in photovoltaic/thermal system", 2014-15. No. VJTI/TEQIP-II/R&D 24/11/2014.
- 3. TEQIP-II R&D Grant Rs. 2.01 Lacs for "Experimental investigation of condensation heat transfer in helical coil", 2014-15. No. VJTI/TEQIP-II/R&D 24/11/2014.
- **4. TEQIP-II R&D Grant Rs. 1.98 Lacs** for "Experimental investigation of self-priming venturi scrubber", 2014-15. No. VJTI/TEQIP-II/R&D 24/11/2014.
- AICTE-RPS Grant of Rs. 17.82 Lacs for "Experimental Investigation and Performance Analysis of a Single Pass Solar Photovoltaic Thermal (PVT) System using Compound Parabolic Collector (CPC)", 2015-17.

Letter No: AICTE (RPS) No. 8-208/RIFD/RPS/Policy-1/2014-15 Dated: 05/03/2015.

- BARTI Pune Grant of Rs. 17.5 Lacs as stipend for PhD Scholar supervised during 2015-18. Letter No: Out. No./BARTI/Research section/BANRF-2015-16/2567 Dated: 01/10/2015
- 7. **PMKVY Grant of Rs. 7 Lacs for** Department Equipment's purchase, 2016 Letter No: F. No.:2-6/D-NSQF/PMKVY-NSC/2016 Dated: 16/11/2016.
- Coordinator for AICTE-Adjunct Faculty Grant of Rs. 12 Lacs, 2016-17. Letter No: 1. F.N. 60-2(20)/RIFD/AICTE-ADF/2016-17
 - 1. F.N. 60-2(22)/RIFD/AICTE-ADF/2016-17
 - 2. VJTI Letter No/Estt/Mech/AICTE-Adj F/2336 Dated 29/06/2017.
- AICTE-TGS Grant of Rs. 1.5 Lacs for attending "10th International Conference on Computational Heat, Mass and Momentum Transfer (ICCHMT-2017)" at Seoul, Korea. Letter No: 10-29/RIFD/TG/Policy-1/2016-17 Dated: March 2017.
- **10. AICTE-MODROB Grant of Rs. 8.70 Lacs** for Energy laboratory, 2017 Letter No: 9-63/RIFD/MODROB/Policy-1/2016-17 dated: 8 Sep. 2017.
- **11. AICTE GOC Grant of Rs. 2.0 Lacs** for organizing **International Conference** in Dec 2017. File No: 67-38/RIFD/GOC/Pol-1/2016-17 Dated: 05/06/2017.
- AICTE-TGS Grant of Rs. 1.0 Lacs for attending "12th International Conference on Computational Heat, Mass and Momentum Transfer (ICCHMT-2019)" at Rome Italy, 03-06 Sept. 2019.
 Letter No: 10-10/RIFD/TG/Policy–1/2019-20 Dated: 01/08/2019.
- 13. AICTE-RPS UNDER NDF Grant of Rs. 20.00 Lacs for, March 2019. File No: 8-27/RIFD/RPS-NDF/Policy-1/2018-19 Dated: 13/03/2019
- TEQIP-III R&D Grant of Rs 1.00 Lacs for organizing National Symposium on "Applications of Mathematics in Science and Engineering", Mar 2019. Approval Dated 28 Feb 2019.
- TEQIP III Grant of Rs. 5.78 Lacs for "Micro Device Panel Control and Experimental Cooling system performance setup", 24th April 2019 Letter No: TEQIP-III/MH/VJTI/29/434 Dated: 24/04/2019.

Revenue generation (Consultancy/Testing assignments Undertaken) (In last 5 years)

Industrial Projects Completed:

- Flow Simulation & analysis of thermal plasma torch pyrolyser in collaboration with BARC, Mumbai during 2014-15.
- Improving COP of Heat pump, in collaboration with Emerson Climate Technologies (India) Pvt. Ltd, Pune during 2017-18.

The setup is donated by company and installed at Boys hostel, VJTI.

• Dynamics of Hot Streaks and Its Effects on Flow Distribution in Transformer Winding, in joint venture between VJTI and Crompton Greaves, Kanjur Marg, Mumbai during 2018-19.

Industrial Consultancy work Completed:

• "Vetting of structural design of fire screen used in installation and commissioning of underground storage tank at Utter Pradesh" for HPCL via GAS Projects India Pvt. Ltd. 09 Oct 2018.

Projects on-going/completed: **1.09 crore** Fund received from different funding agency: AICTE under RPS, BARC, NPCIL, DST and MHRD BARTI and TEQIP.

			1	l	
Sr	Title	Sponsoring Agency &	Peri	Agency and	Achievements
No		Officer Concerned	od	Funds	
1	Economic	In collaboration with ICT	2013	PhD	One International
	design for		-	Research in	Conference Paper
	Photovoltaic		2015	ICT Mumbai	and One Journal
	and Thermal				paper accepted
	Solar				
	Collectors				
	System				
2	Experimental	In VJTI	2013	PhD	Research in
	investigation		-	Research in	Progress
	of convective		2016	VJTI	Paper Presented
	heat transfer			Funded by	in one
	coefficient for			TEQIP-II	International
	condensation				conference
	of steam in				
	helical coiled				
	tube				
3	Heat Transfer	In VJTI	2014	PhD	Research in

	Augmentation		_	Research in	Progress (4
	_		2016	VJTI	_
	using Pin Fin		2010		Research Paper Published in
	arrays			Funded by	
	exposed to			TEQIP-II	International
	pulsating				reviewed
	impingement				Journal& Two
	of air with				International
	heat sink				Conference at
	module				Poland and Seoul,
	surrounded by				South Korea)
	varying				
	magnetic				
	field.				
4	Venture	In VJTI	2014	PG Research	One Int. Conf.
	scrubber		-	Funded by	Paper presented
	experimentati		2015	Mech. Engg.	and One Journal
	on to			Dept.	paper submitted
	understand				
	pressure drop				
	characteristics				
5	Performance	In VJTI	2014	PG Research	Two Int.
	investigation		-	Funded by	Conference Paper
	of triangular		2015	Mech. Engg.	presented
	receiver using			Dept.	
	PV cell				
6	Performance	AICTE –under RPS scheme	2014	22.8 lakhs	One Journal paper
	investigation		-		and One Conf. @
	of		2015		IIT B presented.
	Photovoltaic				4 Publication in
	Thermal				International
	System using				Reviewed Journal
	CPC with fins				of Solar Energy
					1

7	C	Ducie et a de la matrix con de m	2015	11 24 1-1-1-	Eistet was a such
7	Socio	Project scholarship under	2015	11.34 lakhs	Eight research
	economic	MHRD BARTI Pune	-	PG Research	paper publication
	PVT Thermal		2016	Funded by	in International
	System using			Social	Reviewed
	CPC			Welfare	Journals
				Dept. BARTI	
				Pune.	
8	Investigation	In VJTI	2015	Ph. D	Research in
	of petrol		-	Research	progress
	engine		2016	funded by	
	efficiency by			TEQIP - II	
	ionizing the				
	injected fuel				
9	Improving	In collaboration with	2017	7.2 Lakhs	Emerson India
	COP of Heat	Emerson Climate	-	M. Tech	Pvt. Ltd donated
	Pump	Technologies India Pvt. Ltd	2018	Project	this pump to VJTI
		Pune and VJTI			Boys hostel in
					June 2018

Organization of Academic Conferences / Workshops / Designing Courses (In last 5 years) International Conference Organised:

 Organized International Conference on "Advances in Thermal systems, Materials and Design Engineering (ATSMDE-2017)", sponsored by AICTE, during 21st – 22nd December, 2017 at Veermata Jijabai Technological Institute, Mumbai.

National Conference /Symposium Organised:

 Organised National Symposium on "Applications of Mathematics in Science and Engineering", by Department of Mathematics and Mechanical Engineering, during 29th and 30th March 2019 at VJTI, Mumbai Sponsored by TEQIP III.

Schools/Workshops Organised:

Coordinated 05 faculty Development Programme in VJTI under different schemes

- i) QIP-AICTE course under QIP on, Renewable Energy Source for Sustainable Development: Need, Technologies and Policies during 29th December 2014 to 2nd January 2015
- ii) QIP-AICTE course under QIP on, Renewable Energy Source for Sustainable Development: Need, Technologies and Policies during 14th December 2015 to 18th January 2015
- iii) AICTE course under QIP on, 'Fluid Flow Behavior using Computational Methods' 15th to 19th Dec.
 2015
- iv) AICTE course under QIP on, 'Fluid Flow Behaviour using Computational Methods, 28th Dec., 2015 1st Jan, 2016.

 v) One day workshop on FEAST technology in joint venture with ISRO, funded under TEQIP-II, 8th November 2016.

Invited Lectures / Chairing / Resource Person / Keynote Address (In last 5 years)

<u>2015</u>

- 1. Working as committee member in backward class VJTI cell letter dated 13th Jan.2015.
- 2. Research Committee member for PhD and M Tech exam in ICT Mumbai on 29th Jan, 2015 to 2016.
- Worked as Coordinator for AICTE-CII Survey of Industry-linked Technical Institute data for year 2012-13, 2013-14 and 2014-15. Letter dated 6th Feb., 2015.
- 4. IOCL sessions to Army officers: Sept 2015 and 8-9-10-23rd Feb 2015.
- Worked as external examiner for PhD defense examination (Mech. Engg.) in S.G.B. University Amravati on 21st Feb. 2015.
- Attended First National Conference on Green Technology and Sciences for Sustainable Development, NCGTSSD at Anuradha Engineering College, Amravati during March 26th -27th 2015.
- 7. Worked as member of Inspection committee on behalf of DTE letter dated 8th June 2015 at
 i) Vidhyvardini's College of Engineering and Technology Vasai Road Thane
 - ii) Somaiya College of Engineering Vidyavihar, Mumbai
 - iii) Harne College of Engineering Vagani, Dist. Thane
 - iv) S.J. Jondhale College of Engineering, Dombivali
- Worked as Expert in Interview Committee for Maharashtra Public Service Commission (MPSC) dated Jun., 10th, 11th, 12th& 15th 2015.
- Delivered Expert Lecture on Performance Investigation of Parabolic Compound Concentrators in the Program sponsored by AICTE at Pillai HOC College of Engg, during July 6-11, 2015. A letter dared 10th July 2015.
- 10. Worked as a Chairman/Examiner for Dissertation phase-IV (ESE July, 2015) at Walchand COE Sangli, dated Jan, 14th and July, 16th 2015.
- Design and Development and costing of MSSIDC Govt. Of Maharashtra Furniture work in 2015 as Principal Investigator, letter dated 20th May 2015 and manufacturing machinery inspection consultancy work 6th July 2015.
- 12. Worked as Committee member of Scrutiny Committee for Recruitment process of faculty at VJTI, letter dated 10th Aug 2015.
- 13. Co-coordinator for E-Cell activity in Mech. Engg. Dept., VJTI. As a faculty advisor for different student activities, Aug 2015 to Aug 2017.
- 14. Design and Development of PNG GAS FIRED CREMATOR for Municipal Corporation of Greater Mumbai in Sept. 2015.
- Training to Indian Army officers in 1st 20th September, 2015 to 2019 (twice in semester) at Indian Oil, Bandra.
- Invited as speaker in 3rd International Conference and Exhibition on, Mechanical and Aerospace Engineering (Mech. Aero 2015) during Oct. 5-7th, 2015 at San-Francisco, USA.

- 17. Delivered guest lecture on 'Solar PV Cells' at Parshwnath College of Engineering on 8th Oct 2015.
- 18. Worked as External Examiner for SE/TE/BE Practical Examination at ZES's Zeal COE Pune, dated Oct.10th 2015.
- 19. Delivered Expert Lecture on Performance Investigation of Parabolic Compound Concentrators in the Program sponsored by TEQIP-II at Govt. COE Amravati during Oct., 12th -16th 2015.
- 20. Delivered expert lecture at Government College of Engineering, Amravati, under TEQIP II on "Towards Global Technological excellence", 15th October, 2015.
- 21. Worked as a paper setter for the ESE examination of M. Tech (Thermal Engg) at SPCOE Andheri, dated Oct 20th 2015.
- 22. Fund and Scholarship received of 12.8 lac from BARTI Pune Govt. of Maharashtra for PhD project and working as PhD supervisor for the research proposal Numerical analysis & Experimental investigation of a single pass Solar Photovoltaic thermal (PVT) system using Compound parabolic collector (CPC) dated Nov. 5th, 2015.
- Worked as Student advisor for VJTI-IGBC (Int. Green Building Council) student chapter and attended Green Building Congress 2015 during 20-21st Nov. 2015 at Gandhinagar. Letter dated 18th Nov, 2015.
- 24. Handled Consultancy work of Kamth Tobacco Co. Pvt. Ltd. Mumbai for FFS machine in 2015. Letter dated 17th Dec. 2015.

<u>2016</u>

- 25. RO, DTE work to inspect and verify backward class scholarship status in unaided Engg. Institute. Visited Acharya College of Engg. Nerul, RO DTE letter dated 7th Jan., 2016.
- 26. Worked as unfair means Committee member at VJTI Mumbai, dated Jan., 11th 2016.
- 27. Worked as a Coordinator for submission of Faculty information on MHRD portal for National Institutional Ranking (NIRF) dated Jan. 15th, 2016.
- Worked as Coordinator for Industry-Institute Interaction guest lecture by Dr. Tim Fox on Engineering Sustainable Cold Chain transport for food in India at VJTI Mumbai, dated Jan., 20th 2016.
- 29. Worked as Expert in University Interview (USSC) for faculty in Mech. Engg. at ARMIET Shahapur, Dist.: Thane letter dated Jan.21st, 2016
- 30. Associated Start up Net Con Entrepreneurship team with Directorate of Industries Mantralaya, Mumbai on 27th Jan. 2016 email dated 31st Jan. 2016.
- 31. Appreciation letter for publishing paper in the International Journal of Air-conditioning & Refrigeration on acoustic analysis of condenser fan of split Air-conditioner using numerical and experimental method email dated Jan. 29^{th,} 2016.
- 32. Reviewed conference paper on Electronics Cooling & Heat Pipes track, email dated 24 Feb, 2016. ICNMM2016. Request to review ICNMM2016-7980. Mark Steinke <u>msteinke@cray.com</u>
- 33. Worked as member for AICTE approval process 2016-17, at Sydenham on 9th March 2016.
- 34. Worked as member for AICTE EVC on 22nd Mar 2016, email dated Mar 18th, 2016.
- 35. Reviewed a paper for Journal of Thermal Engineering, Paper ID: JTEN-2016-107 entitled,

Performance analysis of an Atkinson cycle (AC) engine under realistic power (RP) and realistic power density (RPD) conditions on July 18th, 2016.

- 36. Worked as Head of Department, Mechanical Engineering from Aug 2016 to Aug 2018.
- 37. Work as evaluator for AICTE-PMKVY scheme in Sept. 2016.
- 38. Worked as Expert for one day workshop on "Fluid flow Behaviour in Thermal and Nuclear devices", at Government College of Engineering, Amravati on 15th Sept 2016.
- 39. Consultancy work for testing machines of department C.S.S.D, Mira Bhainder Mahanagar Palika to test medical sterilization equipment's and ultrasonic machine, 21st Nov 2016.
- 40. Visited Vikram Sarabhai Space Center, Trivandrum (ISRO) as member of Committee for research Collaboration on "Micro channel cooling" on 12th Dec 2016.

<u>2017</u>

- 41. Worked as Head of Department, Mechanical Engineering
- 42. Work as evaluator for AICTE-RPS in Jan. 2017.
- 43. Member of Expert Committee for AICTE Surprise visit to Kamaltai Engg. College, Naigaon, Nanded, on 31st Jan 2017.
- 44. AICTE AQIS Evaluation Committee member for the year 2017-18.
- 45. Reviewer for International Conference ICNTE-2017 organised by Fr. R. Instt. of Technology, Vashi, Navi Mumbai, Jan 17th -18th, 2017.
- 46. Worked as a NBA evaluator committee member during visit to Erode 3rd -5th March 2017.
- 47. Member of Expert Committee for AICTE Surprise visit to Matoshri College of Pharmacy, Eklahare, near ODHA Gaon, Nashik on 22nd March 2017.
- 48. Member of Expert Committee for AICTE Surprise visit to Sanghavi College of Engineering, Varvandi, Tal. Dindori, Nashik on 23rd March 2017.
- 49. Worked as Head of Department for Mathematics Department from Jun 2017 to August 2019.
- 50. Co-coordinator for E-Cell activity in Mech. Engg. Dept., VJTI. As a faculty advisor for different student activities, Aug 2015 to Aug 2017.
- 51. Invited as Jury member for PACMACHINE 2017, The National Awards for Excellence in Packaging Machinery and Technology during 01st to 2nd Sept 2017.
- 52. Worked as Jury at Indian Institute of Packaging, Andheri for national awards in packaging technology during 1-2rd Sept. 2017.
- 53. Delivered Expert Lecture on "Pollution and Sustainable Development", at Guru Gobind Singh College of Engineering and Research Center, Nashik on 17th Nov 2017.
- 54. Delivered Expert Lecture on "How to write International Conference Paper and Journal Papers", at Loknete Gopinathji Mundhe Institute of Engineering Educatio and Research, Nashik on 16th Nov 2017.
- 55. Worked as Chairman of Supervising Committee for coal distribution to small and medium scale industries in Mumbai and Mumbai Suburban areas through Maharashtra state government distribution channel Dated: 17/11/2017.
- 56. Worked as Chairman of Supervising Committee for coal distribution to small and medium scale

industries in Thane, Palghar, Raigad, Ratnagiri and Sindhudurga districts areas through Maharashtra state government distribution channel Dated: 23/11/2017.

57. Worked as committee member in AICTE and DTE for Engg. Courses approval process, Nov-Dec 2017.

<u>2018</u>

- 58. Worked as Head of Department for Mathematics Department.
- 59. Worked as Head of Department, Mechanical Engineering till August 2018.
- 60. Board of Studies member for Mechanical Engineering Department of Tulshiramji Gaikwad Patil College of Engineering, Nagpur for the Academic year 2017-18
- 61. Worked as External Expert for JRF to SRF fellowship enhancement assessment at Institute of Chemical Technology (ICT), Matunga, Mumbai on 15th March 2018.
- 62. Delivered Expert talk on "Recent trends in Renewable Energy Resources" during a AICTE-ISTE Sponsored STTP organised by Tulshiramji Gaikwad Patil College of Engineering, Nagpur on 23rd Jun 2018.
- 63. Worked as Committee member of Scrutiny Committee for Recruitment process of faculty at VJTI, letter dated 10th Aug 2015.
- 64. Worked as Project Evaluator for project entitled "Experimental Investigation on the machining of Various Biomedical Alloys Using Electro-Discharge Machining (EDM) Process" for financial assistance under "Assistance for Science and Technology Applications" Scheme under Rajeev Gandhi Science and Technology Commission, Mantralaya, Mumbai, 20th Oct 2018.
- 65. Delivered talk on Performance Investigation of Single Cylinder Diesel Engine with variation in Injection time & Injection pressure, at SS Jondhale COE, Asangaon, Mumbai on 22nd Dec. 2018.

<u>2019</u>

- 66. Worked as Observer for "SWAYAM Online Examination" Mumbai center on 22nd and 23rd May 2019.
- 67. Worked as Head of Department for Mathematics Department till August 2019.
- 68. Working as Training and Placement Officer from Sept 2018.
- 69. Delivered expert talk in AICTE-ISTE approved STTP on "Energy audit and management-A step towards sustainability", organised by Vidyavardhini COE and Technology, Vasai, Mumbai on 02nd July 2019.
- 70. Delivered expert talk in STTP on "Research Methodology", organised by Rajiv Gandhi Institute of Technology, Mumbai on 03rd July 2019
- 71. Expert on Ph. D selection Interview Committee at Sardar Patel COE, Andheri, Mumbai on 23rd July 2019.
- 72. Invited as Visiting Professor at Tor VERGATA University, Rome, Italy during 05th and 06th Sept 2019.
- 73. Training to Indian Army officers in $1^{st} 20^{th}$ September, 2015 to 2019 (twice in semester) at Indian

Oil, Bandra.

- 74. Delivered expert talk, on 17th Sept. 2019, in AICTE approved STTP on "Advances in Heat Transfer", organised by JSPM Rajarshi Shahu Maharaj COE, Tathawade, Pune during 16th to 21st Sept. 2019.
- 75. Invited for expert talk in AICTE approved STTP on "Cooling Technology of PV Cells", organised by Saint Palloti COE, Nagpur on 23rd Nov. 2019.

<u>2020</u>

- 76. Working as Member of National Advisory Board' for a National Conference on Technology for Sustainable Rural Development (NCTSRD) which will be held at Sipna College of Engineering & Technology, Amravati on 27th April 2020.
- 77. Delivered virtual seminar on "Engineering and Internship", for the students of Government College of Engineering Ajmer on 22th Oct 2020 under TEQIP III.
- Delivered online webinar on "Career Guidance" for the students of Anuradha Engineering College, Chikhali on 2nd Dec 2020.

Other Academic/Scientific Activities

- Worked as session chair and Reviewer for National Conference on Green Technology & Sciences for Sustainable Development organised by Anuradha Engineering College, Chikhali, Buldhana during 26-27 Mar, 2015.
- Invited as speaker in 3rd International Conference and Exhibition on, Mechanical and Aerospace Engineering (Mech. Aero 2015) during Oct. 5-7th, 2015 at San-Francisco, USA.
- Experimental Study of Iodine Removal Efficiency in Self-Priming Venturi Scrubber article has been downloaded or viewed 397 times since publication. Source: email from Elsevier publication dated 10th March 2016.
- Conference session chair at Rizvi COE Mumbai on 30th Mar 2016, email dated 22nd Mar 2016.
- Invited talk at M.S. University Baroda Gujarat on 8th April 2016 on BARC funded project Nuclear Safety.
- Board of Studies and research committee member in Institute of Chemical Technology (ICT formerly UGCT), Matunga-Mumbai from year 2013-14 to till date.
- Awarded Travel Grant from AICTE- Delhi to present paper in 9th International conference on Heat transfer in South Korea in May-2017 and Rome Italy in Sept 2019.
- Board of Studies member for Mechanical Engineering Department of Tulshiramji Gaikwad Patil College of Engineering, Nagpur for the Academic year 2017-18.
- Worked as NBA coordinator for Mechanical Department Accreditation during Compliance visit in 2017 for 6 year accreditation in total.
- Organizing Secretary for International Conference on Advances in Material , Design & Manufacturing Engineering held in VJTI during 21-22 Dec., 2017
- Worked as a mentoring team member for Government College of Engineering, Gaya for NBA accreditation process and placement drive under TEQIP III twinning Activity during 2018-19.