

## EDUCATION

<b>BTech Mechanical Engineering</b>	Indian Institute of Technology Kanpur	2013-2017	CPI 9.3
<b>Intermediate (12<sup>th</sup> CBSE)</b>	Delhi Public School, Indira Nagar, Lucknow	2013	92.4%
<b>High School (10<sup>th</sup> CBSE)</b>	Delhi Public School, Indira Nagar, Lucknow	2011	CGPA 10

## ACADEMIC ACHIEVEMENTS

- Awarded **DAAD WISE 2016 Scholarship** for pursuing summer internship in Germany at Max Planck Institute for Intelligent Systems
- Received **Academic Excellence Award** for being among **top 7%** of students in Indian Institute of Technology Kanpur in 2015
- Ranked among **top 0.3%** of all applicants in Joint Entrance Examination for engineering in India in 2013
- Secured **All India Rank 63** in U.P. State Engineering Entrance Examination 2013 out of total 1.5 lakh candidates
- Awarded Certificate of Merit for being among **top 0.1%** of successful candidates of AISSCE 2013 in Physics by CBSE

## INTERSHIPS

- **MAX PLANCK INSTITUTE FOR INTELLIGENT SYSTEMS, STUTTGART** (MAY 2016 – JULY 2016)  
**GUEST SCIENTIST | Project Title:** “*Spider Inspired Hydraulic Actuation Mechanism*”  
**Project Supervisors:** Dr. Alexander Spröwitz, Dr. Kirstin Petersen, Dr. Metin Sitti  
• Study directed at understanding spider leg movement with potential to develop better legged-locomotion and manipulation technologies  
• Designed and printed prototype for robotic leg using information from available literature and SEM observations of collaborators  
• Built two experimental setups for characterization of the system under static and dynamic conditions
- **TATA MOTORS LIMITED LUCKNOW** (MAY 2015 – JUNE 2015)  
**INTERN | Project Title:** “*Problem resolution and Root Cause Analysis of given part*”; “*Implementation of Quality Gate at supplier’s end*”  
**Project Supervisor:** Mr. Naveen Agnihotri  
• Identification of possible causes of defect, which led to fitment issue for particular cross-member, in complete manufacturing process  
• Altered the riveting fixture and replaced the worn out punch of bending press to eliminate the defect in given cross-members  
• Collaborated with supplier to set up Quality Gates at its dispatch stations to track defects and provide procedures for complete final inspection

## PROJECTS

- **ROBOCON 2015 – ROBOMINTON | NATIONAL ROBOTICS CONTEST** (Centre for Mechatronics) (SEPTEMBER 2014 – MARCH 2015)  
• Designed and built two badminton playing robots for doubles match on an actual size court for the competition  
• Synthesized mechanisms for racket actuation to implement various badminton strokes including one replicating joint motion of elbow and wrist  
• Implemented Holonomic drive using Omni wheels to allow motion in several directions along with rotation about its own axis  
• Finished Eleventh in eighty-five teams representing several universities from all over India
- **HAND HELD DRY CLEANER (CLEANEASY) | COURSE PROJECT** (New Product Design & Prototyping) (JANUARY 2016 – APRIL 2016)  
• Identified substantial untapped market needs with subsequent ideation of profitable solutions  
• Developed the design and prototype of a novel device capable of performing all stages in dry cleaning process  
• Performed and analysed a market survey to identify potential customer segments and tuned the product according to targeted segment  
• Drafted initial version of business plan in collaboration with entire team
- **DEVELOPMENT OF PENNATE MUSCLE INSPIRED ACTUATOR USING SHAPE MEMORY ALLOY WIRES**  
**COURSE TERM PAPER** (Smart Materials and Structures) (JANUARY 2016 – APRIL 2016)  
• Designed Shape Memory Alloy (SMA) based actuator inspired by the functioning of pennate muscles found in many animals  
• Established kinematic and force formulations for the actuator and determined relations between multiple actuator characteristics
- **THERMODYNAMIC ANALYSIS OF SOLAR POWERED CLOSED CIRCUIT VAPOUR TURBINE** (JUNE 2015 – JULY 2015)  
**SUMMER PROJECT** (Dr. Santanu De, Mechanical Engineering, IITK)  
• Analysis of solar powered vapour turbine for production of electric power for domestic or small-scale use  
• Development of Aspen HYSYS models and their efficiency comparison through simulations
- **MODEL OF AN AUTOMATIC CAR PARKING SYSTEM | COURSE PROJECT** (Manufacturing Processes) (JANUARY 2015 – APRIL 2015)  
• Prepared CAD design and fabricated a small-scale hand-driven model of an automatic car parking system  
• Studied about different kinds of force/motion transmitting mechanisms like gears, belt-pulleys and chain sprocket  
• Gained hands-on experience with basic machine-shop operations and conventional machining methods

## POSITION OF RESPONSIBILITY

- **SENIOR MEMBER – TEAM ROBOCON IITK 2015**  
• Represented IIT Kanpur in National Robocon 2015 (Robotics Contest) organized in Pune, Maharashtra  
• Worked with a team comprising of 30 students from different engineering disciplines and years of study  
• Led and guided fifteen freshers to create two robots for playing doubles badminton matches against other teams  
• Arranged exhibitions at IIT’s technical festival Techkriti 2015 and annual Science and Technology Day of IIT Kanpur  
• Organized recruitment test and interview shortlisting for freshers for contingent of 2016  
• Felicitated by the Science and Technology Council IIT Kanpur for contributions towards the science and technical activities of the Students’ Gymkhana