

## VIRENDRA KUMAR

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B. Tech 4th Year

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Department of Mechanical Engineering

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Indian Institute of Technology PATNA

## OBJECTIVE

To have an opportunity to work with an organization where I may have ample opportunities to avail my knowledge for work and to contribute fruitfully toward the growth of organization.

## EDUCATION

**Bachelor of Technology in Mechanical Engineering** 2012-2016

Indian Institute of Technology Patna

**CPI ( up to 6th semester)** 7.33

**All India Senior School Certificate Examination (C.B.S.E.) (Percentage: 74)** 2012

SDDT Intermediate college Gorakhpur

**All India Senior School Certificate Examination (C.B.S.E.) (Percentage: 90)** 2010

JAVAHAR NAVODAYA VIDYALAYA Gorakhpur

## SKILLS

### Software

SOLIDWORKS (Modeling & simulation), CREO /PROE , AUTOCAD , ANSYS (Structural and Fluent )

### Programming languages

C,C++, JAVA (OOPS), MATLAB

### Machines

Grinding Machine, CNC Lathe, CNC Milling, Power Drill, Laser Machining, Wire E.D.M, Ultrasonic Machining, Rapid Additive Prototyping.

## PROJECTS

### 1. SAEINDIA 2014 & 2015

**AIM:** To manufacture a formula styled car for participating in all India level competition organised by SAEINDIA .

**Contribution:** I did the manual buckling, torsion, bending, and tensile failure analysis for impact testing, also completed the side, front and back impact testing in ANSYS static structural.

**Result:** Our team qualified the competition continuously two years with AIR 21 in 2014 and AIR 54 in 2015.

### 2. Manual Rice Transplanting machine

Under guidance of, Dr. PROBIR SAHA and Dr. S. S. PANDA IIT Patna.

**Aim:** To design a working model of rice transplanting machine which can work manually without using any external power source.

**Result:** The working model of the manual rice planting machine was submitted with efficient working. Which was easier to drive and efficient to work. we used the power of wheel to drive the planting hands of machine.

### 3. Stair Climbing Bot (ATV)

**Aim-** To manufacture a 12 wheel, 28 –Gear all-Terrain vehicle that can follow any difficult path.

**Report:** 1st winner of event Science Expo -biggest technical event of IIT Patna Techno-Cult fest.

## 4. SUMMER INTERNSHIP

**Aim:** The main objective of this study was to numerically simulate the flow and find out,

- 1.Absolute critical rotational speed for different gap spacing beyond which vortex shedding disappears and,
- 2.Forced convection heat transfer from the heated rotating circular cylinders placed in an infinite medium.

Worked Under the Supervision of,

Dr. Dipankar Chatterjee , Senior Scientist & Head, Simulation and Modeling Laboratory, CSIR-CMERI, Durgapur.

**Report:** Written a research paper on the topic “Thermo-fluidic transport around two rotating circular cylinders: Effect of cylinder spacing and rate of rotation”. The research paper is under process to publish.

5. Many other small projects.

#### EXTRA-CURRICULLER ACTIVITIES/ACHIEVEMENTS

- **Organizer** of online Robotics event 'EXERGIO' and 'Volley' in Techno-Cultural fest of IIT Patna in year 2013.
- **Maintenance secretary** in IIT Patna (2014).
- Participated in technical events – ROBO-SOCCER, 3Axis hydraulic Arm, Path Follower (photo sensor) in IIT Patna technical fest in 2013- 2014.
- Part of school Hand-Ball team, represented school team at cluster level in Hand-Ball (2007).
- **'A'** Certificate in NCC (2009).
- **RAJYA PURASKAR** in BHARAT SCOUTS & GUIDES (2008)