

# IJAB M RAHMAN

MECHANICAL ENGINEER



Nationality : Indian

Mobile: +91 97783 39629

LinkedIn: [ijabmrahman](#)

Email: [ijabmrahman@gmail.com](mailto:ijabmrahman@gmail.com)

Website: <https://ijabmrahman.netlify.app/>

## EDUCATION

---

- **Bachelor of Technology - Mechanical Engineering - CGPA:7.71(First class)** Kerala, India  
*TKM College of Engineering, Kollam, Kerala* 2020 - 2024  
APJ Abdul Kalam Technological University
- **Higher Secondary (SSLC :100% + HSE : 95.91%)** Kerala, India  
*TKM Higher Secondary School, Kollam, Kerala* 2018 - 2020

## PROJECTS

---

- **Universal Motorcycle Central Stand based on Slider-Crank Mechanism (Patent filed):**  
Application No : 202541004656 A, Journal No : 07/2025 Dated 14/02/2025
  - An innovative center stand for motorcycles that enhances usability and reduces the effort required for deployment developed using Solidworks.
  - Conducted Stress Analysis using **SOLIDWORKS structural simulation** and validated with hand calculations.
- **Powertrain Efficiency of an Electric vehicle:** Developed a mathematical model that can simulate and optimize the efficiency of an electric vehicle's power system in terms of energy consumption (Wh/Km) using Matlab.
- **Conjugate Heat Transfer for cooling of Multiple Electronics Chips using Ansys Fluent:**  
Analyzed simultaneous heat transfer in both solid and fluid domains, including heat transfer at their interface.

## EXPERIENCE

---

- **Market Research Executive**  
*Conceptia Software Technologies, Kochi, Kerala* Sep 2024 - April 2025
  - Achieved a **166%** increase in startup program enrollments, expanding from **6 in 2024** to **16 in the first quarter of 2025**, significantly contributing to overall business growth and client engagement.
  - Recognized with the '**Great Job**' award in December 2024 for exceptional contributions to the growth of the SOLIDWORKS Startup Program.
  - Optimized designs for manufacturability using SOLIDWORKS, ensuring parts were production-ready for CNC machining and other manufacturing processes.
  - Conducted market research to enable industries to design for manufacturability, assisting customers with technical queries on SOLIDWORKS.
  - Assisted pre-sales and post-sales technical consultations, assisting in troubleshooting design-related queries and optimizing CAD workflows.
  - Analyzed Industry trends to suggest enhancements in mechanical design processes, CAD automation, and product lifecycle management (PLM) solutions.

- **Research Intern - Product Development Engineer (CAE Engineer)**  
*Simulation Lab* *April 2024 - June 2024*
  - **Battery Thermal Management System (BTMS) using nanofluids for EVs:** Analyzed the thermal behavior of nanofluids with respect to different temperatures in thermal network design using **Ansys Fluent** for maintaining temperature uniformity and reducing the maximum temperature of batteries using nanofluids.
- **Internship Trainee**  
*Kochi Metro Rail Limited* *Jan 2024*
  - **Rolling Stock Department :** Learnt about inspection of rolling stock components to ensure operational efficiency and safety compliance.
  - Used **CNC** and conventional machining processes for marine components.
  - Participated in safety and compliance training, aligning with ISO 9001 standards.
- **Internship Trainee**  
*Cochin Shipyard Limited* *Sep 2023*
  - **Ship building division :** Maintenance and inspection of various ship components, ensuring operational efficiency and adherence to safety standards.
  - Assisted in the **inspection of machined parts** for dimensional accuracy and surface finish, reducing downtime and improving operational efficiency.

## CERTIFICATIONS

---

- **CSWA - Certified SOLIDWORKS Associate** - *Dassault Systèmes*
- **SOLIDWORKS SIMULATION ASSOCIATE** - *Dassault Systèmes*
- **SOLIDWORKS - Mold Design** - *LinkedIn Learning*
- **SOLIDWORKS: Simulation for Finite Element Analysis** - *LinkedIn Learning*
- **Autodesk Fusion 360 ESSENTIAL** - *Autodesk Authorized Certification*
- **EV Powertrain Design, Selection and Calculations** - *ISIE INDIA*
- **EV Motors Design & Simulation** - *ISIE INDIA*
- **Excel for Engineering** - *LinkedIn Learning*
- **Mechanical Systems: Reading HVAC, Plumbing, and Other Drawings and Schematics** - *LinkedIn Learning*
- **EV & HEV Battery Pack design** - *ISIE INDIA*
- **G-Code Programming for CNC Foundations** - *LinkedIn Learning*
- **Industrial Design Foundations** - *LinkedIn Learning*
- **Reverse Engineering Foundations: Product Design** - *LinkedIn Learning*
- **Rapid Prototyping for product design** - *LinkedIn Learning*
- **Geometric Dimensioning and Tolerancing** - *LinkedIn Learning*
- **Ansys Fluent - CFD training** - *SAE ISS*
- **Health and Safety - Fire Safety Training and Planning** - *CPD Certified*

- **Occupational Safety and Health: Fire and Emergency Preparedness** - *LinkedIn Learning*
- **IIT Bombay Business Fundamentals for Entrepreneurs : Internal Operations** - *NPTEL*
- **Prospecting Sales** - *Dassault Systèmes*
- **Sales Negotiation** - *LinkedIn Learning*

## SKILLS SUMMARY

---

- **Technical:** HAP, Mechanical Design, Adobe Photoshop, Illustrator, GD&T, Blender, ChatGPT, Canva, MS Office, MS Excel, MS Powerpoint, MS Word, LaTeX, OverLeaf, HTML, CSS, Prompt Engg, Solidworks, CNC Machining, AutoCAD, Ansys Fluent, Autodesk Fusion 360
- **Soft Skills:** Leadership, Collaboration, Graphic Design, Attention to detail, Creative Thinking, Critical Thinking, Event Organizing, Time Management, Commitment, Communication, Negotiation, Team Work, Adaptability, Planning, Problem-Solving
- **Speaking Languages:** English, Hindi, Arabic (Basic), Malayalam

## ACHIEVEMENTS

---

- **SAEISS National level Competition on CFD using Ansys Fluent 2023** **AIR 2**  
*Technical Team Member* *October 2023*
- **Extrude 3D-Modelling Competition** **First Prize**  
*ISTE National Fest* *July 2022*
- **Engine Assembly Competition - Hestia'22 TKMCE National Tech Fest** **First Prize**  
*Technical Team Member* *May 2022*
- **Formula Bharat FBV CV 2021-22** **AIR 16**  
*Suspension Team Member* *2022*
- **Provisional Discovery of Main belt Asteroid: - IASC & NASA**  
*2021 JA43* *2021-2022*