

Faculty Profile

Name :	Dr. Hardik Pravinbhai Patel	
Date of Birth :	03/04/1982	
Educational Qualifications:		
-Ph.D. (University)	(Gujarat Technological University)	
-Master's (University)	M.E (Hemchandracharya North Gujarat University)	
-Bachelor's(University)	B.E (Gujarat University)	
-Any Other:		
Area of Specialization :	Mathematics	
Date of Joining (LJIET)	04/08/2014	
Present Position :	Assistant Professor	
Contact Details:		
-Address :	J-1, Balaji Avenue, Judge's Bungalow Road, Opp. Swaminarayan Temple, Vastrapur Ahmedabad -380015	
-Email	hardikpatel@ljinstitutes.edu.in	
-Phone	(R) ----- (M) 9427958305	
Work Experience :	Teaching (12 years) Industrial(--) Research& Development(--)	
Subjects taught :		
-Under Graduate level	Mathematics-1, Mathematics-2, Mathematics-3, Mathematics-4, Calculus, Vector Calculus and Linear Algebra,	
-Post Graduate level		
Area of Specialization in your field		
A brief account of work done by you in the M. Pharm. and Ph.D.	<p style="text-align: center;">Ph.D.</p> <p style="text-align: center;">“Hydrodynamic Bearing Systems”</p> <p>Bearings discover their uses in multiple mechanical components, reducing frictional losses between two mechanical parts that rotate or slide. To understand the functioning of these machine components, the pressure distributions velocities must be known. The additives are frequently used in lubricating fluids, which make them non-Newtonian. The use of non-Newtonian fluid as lubricants has become more important with the development of modern industrial materials, since the Newtonian fluid constitutive approximation is not found to be a satisfactory engineering approach for many practical lubrication applications. Lubrication is the action of viscous fluids to diminish friction and wear between solid surfaces. The lubricant resistance to motion, the hydrodynamic pressure is built from a lubricant, and this pressure helps to prevent contact between two solid surfaces. The field of science which deals with practice and technology of lubrication is named Tribology. The effect of ferrofluid lubrication on the various types of bearings, where different types of surface roughness were considered, to improvise the performance of bearing systems. This would be useful for the extension of the life period of the bearing system by ferrofluid lubrication of the rough bearing, which helps the meson to increase the life of bearings.</p>	
New Technologies /methods developed by you	-----	
Scale up and Technology Transfer	-----	

Industrial Projects Carried Out : (No.)	-----
Revenue/Royalty earned by the Organization in Indian Rupees	-----
No. Government funded Projects undertaken by you and their total value	-----
Research Guidance :	
-Master's	-----
-Guide for PhD	-----
Summer/Winter/School/Conference/Workshops attended:	8
Summer/Winter/School/Conference/Workshops Conducted:	-----
Patents taken/applied for:	-----
Publications: No of books: <u> 0 </u>(all international)	
Research Papers : <u> 6 </u>	
<ol style="list-style-type: none"> International Journal of Scientific & Engineering Research(IJSER) 2015 Ferro fluid based squeeze film in porous annular plates considering the effect of transverse surface roughness https://www.ijser.org/researchpaper/Ferro-fluid-based-squeeze-film-in-porous-annular-plates-considering-the-effect-of-transverse-surface-roughness.pdf Italian Journal of Pure and Applied Mathemaics 2018 Combined effect of magnetism and roughness on a ferrofluid squeeze film in porous truncated conical plates: Effect of variable boundary conditions http://ijpam.uniud.it/online_issue/201839/11-Patel-Deheri-Patel.pdf Journal of Applied Science and Computations 2019 Squeeze Film Performance between a Rectangular Plate and a Rough Porous Surface http://j-asc.com/gallery/248-february-2039.pdf International Journal of Research and Analytical Reviews 2019 Numerical modelling of hydromagnetic squeeze film in Conducting longitudinally rough annular plates http://www.ijrar.org/viewfull.php?&p_id=IJRAR19K2609 Advances in Intelligent Systems and Computing (AISC) 2019 Performance of a Hydromagnetic Squeeze Film Between Longitudinally Rough Conducting Triangular Plates https://link.springer.com/chapter/10.1007/978-981-15-0184-5_11 Advances in Intelligent Systems and Computing (AISC) 2019 Study of squeeze film in a ferrofluid lubricated longitudinally rough rotating plates https://link.springer.com/chapter/10.1007/978-981-15-0184-5_19 	
Conferences ,Workshops and Seminars	

1. Attended 1 week Workshop on “**Problem Solving in Mathematics**” at Department of Mathematics, Sardar Patel University, Vallabh Vidhyanagar in Dec 2006.
2. Attended 1 day Workshop on “**Scope of Research in Applied Mathematics**” VGEC, Chandkheda, Ahmedabad in Dec 2013.
3. Participated in 1 day national level seminar on “**Applications of Mathematics in Engineering**” organized by Department of Mathematics and Computer Sciences held at Pandit Deendayal Petroleum University on 29th Mar 2014.
4. Attended 1 week Short term Quality Improvement Programme on “**Fundamental of Engineering Tribology Application**” at IIT Delhi, Haus Khas, New Delhi in Dec 2015.
5. Attended 1 week Short term training Programme on “**Numerical Computation by Programming**” at LDCE, Ahmedabad during 20-24 Jun 2016.
6. Participated in 3 day national level seminar on “**Advanced Numerical Method**” organized by Department of Mathematics and Computer Sciences held at Pandit Deendayal Petroleum University on 2017.
7. Participated and presented a paper in International conference on “**Advances in Pure and Applied Mathematics**” organized by Department of Mathematics, Ganpat University, Mehsana during 22-24 Dec 2017.
8. Participated and presented a paper in International conference on “**SOCPROS-18**” held at VIT, Vellore during 17-19 Dec 2018

Notable Achievements and activity executed:

Association with Professional Bodies

Grants Received/Fetched:

Consultancy and Expertise available for industries
