

## BIO DATA



Name :- Ashok Dhirajlal Parekh

Address :- E-407 , Pragatinagar, Piplod. Surat-395007

Position :- Associate Professor

Date of Joining Institute : 04-01 -1996

Date of Joining Present Position: 04-01-2009

Date of Birth : 05-08-1996

Date/ year of Ph.D. degree: 11-01-2012

### **Qualification:**

<b>Degree</b>	<b>University</b>	<b>Year</b>	<b>Specialization</b>
<b>Ph.D</b>	<b>SVNIT, Surat</b>	<b>2012</b>	<b>Refrigeration</b>
<b>M.E (Mechanical)</b>	<b>South Gujarat University</b>	<b>1999</b>	<b>Turbo Machines</b>
<b>B.E (Mechanical)</b>	<b>M.S University</b>	<b>1991</b>	<b>Mechanical</b>

### **Experience :**

<b>University / College/Industry</b>	<b>Designation</b>	<b>Period</b>
SVNIT, Surat	Associate Professor	04-01-2009 to till date
SVNIT, Surat	Lecturer	04-01-96 to 03-01-2009
Capiq engineering Pvt. Ltd	Manufacturing engineer	Nov-1994 to Dec-1995
Supreme conchem ltd	Quality control engineer	June-1993 to November-1994
Gujarat cycles limited	Quality control engineer	Feb-1991 to May-1993

### **Subjects taught and Research Area of Interest:**

Refrigeration and Air conditioning  
Advanced Refrigeration and Air conditioning  
Thermodynamics  
Fluid Mechanics  
Fluid Machines  
Thermal Power Plant Engineering  
Thermal Turbomachines  
Exergy Analysis of Thermal system  
Basic Mechanical System  
Engineering Drawing

**Research Publication :**

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

Publication	Numbers
International Journal	12, 1 – under revision
National Journal	-
International Conference	20
National Conference	6

**Countries visited (International conference/University):** USA,Canada,France,UAE**No. of M. Tech. / Ph.D. guided with details (Please attach list of Dissertation/ Thesis) :**

M. Tech. : 26 Completed + 02 On going, Ph.D. : 03 On going

**MODROB/R&D Project (Funded by various aGENICES) :**

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
Modernization of Refrigeration and Air conditioning	MHRD - National	A D Parekh P R Tailor	7 lakh	31-03-2003	completed

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

Sr.No	Title of Programme	Month and Year	No. of Participants
1	TEQIP –II sponsored one week short term training programme on “ Basics and development in Refrigeration and Air conditioning	Feb-March-2017	40
2	One day Expert Lecture series by IIT Professors	November 2013	M.Tech students (80)
3.	One day curriculum review workshop" for M.Tech (TSD)	21 <sup>st</sup> September 2013	40

**Consultancy & Testing :****(a) Consultancy :**

Title of Project /work	Agenices	Team of Faculty	Amount	Date
Stability analysis of floating platforms	Gujarat Industrial power company Ltd Mangrol, Surat	A D Parekh, J. Banerjee	Rs 25000/-	05-04-06
Stability analysis of	Gujarat Industrial	A D Parekh,	Rs 25000/-	05-07-08

floating platforms	power company Ltd Mangrol, Surat	J. Banerjee		

**(b) Testing :**

Title of Project /work	Agenices	Team of Faculty	Amount	Date
Calibration and testing of V-Notch meter	M/s Laxmiprasad pumps Pvt.Ltd	A.D Parekh A.V Doshi	Rs 5500/-	14-11-05
Calibration of flowmeters	M/s Surat Municipal corporation	A.D Parekh A.V Doshi	Rs 3000/-	02-03-02
Determination of Flash and Fire point of oil		A.D Parekh	Rs.3000/-	2001

**Award/Prize**

Received ISTE National Award for guiding the Best M.Tech dissertation entitled “Thermodynamic Analysis and Optimization of R507A-R23 cascade refrigeration system” in Mechanical Engineering at 40<sup>th</sup> ISTE National Annual Convention 2010, Mepco Engineering College, Sivakashi, TamilNadu, 2-4 December -2010.

**Research Publications**

**International Journal**

Sr.No	Name of Faculty Member	Title of the Paper	Publication Details
1	Vipin nair, A.D Parekh	R718 based nanorefrigerants for building air conditioning :- A Thermal conductivity study	Journal of building engineering (Special issue of HVAC), Under revision, <a href="#">Elsevier publication</a>
2	Vipin nair, A.D Parekh	Nanorefrigerants:-A comprehensive review on its past,present and future	International Journal of Refrogeration 67 (2016), 290-307, <a href="#">Elsevier publication</a>
3	Hitesh R. Thakare, Ashok.D. Parekh	Experimental investigation & CFD analysis of Ranque–Hilsch vortex tube	Energy, Volume 133, 2017, Pages 284-298, <a href="#">Elsevier publication</a>
4	H.R. Thakare, A.D. Parekh	CFD analysis of energy separation of vortex tube employing different gases, turbulence models and discretisation schemes	<a href="#">International Journal of Heat and Mass Transfer 78 (2014) 360–370, Elsevier publication</a>
5	H.R. Thakare, A.D. Parekh	Computational analysis of energy separation in counter flow vortex tube	<a href="#">Energy 85 (2015) 62 to77, Elsevier publication</a>

6	H.R. Thakare, Aniket Mounde, A.D. Parekh	Experimental, computational and optimization studies of temperature separation and flow physics of vortex tube: A review	Renewable and Sustainable Energy Reviews 52 (2015) 1043–1071, <a href="#">Elsevier publication</a>
7	Hitesh R. Thakare, Aniket Monde, Bhushan S. Patil, A. D. Parekh	Numerical Investigation of Flow Characteristics in Counter Flow Vortex Tube	Procedia Engineering 127 (2015), 170 – 176, <a href="#">Elsevier publication</a>
8	A. D. Parekh, P. R. Tailor	Thermoeconomic Optimization of Cascade Refrigeration System using Refrigerant Pair R404A-R508B	International Journal of Applied Mechanics and Materials , Vols. 110-116 (2012) pp 677-684
9	A. D. Parekh, P. R. Tailor	Thermodynamic Analysis of R507A-R23 cascade refrigeration system	International Journal of Aerospace and Mechanical engineering, World Academy of science, engineering and Technology (Waset) Volume 6 , Issue 1, pp 35-39, 2012
10	A. D. Parekh, P. R. Tailor	Numerical Simulation of Heat Exchanger Area of R410A-R23 and R404A-R508B Cascade Refrigeration System at Various Evaporating and Condensing Temperature	International Journal of Engineering and applied science, World Academy of science, engineering and Technology (Waset), Volume 7 ,Issue 1, pp 35-39, 2012
11	A D Parekh, P R Tailor	Parametric study of R-404A/R-508B cascade refrigeration system	International Journal of Emerging Technologies and applications in engineering, Technology, and sciences, Volume 3, Issue 1, 2010 , pp 597-601.
12	A D Parekh, P R Tailor	Assessment of Refrigerants alternate to R-12	International Journal of Emerging Technologies and applications in engineering, Technology, and sciences, Volume 3, Issue 1, 2010 , pp 112-116.
13	A. D. Parekh, P. R. Tailor	Optimization of R507A-R23 cascade refrigeration system using Genetic Algorithm	Special Journal Issue of World Academy of science, engineering and Technology (Waset), Issue : 70, pp. 4-8 October-2010.

## International Conferences:

Sr. No	Name of Faculty Member	Title of Paper	Conference Details
1	A.D. Parekh, V. Nair, P.R. Tailor	Theoretical investigation of the thermophysical properties of a R141b based nanorefrigerant- A comparative Analysis	10th International Conference on Innovations in Science, Engineering, Computers and Technology (ISECT-2017) Dubai (UAE) Oct.17-19, 2017
2	Hitesh R. Thakare, Aniket Monde, Bhushan S. Patil, A. D. Parekh	Numerical Investigation of Flow Characteristics in Counter Flow Vortex Tube	Proceedings of the International Conference Computational on Heat and Mass Transfer, National Institute of Technology Warangal, India – Nov 30-Dec 2, 2015, Paper No. 1439877927
3	A D Parekh, P.R Tailor	Thermal Design of condenser using ecofriendly refrigerants R404A-R508B for cascade refrigeration system	International Conference on “Mechanical, Production and automobile engineering” (ICEHBEE-2013), October 6-7, 2013, Dubai, UAE
4	A.D Parekh, P.R Tailor	Thermodynamic Analysis of cascade Refrigeration system using R12-R13, R290-R23 and R404A-R23	International Science conference, August 7-8, 2014, Vancouver, Canada
5	Hitesh R Thakare , Aniket Mounde, A.D Parekh	3D CFD analysis of vortex tube	4 <sup>th</sup> International Conference on “Recent Trends in Engineering and Technology” (ICRTET-2015), July 2-4, 2015, SNJB’s Late Sau.K.B Jain college of engineering, Nashik, MS
6	A D Parekh, P.R Tailor, Vinod Shewale	Application of genetic algorithm for optimization of shell & tube heat exchanger	Proceedings of the 37th National & 4th International Conference on Fluid Mechanics and Fluid Power, December 16-18, 2010, IIT Madras, Chennai, India, FMFP10, HT – 21.
7	A D Parekh, P.R Tailor	Simulation and modeling of cascade refrigeration system	International Conference on “Frontier in Mechanical Engineering”, National Institute of Technology Karnataka, Surathkal, FIME-2010, 20-22 May 2010.
8	A D Parekh, P.R Tailor	Design of capillary tube and effect of length of its on performance of refrigeration system	International Conference on “Frontier in Mechanical Engineering”, National Institute of Technology Karnataka, Surathkal, FIME-2010, 20-22 May 2010.
9	A D Parekh, P.R Tailor	Energy and exergy analysis of cascade refrigeration system	International Conference on “Frontier in Mechanical

Sr. No	Name of Faculty Member	Title of Paper	Conference Details
		using different refrigerant pair	Engineering”, National Institute of Technology Karnataka, Surathkal, FIME-2010, 20-22 May 2010.
10	A D Parekh, P.R Tailor	Thermoeconomic Optimization of Cascade Refrigeration System using Refrigerant Pair R404A-R508B	International Conference on Mechanical and Aerospace Engineering (ICMAE) 2010, IEEE conference, 26-28, November, 2010, Kuala Lumpur, Malasia 2010.
11	A D Parekh, P.R Tailor	Numerical simulation of R410A-R23 and R404A-R23 cascade refrigeration system	International Conference of Fluid and Thermal Engineering”, World Academy of science, engineering and Technology (Waset), 27-29 October, 2010, Paris, France
12	A D Parekh, Vinod Shewale	Heat pipes thermal analysis during cooling cycle with thermal storage	3 <sup>rd</sup> International Conference on “Advances in Mechanical Engineering”, S.V. National Institute of Technology, Surat – 395007, Gujarat, India, January 4-6, 2010.
13	A D Parekh, P.R Tailor	Thermodynamic analysis of two - stage vapour compression refrigeration system	International Conference on Emerging Research and Advances in Mechanical Engineering, ERA 2009 Velammal Engineering College, Chennai – 600066, Tamilnadu, India, March 19-21, 2009, TE-65
14	A D Parekh, P.R Tailor	Thermodynamic Analysis of R-404A-R508B cascade Refrigeration system	2 <sup>nd</sup> International Conference on “Advances in Mechanical Engineering”, S.V. National Institute of Technology, Surat – 395007, Gujarat, India, August 3-5, 2009, TF-1, pp.1-5.
15	A D Parekh, P.R Tailor	Some studies on performance of axial flow fan	International Conference on Recent Trends in Mechanical Engineering (ICRTME 2007), Ujjain Engineering College, Ujjain (M.P), India, October 4-6, 2007.
16	A D Parekh, P.R Tailor	Assessment of refrigerants alternate to R-12	International Conference on Recent Trends in Mechanical Engineering (ICRTME 2007), Ujjain Engineering College, Ujjain (M.P), India, October 4-6, 2007.
17	A D Parekh, J Banerjee	Heat transfer augmentation by pin fins of various cross section	2006 ASME International Mechanical Engineering Congress and Exposition, Chicago, USA, 5-10 November, 2006.

Sr. No	Name of Faculty Member	Title of Paper	Conference Details
18	A.D Parekh, Samip Shah	Finite element analysis of axial fan rotor by I-deas	14 <sup>th</sup> ISME International Conference On “Mechanical Engineering in knowledge age”, Delhi College of Engineering, Delhi, Dec 12-14, 2005
19	A.D Parekh, Samip Shah	Flow analysis of axial flow fan	14 <sup>th</sup> ISME International Conference On “Mechanical Engineering in knowledge age”, Delhi College of Engineering, Delhi, Dec 12-14, 2005
20	A D Parekh, P.R Tailor, H.R Jivanramajiwala	Performance assessment approach and Techno-economical analysis for energy conservation of industrial fan in cement industry : A case study	Energy conservation and Management - 2010, Book, Narosa Publishing house, New Delhi, ISBN : 9788184870787

### National Conferences

Sr.No	Name of Faculty Member	Title of the Paper	Publication Details
1	Hitesh R Thakare , A D Parekh	Liquid Desiccant Based Deciccant- Enhanced Evaporative Air conditioner	39 <sup>th</sup> National conference on Fluid Mechanics and Fluid power, 13-15 December 2012, SVNIT, Surat
2	A. D. Parekh	Energy and exergy analysis of Captive power plant	National Conference on “Advances in Mechanical Engineering”, March 18-19, 2006, Engineering College,Kota.
3	A. D. Parekh	Analysis of Heat Transfer in Pin Fins under steady State	National Conference on “Advances in Mechanical Engineering”, March 18-19, 2006, Engineering College,Kota
4	A. D. Parekh	Performance Evaluation of Axial Flow Fan	National Conference on “Advances in Mechanical Engineering”, March 18-19, 2006, Engineering College,Kota
5	A D Parekh, B.M Sutaria	A Study of Residual life assessment of boiler	XIV <sup>th</sup> Nasas National Seminar on “Fatigue, Fracture & Ageing Structure” at National Institute of Technology, Nagpur, January 30-31, 2006.
6	A D Parekh, B.K.Murali	Energy & Exergy Analysis of Combined Cycle Power plant	National Seminar on “Energy Conservation in Thermal Power Plant- Recent Trend”, Center for Power Research Institute, Trivendrum, October 7-8, 1999

## M.Tech Dissertation Guided

Sr. No	Year	Branch/Stream	Name of student	Dissertation title
1	2017-18	M.Tech (TSD)		
2	2017-18	M.Tech (TSD)		
3	2016-17	M.Tech (TSD)	Piyush Joshi	Heat Transfer enhancement using various R718 based Nanorefrigerants in Air Handling Unit
4	2016-17	M.Tech (TSD)	Anupam Kanoija	Numerical Simulation condensation heat transfer in Mini Channels
5	2015-16	M.Tech (TSD)	Ahula Suresh	Investigation and improvement of ejector refrigeration system using computational fluid dynamics technique
6	2015-16	M.Tech (TSD)	AshutoshKumar Gupta	Simulation and performance optimization of finned tube gas cooler for Trans-critical CO2 Refrigeration system in Indian Contex
7	2015-16	M.Tech (TSD)	Shahrukh Beg	Numerical Simulation of Adiabatic capillary tube
8	2014-15	M.Tech (TSD)	Aniket Dilip Monde	Numerical Analysis of Ranque Hilsch Counter flow vortex Tube
9	2014-15	M.Tech (TSD)	Sarvajeet Kumar	Studies on air cooled condenser of vapour compression refrigeration system using Refrigerants R290,R22,R410A & R134a
10	2013-14	M.Tech (TSD)	Prience Vishwakarma	Theoretical and Experimental investigation of boiling heat transfer coefficient of refrigerant flowing through horizontal tube
11	2013-14	M.Tech (TSD)	Vijay Raj Paliania	Theoretical and Experimental investigation of ccondensing heat transfer coefficient in horizontal smooth tube
12	2012-13	M.Tech(TSD)	H.R Thakare	Numerical Simulation of temperature separation and flow characteristics of vortex tube
13	2011-12	M.Tech (TSD)	Kadam Kiran Ashok	Thermodynamic analysis and optimization of cascade refrigeration system using alternate refrigerants
14	2011-12	M.Tech (TSD)	Ramakrishna Vanukuru	Optimization heat exchangers by entropy generation minimization and genetic algorithm
15	2010-11	M.Tech (TSD)	Poshendra Khute	Thermodynamic analysis and optimization of cascade refrigeration system using refrigerants pairs R134a-R23 and R290-R23
16	2010-11	M.Tech (TSD)	Reena Makadia	Energy and exergy analysis of cogeneration power plant
17	2010-11	M.Tech (TSD)	Tushar Mahajan	Design and optimization of cascade refrigeration system
18	2009-10	M.Tech (TSD)	Nirav Sutaria	Exergy Analysis and Thermo-economic optimization of actual cascade refrigeration system
19	2009-10	M.Tech (TSD)	Vinod Shewale	Design and optimization of Shell and tube heat



				exchanger
20	2009-10	M.Tech (TSD)	Tarachand V	Analysis of combined cycle power plant
21	2009-10	M.Tech (TSD)	Tejendra Patel	Design, simulation and fuzzy modeling of multi-stage vapour compression refrigeration system
22	2009-10	M.Tech (TSD)	Hemang Jivanramajiwala	Thermodynamic analysis and optimization of R507a-R23 cascade refrigeration system
23	2008-09	M.Tech (TSD)	Oza Virang H.	Thermodynamic analysis and optimization of cascade refrigeration system
24	2008-09	M.Tech (TSD)	Gaurav P. Kakkad	Performance analysis of single stage vapour compression refrigeration system by substitute of R12
25	2006-07	M.E (Mech) Turbo M/c	Pudi Ajay Kumar	Numerical experimentation on axial flow fan towards achieving optimal performance
26	2003-04	M.E (Mech) Turbo M/c	Samip Shah	Performance evaluation, Flow analysis, vibration and stress analysis of axial flow fan
27	2002-03	M.E (Mech) Turbo M/c	Hetal Patel	Energy and exergy analysis of cogeneration power plant
28	2001-02	M.E (Mech) Turbo M/c	Rakesh Patel	Energy and exergy analysis of captive power plant

#### **Interaction with outside World:**

1. Faculty coordinator for ISHRAE student chapter of SVNIT.
2. Educational tour for students of B.Tech III (Mech) at sardar Sarovar Dam, Kevadiya colony on 25-10-2007.
3. Educational tour for students of B.Tech III (Mech) at Ukai Thermal power station.
4. Visited GIPCL, Bharuch, Laxmi Pumps Navsari for testing and consulting related work.
5. Visited surrounding industries as part of academic activities.
6. Dissertation examination at L.D Engineering college, Ahmedabad in 2008.
7. Visiting faculty to Sarvajanic college of Engg. & Tech and Pithawala College of Engg. & Tech.
8. Visit to university abroad and discussion with faculties
9. Presented research paper at international conference abroad and Session chair at International conference abroad