

# Soumyadeep Khamrai

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## PROFILE SUMMARY

I am a final year student currently studying B.E. Mechanical Engineering at Jadavpur University. I am interested in the core domain and like to incorporate the knowledge of the subjects into practical scenarios. I am comfortable in DS Solidworks and simulation in ANSYS platform. I have a basic understanding of FEM. I am an enthusiastic individual who likes to be a team player.

## EDUCATION

DEGREE	INSTITUTION	SCORE
Bachelor of Mechanical Engineering	Jadavpur University, Kolkata	8.34 CGPA (2020-Present)
Grade 12 (WBCHSE)	RKMV Narendrapur, Kolkata	96.6 % (2020)
Grade 10 (WBBSE)	RKMV Narendrapur, Kolkata	94 % (2018)

## TECHNICAL SKILLS

- Programming Languages – C
- MATLAB, MS Excel, MS PowerPoint
- Designing Software – AutoCAD (2D), DS Solidworks (3D), Ultimaker CURA
- Simulation Software – ANSYS Fluent, ANSYS Static Structural

## WORK EXPERIENCE

### Vocational Trainee at Mejia Thermal Power Station

(06/2022)

Gained knowledge about the basics of a coal-based power plant, the working of various components, protocols, safety issues of the power plant, and various industry-related knowledge. Studied various operations of a power plant and in details about thermodynamic cycles and mechanical operations. Analyzed and prepared a detailed project report on the same.

## PROJECTS

### Hyper Elastic Material Simulation at IIT KGP

(05/2023-07/2023)

Studied the properties of the hyper-elastic materials under different loads and documented their behavior. Simulated the load using ANSYS static structural and prepared a report on hyper-elastic simulation of hollow pipes.

### Battery Thermal Management System

(06/2023-present)

Carried a literature survey on the existing models of the BTMS system and recognized the gap for improvements. Working with a team of 5 people on designing a low energy consuming BTMS. Incorporated passive cooling materials and carried simulation on ANSYS Fluent for the model. Prepared a report of energy consumption and temperature drops and currently working on design optimization.

### Designing a 3D printed drone

(08/2022-12/2022)

Designed a drone in Solidworks 19 and used Additive manufacturing techniques to 3D print it using PLA. Arduino platform was used for sensor integration and carried structural and force analysis.

## CLUB ACTIVITY

### Team XLR8, JUMSC (SAE Affiliated Club)

(08/2021 – present)

Position of Responsibility – Membership Chair, Brake Team Head

Managed a team of 75 members in the manufacturing of Go-Kart and successfully conducted the club orientation for the 2023-24 season and inducted them as club member in the SAE society. As brake team head designed and calculated the brakes to be installed for the Go-kart and currently working on the E-kart. Prepared detailed report for SAE competition on the same.

## ACHIEVEMENT

- AQUEST 2023 National Winner (Organized by ISHRAE)

## EXTRA-CURRICULAR

Reading Storybooks

Watching and playing football

Listening to songs