

Abhijeet AGNIHOTRI

Undergraduate Student, Mechanical Engineering
Indian Institute of Technology Patna

PERSONAL DATA

DATE OF BIRTH: 11th September 1993
ADDRESS: A628, Boy's Hostel, IIT Campus, Bihta, 801103
PHONE: +91 8292346573
EMAIL: abhijeet.agni.1993@gmail.com || abhijeet.me13@iitp.ac.in

EDUCATION

2013-2015 Bachelor of Technology in MECHANICAL ENGINEERING, **IIT Patna**, India
CGPA: **8.2/10**

2012 Intermediate/+2 in **CBSE BOARD**, **CCHS School**, Jaipur, India
%: **80.4%**

2010 Matriculation in **CBSE BOARD**, **SMHS School**, Jaipur, India
CGPA: **9.8/10**

SCHOLASTIC ACHIEVEMENTS

- Secured rank in top **99.99%ile** in **IIT-JEE** Examination 2013 among over **1.4 Million** candidates.
- Secured an International Rank **153** in **IMO** 'International Mathematics Olympiad' in 2012.
- Secured an All India Rank **42** in **NSO** 'National Science Olympiad' in 2011.
- Awarded the prestigious **KVPY** 'Kishore Vaigyanik Protsahan Yojana' **SCHOLARSHIP** (2012), awarded by *D.S.T., Govt. of India* to only top 200 science students in India.
- Awarded the prestigious **INSPIRE** **SCHOLARSHIP** (2011) by *D.S.T., Govt. of India* as one of the top 100 science students in Rajasthan State and attended one week Inspire Science Camp at Rajasthan University (2011).

FIELDS OF INTEREST

ROBOTICS, MECHATRONICS, COMPUTER VISION - MACHINE LEARNING, ARTIFICIAL INTELLIGENCE, CAD MODELING / SIMULATION.

TECHNICAL SKILLS

- **Programming Languages:** C/C++, Java, Matlab
- **Modeling Softwares:** AUTOCAD, CATIA, PROE, SOLIDWORKS, ADAMS view
- **Computer Vision:** OPENCV
- Proficient with **Arduino**, **Raspberry PI**
- **MS Office**, **LATEX**
- **Operating Systems:** Windows, Linux

RESEARCH & INTERNSHIPS

MAY - JULY 2015	<p>New York University, USA <i>Mechatronics & Control Lab.- Prof. Vikram Kapila</i> VISION BASED ROBOTIC SYSTEM Developed my own 3-D object recognition System using OPENCV. Designed and 3D printed Face and eyes of the Robot Made a robot to recognise diff. human facial expressions and perform tasks like picking specific 3-D objects. Employed machine learning techniques in advanced vision systems along with robotic arm control. Worked in a team along with post-graduates and delivered these results.</p>
<i>Current</i> AUG 2015-	<p>Indian Institute of technology Patna, India <i>Mechatronics, Control & Instrumentation Lab.- Asst. Prof. Atul Thakur</i> ALLIGATOR INSPIRED ROBOT Designed and modelled body parts of the Aligator Robot. Programmed it to show various gaits(like trot and creep). Will in future be deployed in different terrains for exploration,etc equipped with advanced sensor control system.</p>
<i>Current</i> AUG 2015-	<p>Indian Institute of technology Patna, India <i>Mechanical Engineering.- Assoc. Prof. Mayank Tiwari</i> AUTOMATION SYSTEM IN LITCHI HARVESTING Manufactured a lifting platform for a robotic arm + gripper mechanism. Gripper with cutter will cut the litchi off the tree. To be Equipped with vision-sensor system to detect litchi in a tree and whether it's ripen or not. Working in a group of 4 students. It would eventually be both manually or autonomously controlled.</p>

PROJECTS

- **Water Harvesting via dew/moisture Condensation**
Fabricated Super Hydrophobic copper oxide thin films.
In depth Analysis of Heat-mass transfer phenomenon at nano-scale.
- **High viscous fluid flow in lubrication process**
Carried out experiments on different kind of bearings.
Learned simulation of lubrication processes and delivered a seminar on it.

POSITIONS OF RESPONSIBILITY

<i>Current</i> JULY 2015-	Training and Placement Cell <i>Mechanical Engg. Internship Co-ordinator</i> Responsible for contacting various companies and invite them to hire student interns from the college. Responsible for scheduling and managing presentations, tests and interviews of companies as a part of the internship process. Learned how to work in a highly professional environment with strong ethics and integrity.
<i>Current</i> JULY 2014-	Techno-Cultural Fest."ANWESHA" <i>Hospitality Co-ordinator</i> Managed a team of more than 20 students, dealt with major hospitality related firms of the city. Responsible for taking proper care and arrangements of all the guests and V.I.P.'s during Fest. Acquired Leadership-management skills and gained valuable experience.
JULY 2014 - JULY 2015	Entrepreneurship Club <i>Media & Public Relations Sub Co-ordinator</i> My responsibilities included expanding the public and media outreach of the Entrepreneurship Club and promoting the Entrepreneurship Club's events and activities among the students and faculty. Maintained online blogs/portals and managed to increase the online outreach of the club by 200% over the year.

EXTRA/CO-CURRICULAR ACTIVITIES

- **Musician** - Guitar player, Singer and a Song writer.
- **Actor and Orator**, part of Dramatics Club. Have acted in plays and short films.
- **Black Belt in Karate**, won numerous **Gold Medals** at National and State Level.
- Stood **2nd** in Robo-warz competition at Technical Fest 'Celesta'13' at **IIT Patna**.
- Stood **3rd** in Line follower competition at Techniche '14 at **IIT Guwahati**.

REFEREES

DR. ATUL THAKUR	Assistant Professor of MECHANICAL ENGINEERING, IIT Patna, India CO-ORDINATOR: Mechatronics, Control and Instrumentation Lab , IIT Patna, India. http://iitp.ac.in/~athakur/index.html
DR. VIKRAM KAPILLA	Professor of MECHANICAL ENGINEERING, NYU-POLY, USA CO-ORDINATOR: Mechatronics and Control Lab , NYU-POLY, USA. http://engineering.nyu.edu/mechatronics/vkapila/