# **BIO DATA**

Name: Dr. Bharatkumar M. Sutaria

Address: - 39, Rajvihar row House,

B/H Shreeji Nagari Nr. Parishram Park, Ugat Road

Jahangirabad, Surat – 395 005

**Position :-** Associate Professor Date of Joining Institute : 17/08/1991

Date of Joining Present Position: 01/01/2006

**Date of Birth:** 21/05/1967 Ph.D. Degree Awarded: 2011



#### **Qualifications:**

Degree	College/University	Year	Specialization
Ph.D.	SVNIT	2011	Engine Tribology
M.E (Mech)	REC, Surat, South Gujarat	1996	Mechanical
B.E. (Mech)	S.S. Engg. College, Bhavnagar	1989	Mechanical

#### **Experiences:**

University / College/ Industery	Designation	Period
SVNIT, Surat	Associate Professor	01/01/2006 to till date
SVNIT, Surat	Lecturer	17/08 /1991 to 31/12/2005
B & B Polytechnic College, V.V.Nagar, Anand	Lecturer	01/03/1991 to 16/08/1991
Mipco Seamless Rings Ltd, Bharuch	Maintenance Engineer	01/08/1990 to 28/02/1991

# Subjects taught and Research Area of Interest:

**Engine Tribilogy** 

Tribology & Machine Dynamics

Mesurement Systems Experiment Techniques

Applied Thermodynamics & Thermal engineering

Heat Transfer

Machine Tool Design Basic Mechanical Systems

#### **Research Publications:**

(No. of Research Publication Since Joining – Please find in attach list of Publications)

Publications	Numbers
National Conference	28
National Journal	01
International Conference	28
International Jounral	05

International Conferences/Colleges visits: London, USA, Thailand, UAE, Turkey

### No. of M. Tech. / Ph.D. guided with details (Please attach list of Dissertation/ Thesis):

M. Tech. :20 Completed + 05 On going

Ph.D.: 03 On goining

No. of Patent obtained (with details): NIL

No. of Patent applied (with details):

<b>Patent Application</b>	Invetors name(s)	Title of Patent	Date of	Status
No.			Application	Applied / Obtained
			/Award	
IBR No. 7971/2010	Bhatt D. V.	Piston(s) segement	Application no.	Applied
Design patent	Mistry K, N.	holding	232881	
	Sutaria B. M.	attachment for	26 Nov. 2010	
		reciprocating &		
		wear monitor test		
		rig		
IBR No. 7971/2010	Bhatt D. V.	Cylinder Liner	Application no.	Applied
Design patent	Mistry K, N.	Segment with base	232882	
	Sutaria B. M.	plate for	26 Nov. 2010	
		reciprocating &		
		wear monitor test		
		rig		

#### No. of R&D Project (Funded by various agenices): Nil

Title of Project	Funding Agency Name (a) National* (b) State * (c) Private* (d) Trust / Society*	Team of Investigator(s)	Sanction Amount (Rs.)	Sanctioned Date	Status Ongoing/ Completed
Tribology Performance Study on Two Stroke SI Engine (2006-2007)		Dr. D. V. Bhatt Dr. B. M. Sutaria	7.5 Lacs	2006-2007	Completed

<sup>\*</sup> Please mention category of funding agency viz. (a),(b),(c) and (d)

### No. Conference /Short term Course / Workshop / Training Programme / Seminar Organized:

Programme	Number	Programme	Number	Programme	Number
organised		organised		organised	
International Conference	Nil	Short Term Course	03	Training Programme	01
National Conference	01	Workshop	01	Seminar	

(Attach detail list in following format)

Module	Any other	Developed /	Duration	Resoruce	Target	Usages and
Description	contributory	organized		Persons	Audience	citation etc.
	Inst. /	by				
	Industry					

No. of Expert Lecture Delivered (Please attach list with details): 07

No. of Expert Lecture Organized: (Please attach list with details): 05

(For UG/PG/Rsearch scholar) (1) Dr. H. H. Hriani, IIT, Delhi

- (2) Dr. K. C. Vora, AREA, Pune
- (3) Dr. Sudeep Ingole, Texas, USA

(4) Dr. R. V. Upadhayay, Charusat

(5) Dr. M. A. Bulsara, GHCET, Ananad

**Consultancy & Testing: Consultancy: 02** 

Title of Project /work	Agenices	Team of Faculty	Amount	Date
To provide proof checking	M/s Rajkamal	Dr. B. M. Sutaria	1,01250 = 00	September –
services for launching	Builders	Dr. A. K. Deasai		October, 2013
scheme for steel girder for	Infrastructure Pvt	Dr. C. D. Modhera		
railway over bridge on	Ltd.			
Bagodra – Vasad –	54, Park hill			
Tarapur Road	society, Near			
	Heaven Park			
	Society,			
	Ramdevnagar,			
	Ahmedabad -380			
	015			

#### (b) Testing: Pl. find in attached sheet at last

Title of Project /work	Agenices	Team of Faculty	Amount Rs.	Date
Remaining life assesments	RSPL, GIDC	Dr. B. M. Sutaria	1,77,000 = 00	Feb-March,
study of Steel tanks nos 20	Panoli,	Dr. A. K. Deasai		2016
	Anckleshwar	Dr. J. V. Meghani		

# **Interaction with outside World: (Not limited to following) (attach list with following category)**

#### Like:

- (a) Institute abroad, Eminence institute in India & National Research Lab.
- (b) Institute / Industry not cover above
- (c) State level Institute / Industry / R&D Organization
- (d) NBA Visit
- (e) Member of Board of Studies / Academic body of other institute
- (f) Expert Lecture
- (g) Thesis evaluation / Examination coduct
- (h) Collaborative R&D Projects
- (i) Consultancy & Testing work
- (j) Collaborative Conference / Workshop / Seminar organized
- (k) Visiting faculty to other institute
- (1) Co-guidance Project/ Dissertation / Thesis
- (m) Visit to foreign country to participant in International Conference, foreign deputation, Post Doct, etc.

(Dr. B. M. Sutaria)

Email:bms@med.svnit.ac.in, CC No.:09427421615

# **RESEARCH PUBLICATIONS:**

### **National Conferences:**

Sr. No.	Authors	Title of paper	Name of conference/ Seminal/journal	Month & year
1	<b>Sutaria B. M.</b> Mistry. K.N	Effect of chip thickness on cutting force in an orthogonal cutting	.1	Nov-1996
2	Sutaria B. M. Raval H. K. Mistry K. N	Using a Grid marking Technique in Orthogonal Metal cutting Process		Jan-1997
3	Sutaria B. M Mistry K. N.	Strength measurement in friction welding	National Conference on AIME-2006 at New Delhi.	20-21,Jan 2006
4	Sutaria B. M Shah. R. D. Parekh. A. D. Bhatt. M. K		XIV NASAS 2006, VNIT, Nagpur	30-31,Jan 2006
5	Sutaria B. M. Shah. R. D. Mistry K. N	A Parametric study on friction welding process.	Recent Advances in Manufacturing Technology, Velammal Engg. College, Chennai	3 <sup>rd</sup> March- 2006
6	Sutaria B. M. Parekh. A. D. Shah R. D. Patel V. M	Analysis of Heat transfer in pin fin under steady state.	Advancing in Mechanical Engineering, Kota, Rajasthan.	18 &19 March-2006
7	Sutaria B. M Shah R. D.	Finite element analysis of pin- fin.	Application of Advance Quality/ Method in Engg. & Technology (AAQMENT- 06), Irod, Tamilnadu.	23 & 24 March-2006
8	Sutaria B. M. Bhatt D. V. Mistry K. N.	Analysis of PRA friction Models of an Internal Combustion Engine	Recent Developments and	3-4 Nov.2006
9	Sutaria B. M Bhatt D. V. Shah A. S. Mistry K. N.	An over view wear mechanism, causes , and prevention in piston ring assembly in an I. C. Engine	Recent trend in Mechanical	19- 20,Mach - 2008
10	<b>B.M. Sutaria</b> Dr. D. V. Bhatt Dr. K.N. Mistry	_	Pandicherry Engineering	7-9,Jan-2009
11	Sutaria B. M Bhatt D.V. Mistry K. N.	Experimental Study to Measure Piston ring Assembly Friction using various operating parameters.	Tribology of Automotive Systems, IIT Delhi.	11-12, Dec. 2009
12	Sutaria B. M. Bhatt D.V. Aware G.	An Investigation of Friction Between Piston Ring and Cylinder Wall of I.C. Engines	Tribology of Automotive Systems, IIT Delhi.	11-12, Dec., 2009

13	Sutaria B. M. Bhatt D.V. Aware G.	Literature Review on Friction Forces and Piston Ring Dynamics.	Tribology of Automotive Systems, IIT Delhi.	11-12, Dec., 2009
14	Sutaria B. M. Bhatt D.V. Shinde S. B.	Simulation and Analysis of Friction Forces at PRA and Piston Ring Dynamics.	= -	11-12, Dec., 2009
15	Sutaria B. M. Bhatt D.V. Shinde S. B.	Literature Review on Piston Ring Lubrication.	Tribology of Automotive Systems, IIT Delhi.	11-12, Dec., 2009
16	Sutaria B. M. Bhatt D.V. Patel Jitu	Theoretical Modelling of Piston Ring Assembly.	Tribology of Automotive Systems, IIT Delhi.	11-12, Dec., 2009
17	Sutaria B. M. Bhatt D.V. Patel M. T.	Tribological Study of Automotive Engine Oil.	25 <sup>th</sup> National Convention on "Recent Developments in Manufacturing Technology", NIT, Agartala, Tripura.	8-9 May, 2010
18	Sutaria B. M. Bhatt D.V. Mehta P. M.	Tribological characteristics of flake and nodular graphite cast iron under wet condition.	25 <sup>th</sup> National Convention on "Recent Developments in Manufacturing Technology", NIT, Agartala, Tripura.	8-9 May, 2010
19	Sutaria B. M. Chaudhary Prasson	Sliding friction characteristic of composite material – A critical review	National Conference on	18-19, March, 2011
20	Sutaria B. M. Bhatt D.V. Mistry K. N.	Experimental Evaluation of Friction Coefficient on Segmented Piston Ring Assembly of Automobile Engine.	National Tribology Conference (NTC-2011) IIT Roorkee.	8-10 Dec., 2011
21	<b>Sutaria B. M.</b> Bhagat Vinay	=	Advances in Mechanical Engineering, UIET, Panjab University, Chandigarh	
22	Sutaria B. M. Patel J. M. Patel Keyur	Evaluation of heat transfer characteristics of a double pipe heat exchanger for temperature range of hot fluid (90 °C to 95 °C)	Thermal fluids and manufacturing systems (TFMS-2012), I.E and C. K. Pithawal Engg. College, Surat	20-22, January, 2012 ISBN 978-81- 8487-202-6
23	Sutaria B. M. Bandapalli C. Bhatt D. V.	An overview on Tool wear Mechanism in Metal cutting	Thermal fluid science and Tribology applications, MED, SVNIT, Surat	27-28, May, 2016 ISBN 978-93- 5265-440-6
24	Sutaria B. M. Dave H. R.	Fundamentals of Homogeneous Charge Compression Ignition(HCCI) Engines	Thermal fluid science and Tribology applications, MED, SVNIT, Surat	27-28, May, 2016 ISBN 978-93- 5265-440-6

25	Sutaria B. M. Bhadakwad Simon.	FEA Of stress and Hollowness of Tapered rollers bearing	Thermal fluid science and Tribology applications, MED, SVNIT, Surat	27-28, May, 2016 ISBN 978-93- 5265-440-6
26	Sutaria B. M. Mulani K. D. Bhatt D. V.	A Review on Tribological Behaviour of Magneto Rheological fluid	Thermal fluid science and Tribology applications, MED, SVNIT, Surat	27-28, May, 2016 ISBN 978-93- 5265-440-6
27	<b>Sutaria B. M.</b> Chaudhary T.	Piston Ring Liner Assembly Friction in I. C. Engine: A Review		27-28, May, 2016 ISBN 978-93- 5265-440-6
28	Sutaria B. M. Vasava J. Bhatt D. V.	Megnetorehological Fluid as lubricant in Bearings: A Review	Thermal fluid science and Tribology applications, MED, SVNIT, Surat	27-28, May, 2016 ISBN 978-93- 5265-440-6
	nal Journals:	TTV 4		
Bhatt	ia B. M.	Title of paper  Development of Test Rig and  Experimental Study to  Measure Piston Ring Assembly  Friction under Different  Variables	Journal/ Volume/ Page no Indian Journal of Tribology Volume 5 (1) / PP: 37-41	year 2010

## **International Conferences:**

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Sr. No.	Authors	Title of paper	Name of conferences / Seminar	Month & year
1	Sutaria B. M. Bhatt D.V. Mistry K.N.	Theoretical Analysis of Various PRA friction Models of An I.C. Engine- An over view	International Conference on Industrial Tribology, IISc, Banglore	30. Nov to 2 Dec., 2006
2	Sutaria B. M. Bhatt D.V. Mistry K.N.	Friction force analysis in piston ring of a single cylinder Gasoline engine under motorized condition		23 to 25 Jan-2008
3	Sutaria B. M. Bhatt D. V. Mistry K.N.	Simulation of PRA friction models and experimental study of an Internal combustion Engine	Energy Engineering Vol.1, Mechanical Engineering, (ICEE- 2009), Pondicherry Engg. College, Pondicherry.	9 -10, January 2009 PP: 203-208. ISBN: 978-81- 8424-479-3 Vol. I
4	Sutaria B. M. Bhatt D.V. Mistry K.N.	Simulation and modelling of friction force and oil film thickness in piston ring cylinder liner assembly	•	30 <sup>th</sup> June -2 <sup>nd</sup> , July 2009 PP: 1452-1457 ISBN (Vol. I & II) 978-988-17012-5-1 978-988-18210-1-0

5	Sutaria B. M. Bhatt D.V. Mistry K. N. Shah A. S.	Experimental study and analysis of temperature variation in multi cylinder motorized engine test rig under different lubricants – A case study	World Congress on Engineering, (WCE- 2009) Imperial college, LONDON, U.K.	30 <sup>th</sup> June -2 <sup>nd</sup> ,July 2009 PP: 1635-1639 ISBN (Vol. I & II) 978-988-17012-5-1 978-988-18210-1-0
6	Sutaria B. M. Bhatt D.V. Chaudhry A. S.	Simulation of PRA friction force for Single cylinder four- stroke S.I. engine under motorized condition	Advances in Mechanical Engineering (ICAME- 2009),S.V.N.I.T, Surat, Gujarat.	3 – 5, August 2009,
7	Sutaria B. M. Bhatt D.V. Shah A. S. Aware G.	Multi cylinder I.C. engine performance studies under different lubricants – A case study	7 <sup>th</sup> International Conference on Industrial Tribology, (ICIT-2010), Ispat Bhavan, Ranchi, Bihar.	2 – 4, Dec., 2010
8	Sutaria B. M. Bhatt D.V. Shah A. S. Aware G.	Variation in lubrication regimes for changes in ring geometry in a multy cylinder I. C. engine test rig.	7 <sup>th</sup> International Conference on Industrial Tribology, (ICIT-2010), Ispat Bhavan, Ranchi, Bihar.	2 – 4, Dec., 2010
9	Sutaria B. M. Bhatt D.V. Patel M. T.	Ranking of Automotive Oil	7 <sup>th</sup> International Conference on Industrial Tribology, (ICIT-2010), Ispat Bhavan, Ranchi, Bihar.	2 – 4, Dec., 2010
10	Sutaria B. M. Bhatt M. K. Gaderia S. N.	Intelligent control system for industrial automation of existing plant – A cost saving approach.	International Conference on Manufacturing Engineering and Technology, PHUKET, THAILAND	21- 23 , Dec., 2011 Pp:993-995 ISSN 2010-3778
11	Sutaria B. M. Bhatt M. K. Gaderia S. N. Channiwala S. A.	Experimental Study on Solar Flat Plate Collector for Losses under Different Input Heat Flux by Changing Wind Velocity at 45 Degree Yaw Angle and at Zero Tilt Angle	International Conference on Applied Science & Engineering Technology, ICASET- 2012, <i>ROME</i> , <i>ITALY</i>	26-27, Sept.,2012
12	Sutaria B. M. Patel N.G. Parghi. N. Y.	Investigation of critical stress intensity factor for IS 2062 material using arc shape tension specimen	International conference on engineering trends in mechanical engineering, GH Patel College of Engineering, Anand, Gujarat	4-5 Jan,2013
13	Sutaria B. M.	Experimental evaluation of heat	International	4-5 Jan,2013

14	Patel J.M. Patel K.  Sutaria B. M. Bhatt M. K. Gaderia S. N. Channiwala S. A.	transfer characteristics for double pipe heat exchanger  Determination of Losses & Loss Coefficients of Solar Flat Plate Collector When Wind Velocity & Tilt Angle At Zero Value – An Experimental Study	conference on engineering trends in mechanical engineering, GH Patel College of Engineering, Anand, Gujarat International Conference on Mechanical, Automotive and Materials Engineering	26 – 27 July, 2013
15	Sutaria B. M. Bhatt M. K Sonigara B. K.	ASTM Performance Tests to Study the Effect of Blend Oil with Based Oil Analysis for	(CMAME 2013), <b>HONG KONG</b> 4 <sup>th</sup> International conference on Mechanical, Production	6-7 October, 2013, ISBN 978-93-82245-1
	Bhatt D. V.	Automobile Engines	& Automobile Engineering (ICMPAE'2013),  DUBAI (UAE)	
16	Sutaria B. M. Bhatt M. K Sonigara B. K. Bhatt D. V.	Study on the Effect of Blend oil with Based oil Analysis	International conference on Advances in Tribology & Engineering systems, L. D. College of Engg, Ahmadabad, Gujarat	15-17 October,2013 ISBN 978-81-322- 1655-1 ISBN 978-81-322- 1656-8 (eBook) DOI 10.1007/978- 81-322-1656-8 Springer, New York, London
17	Sutaria B. M. Bhatt D. V.	Optimization of Reciprocating Friction –Wear Test Rig Operating Parameters for Segmented Piston Ring – Liner Assembly	conference on Advances in Tribology	15-17 October,2013 ISBN 978-81-322- 1655-1 ISBN 978-81-322- 1656-8 (eBook) DOI 10.1007/978- 81-322-1656-8 Springer, New York, London.

1<sup>st</sup> International and 18-20 Dec.,

High Speed Machining of Ti-

18

Chakradhar B.

	Sutaria B. M. Bhatt D. V.	alloys- A critical Review	16 <sup>th</sup> National conference on Machines and Mechanisms (INACOMM), IIT Roorkee	2013
19	Sutaria B. M. Bhatt M. K. Gaderia S. N. Channiwala S. A.	To Study Different Losses and Loss co-efficient on Solar Flat Plate Collector at 90 <sup>0</sup> Yaw angle	2 <sup>nd</sup> International Conference on Mechanical, Automotive and Materials Engineering (CMAME-2014)  SINGAPORE	26-28 May, 2014
20	Chakradhar B. <b>Sutaria B. M.</b> Bhatt D. V.	Analysis top bur formation in high speed micro end milling of commercially pure titanium (Grade -2)	International conference on Advances in materials and product design, AMPD, SVNIT, Surat	10-11, January, 2015 ISBN 978-93- 5196-956-3
21	Sutaria B. M. Bhatt M. K. Anil Kumar Soni S. S. Bhatt. D. V.	Analysis Of Tribological Parameters On Carbon Steel Used In Sugar Mill Rolls – A Case Study	1st International Conference on Tribology Yiledz Technical University, ISTANBUL, TURKEY	7-9, October, 2015 Istanbul, Turkey
22	Chakradhar Bandapalli, <b>Sutaria B. M</b> . Bhatt D. V.	Estimation of Burr Formation on Ti-6Al-4V in High Speed Micro End Milling by Experimental Investigation and ANFIS Methodology	International Conference on Precision, Meso, Micro and Nano Engineering, COPEN 9,IIT Mumbai	10-12 December, 2015
23	Chakradhar Bandapalli, <b>Sutaria B. M</b> . Bhatt D. V.	Experimental Investigation And Estimation of Surface Roughness Using ANN, GMDH, MRA Models in High Speed Micro of Titanium Alloy (Grade 5)	International conference MNIT, Bhopal-GRET Hyderabad, Elsevier	12-13, March, 2016
24	Chakradhar Bandapalli, <b>Sutaria B. M</b> . Bhatt D. V.	Performance of Coated and Uncoated Tungsten Carbide End Mills in High Speed Micro Milling	International Conference on Recent Trends in Engineering and Material Sciences Jaipur National University,	17-19, March, 2016

25	Dave Hiren. R Sutaria B. M	Pilot Injection And Its Effects on Diesel Engine Performance Parameters and Emissions: A Review.	Jaipur, India International Conference on Recent Trends in Engineering and Material Sciences Jaipur National University, Jaipur, India	17-19, March, 2016
26	Chaudhary Tejaskumar <b>Sutaria B. M</b>	Investigation of friction characteristics in segmented piston ring liner assembly of I.C. Engine	International Conference on Recent Trends in Engineering and Material Sciences Jaipur National University, Jaipur, India	17-19, March, 2016
27	Sutaria B. M Chaudhary Tejaskumar	Tribological Investigation of Piston Ring Liner Assembly	18 <sup>th</sup> International Conference on Automotive and Mechanical Engineering (ICAME) at NEW YORK, USA	10-11, October, 2016 EISSN:2010-3778, PP. 1068-1072
28	Chakradhar Bandapalli, <b>Sutaria B. M</b> . Bhatt D. V.	Surface Roughness Characterization in High Speed Micro Milling of Near Alpha Titanium Ally (grade 12) using Coated TiAlN & AlTiN Tools.	6 <sup>th</sup> International & 27 <sup>th</sup> All India Manufactiring Technology, Design & Research (AIMTDR- 2016) Conference, Pune	16-18, Dec. 2016

# **International Journals:**

Sr. No.	Authors	Title of paper	Journal/ Volume/ Page no	year
1	Sutaria B. M. Bhatt D.V. Mistry K.N.		World Applied Science Journal, Volume 7 (8) / PP: 998-1003	2009
2	Sutaria B. M. Bhatt D. V. Mistry K. N.	Analysis of Friction	Applied Engineering Research (IJAER) Volume 6, No. 5 / PP: 645–660	2011
3	Sutaria B. M. Bhatt D. V.	Optimization of Reciprocating Friction and Wear Test Rig Operating Parameters for Segmented Piston Ring: Liner Assembly	Springer 2014, XXVIII, PP: 205-214, ISBN 978-81-322-1655-1	2014
4	Bandapalli. C Singh K. K. <b>Sutaria B. M.</b> Bhatt D. V.	Experimental investigation of Machinability	International Journal of Advances in Manufacturing Technology, DOI 10.1007/s00170-015-7443-1, Received: 12 October 2014 / Accepted: 15 June 2015, Springer-Verlag London	2015
5.	Tejashkumar Chaudhary <b>Bharatkumar</b> <b>Sutaria</b>	Investigation of Friction Characteristics in Segmented Piston Ring Liner Assembly of IC Engine	International Journal of Perspectives in Science, http://dx.doi.org/10.1016/j.pisc.2016.06.032	2016

# M. Tech Guided:

Sr. No	Name of Student	Title of Thesis	Passing Year
1	Mr. Milap M. Madhikar	Flow Simulation & Visualization in HP Feed Water Heater at KAPS,	2006
2	Mr. Manubhai B. Rohit	Theoretical Simulation & Experimental analysis of Piston ring Assembly Friction & film thickness of single Cylinder Various Capacity I.C. Engine Systems Under Different Variables.	2007
3	Mr. Atul S. Chaudhary	Theoretical Modeling & simulation of PRA Friction Models of Single Cylinder S.I. Engine- A Case study	2009
4	Mr. Kirit S. Kharadi	Modeling & simulation of Tribological Parameters for a Single Cylinder C. I. Engine- A case study	2009
5	Mr. Jitu M. Patel	Friction force analysis of Piston rings & Cylinder Liner on Reciprocating Test rig	2010
6	Mr. Paresh M. Mehta	Experimental Analysis of Tribological Properties of Piston ring cylinder Liner Material Pairs on Pin on Disc Test rig	2010
7	Mr. Sachin B. Shinde	To Study The Effect Of Different Parameters on PRA Friction of Four Stroke Single cylinder 100 CC S. I. Engines	2010
8	Mr. Menesh T. Patel	Experimental Study to Rank Automotive Lubricants on Four Ball Tester by Using Different ASTM Standards.	2010
9	Mr. Ganesh B. Awre	Theoretical Modeling and Simulation of PRA Friction Models Applicable to Multi Cylinder I. C Engine and Experimental Verification -A Case Study.	2010
10	Mr. Nitin Y. Parghi	Experimental & Numerical Analysis of Critical Stress Intensity Factor of Pressure Vessel Material Using arc Shape Tension Specimen	2011
11	Mr. Prasoon Chaudhry	Effect of Apparent Area on Sliding Friction characteristics of Composite Material	2011
12	Mr. Keyur B. Patel	Performance Evaluation & CFD Analysis of Operating Parameters on Double Pipe Heat Exchanger	2012
13	Mr. Bhaskar K. Sonigra	Experimental Studies of Blending Oil using ASTM standards on Four Ball Test Rig.	2013
14	Mr. Ankit Patel	Tribology Aspect Study of Engine Lubricants	2013
15	Ravi Patel	Study of Tribological Parameters of Journal Bearing Performance	2013
16	Mr. Anilkumar Jagar	Experimental Investigation of Friction & Wear of Carbon Steel Used In Sugar Mill Rolls	2014

17	Mr. Akshay Rajednra Gavai	Study Of Friction & Wear Characteristics of Brake Pad Materials	2015
18	Mr. Simon Vikram Bhadakwad	Finite Element Analysis of Stresses and Hollowness of tapered Roller Bearing	2016
19	Mr. Tejaskumar Chaudhari	Investigation of Friction Characteristics of segmented Piston Ring Liner Assembly of An I. C. Engine	2016

# **Expert Lecture Delivered:**

Sr. No	Title of Talk	Name of Program	Date/ Duration	Place
1	Fundamental of Engine Tribology	STTP on Advances in Industrial Tribology and Maintenance	21/07/2008 1.5 hour	SVNIT, Surat
2	Methods of Reducing Piston Ring Friction Losses in Modern Internal Combustion Engine	STTP on Advances in Industrial Tribology and Maintenance	25/07/2008 2.0 Hour	SVNIT, Surat
3	Advances in Engine Tribology	AICTE Approve One Week Winter School on Metallurgical Aspects of Tribology	30/09/2009 01 Hour	SVNIT, Surat
4	Fundamental & Advances in Tribology	One Week STTP on Advances in Tribology	25/10/2010 2.5 hour	SSBT CET, Bambhori, Jalgaon,
5	An Innovative Approach For Friction Force Measurement of A Piston Ring Assembly	Two days workshop on Industrial Tribology and Applications	14/11/2014 2 Hour	CAD LAB Seminar Room, MED SVNIT
6	Fundamental of Tribology & Its Industrial Applications	One Week STTP on Fundamental of Tribology & Its Industrial Applications	06/07/2015 1.5 Hour	Institute Guest House Seminar Room, SVNIT
7	Measurement & Prediction of Friction Force in I C Engine	One Week STTP on Fundamentals Tribology & Applications	06/12/2015 1.5 Hours	G. H. Patel College of Technology, Ananad, Gujarat
8	Non destructive Methods for Engineered Materials	One Week STTP on Recent Advances in Testing Methodology & Techniques for Engineered Materials	23/06/2016 1.5 Hour	Applied Mechanics Dept., SVNIT, Surat

9	An Importance Role of Tribology in	One Week STTP on	06/02/2017	S. S. Engg.
	Mechanical Engineering	Technological	2.0 Hrs	College,
		advancement in		Bhavnagar
		Mechanical		
		engineering		
10	Introduction to Locomotive Systems	Two Week Training	07/02/2017	Electronic &
		cum workshop for	&	Electrical
		Supervisors and	14/2/2017	Eng. Dept.,
		Technician of Indian		at EED
		Railways employee	4.0 hrs	Seminar
				room,
				SVNIT,
				Surat

# Conducted STTP/ Workshop / Conference/ Seminar for Acadamic and Industry People

Sr.	Title of Programme	Duration
No		
1.	AICTE sponsered one week STTP on Advances in Industrial Tribology &	21/07/2008 to
	Maintenance.	25/07/ 2008
2.	AICTE approved one week STTP on Metallurgical Aspect of Tribology.	30/11/2009 to
		04/12/2009
3.	TEQIP-II Sponsered Two Days Workshop on Industrial Tribology &	14/11/2014 to
	Applications.	15/11/2014
4.	TEQIP- II Sponsored National Level STTP on Fundamentals of Tribology	06/07/2015 to
	and Its Industrial applications.	10/07/2015
5.	1st National Conference on Thermal-fluid Science and Tribological	27/05/2016 to
	Applications (NCTFSTA-2016)	28/05/2016

# STTP/Industrial Training / Summer – Winter School Attended:

Sr.	Title of Course	Organized by	<b>Duration</b> of
No.			Course
1.	Q.I.P. Industrial Training for Engg. College	I.P.C.L., Vadodara	01/07/1992 to
	Teacher		28/08/1992
2.	17 <sup>th</sup> AIDMR Conference	REC, Warangal	07/01/1997 to
			09/01/1997
3.	Ensuring Faculty Accountability	SVRCET, Surat	28/01/1997 to
			29/01/1997
4.	Institute Planning and Management	SVRCET, Surat	17/02/1997 to
			21/02/1997
5.	Computer Aided Manufacturing	MACT, Bhopal	16/06/1997 to
			29/06/1997

6.	TQM in Technical Education	SVRCET, Surat	30/06/1997 to 4/07/1997
7.	Industry Institute Interaction	BVM Eng. College, V.V.Nagar, Anand	11/05/1998 to 16/05/1998
8.	Advance in Solar Energy Technology	SVRCET, Surat	03/07/2000 to 14/07/2000
9.	Advances in Tribology	IIT, Powai, Mumbai	18/06/2002 to 22/06/02
10.	Instruction Workshop on Soft Computing with MAT lab	M. S. University, Vadodara	07/01/02 to 12/01/2002
11.	Advance in Refrigeration and Air Conditioning	Nirma institute of Technology, Ahmedabad	30/06/03 to 11/07/03
12.	AICTE/ISTE Summer School on Helping Students Better Learning Skill & Habit for Human Value in Educations	21/06/2004 to 25/06/2004	
13.	Failure Analysis of Engineering Material and VNIT, Nagpur Residual life Assessment		31/01/2005 to 11/02/2005
14.	Specialization Workshop on Measurement Techniques of Turbo Machines	SVNIT, Surat	23/06/2005 to 25/07/2005
15.	STTP on Energy Conservation in Various Industrial Sectors	SCET, Surat	26/12/2005 to 30/12/2005
16.	Boilers Efficient Operation & Maintenance	The institute of Energy management national centre for technical Development, Hyderabad	06/01/2006 to 08/01/2006
17.	Three Day Workshop on Different Aspect of Electron Microscopy	SVNIT, Surat	29/3/2006 to 31/3/2006
18.	Future manager in Technical Education	EQUATE and S.V.N.I.T, Surat	04/02/2008 to 08/02/2008
19.	QIP STTP on "Advances in Maintenance and Tribology"	ITMMEC, IIT, Delhi	07/07/2008 to 11/07/2008
<ul><li>20.</li><li>21.</li></ul>	Advanced Engineering Optimization Through Intelligent Techniques ISTE on Techno Entrepreneurship Awareness	Mech. Engg. Dept., SVNIT, SURAT ED Cell, SVNIT,	22/12/2008 to 26/12/2008 27/07/2009 to
22.	AICTE approved one week STTP on Techno Entrepreneurship and Its Importance in Technical Education systems.	Surat ED Cell, SVNIT, Surat	31/07/2009 21/12/2009 to 25/12/2009

	Management Philosophies and Techniques.		08/01/2010
24.	One week Training Programme on Bearing	Anchor Cell, SVNIT,	18/08/2010 to
	Management Technology.	Surat	21/08/2010
25.	One week Training Programme on Lab VIEW	Anchor Cell, SVNIT,	17/01/2012 to
	Graphical Programming and Data Acquisition Basic Training.	Surat	21/01/2012
26.	One week Training course on Condensed	Department of official	26/11/2012 to
	Translation.	Language, Ministry of	
		Home Affairs, New	
		Delhi	
27.	One week workshop under TEQIP-II on	CHED, SVNIT, Surat	19/04/2013 to
	Nanotechnology Application for Sustainable		21/04/2013
	Development.		
28.	Two days workshop on NBA Accreditation	NITK, Surathkal	23/08/2013 to
20	Awareness	COTTLAI 11 1	24/08/2013
29.	Global Meet on Research Perspectives on	GTU, Ahmedabad	18/10/2013
	Nano Science Applied to Passenger Car		
	Engine Tribology in Order to Improve Fuel Efficiency and to reduce the carbon Emission.		
30.	TEQIP-II Sponsored Workshop on Outcome	MED, SVNIT, Surat	24/02/2016
30.	Based Education	WIED, SVIVII, Surat	24/02/2010
31.	TEQIP-II Sponsored Faculty Development	SVNIT, Surat	03/06/2016 to
51.	Programme on Outcome based Teaching-	5 11111, Duian	05/06/2016
	Learning		02,00,2010
	2		

#### Development of Experimental Equipment set up in the Mechanical Engineering laboratory

- 1. Designed and developed a dynamometer for force analysis of simple shaping operation
- 2. Designed and developed the two ton capacity of hydraulic truck for material handling at institute central workshop.
- 3. Developed attachment of various size PRA for advance Tribology equipments to measure of tribological characteristic.
- 4. Designed and developed heat transfer rate by parallel and counter flow in double pipe heat exchanger experiment setup.

#### **Department Admnistration work:**

- 1. Member of departmental time table commetee during 2003-2005
- 2. Departmental exam coordinator during 2013-2015
- 3. PG. Incharge in M. Tech (Mechanical) by research, 2013-2015
- 4. PG. Incharge in M. Tech Mechanical during 2015 to continue
- 5. Member of departmental Ph.D admission committee since, 2011
- 6. Member of M. Tech. Syllabus Revision/Restructuring Committee (M. Tech Mechanical)

#### **Institute Level Admnistration work:**

- 1. Instititue Exam Coordinator
- 2. Formaer Cochairman, Annual Culture programme Sparsh
- 3. Former Cochairman, Sport for student acitiviy
- 4. Institute Accreditation (Washington Accord)
- 5. Former Institute Gymkhana In-charge
- 6. Former Hostel warden
- 7. Member of Procurement committee (TEQIP I, World bank funded project)

### Worked as Lab Incharges:

Sr. No	Name of laboratory	<b>Duration of period</b>	Activities
1.	I. C. Engine Lab	9/2/93 to 31/3/95	Modification and update the Experiments
2.	B.M.S. Lab.	1995 to 2000	Update the experiments setup and prepared new laboratory Manual
3.	Tribology & Maintenance Lab	2000 to 2003	Maintain the experiments set up
4.	HMT lab	2002 to 2010	Updated and procure new experiments setup for UG/PG students.
5.	Tribology & Maintenance Lab	2005 to till date	Upgrade and procure advance tribo test rigs for PG and Research work.

#### **Professional Membership:**

American Society of Mechanical Engineers

Institution of Engineers (LM No.143143-3)

India Indian Society for Technical Education (LM No. 13768)

Tribology Society of India (LM No. 1391)

**Consultancy & Testing:** 

Sr No	Name of Principal	Title of problem	Name of Industries/firm	Amount (Rs.)	Month & Year
NO	faculty			(Ks.)	1 Cai
1.	B. M. Sutaria	Testing & Calibration of temperature Meter	Surat Municipal, Corporation, Vigilance Department, Surat	1500=00	March-2001
2.	B. M. Sutaria	do	M/s Kantilal Bhalal, Surat	1000=00	March-2001
3.	B. M. Sutaria	do	M/s Anish Construction co, Himmatnager	1500=00	March-2001
4.	B. M. Sutaria	do	M/s Royl Builders,Surat	1000=00	April-2001
5.	B. M. Sutaria	do	M/s Kantila Bhalala	1500=00	April-2001
6.	B. M. Sutaria	do	M/s Paulomi Road Buildrers, Pvt,Ltd, Athwalines, Surat	2000=00	April-2001
7.	B. M. Sutaria	do	M/s Royal Builder, Center point,Surat	2000=00	May-2001
8.	B, M. Sutaria	do	M/s Paulomi Road Builders, Pvt,Ltd, Athwalines, Surat	1000=00	Sept-2001
9.	B. M. Sutaria	do	M/s Jitendra G Patel, Sardarnager, Main Road, Rajkot	4000=00	Jan-2002
10.	B. M. Sutaria	do	M/s Anish Construction, Co Himmatnager	4000=00	Jan-2002
11.	B. M. Sutaria	do	M/s Paulomi Road Buildrers, Pvt, Ltd, Athwalines, Surat	3000=00	Jan-2002
12.	B. M. Sutaria	do	M/s Paulomi Road Buildrers,Pvt,Ltd, Athwalines, Surat	1000=00	April-2002
13.	B. M. Sutaria	do	M/s Paulomi Road Buildrers, Pvt, Ltd, Athwalines, Surat	1000=00	Dec-2002
14.	B. M. Sutaria	do	M/s D. S. Patel & Co Balolnager, Mehsana	2000=00	Jan-2003
15.	B. M. Sutaria	do	M/s Paulomi Road, Buildrers, Pvt, Ltd, Athwalines, Surat	2000=00	Feb-2003
16.	B. M. Sutaria	do	M/s Mahendra & Co, Navsari	2000=00	Dec-2003
17.	B. M. Sutaria	do	M/s A. K. Patel Co, Surat	1000=00	Jan-2004
18.	B. M. Sutaria	do	Royal Builder, Center point, Surat	2000=00	Jan-2004
19.	B. M. Sutaria	do	M/s A. K. Patel, Co, Surat	1000=00	Feb-2004
20.	B. M. Sutaria	do	M/s Mahendra Patel, SMS,	2400=00	Nov-2005

			Surat		
21.	B. M. Sutaria	do	M/s Bhavin Construction	1200=00	Nov-2005
			New Civil Road Surat		
22.	B. M. Sutaria	do	Ex. Engineer, South zone, SMS, Surat	2400=00	Nov-2005
23.	B. M. Sutaria	do	M/s Ex. Engineer,	2400=00	Nov-2005
			Muglisara, SMS, Surat		
24	B. M. Sutaria	do	M/s Ex. Engineer, North zone, SMS, Surat	2400=00	Nov-2005
25	B. M. Sutaria	do	M/s Paulomi road & builder pvt, ltd, Surat	4000=00	Dec-2006
25	B.M. Sutaria	do	M/s Shri Classic net work pvt, ltd, Surat	4000=00	Dec-2006
26	B. M. Sutaria	do	M/s Bhavani Construction	2000=00	Dec-2006
27	B. M. Sutaria,	Gas Meter for	Co, Surat  M/s Surya enterprise,	5000=00	Nov-2006
21	R. D. Shah,	Domestic and	Surat Surya enterprise,	3000-00	1107-2000
	S. A.	Industrial	Surur		
	Channiwal	Application.			
28	B. M. Sutaria	Temperature Meter	M/s Mahindra A. Patel, Surat	2000=00	Jan-2007
29	B. M. Sutaria	do	M/s Paulomi road & builder pvt, ltd, Surat	4000=00	Oct-2007
30	B. M. Sutaria	do	Ex. Engineer SMC, North	2000=00	Oct-2007
31	B. M. Sutaria	do	Zone, Surat  Executive Engineer, South	4000=00	Nov-2009
31	D. W. Sutaria	uo	Zone, SMC, Surat	4000-00	1101-2009
32	B. M. Sutaria	do	Executive Engineer, Weast	4000=00	Oct-2010
			Zone, SMC, Surat		
33	B. M. Sutaria	do	M/S Paulomi road &	4000=00	Dec2010
			builder pvt, ltd, Surat		
34	B. M. Sutaria	do	M/s Paulomi road &	4000=00	Nov2011
25	D M Cystonia	O:1 Tos4	builder pvt, ltd, Surat	12500-00	A guet 2012
35	B. M. Sutaria D. V. Bhatt	Oil Test	M/s L & T, Hazira, Surat	12500=00	Agust-2012
36	B. M. Sutaria	Metal	M/s. Gurukrupa	2250=00	June - July,
		composition of	Fabrication works,		2013
		given samples	Udhana, Surat		
37	B. M. Sutaria	Proof checking	M/s Rajkmal Builder	1,01250=00	September-
	A. K. Desai	services for	infrastructure Pvt Ltd,		October,
	C.D. Modhera	launching	54, Park hill Society, Nr.		2013
		scheme for steel	Heaven park society,		
		girder for railway over	Ramdevnagar, Ahmadabad- 280 015,		
		railway over bridge on	Aiiiiauauau- 200 013,		
		Bagodra- Vasad			
		-Tarapur Road			
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38	A.K. Desai	Condition	M/s Recycling Solution	1,77,650/-	March-
	B. M. Sutaria	Assessment of	Private Limited,		April,
	J. V. Meghani	Mild steel	Plot No.223, GIDC Estate,		2016
		storage Tanks	Panoli, Dist: Bharuch,		
		(14 No)	Gujarat		
39	B. M. Sutaria	Weight	M/s Sjreeji Construction	3500=00	06/01/2017
	A. B. Makwana	Machine -02	Co. Ltd, Bhatar, Surat		
			Weight machine for the		
			calibration – 50 Kg.		
40	B. M. Sutaria	Temperature	M/s J. M. shah & M/s	25000=00	11/01/2017
	A. B. Makwana	meter -07	Sjreeji Construction Co.		&
			Ltd, Bhatar, Surat		13/01/2017