

# **Aashish Subhash Sarpe**

UG Third Year, Mechanical Engineering (B.Tech)

Indian Institute Of Technology, Patna.

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# **OBJECTIVE**

Seeking an opportunity to learn new skills and application of my knowledge and technical skills in an institution/industry which is innovative, disciplined, resourceful and student friendly.

## **EDUCATION**

<b>Education Details</b>	Board	Institute	CPI/%	Year
UG(B.Tech) (Till 4 <sup>th</sup>	IIT Patna	IIT Patna	7.50	2013-(Up to
Semester)				present)
Intermediate (+2)	Board of	Shivam Junior	87.9%	2012
	Intermediate	College		
	Education, Andhra			
	Pradesh			
Matriculation	SSC (Maharashtra	Gyan Mata Vidya	90.4%	2010
	Board)	Vihar		

<sup>\*</sup>CPI indicates Cumulative performance index on a scale of 10.

# **ACHIEVEMENTS**

- Secured 5<sup>th</sup> rank in the design event held in HPVC, 2015 (Human powered vehicle Challenge) organized by ASME (American society of Mechanical Engineers) and bagged 19<sup>th</sup> position all over India in the main event.
- Won the Robowars competition organized in CELESTA (Technical Fest) of IIT Patna.
- Secured 2<sup>nd</sup> rank in Death race competition organized in CELESTA of IIT Patna.
- Secured 54<sup>th</sup> rank in virtual round all over India of SUPRA, 2015 organized by SAE India (Society of Automotive Engineers).

#### MAJOR PROJECTS UNDERTAKEN

# **Human Powered Vehicle Challenge, 2015:**

Guide: Dr. Atul Thakur, Department of ME, IIT Patna.

- Successfully designed a short wheel recumbent bicycle which ensures good comfort and better handling characteristics.
- Worked in the chassis design department.
- Made chassis design using Catia.
- Performed a detailed analysis of forces acting on the entire chassis using Ansys.

# **SUPRA SAE India, 2015:**

Guide: Dr. Manabendra Pathak, Department of ME, IIT Patna.

- Successfully designed and fabricated a F1 racing car using sound engineering principles.
- Worked in the suspensions department.

#### **Renewable Energy Generation System:**

Guide: Dr. Probir Saha, Dr. S S Panda, Department of ME, IIT Patna.

- Developed an energy system that works underground.
- It utilizes the energy of the moving vehicles to generate electricity using the principles of Fluid mechanics.

#### **Turbine Film Cooling:**

Guide: Dr. Manabendra Pathak, Department of ME, IIT Patna.

- Study of the turbine film cooling technology and modelling of films on turbine blades using Ansys.
- Optimization of different parameters involved to ensure better film cooling.

#### **Line follower robot:**

- Team leader for the Breakout robotics event in Techniche, Technical Fest at IIT Guwahati.
- Designed and fabricated a robot that could follow a path and sense obstacles in its way using Arduino Microcontroller.

#### **Wireless soccer robot:**

- Designed and fabricated a wireless robot using Arduino Microcontroller and RF module.
- Participated in Robokick event in Techniche, Technical Fest at IIT Guwahati.

# TOPICS OF INTEREST

- Fluid Mechanics: Aerodynamics, Computational fluid dynamics.
- Thermodynamics: Refrigeration and air conditioning, Vapour power cycles, IC Engines.
- Heat and Mass Transfer.
- Material Science.
- Automobiles.

#### TECHNICAL SKILLS

Programming languages: C, Java, MATLAB.

**Application softwares**: AutoCAD, ANSYS, CATIA, LabVIEW, Pro-E, Solid Works.

**General softwares**: Microsoft Office, Adobe Photoshop.

Manufacturing processes: CNC Lathe, CNC Mill, Wire-EDM, Arc welding, MIG welding, Rapid

Prototyping, Ultrasonic machining, Laser beam machining, Gear fabrication.

# **EXTRA-CURRICULAR ACTIVITIES**

- Won gold medals in 100m and 200m sprint races held in athletic competitions at school level.
- An active member of SCME (Students council of mechanical engineers) and SAE clubs at IIT Patna.

## **DECLARATION**

I hereby declare that all the information give above is true to the best of my knowledge.

(Aashish Sarpe)