

# SONU KUMAR KEDIA

E: [2016meb1142@iitrpr.ac.in](mailto:2016meb1142@iitrpr.ac.in) M: +91-9815235665

W: <https://sonukedia55.github.io> • LinkedIn: <https://linkedin.com/in/sonukedia>

Indian Institute of Technology Ropar, Rupnagar, Punjab, India - 140001

Third Year Undergraduate, B. Tech in Mechanical Engineering (CGPA: 6.2)

## ACADEMIC PROJECTS

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- **Railway Ticket Reservation & Management System:** An Application developed in C language to manage entire railways reservation system. Features – Book ticket of 7 days, View schedule and set availability, Base-26 encrypted data storage with file-handling, Admin with the password can access to ticket details, alter and append trains' details.
- **Automatic Painting Machine:** A remote control painting machine whose brush and paint flow can be control. We can use it for painting large surface area building, walls, high building. Precious control saves human labor and time.
- **Electric Control Bike Stand Retrieve System:** A mechanism which enables the stand when we remove the key and retrieve the side-stand when we insert the key. As it is a non-mechanical mechanism it doesn't affect the chain flow or any other bike mechanism.

## OTHER PROJECTS

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- **Digitalized Solutions for TnP and Mess:** Web Portal and Biometric Attendance device developed for Mess and Placement Cell for managing Users entries and taking attendance with Real Time Sync. It is fully customizable and can handle any group of people at any time.
- **Advitiya 2017&2018, IIT Ropar:** Website developed for the annual technical fest of IIT Ropar, In which more than 80 colleges with more than 1800 students had registered for different events, all the registration, detailing and mailing conducts through its website. **Responsibility:** Only-backend Developer (2017), Full Stack Developer (2018). (Live Link – <http://www.advitiya.in> ).
- **JioKisan (JioPhone App):** A working prototype app developed during the hackathon event conducted by JIO in Inter IIT Techmeet at IIT Bombay. Key features are Farmers can rent or borrow resources from others within a certain distance, Farmer helping forum, helping chatbot, News relevant for farmers' growth.
- **Travelling Salesman's Problem using Google Map API:** A set of coordinates are input in this Django application which draws the shortest route on Google map covering all these coordinates using Google-Map API.

## WORK EXPERIENCE

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- **Electromagnetic Linear Accelerator:** A manufacturing internship for a gun which is neither explosive nor propellant, but rather rely on electromagnetic forces generated with a high current to impart a very high kinetic energy to a projectile.  
(Guide: Dr. Srikant S. Padhee, Assistant Professor, IIT Ropar). (Summer 2017)
- **Dron Digital Services Pvt. Ltd.:** Internship as a technical advisor and full stack developer in the development of App and Website related to School Managing ERP System.  
(Live Link – <https://www.dron.limited/enlight>)

## COMPUTER SKILLS

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- **Programming:** C, C++, Java, Python, HTML5, CSS, JavaScript, Ajax, Php, MySQL, MongoDB.
- **Frameworks:** JQuery, Node.js, AngularJS, Bootstrap, ReactJS, Django.
- **Development:** Website, Android App, Chrome extension.
- **Software:** Photoshop, MS Office, IntelliJ Idea, After-Effect, SOLIDWORKS, ABAQUS, Git, MATLAB.

## COURSES TAKEN

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Calculus, Data Structure, Linear Algebra, Differential Equations, Probability and Statistics, Solid Mechanics, Operations Research, Introduction to Philosophy, Management and Marketing, Psychoanalysis, Thermodynamics, Fluid Mechanics, Heat Transfer