# Rishabh Gupta

Final Year B.Tech (Mechanical Engineering) Student
Indian Institute of Technology Patna
**Email:** rishabh.me12@iitp.ac.in
**Phone:** 7256883890

**DOB:** 10 Sep 1994
**Sex:** Male
**Nationality:** Indian

**Address:**
Room no. B612, Boys hostel
IIT Patna, Bihta (Bihar)- 801103, INDIA


**Education**

**Indian Institute of Technology Patna** (2012-Present)
B.Tech Mechanical Engineering
*Cumulative Performance Index (CPI):* **8.33** (after 6th Semester)

**Macro Vision Academy, Burhanpur (M.P.)**
Intermediate-CBSE-AISSCE (2011-2012)
*Aggregate:* **83.4%**
Matriculation-CBSE-AISSE (2009-2010)
*Aggregate:* **9/10**

**Summer Internship**

**Department of Power Mechanical Engineering, National Tsing Hua University, Taiwan** (Summer 2015)
*Mentored by: Dr. Ming Sian Bai, Department of PME*
To study the recording and reproduction techniques of a Spherical Microphone Array. Simulate the recording and reproduction process using Plane Wave and Spherical Harmonics as the Basis functions and compare the results. All the simulations are done in MATLAB. This internship gave me a huge insight of Acoustical Engineering.

**Projects**

**Course Projects:**

- Comprehensive Study and Optimisation of Bubble Pump (B.Tech Project) (Ongoing)
  *Mentored by: Dr. Subrata Kumar,Departmrnt of ME, IIT Patna*
  To study and characterize the pumping action of bubble pump. Characterization will be done on the basis of simulation of flow inside the pump followed by experimental results.
- Design and Fabrication of Low Cost Pedal Harvester for Rural Society (Spring 2014)
  *Mentored by: Dr. Subrata Kumar*
  Based on Quad-cycle design where power input by operator will be split to rear axle, for driving the vehicle and to a Cutter mechanism at the front for cutting operation.

**Personal Projects:**

- Design and Fabrication of Formula Style Racing Car for SUPRA SAE–2015 Competition (Fall 2014-Spring 2015)
  *Mentored by: Dr. Manabendra Pathak, Department of ME, IIT Patna*
  The 25 member Team had successfully designed and fabricated a formula style racing car as per the guideline of the Competition. I designed the steering system of the car. Steering system is based in positive Ackermann geometry with features like Bump steer elimination and is capable of handling all the critical situation specified in the rules.
- Radio Controlled Air Cushion Vehicle for Competition at Technical Festival of IIT Guwahati (Fall 2013)
  Designed and Fabricated a Hovercraft. Arduino board and bluetooth shield are used for programming and wireless Communication respectively.

**Technical skills**

**Lab and workshop experience:** Data acquisition system, CNC Milling & Lathe, Unconventional machining, Laser machining, Universal testing machine, Transition electron microscope etc.
**Design and CAE Software:** Solidworks, Autocad, Ansys, PTC-Creo, LabVIEW, FLOWEX.
**Programming & others:** C, java, HTML, MATLAB, MS-Excel, Atmel studio, Android-SDK.

**Extra Curricular Activities**

Coordinator of student Mechanical Engineering club of IIT Patna.
Technical Head of Rural Technological Development club of IIT Patna.
Task Manager at Entrepreneurship Club IIT Patna.
Secured 3rd rank in Mahindra AQ east zone (Auto-Quiz organized by Mahindra)