



***Dr. Rupesh Dineshbhai Shah***

**RESUME**

**PERSONAL:**

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**Designation** : Assistant Professor  
**Contact Address** : Mechanical Engineering Department,  
S.V. National Institute of Technology,  
Ichchhanath, Surat, Gujarat, India -395007.  
**Date of birth** : 16<sup>th</sup> April, 1976.  
**Nationality** : Indian  
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**EDUCATIONAL QUALIFICATION:**

Sr. No.	Year	Title	School/University	Result	
				Percentage	Grade
1	July 2014	Ph. D.	National Institute of Technology, Surat, Gujarat.		9.67 SGPA In course work
2	2002	M.E.(Mech./Auto mobile) (Sem.-III)	V.J.T.I., Mumbai.	87.33	Distinction
3	2001	M.E.(Mech./Auto mobile) (Sem.-II)	V.J.T.I., Mumbai.	70	Distinction
4	2001	M.E.(Mech./Auto mobile) (Sem.-I)	V.J.T.I., Mumbai.	71	Distinction
5	1997	B.E.(Mech.)	R.E.C., Surat.	72	Distinction
6	1993	H.S.C.	Gujarat secondary Education Board.	70	Distinction
7	1991	S.S.C.	Gujarat Secondary Education Board.	77	Distinction

**EXPERIENCE:**

Sr. No.	Duration	Organization	Designation
1	Since 1/01/06	S.V.National Institute of Technology, Surat (Gujarat)	Assistant Professor
1	1/08/02 to 31/12/05	S.V.National Institute of Technology, Surat (Gujarat)	Lecturer
2	9/04/02 to 24/07/02	Nirma Institute Of Technology, A'bad.	Lecturer
3	2/8/99 to 30/6/2000	R.E.C., Surat (Gujarat)	Lecturer
4	1/9/98 to 1/8/99	Infoware Computer Technology, Surat.	Faculty
5	14/8/97 to 13/8/98	Citurgia Bio-Chemical. Ltd, Surat.	Trainee Engineer

**SPONSORED RESEARCH PROJECT UNDERTAKEN :**

Sr. No.	Title	Sponsoring	Fund sanctioned	Duration	Status
1	Towards development of an upward swirl can type gas turbine combustor	ARDB, New Delhi	Rs. 19.45 Lacs	Sept. 2010-March 2013	Completed
2	Parametric Investigation on Upward Swirl Can Type Gas Turbine Combustor	ARDB, New Delhi	Rs. 20.12 Lacs	Dec. 2014-Dec 2016	Ongoing

**TESTING AND CONSULTANCY:**

Sr. No.	Title	Sponsoring	Fund sanctioned	Duration	Status
1	Efficiency Evaluation of gas burner for domestic and industrial application.	M/s Surya Enterprise, Surat	Rs. 5000/-	Nov 2006	Completed

**RESEARCH PUBLICATION****Journal**

Sr. No.	Title of Paper	Name of Journal	Vol.No., Issue No. , Page No. Year
International Journal			
1	A relative assessment of sub grid scale models for large eddy simulation of co-axial combustor	Journal of Mechanical Science and Technology, Springer	Vol.26(6) , pp. 1753-1763, 2012.
2	Thermal and Emission Characteristics of a CAN Combustor	Journal of Heat and Mass Transfer,	DOI 10.1007/s00231-015-1572-9 Published Online April 2015

National Journal			
1	An Isothermal Investigation on the Effect of Swirl Intensity on Combustor Flow Regime	The IUP Journal of Mechanical Engineering , The ICFAI University Press	Vol. IV, No.3,pp 7-21, August 2011
2	Isothermal Analysis of CAN Type Combustor Using Five Hole Probe	The journal of Institute of Engineers(India):Series C	DOI 10.1007/s40032-012-0042-0 Published Online December 2012

### Conference

Sr. No.	Title of Paper	Name of Conference	Page Nos. Volume, Issue No. & Year
International Conference			
1	Thermal Analysis for Optimization of Shape and Arrangement of Fins in Heat Sink	3 <sup>rd</sup> International Conference on Fluid Mechanics and Fluid Power December	Paper No: NCFMFP-2006-1725, Year 2006
2	Prediction of Ductile Fracture for simple Upsetting Operation Using Genetic Programming	Recent Advances in Computational Mechanics and Simulations (ICCMS-06)	Volume-I ,page 355-361, 8-10 December 2006
3	Application of Finite Element Method and Artificial Neural Network to the design tooling for tube nose operation	Recent Advances in Computational Mechanics and Simulations (ICCMS-06)	page1039-1045,8-10 December 2006
4	CFD analysis of pin-fin heat sinks for radial flow domain	International conference on recent development in mechanical engineering	Page 243 -251 , 23-25 January 2008
5	Effect of radiation on flow regime in CAN Type Combustor.	2 <sup>nd</sup> National and 9 <sup>th</sup> International ISHMT-ASME Heat and Mass Transfer Conference	January 4-6,2010, Mumbai, India. ISBN:978-981-08-3813-3
6	Relative Assessment of Radiation models for Gray Isotropic Scattering Medium	21st National and 10th International, ISHMT-ASME Heat and Mass Transfer Conference	ISHMT_IND_02_022, December 27-30, Madras, India, 2011
National conference			
1	Estimation of Pressure Distribution in Inclined Hydrodynamic Pad Bearings using MATLAB with Finite Element Analysis.	Advances in Mechanical Engineering,ECKAME-2006-02-21	Kota, March 18-19,2006
2	Three-Dimensional Near – Field Flow Analysis of a car For Drag Reduction	Advances in Mechanical Engineering AIME-2006	Page No. 246-255, Year 2006
3	Finite Element Analysis of pin fin	Application of Advanced Quality methods in Engineering and Technology – AAQMENT-2006	February 23-24, 2006

4	Experimental and Numerical simulation of flow over a NACA 0018 airfoil	Application of Advanced Quality methods in Engineering and Technology – AAQMENT-2006	February 23-24, 2006
5	A Study of Residual Life Assessment of Boiler	NASA : Fatigue , Fracture and Ageing Structures	Page No. 401-409. January 30-31,2006
6	A Parametric Study on Friction Welding	National Conference on in National Conference on Recent Advances in Manufacturing Technology RAMT-2006	Page No.. 77-81,February 3,2006
7	Analysis of Heat Transfer in Fins Under Steady State	National Conference on Advances in Mechanical Engineering ECKAME-2006	March,18-19,2006
8	CFD Simulation of two dimensional gas turbine combustor geometries	National conference on emerging Trends in mechanical Engineering (ETME-2007)	Paper No. TH21, 4 <sup>th</sup> -5 <sup>th</sup> June ,Year 2007
9	Dynamics Effects of Cross-Winds on a car as it Negotiates a Turn	National Conference on Advances in Fluid Flow and Thermal Science	Paper No.:F03, Page No. F17-F26, 22 <sup>nd</sup> -24 <sup>th</sup> May 2008
10	Numerical Simulation of Turbine Blade Cooling	3 <sup>rd</sup> National Conference on Current trends in Technology (NUCONE-2008). Nirma University of science and Technology,	Page No. 549-553, 27 <sup>th</sup> - 29 <sup>th</sup> November 2009, Ahmedabad, India
11	Three Dimensional Vortical Flow Analysis of A Can Type Combustion Chamber	38th National Conference Fluid Mechanics and Fluid Power (FMFP-2011)	Paper No. HT-06, MANIT Bhopal, M.P., India, 15-17 December 2011.
12	Three dimensional reactive flow analysis of a CAN type combustor	National Propulsion Conference	21-23 February 2013, IIT Madras, Chennai, India.

### **BOOK/PROCEEDING EDITED**

1. Proceeding of National conference on “Advances on Fluid Flow and Thermal Sciences”, S. V. National Institute of technology ,Surat , May 22nd -24th 2008.
2. Book of abstracts for 39th National Conference on “Fluid Mechanics and Fluid Power”, S.V. National Institute of Technology, Surat, 13-15 December 2012.

### **SEMINAR ATTENDED**

1. National Seminar on Partial Differential Equation and Scientific Computing (NSPDESC-2006) held on , January 2006 at Department of Mathematics, Veer Narmad South Gujarat University, Surat.

### **SEMINAR/WORKSHOP ORGANISED:**

1. Three-Day Workshop on “Introduction to Computational Fluid Dynamics”, S.V. National Institute of Technology, Surat, 10-12 May 2006.
2. AICTE approved STTP on “Computational Fluid Dynamics: Basics and Applications” from 7<sup>th</sup> to 11<sup>th</sup> July 2008 , SVNIT, Surat.
3. AICTE approved STTP on “Computational Fluid Dynamics for Engineers” 1<sup>st</sup> -5<sup>th</sup> February 2010, SVNIT, Surat.
4. ISTE approved 2-week workshop on “Computational Fluid Dynamics”,12-22 June 2012, SVNIT, Surat.
5. TEQIP-II sponsored Continuing Education Program on “Computational Fluid Dynamics: Theory and Practice”, 30<sup>th</sup> June to 4<sup>th</sup> July 2014, SVNIT, Surat.
6. TEQIP-II sponsored 2<sup>nd</sup> Continuing Education Program on “Computational Fluid Dynamics: Theory and Practice”, 15<sup>th</sup> to 19<sup>th</sup> June 2015, SVNIT, Surat.

### **NATIONAL CONFERENCE ORGANIED**

1. National conference on “Advances on Fluid Flow and Thermal Sciences”, S. V. National Institute of Technology, Surat, May 22<sup>nd</sup> -24<sup>th</sup> 2008, SVNIT, Surat.

### **EXPERT LECTURE DELIVERED:**

1. **Modeling computational domain and creating the meshes** in Three Day Workshop on “Introduction to Computational Fluid Dynamics”, S.V. National Institute of Technology, Surat, 10-12 May 2006.
2. **Setting up the CFD problem, Execution, Monitoring and Interpretation of Results** in Three Day Workshop on “ Introduction to Computational Fluid Dynamics ”, S.V. National Institute of Technology, Surat, 10-12 May 2006

3. **About Computational Fluid Dynamics**, at N. G. Polytechnic, Isroli, Afwa, Bardoli, Surat. On 20<sup>th</sup> July 2006.
4. **Theoretical Aspects of Finite Element Method** in AICTE approved STTP on “Recent Trends in CAE”, 30<sup>th</sup> June to 4<sup>th</sup> July 2008, SVNIT, Surat.
5. **Finite Element Method** in AICTE approved STTP on “Computational Fluid Dynamics: Basics and Applications” 7<sup>th</sup> to 11<sup>th</sup> July 2008, SVNIT, Surat.
6. **Two Dimensional Modeling and Meshing** in AICTE approved STTP on “Computational Fluid Dynamics: Basics and Applications” 7<sup>th</sup> to 11<sup>th</sup> July 2008, SVNIT, Surat.
7. **Three Dimensional Modeling and Meshing** in AICTE approved STTP on “Computational Fluid Dynamics: Basics and Applications” 7<sup>th</sup> to 11<sup>th</sup> July 2008, SVNIT, Surat
8. **Solution and Post Processing** in AICTE approved STTP on “Computational Fluid Dynamics: Basics and Applications” 7<sup>th</sup> to 11<sup>th</sup> July 2008, SVNIT, Surat
9. **Fundamentals of Combustion and Numerical Simulation of Combustion** in AICTE approved STTP on “Advances in Heat Transfer” 25<sup>th</sup> to 29<sup>th</sup> November 2009, Parul Institute of Engineering and Technology, Vadodra.
10. **Basics of Finite Element Method** in AICTE approved STTP on “Training Program on Hypermesh and Hyperform” 5<sup>th</sup> to 9<sup>th</sup> January 2009, SVNIT, Surat.
11. **Fundamentals of Numerical Methods** in AICTE approved STTP on “Advanced application of FEM” 18<sup>th</sup> to 22<sup>nd</sup> January 2010, SVNIT, SURAT.
12. **Basics of FEM** in AICTE approved STTP on “Advanced application of FEM” 18<sup>th</sup> to 22<sup>nd</sup> January 2010, SVNIT, SURAT.
13. **Discretisation Method: FEM** AICTE approved STTP on “CFD for Engineers” 1<sup>st</sup> to 5<sup>th</sup> February 2010, SVNIT, SURAT.

14. **CFD Using Finite Element Methods** in AICTE approved STTP on “Application of Computational Fluid Dynamics in Mechanical Engineering”, 10<sup>th</sup> -14<sup>th</sup> May, 2010.
15. **Fundamentals of Dynamic Analysis of Mechanical System using ANSYS** in Training Program on Finite Element Analysis, Anchor Institute Cell, 9<sup>th</sup> to 13<sup>th</sup> June 2010.
16. **Application of Finite Element Analysis to Thermal Problems** at in AICTE approved one week STTP at R K. University, Rajkot, December 26, 2011.
17. **Solution of Transient and moving load problem using FEM** in Training Program in Advanced Finite Element Analysis, SVNIT, Surat, 12-13 May 2012.

### **REVIEWER**

1. ASME Gas Turbines India Conference 2012, December 1, 2012, Mumbai Maharashtra, India. (One paper reviewed. Paper No. GTINDIA2012-9650)
2. National Conference on Fluid Mechanics and Fluid Power, 2012, SVNIT, Surat, Gujarat, India. (Five papers reviewed. Paper No. FMFP2012116, 101, 6, 222 and 150)
3. ASME Gas Turbines India Conference, December 15-17, 2014, New Delhi, India. (Three paper Reviewed. Paper No. GTINDIA2014-8138, 8212 and 8239)

### **EXPERT MEMBER**

1. Expert Member for GTU Interview Panel for recruitment of Assistant Professor in Mechanical Engineering Department at Shree Swami Atmanand Saraswati Institute of Technology Surat on 6<sup>th</sup> August 2014

### **M. E. / M. TECH DISSERTATION GUIDED**

<b>1</b>	FEM Analysis of PAD Bearing
<b>2</b>	Thermal Analysis of Heat-Sink
<b>3</b>	CFD Simulation of Turbine Blade Cooling
<b>4</b>	CFD Simulation of Can Type Gas Turbine Combustor
<b>5</b>	Tube Sheet Analysis
<b>6</b>	Flow Visualization in 2-D Can Type Combustor and Non-Premixed Combustion Analysis of 3-D Can-Type Combustor.
<b>7</b>	Numerical Investigation of Combustion of Methane-Hydrogen Fuel Mixtures in CAN Type Combustor
<b>8</b>	Isothermal Analysis and Development of CAN Type Combustor for Flow Visualization
<b>9</b>	Numerical Simulation of Shell and Tube Type of H.E.
<b>10</b>	Numerical Simulation of Flow Boiling and Experimental Analysis to Visualise Flow Pattern
<b>11</b>	Acoustic Analysis of Heat Exchanger Using CFD.

<b>12</b>	Numerical and Experimental Investigation on CAN Type Combustion Chamber
<b>13</b>	Large Eddy Simulation of Gas Turbine Combustion Chamber.
<b>14</b>	Shape Design Optimisation of Connecting Rod Using ANSYS
<b>15</b>	Numerical Analysis of Solid Oxide Fuel Cell
<b>16</b>	Simulation of Gas Turbine Combustion Chamber
<b>17</b>	Numerical and Experimental Investigation of CAN type Combustion Chambers
<b>18</b>	Effect of Radiation on combustor flow regime
<b>19</b>	Large Eddy Simulation of Gas Turbine Combustion Chamber
<b>20</b>	Numerical and Experimental Investigation of CAN type combustion chamber.
<b>21</b>	Flow induced vibration analysis
<b>22</b>	Experimental and numerical investigation centrifugal pump performance in reverse mode
<b>23</b>	Experimental study of pump performance characteristics in reverse and pump mode
<b>24</b>	Numerical Investigation of CAN Type Combustor
<b>25</b>	Numerical Simulation of Moving Heat Source
<b>26</b>	Loss Models and Performance Evaluation of Centrifugal Pump
<b>27</b>	Experimental and Numerical Investigation of Centrifugal Pump Performance
<b>28</b>	Numerical and Experimental Analysis of Open Non-Premixed Swirl Stabilised Flame
<b>29</b>	Numerical Simulation of Direct Injection Engine
<b>30</b>	Numerical Simulation of Moving Heat Source