


Faculty Profile on University Website

www.mjpru.ac.in

Title	Dr.	Vishal	Saxena	Photograph
Designation		Assistant Professor (Sr. Scale)		
Department		Mechanical Engineering		
Address	Campus	Mechanical Engineering Department		
	Residence	12/13- Civil Lines, Bareilly (U.P) 243001		
Mobile No.		09412738873		
Email ID		Personal	vishal25111977@gmail.com	
		University Domain	vishalmeiet@mjpru.ac.in	
			vishal.saxena@mjpru.ac.in	
Professional Networking ID, i.e. LinkedIn, Twitter etc.		vishal.saxena@mjpru.ac.in		
Educational Qualifications (Graduation Onwards)				
Course/Degree		Institution	Year	Details/Thesis Topic/Subjects
1. B.E (Mechanical)		North Maharashtra University, Jalgaon- M.S	1998	Design and Fabrication of Pneumatic Knuckle press.
2. M.E (Mechanical)		NIT(GEC)- Raipur C.S	2000	Thermal analysis for performance augmentation of cryogenic oxygen air separation plant.
3. Ph.D (Fuel Engineering)		IIT- Dhanbad	2020	Experimental investigations on the feasibility of emulsified biodiesel with nanoparticle additives (modified fuel) in a modified compression ignition engine.
Career Profile				
Organization / Institution		Designation	Duration	Nature of Duties
1. IET, MJP, Rohilkhand University- Bareilly (U.P)		Guest Faculty	Aug.2000- 18May2004 03years, 09 months	Academics (teaching)
2. IET, MJP, Rohilkhand University- Bareilly (U.P)		Lecturer	19May2004- 18May2009 05years.	Academics((teaching/ research)
3. IET, MJP, Rohilkhand University- Bareilly (U.P)		Lecturer/ Assistant Prof. (Sr. Scale)	19May2009- till date.	Teaching/ Research (other allied duties related to academics)
Research Interests / Specialization:				

Thermal Engineering, Heat transfer, IC engines, Nanofluid fuels.									
Research Experience in Years: 04 years									
No of Research Scholars Successfully Guided									
Name of Programme		Awarded			Under Supervision				
Ph.D.		-----			-----				
M.Phil./ M.Tech.		03			As Guide.				
Dissertation (M.Ed./M.A.)		-----			-----				
Researcher/ Expert ID	Scopus		Orchid	Publons	Vidwan	Google Scholar			
	vishal.saxena@mjpru.ac.in		-----	-----	-----	vishal25111977@gmail.com			
Teaching Experience (Subjects/Courses Taught)									
Thermodynamics, Fluid mechanics, IC engine, Turbo and fluid machinery, Heat transfer, Energy conversion, Operation research, Production management, Refrigeration and Air conditioning, Power plant, Gas dynamics.									
Honours / Awards & Fellowship FOR OUTSTANDING WORK									
Name of Award/ Fellowship		Awarded By							
		Name of Governmental Agency			Name of Government Supported Organization/ Department		Name of International Recognized Body		
		NIL							
Publications /Academic Activities (Numbers Only)									
Books & Monographs (Single Author)		Research Papers Published in International Journals	12	Papers Presented in Seminars/ Conferences	15	Seminars/ Conferences Organized	08	Research Projects (Completed)	02
Books (Co-authored)		Research Papers Published in Other Journals	05	Seminar/ Conferences Attended	21	Workshops Organized	02	Research Projects (Ongoing)	01
Books (Edited)	03	Articles Published in Popular Fora, e.g., Websites, Blogs, Newspapers, Magazines etc.	02	Sessions Chaired in Seminars/ Conferences	03	Membership of Academic/ Professional Bodies	02	Foreign Countries Visited for Academic Assignments	00
Chapters in Edited Books				Resource Lectures Delivered	09				

Details of Publications /Academic Activities (2010 Onwards)					
(a) Authored Books/ Monographs					
Name of Book	Year of Publication	Publisher	ISBN No		
NIL					
(b) Edited Books					
Year of Publication	Title	Publisher	ISBN	DOI No.	Citations
03 book chapters in Elsevier					
(c) Papers Published in UGC Care Listed /Indexed/ Peer Reviewed Journals					
Year of Publication	Title	Name of Journal	ISSN/DOI. No	Citations	Impact Factor
2014	Development of Mathematical model of chiller system considering heat as well as pressure losses”	International Journal of Mechanical Engineering MIT-Publications	2230-7680	----	----
2014	The impact of Fouling on the condenser and evaporator of the chiller system: “An experimental observation”	BLB, International Journal of Science and Technology	0976-3074	----	----
2015	A review paper on most significant and sub significant parameters of Abrasive water jet Machining”	International Journal of Advance Research in Science and Engineering	2319-8354(E).	----	----
2015	Effect of different operating parameters on heat transfer characteristics using impingement spray cooling	International Journal of Advance Research in Science and Engineering	2319-8354(E).	----	----
2017	A comprehensive review on combustion and stability aspects of metal nanoparticles	Renewable and Sustainable Energy reviews/RSER Elsevier	doi.org/10.1016/j.rser.2016.11.067	127	16.799

	and its additive effect on diesel and biodiesel fuelled C.I. engine				
2018	Biodiesel synthesis from Acacia concinna seed oil: A comprehensive study	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects. Taylor and Francis	doi.org/10.1080/15567036.2018.1486912	08	3.447
2019	Experimental investigations for rheological characteristics of TiO ₂ nanoparticles doped diesel, biodiesel fuel blends for use in compression ignition engine.	IOP- Material science and Engineering	doi:10.1088/1757-899X/691/1/012022.	04	0.53
2019	Numerical simulation of flow past a flat plate with anti-singing trailing edge.	IOP- Material science and Engineering	doi:10.1088/1757-899X/691/1/012021	05	0.53
2019	Multi-objective optimization of modified nanofluid fuel blends at different TiO ₂ nanoparticle concentration in diesel engine: Experimental assessment and Modeling.	Applied Energy (Elsevier)	doi.org/10.1016/j.apenergy.2019.04.091	14	9.76
2020	RSM/DFA computation approach for optimization and modeling of CI engine performance and emission characteristics fuelled with	Materials Today: Proceedings (Elsevier)	doi.org/10.1016/j.matpr.2020.07.421	04	0.97

	preheated fuel blend modified with TiO ₂ nanomaterial				
2021	Combustion, performance and emissions of <i>Acacia concinna</i> biodiesel blends in a diesel engine with variable specific heat ratio.	<u>Journal of Thermal Analysis and Calorimetry</u> Springer	doi.org/10.1007/s10973-020-10483-7.	35	4.626
2021	Tribological response of modified nanofluid fuel using titanium dioxide nano material under the influence of contact parameters	<i>J. Energy Resour. Technol.</i> (ASME)	<u>doi.org/10.1115/1.4049739</u>	20	3.09

(d) Chapter/Paper Published in Edited Books

Publication		Title of the Book	Title of the Chapter	Name & Address of Publisher	Year	ISB N	DOI	Citation Google/web of science
National	International							
	International	Advances in Interdisciplinary Engineering	Multi-objective process optimization of biodiesel synthesis from <i>Acacia-Concinna</i> seed oil using TOPSIS and GRA approach	(Springer-Singapore)	2018	798-981-13-6576-8	10.1007/978-981-13-6577-5_33	
	International	Lecture notes in Mechanical Engineering	Design optimization of Intake Manifold for Naturally Aspirated SI engine to improve the Volumetric Efficiency Using 1-D	Springer	2020	Accepted for publication		

National		Software Applications in Engineering and Technology	Performance Analysis of Centrifugal Compressor Unit (IFFCO, AONLA) Using Computer Aided Simulation Technique.			978-81-9211-247-3	----	
National	MHRD	foKku xfej fU/kq] fgUnh es	ok"i ihMu iz'khru iz.kkyh ds izn'kZu vkSj gkfu ij	www.sttpublication.mhrd.gov.in		2320-7736		
	International	Feedstocks and Precursors for Catalysts Synthesis	"Methodologies for modification of characteristics of biodiesel for wider acceptability"	<u>Advancement in Oxygenated Fuels for Sustainable Development</u> Elsevier		978-0-323-90875-7	doi.org/10.1016/B978-0-323-90875-7.00014-9	

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(e) Invited as Resource Lectures Person/Examiner/Expert								
Resource person	Detail of Event	Title of Lecture	Date	Institution				
Invited lecture	Lecture series	Thermal Engineering and Fluid Mechanics	2008	Invertis institute of engineering and technology- Bareilly (U.P)				
Invited lecture	Technical lecture	Turbo machines	2011	Future institute of engineering and technology- Bareilly				
Technical lecture	Technical workshop	Advances in heat exchanger design	2012	Prem Prakash Gupta Institute of Engineering- Bareilly				
Technical lecture	Int. Conference (ICAREMIT-2015),	Cryogenics	2015	M.J.P, Rohilkhand University- Bly (U.P).				
Key speaker	Int. Conference (ICAREMIT-2016)	Internal combustion engines.	2016	M.J.P, Rohilkhand University- Bly (U.P).				
Lecture delivered	M.Tech sequential Program	Advanced heat transfer, advanced fluid mechanics, internal combustion engines	2014,2015	WCET, Uttrakhand Technical University- Dehradun				
Technical lecture	National Con. Advancement in engineering materials (NCAEM-2016)	Biofuels and lubricants.	2016	M.J.P, Rohilkhand University- Bly (U.P).				
Speaker	International Workshop	Youth empowerment through skill development	2018	M.J.P, Rohilkhand University- Bly (U.P).				
Technical lecture	Int. Conference (ICAREMIT-	Concepts of spray cooling in Industrial	2019	M.J.P, Rohilkhand University- Bly (U.P).				

	2016)	applications		
Technical session chair	Int. Conference	Future learning aspects of Mechanical Engineering, FLAME-2020	2020	Amity University- Noida
panel of judges	Technical fest	Technical literary and management	2019	Dr. APJ Abdul Kalam Technical University- Luck now (U.P)

(f) Seminars/Conferences/Workshops Organized

1. National Seminar on “Software Applications in Engineering and Technology” (SAET-2012), ISBN:978-81-921124-7-3.
Organizing Committee (Souvenir & Proceeding).
2. National conference “Advancements in engineering materials, NCAEM-2016”. M.J.P, Rohilkhand University- Bareilly (U.P).
Organizing Committee (Convener).
3. International conference “Academic research in Engineering Management and information technology (ICAREMIT-2015), M.J.P Rohilkhand University- Bly (U.P).
Organizing Committee (Member).
4. 2nd International conference “Academic research in Engineering Management and information technology (ICAREMIT-2016), M.J.P Rohilkhand University- Bly (U.P).
Organizing Committee (Convener).
5. 4th International conference “Academic research in Engineering Management and information technology (ICAREMIT-2019), M.J.P Rohilkhand University- Bly (U.P).
Organizing Committee (Convener).
6. 5th International conference “Academic research in Engineering Management and information technology (ICAREMIT-2020), M.J.P Rohilkhand University- Bly (U.P).
Organizing Committee (Convener).
7. National Workshop on “ANSYS and Cryo parametric- 2.0” Department of ME, MJP, RU- Bly in collaboration with CCTS- Bly 14/15/April2015.
Organizing Committee (Coordinator).
8. National Workshop on “MATLAB” Department of ME, MJP, RU- Bly. 3/4 Dec2014.
Organizing Committee (organizing secretary).
9. Faculty development program on Frontier areas of research in Mechanical Engineering, sponsored by MHRD under TEQIP-II. 25/29 March 2014.
Organizing Committee (Coordinator).
10. Faculty development program on Innovations and trends in Mechanical and Production Engineering, Department of ME, MJP, RU- Bly under TEQIP-II. 25/29 March 2014.
Organizing Committee (Member).

(g) Projects (With Title, Year, Grants, Funding Agency and Collaborations)

Year	Name of Project	Funding Agency	Amount	Duration	
				From	Till

2019/20	Tribological and Endurance behaviour of Nanobiofluid fuelled diesel engine.	TEQIP-III	250000/-	2019	2020
18/06/2019	Solar Pump Irrigation based on PV Cell technology-	TEQIP collaborative research scheme National Project Implementation Unit- MHRD GOI	976700/-	2019	2020

(h) Administrative Positions/Assignments Held

Post	Organization	Duration	
		From	To
In charge Head ME.	Mechanical Engg Dep't, IET, MJP, Rohilkhand University- Bareilly	2013.	2019.

(i) Seminar/Conference Presentations

International Conference.

- Design of fuel cell bio plant with gas turbine hybrid system. Energy technologies, changing environmental trends and sustainable development, Guru Jambheshwar University of Agriculture science and technology, Hissar (Haryana). 2004. Dr. O.P Upadhyay, Vishal Saxena, N. K. Kedia.
- Experimental investigations on the lubricity of Acacia Concinna biodiesel contaminated lubricating oil in a simulated environment. Published in Proceedings of International conference "Academic research in Engineering Management and information technology" (ICAREMIT-2016), M.J.P, Rohilkhand University- Bareilly (U.P). Vishal Saxena, Niraj Kumar, Vinod Kumar Saxena. Sant Ram Chauhan, Varun.
- Effect of surfactant at varying nozzle standoff distance on heat transfer characteristics of enhanced hot metal surfaces in a non boiling region: An experimental evaluation. Published in Proceedings of International conference "Academic research in Engineering Management and information technology" (ICAREMIT-2016), M.J.P, Rohilkhand University- Bareilly (U.P). Vishal Saxena, Aditya Prakash.
- Influence of surface characteristics and different operating parameters on heat transfer rates from heated metal surface via spray cooling. Published in Proceedings of International conference "Academic research in Engineering Management and information technology" (ICAREMIT-2016), M.J.P, Rohilkhand University- Bareilly (U.P). Vishal Saxena, Sarvesh Sahai.
- Experimental investigations to analyze the effect of enhanced profile on metallic surfaces and role of surfactant on heat transfer characteristics in a non boiling regime. New Scintillations on Materials horizon (ICNSMH-2016). M.J.P, Rohilkhand University- Bareilly (U.P). Vishal Saxena, Aditya Prakash.

6. Effect of different operating parameters on heat transfer characteristics of Heated metal surfaces using impingement spray cooling- An experimental methodology. New Scintillations on Materials horizon (ICNSMH-2016). M.J.P, Rohilkhand University- Bareilly (U.P). Vishal Saxena, Sarvesh Sahai.
7. Experimental investigations on the tribological characteristics of TiO₂ metal nano particles (MNP) additives with Acacia Concinna biodiesel- diesel fuel blends. XVIIth International seminar on Mineral processing technology- MPT-2018, Department of Fuel and Mineral Engineering, IIT (ISM)- Dhanbad, India. 2018. Vishal Saxena, Niraj Kumar, Vinod Kumar Saxena.
8. Experimental investigations for rheological characteristics of TiO₂ nanoparticles doped diesel, biodiesel fuel blends for use in compression ignition engine, paper presented in 2nd International conference on computational and experimental methods in Mechanical Engineering (ICCEMME-2019). Vishal Saxena
9. Numerical simulation of flow past a flat plate with anti-singing trailing edge paper presented in 2nd International conference on computational and experimental methods in Mechanical Engineering (ICCEMME-2019). Vishal Saxena
10. Solar pump irrigation-A Review. ICAREMIT-2020 at MJPRU, Bareilly 2020. V. Singh, V. Saxena, V. S. Yadav, N. Kumar and A. Maheswari
11. Tribological aspects of internal combustion engine. ICAREMIT-2020 at MJPRU, Bareilly 2020. Vishal saxena, Sudesh kumar, Shrikesh Jalan, Mohd Taseem, Mayank Singh and Mohd. Asif Khan.
12. Exergy and Energy analysis of process industries. ICAREMIT-2020 at MJPRU, Bareilly 2020. Vishal Saxena.
13. RSM/DFA computation approach for optimization and modeling of CI engine performance and emission characteristics fuelled with preheated fuel blend modified withTiO₂ nanomaterial presented in International conference Future learning aspects of Mechanical Engineering, FLAME-2020. Vishal Saxena
14. Design optimization of Intake Manifold for Naturally Aspirated SI engine to improve the Volumetric Efficiency Using 1-D Approach, presented in International conference Future learning aspects of Mechanical Engineering, FLAME-2020. Vishal Saxena

National Conference/Seminars.

1. New generation alternative refrigeration systems.
National conference on advancements and futuristic trends in mechanical and materials engineering- G.Z.S college of engineering- Bhatinda (P.B)- 13/14/2006.
Saxena Vishal, Pathak R.K.
2. Rapid prototyping and rapid tooling are ready for the prime time.
National conference on advancements and futuristic trends in mechanical and materials engineering- G.Z.S college of engineering- Bhatinda (P.B)- 13/14/2006.
Saxena Vishal, Pathak R.K.
3. Micro electro mechanical systems. A brief study.
National conference on advances in product design, materials and manufacturing engineering, B.S.A Cresnet engineering college- Vandalur, Chennai. 24/25/2008.
Dr. O.P Upadhyay, Vishal Saxena, N. K. Kedia.
4. An assessment of Fluidized bed technology.
National conference on Recent trends in Mechanical and Production Engineering.

<p>PantNagar, pp. 611-615, 2009. Vishal Saxena, N. K. Kedia.</p> <p>5. To determine the theoretical refrigeration possible using the given evacuated tube air heating assembly. National conference on Recent trends in Mechanical and Production Engineering. PantNagar, pp. 623-627, 2009. V. Saxena, H. Jaiswal.</p> <p>6. Performance Analysis of Centrifugal Compressor Unit (IFFCO, AONLA) Using Computer Aided Simulation Technique. National seminar on Software Applications in Engineering and Technology” (SAET-2012) 17th Feb, 2012 MJP, RU Bly. Vishal Saxena, Manoj Kumar Singh, Saurabh Vats.</p> <p>7. Experimental investigation of different mechanical properties on glass fibre reinforced composites for Machine/structural components. National Seminar on Advancements and Futuristic trends in material science. MJP, Rohilkhand University- Bareilly 26/27 march 2011. Vishal Saxena, Aditya Prakash.</p>
<p>(j) Memberships of Academic/Professional Bodies</p>
<p>1. Institution of Engineers.</p>
<p>(k) Participation in Community Service / Exchange Program / Consulting Activity</p>
<p>1. Industry institute interaction program (TEQIP-II) discussing various technical aspects of plant as well as training and placement issues of B. Tech graduates of MJP, RU- Bly. 03-07/Nov 2014. Radico- Khaitan ltd- Rampur (U.P)</p> <p>2. DREAM GREEN “Tree Plantation Drive”. Green week campaign for planting 200 trees at MJP, Rohilkhand University- Bly in collaboration with CADD centre Bly.2015</p> <p>3. Member of panel of judges in Technical literary and management fest, organized by Dr. APJ Abdul Kalam Technical University- Lucknow.2019.</p> <p>4. Consultancy given to M.Tech students for conducting Dissertation on various analysis in Advanced Material testing lab of Department of Mechanical Engineering, MJP, Rohilkhand University – Bly. 2016/2017.(Ref letter No- INVU/1701-07/ 2017).</p> <p>5. Consultancy given to M.Tech students for conducting Dissertation on various analysis on composite materials in Material testing laboratory of Department of Mechanical Engineering, MJP, Rohilkhand University – Bly. 2016/2017.(Ref letter No- INVU/1701-07/ 2017).</p> <p>6. Consultancy given to M.DS students (Rohilkhand Medical and Dental college- Bly) for conducting Dissertation on various friction, wear and surface roughness analysis on developed tooth materials on Pin on Disc machine, in Tribology laboratory of Department of Mechanical Engineering, MJP, Rohilkhand University – Bly.</p>
<p>(l) International Academic Exposure: NIL</p>
<p>(m) Any Other Details Developed IC engine lab, biofuel processing facility, Industrial cooling of metals heat spray and jet impingement/ pool boiling heat transfer lab facility.</p>



Signature of Faculty Member