

## Detailed CV

**Name** : Vivek Kumar Patel

**Designation** : Assistant Professor

**Date of Birth** : July 02, 1984

**Nationality** : Indian



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### Academic Background:

Course	College/ University	Year	Percentage/CPI & Div.
<b>Ph.D.</b> (Thermo-Fluids Engg.)	I.I.T. Delhi	2014 <sup>#</sup>	9.57*
<b>M.Tech.</b> (Fluids Engg.)	Motilal Nehru N.I.T. Allahabad	2009	9.08 (Gold Medalist)
<b>B.E.</b> (Mechanical Engg.)	Dr. B. R. Ambedkar University, Agra	2007	79% (1 <sup>st</sup> with Hons.)

<sup>#</sup> expected (pursuing since July 2009)

\*Course work

**Fields of Interest** : Fluid Mechanics: CFD, Turbulence, PIV, Thermo-fluids Engg.,  
Flow Instrumentation and G.T. Combustor

**Achievement** : First position in M.Tech. Applied Mechanics Department

**Membership** : Life Member, National Society of Fluid Mechanics and Fluid Power

### Professional/Research/Teaching Experience:

No.	Name of the Institute	Post Held	Duration
1.	Motilal Nehru N.I.T. Allahabad	Assistant Professor	Since 28 Dec., 2012
2.	I.I.T. Delhi	Research Scholar	23 July, 2009 to 27 Dec., 2012

### Subjects Handled:

(a) U.G. Level:

Fluid Mechanics, Engineering Mechanics, Fluid Flow Operation

(b) P.G. Level:

Advanced Fluid Mechanics

### Project/Consultancy Work/Technical Report

1. Consultancy Work/Technical Report on “*Transient Flow Analysis for Water Pipeline from the Clarifier to Fore Bay at NCTPP, Dadri*”, for M/s Unitech Machines Limited, Gurgaon, Haryana, at IIT Delhi.
2. Consultancy Work/Technical Report on “*Transient Flow Analysis for Raw Water Pipeline to PT Plant Clarifier at Indira Gandhi STPP, Jhajjar*”, for M/s Unitech Machines Limited, Gurgaon, Haryana, at IIT Delhi.
3. Worked in various Consultancies/Projects at IIT Delhi under Prof. S.N. Singh and Prof. V. Seshadri.

### Research Papers Published

#### *International Journal*

1. Patel V.K., Singh S.N. and Seshadri V., 2013 “Effect of Blockage and Location on Mixing of Swirling Coaxial Jets in a Non-expanding Circular Confinement”, *International Journal of Turbo & Jet-Engines*, Vol. 30, Issue 2, pp 153-171.
2. Paul A.R., Ranjan P., Patel V.K., and Jain A., 2012 “Comparative studies on flow control in rectangular S-duct diffuser using submerged-vortex generators” *Aerospace Science and Technology, Elsevier*, Vol.21, Issue 1, pp 332-343 .
3. Paul A.R., Ranjan P., Patel V.K., and Jain A., 2011 “Flow Control in Rectangular S-Duct Diffuser Using Submerged Vortex Generators” *International Review of Aerospace Engineering (IREASE)*, Vol. 4, N. 2, pp 76-86.

### ***International Conferences***

1. Patel V. K., and Paul A.R., “Experimental Studies on ‘Fishtail’ Vortex Generators”, *Proc. The 11th Asian International Conference on Fluid Machinery & the 3rd Fluid Power Technology Exhibition*, AICFM\_FM\_012, 21-23 Nov 2011, IIT Madras, Chennai, India.
2. Prajapati C. B., Patel V. K., Singh S. N. and Seshadri V., “CFD Analysis of Permanent Pressure Loss for Different Types of Flow Meters in Industrial Application”, *Proc. 4th International and 37th National Conference on Fluid Mechanics & Fluid Power*, FMFP10-CF-41, 16-18 Dec 2010, IIT Madras, Chennai, India.
3. Singh S. N., Seshadri V., Patel V. K., Chandel S., and Sharma A. K. “Effect of Position and Orientation of Primary Holes on the Mixing in a Combustor Model with and without Swirl”, *Proc. 4th International and 37th National Conference on Fluid Mechanics & Fluid Power*, FMFP10-EM-18, 16-18 Dec 2010, IIT Madras, Chennai, India.
4. Chandel S., Singh S.N. and Seshadri V. and Patel V.K., “Environment Friendly Mode of Disposal of Fly Ash in Thermal Power Plants”, *Proc. International Conference on Advances in Renewable Energy (ICARE 2010)*, Vol. II, Ref. No. 191, pg. 228-234, 24-26 June 2010, MANIT, Bhopal.

### ***National Conferences***

1. Singh S.N., Seshadri V., Patel V.K. and Singh L. “Optimization of Nozzle Geometry for the Best Performance of Self Entraining Diffuser Using CFD”, *Proc. Of 38<sup>th</sup> NCFMFP 2011-CFD-15*, December 15-17, 2011, MANIT Bhopal.
2. Patel V. K., Dewangan A., Singh S. N. and Seshadri V., “CFD Analysis on the use of Adjustable Wedge Element for Balancing Flow in the Pulverized Coal Pipelines in Thermal Power Plant”, *Proc. 16<sup>th</sup> ISME Conference*, ISME10-TI-7, December 02-04, 2010, IIT-Delhi, New Delhi, India.

### **Poster Presentations/Workshops Attended:**

1. Workshop (TEQIP-II) on, "Faculty Orientation Programme", held on 12-13 January, 2013, at MNNIT Allahabad.
2. Workshop on, "*Handling and Transportation of Fly Ash*", held on May 19, 2012, at ITMMEC, Committee Room, IIT Delhi.
3. Workshop on, "*Analysis of Manouvering of Underwater Vehicles*", held on May 28<sup>th</sup>, 2011, at IIT Delhi.
4. Workshop on, "*Advances in small scale heat exchangers and fuel cell thermal management for process, IT and energy industries*", held on Jan 8-9, 2010, at Senate room, IIT Delhi.
5. Poster Presentation on “Basic Experiments in Fluids Mechanics” *I<sup>2</sup>Tech 2011*, IIT Delhi

6. Poster Presentation on “Studies on Flow Characteristics of Heated Coaxial & Multi-coaxial Jets” *I<sup>2</sup>Tech 2011*, IIT Delhi
7. Poster Presentation on “Flow Visualization Studies” *I<sup>2</sup>Tech 2010*, IIT Delhi
8. Poster Presentation on “Experiments in Fluid Mechanics” *I<sup>2</sup>Tech 2010*, IIT Delhi

### **Departmental Responsibility**

- Officer In-charge, Departmental Library (Since Jan., 2013)

### **Students:**

#### **M. Tech. (Ongoing)**

1. Nivedita Bhadauria (May 2013 to June 2014), Area: Flow instrumentation
2. Maniraj Singh (May 2013 to June 2014), Area: Combustor aerodynamics
3. Kushal Saxena (May 2013 to June 2014), Area: Heat transfer enhancements
4. Brij Mohan Chauhan (May 2013 to June 2014): Area: Swirl flows, Air conditioning