

Raunak Srivastava

E-mail : raunaksrivastava1410@gmail.com Address:
UG Third Year, Mechanical Engineering Department, IIT Patna

Education

B.Tech in Mechanical Engineering
IIT Patna

July 2013 — June 2017

- 9.29 CPI in the four semesters completed

Intermediate

Dr. Virendra Swarup Education Centre

- 95% in ISC Board 2012(Science Stream)

High School

Dr. Virendra Swarup Education Centre

- 95% in ICSE Board(2010)

Academic Achievements

- Department Rank 1 in the four semesters in IIT Patna
- Among 0.5 percentile students selected in JEE 2013 for B.tech in IIT.
- Offered scholarship given to top one percentile scorers in ISC Board 2012.
- Cleared regional and state level talent search exam "VIJNANA PRATIBHA PARIKSHA " conducted by "VIJNANA BHARATI " and "EDUCATION TO HOME"(ETH) to participate at the national level for the academic calendar 2008-2009.

Interests

Huge interest in UAV's and aerial robotics, combination of programing and control of mechanical systems which involves the design using CAD softwares and aerodynamics.

Technical Skills

- Programming languages : C, JAVA
- Softwares : AutoCAD, Catia V-5, Ansys Fluent, Ansys Structural, Matlab
- Undertaken the machining lab course leading to a sufficient knowledge of manufacturing machines like the CNC Lathe, CNC milling, WEDM, 3D printing and other conventional and nonconventional machines.
- Knowledge of embedded systems and microcontrollers specifically Arduino.

Research and Project Work

- **SUPRA CONDUCTED BY SAE INDIA**

AUGUST 2014-JULY 2015

PROJECT GUIDE: Dr. Manabendra Pathak

Participated in the competition "SUPRA" conducted by the "Society of Automotive Engineers (SAE)" for the year 2015 wherein a racing car was built by a team of 25 students according to the rules of Supra SAE. I looked after the **suspension system** of the vehicle that was built. This included research into choosing the right suspension system, **designing and analyzing the geometry** according to the unconventional chassis of the vehicle. We chose the Double wishbone suspension along with the use of bell-cranks. Mounting points, spring constants, motion ratio etc required fair amount of research and collaboration with the people designing the chassis.

- **ROTATING FIXTURE FOR WIRE-EDM MACHINE**

FEBRUARY 2015-MAY 2015

PROJECT GUIDE: Dr. Probir Saha

Worked in a team of 5 students to make a bench vise for the Wire-EDM machine with more number of axes of rotation as was present before. The previous fixture could only move the work-piece in a single plane. We introduced two more degrees of freedom in the fixture for the machining process. My job was **designing** of the rotating fixture in **Catia V-5** and then it was analysed for its strength and properties in Ansys. Thereafter the machining processes of CNC lathe, CNC milling etc were done to manufacture the fixture.

- **MACHINE FOR AUTOMATION OF KHAJA PRODUCTION**

JULY 2015-PRESENT

PROJECT GUIDE: Dr. Mayank Tiwari

Part of an undergoing project to construct a working mechanism for the actuation of "Khaja" (a sweet dish) making process. Khaja is a manually made sweet in the eastern parts of India which requires a lot of labour. I am working with one of my colleague to **design** a mechanism which can automate one of the component in the manufacturing process using a conveyor belt mechanism.

- **LINE FOLLOWER ROBOT**

JULY 2014-SEPTEMBER 2014

Made an arduino controlled autonomous line follower robot to participate in "TECHNICHE", the annual technical fest of IIT Guwahati. The project required the use of Arduino Uno and L293D IC as the motor driver of the bot. My job was to **program the arduino** for the purpose of following a white line. I also calibrated the light sensors used to give input to the arduino.

- Made a robot for participation in the event 'Robowars' in Anwesha, the annual cultural-technical fest of IIT Patna.

Positions Of Responsibility

- Coordinator(ME) at Training and Placement Cell, IIT Patna for the session 2015-16.
- Coordinator(ME) at Rural Technology Development Club, IIT Patna for the session 2015-16.
- Event Manager at ANWESHA, Techno-Cultural fest of IIT Patna for the year 2015.
- Event Manager at Celesta, Technical fest of IIT Patna for the year 2014.

References

- Dr. Manabendra Pathak

mpathak@iitp.ac.in