

# Vaibhav Agarwal

Roorkee  
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## Graduation

2015 | 2019 **B. Tech in Production and Industrial Engineering**, *Indian Institute of Technology, Roorkee, Uttarakhand.*

## Internships

May 2018 – **Product Designer**, *Industrial Design Centre (IDC), IIT Mumbai.*

- July-2018 ○ Performed calculations for reflector dimensions and angle for an effective gain of solar radiation
- Prepared and tested Solar oven reflector mockups using the different materials and techniques for visualization
- Used mind map for product brainstorming and ideation

May-2017 – **Summer Intern**, *Honda Cars India Limited*, NOIDA, Uttar Pradesh.

- July-2017 ○ Performed quality testing of car parts via various equipment and processes like the salt spray test, spectrometric analysis, coating thickness gauge, contracer & profile projector
- Successfully automated the calibration schedule
- Gained hands-on experience and expertise on the quality testing of various car components using state of the art metrological and metallurgical equipment

Dec-2017 – **Product Design & Development**, *Fermedicius Labs, IISC,*, Bangalore.

- Jan-2018 ○ Designed and built components for Automatic Beverage Dispenser (Consumer Automation Bot)
- Developed and performed experiments using 3D printed prototypes of various components
- Designed Auger Screw for Feed Screw mechanism and researched different dispatching and delivery mechanism of beverage ingredients in different phases like liquids, solids and powders

Dec-2017 – **Product Design**, *Be Cre8v*, Faridabad.

- Jan-2018 ○ Designed MDF components and assemblies in SolidWorks, used rendering for the cover of kit
- Prepared detail drawings for manufacturing of Robot Kits
- Used Laser Cutting Operation for cutting MDF sheets

## Skills

CAD Solidworks,, Keyshot, AutoCAD, SolidWorks Visualize  
Software

Programming Visual Studio, Arduino

Graphic Adobe Photoshop, Adobe Illustrator  
Design

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## Projects

### **Development of a modular accessory for mobility enhancement of manual wheelchairs, .**

Working on development of affordable and easy to install the device for automation of manual wheelchair. This project aims to target the users with the weak financial support as the existing products are very expensive.

### **Bicycle based Agricultural Equipment, .**

Developed CAD design and the working model of an affordable and ergonomic agriculture equipment for crop cutting

### **Restaurant of the Future, .**

Design and developed Waiter Robot which is able to navigate through the restaurant and serve dishes.

### **Humanoid Robot, .**

Developed a Humanoid Robot in Models and Robotics Section (MARS) capable of walking with various movements. It can also be controlled by visual commands through body action by using Xbox Kinect sensor

### **Design of Automobile Connecting Rod for Axial Load, .**

Performed Evaluation & Analysis on various modalities of Connecting Rod using Software including Solidworks

### **"Non Use Value" determination of Natural Resources such as river Ganga, .**

Worked on the evaluation of "Non-market use" & "Non-use values" for Ganga River using different statistical models under Department of Management Studies

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## Awards

### **Runner-up at TechnoCad, Cognizance (CAD Design), *March-2018.***

Cognizance, IIT Roorkee

### **Awarded with the "Dedicated Proficiency Holder" certificate for my contributions to NSS, *March-2016.***

NSS, IIT Roorkee

### **Winner at Inter Bhawan Chess Championship, *Feb-2016.***

Students Club, IIT Roorkee

### **Ranked 3rd Position in Intra Bhawan Chess Championship, *June-2015.***

Rajendra Bhawan, IIT Roorkee