

SONU KUMAR KEDIA

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

4th Year Undergraduate, B. Tech in Mechanical Engineering

ACADEMIC PROJECTS

- **Railway Ticket Reservation & Management System:** An Application developed in C language to manage the entire railway's 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 buildings, walls, high buildings. Precious control saves human labor and time.
- **Automation of Aquaponic System:** A B.Tech Project in which an automatic stable and mutual resource sharing system is designed to grow plants and aquaculture without using soils, it will be effective for the desert area or even agriculture in space. Different sensors like pH, Nitrate, Thermo, water level, etc are used for this purpose. (Guide - Dr. Prabir Sarkar)

OTHER PROJECTS

- **Digitalized Solutions for TnP and Mess:** Web Portal and Biometric Attendance device developed for Mess and Placement Cell for managing User entries and taking attendance with Real-Time Sync.
- **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 (Jio Phone App):** A working prototype app developed in the hackathon event by JIO at Inter IIT Tech Meet, IIT Bombay. Features were Farmers can rent/borrow resources from others within a certain distance, 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

- **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>) (Summer 2018)
- **Augniscient Pvt. Ltd.:** Internship in a company in the field of Augmented Reality, Worked as a developer and software architect for the development of App and Website for Inventory & HR Management. (Company Link – <https://www.augniscient.com>) (Summer 2019)

COMPUTER SKILLS

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

COURSES TAKEN

Calculus, Data Structure, Linear Algebra, Computer Vision, Differential Equations, Database, Introduction to Computing, Probability, and Statistics, Operations Research, Management and Marketing