

## SUDEESH KUMAR PATEL

Department of Mechanical Engineering

Visvesvaraya National Institute of Technology Nagpur, Maharashtra

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### OBJECTIVE

I am an enthusiastic post graduate, motivated to work hard, willing to accept challenges, look at problems differently, and ability to work amicably in groups at all levels and adapt to new methods in teaching.

### EDUCATION

I am pursuing master of technology from Visvesvaraya National Institute of Technology, Nagpur with current CGPA of 7.91

Semester	First	second	Third	Fourth
SGPA	7.94	7.47	8.6	

Course	Institution/Board	CGPA/Percentage	Year
GRADUATION	RGPV	7.86	2015
XII ( AISSCE)	JNV Seoni, M.P.(CBSE)	73%	2010
X ( AISSE)	JNV Seoni, M.P. ( CBSE)	84.80	2008

### TRAINING

ORGANISATION	EXPOSURE	DURATION
Bharat Sanchar Nigam Limited (BSNL), Jabalpur (M.P.)	Vocational training on Design Of Pipes & Towers	(18 June, 2014 – 01 July, 2014)
Indo German Tool Room, Indore (M.P.)	Training of operating the CNC Turning machine	(17 June, 2014 – 22 June, 2014)
E CADD Services, Durg	Exposure to the designing software Pro-E 5.0	(08 Dec. 2012 – 22 Dec.2012)
Indo German Tool Room, Indore (M.P.) -	Exposure to the designing software AUTOCAD & SOLIDWORKS	(09 Jul. 2012 – 14 Jul. 2012)

## FINAL YEAR PROJECT

### DESIGN AND FABRICATION OF WIND TUNNEL

Design and fabrication of wind tunnel by using the concepts of fluid dynamics and machine design. This system will be able to determine drag and lift forces on bluff and aerofoil bodies. The load is used to calculate the drag as well as lift forces on bluff body.

### A NUMERICAL STUDY OF FORCED CONVECTION IN A NEW TRAPEZOIDAL TUBE BANK ARRANGMENT

The analysis is done with the help of ANSYS software. This project is conducted to determine the effect of horizontal and vertical pitch between the tubes on the nusselt number and friction coefficient. The analysis is also used to determine the effect of horizontal pitch on the nusselt number

### EFFECT OF REYNOLDS NUMBER ON REATTACHMENT LENGTH

The analysis is done on ANSYS software to determine the increase and decrease of reattachment length with increase in Reynolds number. The reattachment length increases with Reynolds number in laminar flow but it will decrease with increase in Reynolds number in turbulent flow.

### ANALYSIS OF JET BLAST DEFLECTOR

The analysis is done on ANSYS software to determine the effect of pitch between aerofoils on the drag and lift forces. The analysis also includes the effect of angle of attack on the drag and lift forces. The most optimum aerofoil shape is determined for the jet blast deflector.

## EXTRA CURRICULAR ACHIEVEMENTS

- I have scored **68.15** marks in **GATE-2018**
- Got selected for junior research fellowship at **DRDO**
- Got selected for interview for assistant engineer at **NEEPCO(MINIRATNA PSU)**
- got selected for interview round of **JUNIOR WORKS MANAGER** through the exam conducted by **UPSC**
- Have a knowledge of **ANSYS**
- Organizer of robotics workshop in undergraduate course.
- Participated in National Service Scheme camp.
- Presented a seminar on free piston engine, turbulent flow, energy integral equation and Gravity Die Casting in the mechanical engineering department of vnit, nagpur

## RELEVANT COURSES

- Strength of materials – theories of failure, stress & strain, bending and torsion equation, pressure vessels
- Computational Fluid dynamics – Finite Difference and Finite Volume Method, FTCS (Forward time central space) scheme, Discretization of Navier Stokes Equations, Stream Function Vorticity Methods for Solving N-S equations, MAC-SIMPLE Methods to solve Incompressible Flows and Heat Transfer.
- Thermodynamics – first and second law of thermodynamics, energy, entropy, exergy, thermodynamic relations, Otto and diesel cycles, rankine cycle
- Heat transfer – conduction, convection, radiation, boiling and condensation, heat exchangers
- Fluid mechanics – fluid kinematics and dynamics, forces on surfaces, laminar flow, turbulent flow, boundary layer.

## HOBBIES

- Playing badminton
- Reading newspaper

## PERSONAL DETAIL

Father's Name - D. S. Patel  
Date of birth - 12 June 1992  
Address of correspondence - Village - Bedu  
P.O. - Bedu  
Tehsil - Gotegaon  
District - Narsinghpur (M.P.)  
PIN - 487118

## DECLARATION

I hereby declare that the above information provided by me is true best of my knowledge and belief.

Place:

Date: / /

(Sudeesh Kumar Patel)