

# VAIBHAV KABDAL

Bachelor of Technology (3<sup>rd</sup> Year)  
Department Of Mechanical Engineering  
Indian Institute of Technology Patna  
Address: PA-104 ,Gulmohar Towers, Sec-6, Chiranjeev Vihar , Ghaziabad ,U.P ,India -201002

(+91-8292310893,+91-7503421521)  
(vaibhavkabdal@gmail.com, [vaibhav.me13@iitp.ac.in](mailto:vaibhav.me13@iitp.ac.in))  
Languages : Fluent in English and Hindi , Spanish (Beginner level)

## OBJECTIVE

Looking for an opportunity to work on a research project in order to explore my interests and challenge my aptitude in research so that I can contribute better to the success of the project and develop new skills and have an all round exhaustive learning experience.

## EDUCATION

### Under graduation : Indian Institute of Technology Patna

DEGREE	DEPARTMENT	CGPA	CREDITS COMPLETED	DURATION
B.Tech	Mechanical Engineering	7.8/10	189/373	2013-2017

### Schooling

GRADE	OBTAINED MARKS	YEAR OF PASSING	BOARD
X	92%	2010	ICSE
XII	92.5%	2012	CBSE

## RESEARCH INTERESTS

- ❖ Bearings
- ❖ Tribology
- ❖ Robotics

## INTERSHIPS / RESEARCH EXPERIENCE

**BHABHA ATOMIC RESEARCH CENTRE (BARC)** (Summer Research Fellow) (Mumbai , Maharashtra)

**Guide: Mr P.K.Limaye (Senior Scientist & Group Leader, Tribology Group, Refuelling Technology Division)** (May-July 2015)

- Developed a mathematical model , an algorithm and a user oriented computer program to determine the stiffness matrix and force-displacement behaviour for the Deep Groove and Angular Contact Ball Bearing
- Currently working on developing a mathematical model and a computer program to determine the life expectancy of a bearing using the fatigue analysis.

### Fine Automation Robotics India

(Pune , Maharashtra)

Project Mentor: Mr. Nitin Kakade (Director)

(May-July 2014)

- Worked on the design and development of Robotic SPM cells and Automated Robotic assembly line and their control mechanism .

## PROJECTS UNDERTAKEN

### Human Powered Vehicle Challenge (ASME):

(Delhi) (Oct 2014-Jan 2015)

- Member of the team which designed and manufactured a highly engineered human powered sustainable vehicle which can be used as a transportation alternative .  
RESULT: Ended up 5<sup>th</sup> in design and 19<sup>th</sup> overall on a national level
- Part of the design department. Performed aerodynamical analysis of the vehicle's design.

### Quadrotor Project

(Patna,Bihar) (Jan-May 2014)

- Worked on design and control mechanism of the prototype.
- Worked on modelling of the dynamics and kinematics of a quad rotor's motion as well as of its motors and sensors.

### Robot Wars Challenge (ISM DHANBAD -2013)

(Patna,Bihar) (Sep 2013-Nov 2013)

- Captain of the team which designed , modelled and fabricated a wired mobile prototype for a one on one combat with a similar bot.
- RESULT: Ended up as runners up

### Hex Saw Prototype (based on planet gear mechanism)

(Patna,Bihar) (Feb 2015-Apr 2015)

- Designed and manufactured a working prototype of a human powered hex saw based on the planet gear mechanism to minimise the effort

### Machine Learning

(Patna,Bihar) (Jan 2015-Apr 2015)

- Worked on the implementation and application of genetic algorithms like NSGA, AMOSA for analysis of crime hotspots study and to be used as tools for pattern recognition ( a personal project)

## LEADERSHIP

- Sub – Coordinator , Marketing and Sponsorship Team ,ANWESHA-15 ( Techno Cultural Fest , IIT Patna )
- Events Manager at Entrepreneurship Cell , IIT Patna
- Prefect of Higher Secondary School

## TECHNICAL UNDERSTANDING

### Experience with Machines

- CNC milling and lathe, Lathe machine, Grinding machine, Power Drill, laser Cutting Machine, Optical Micro Scopes, Hydraulic Press, Ultra Sonic Machine, WEDM and Welding Machines

### Software Skills

- Softwares- SolidWorks, AutoCAD and CATIA, Ansys, MS-Office.
- Programming Skills- C, C++, Java (OOPS), MATLAB