# Kshitij Kumar Choudhary

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#### **EDUCATION**

# Bachelor of Technology in Mechanical Engineering

2013 — present

Indian Institute of Technology Patna

• CPI:8.0

#### Central Board of Secondary Education

July 2008 — March 2012

National Public Senior Secondary School

• Matriculate CGPA: 9.2/10

• Intermediate Percentage: 88.2%

#### **INTERESTS**

- Design
- Robotics
- Manufacturing Technology

#### TECHNICAL SKILLS

- <u>Softwares-</u> Autocad, Solidworks, Adams, Matlab, Ansys.
- Programming- Arduino, C, Java, Python, HTML, CSS.
- Operating System- Windows, Linux.

# **PROJECTS**

#### • Stair Climbing Wheelchair (2014):

The objective of this project was to design a mechanism that could help people, who cannot walk on their own, to climb up the stairs without the help of others.

It is fully automated.

It contains a distance sensor that measures the distance of the wheelchair from the first stair. Using image processing it enabled the wheelchair to count the number of stairs to climb.

My role in the project was to design the mechanism and write the equation for its motion.

#### • Renewable Energy Generation System(2015):

The objective of this project was to design an apparatus that would derive energy from moving vehicle and convert it into electricity using fluids.

This apparatus was to be installed under a platform on the road. A moving vehicle would pass on the platform which would cause a little displacement of the platform. Water would flow through tube, which was

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attached to the platform,to run a turbine.

My role was to design the model.

#### • Mechanising the process involved in the production of Lac-Bangles (2015):

The objective of the project is to decrease the time spent in making lac-bangles. My role in the project is to design the mechanism of the rolling and cutting of lac stripes.

#### • Hydraulic arm(2013):

Designed and created manually controlled robotic arm with hydraullics using as little resources as possible.

## POSITION OF RESPONSIBILITY

#### • Organised Aqua-Soccer:

An event in the techno-cultural fest that got the highest number of participation.

## **COURCES TAKEN**

#### o Core:

- ->Thermodynamics
- ->Applied Thermodynamics
- ->Kinematics of machines
- ->Fluid Mechanics
- ->Design of machines
- ->Heat and mass transfer
- ->Mechanical Measurements
- ->Manufacturing Technologies

#### • Non Core:

- ->Biochemistry
- ->Quantum Mechanics
- ->Relativity Theory
- ->Advanced Physics
- ->Computer programming(C,Java)
- ->Introduction to Computational Topology
- ->Economics

#### DECLARATION

I hereby declare that all the details furnished above are true to the best of my knowledge and belief.

Kshitij Kumar Choudhary