

Praveen Soni

Chemical Department | sonipraveen255@gmail.com,8890410233 | IIT Delhi (110016)

ACADEMICS DETAILS

Indian Institute of Technology, Delhi

Dual, Chemical Engineering

Yadav Bharti Senior Secondary School, Bikaner

RBSE (12th Std.)

R.S.V Senior Secondary School, Bikaner

CBSE (10th Std.)

SGPA:7.8

(2018-2023)

Percentage:89%

(2017-2018)

CGPA:10/10

(2015-2016)

SCHOLASTIC ACHIEVEMENTS

- Qualified JEE Advanced with 98.91 percentile score among **1,64,000** candidates that year.
- Awarded with silver medal, city topper in National Science Olympiad conducted by SOF.
- Received prestigious KVPY award by Indian Govt. for exceptional performance in science.
- Awarded certificate of excellence for perfect grade point after 12th class in PCM by MHRD.

PROJECTS

▪ **Numerical Application of Comparative Analysis in Lithium Ion Battery**

Professor MKS Verma, Chemical Engineering Department, IIT Delhi

- Reduced order model for lithium ion cells based on volume averaging and profile-based approximations.
- Amenable for battery management system algorithms, detailed parameter estimation, calendar life prediction.

▪ **Numerical Analysis of Computational Application in Microelectronics**

Professor Jayati Sarkar, Chemical Engineering Department, IIT Delhi

- Programmed a system to find the resolution of one circuit series containing nonlinear elements such as a diode.
- Development of reliable numerical simulations of complex models appearing in physics and life Science.

Course Projects

▪ **Integrated Circuit Design of Buzzer System for Emergency Using 555 Timer**

Introduction to Electrical Engineering

- Developed & designed an Electrical Circuit using a 555 Timer, whereby an alarm beeps on pressing the button.
- It acts as a safety alarm for alerting in case of an **Emergency** used by banks as a safety measure against robbers.

▪ **Working Proof of Concept for semi-autonomous Rube Goldberg Machine**

Product Realisation and Manufacturing

- Designed the Rube Goldberg which performs a simple task in a very complex fashion, including a chain reaction.
- Manufactured the parts using various laboratory techniques such as 3D printing, carpentry, sheet metal etc.

RELEVANT COURSES DONE

- Numerical Methods, Linear Algebra and differential Equations, Calculus, Chemistry of Interfaces, **Transport Phenomena**, Biology for Engineers, Electromagnetic waves & Quantum Mechanics
- **Completed by summer'19:** Thermodynamics, Chemical Reaction Engineering, Fluid Mechanics, Heat Transfer

TECHNICAL SKILLS

Languages: C, C++, python, Standard ML

Miscellaneous: AutoCAD, SOLIDWORKS, Microsoft Office, Inventor, Adobe Creative Suite

EXTRA CURRICULAR ACTIVITIES

▪ **Cinematography & Photography Club, IIT Delhi: Core Team Member**

- Won Interhostel Ad-making competition securing overall 3rd position among 13 hostels.
- Conceptualised and organised various events in campus to promote PFC culture in IIT Delhi.

▪ **Fine Arts & Crafts Club, IIT Delhi: Coordinator**

- Won Interhostel comic making competition securing overall 2nd Position.
- Secured 2nd position in making BHM stalls organised by 'Board for Hostel Management'.
- Worked in "House Day" event organised for the farewell of seniors by making props and posters.
- Participated & Managed Various events organised by FACC, IIT Delhi.