

Md Talha Ateeque

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Patna | Bihar

ABOUT

A Mechanical Engineering graduate with distinction, passionate about innovation and technology. Actively participated in multiple projects and clubs, strengthening both technical expertise and leadership skills. Proficient in CAD, simulation, and coding, with a strong problem-solving mindset. Recognized with state awards for innovation. Gained hands-on R&D experience at Reliance Industries Limited, contributing to the solar value chain, specifically in mono silicon ingots and wafers.

EDUCATION

Degree/Certificate	University/Board	CGPA/Percentage
B.Tech	Cochin University of Science And Technology	8.53 /10
Senior Secondary	CBSE	70.4%
Secondary	CBSE	9.6/10

EXPERIENCE

- Gladius & Schild**
Mumbai Project Management Officer

Infopark, Kochi
Nov 2024 – Present

 - Led and managed cyber security projects, ensuring timely execution and quality standards.
 - Coordinated cross-functional teams, defined project scope, and mitigated risks.
- RPPMSL - Reliance Industries Limited**
Manager – Wire Saw Engineer (Ingot & Wafer, Solar Value Chain)

RCP, Navi Mumbai
Jul 2024 – Nov 24

 - Oversaw the diamond wire sawing (slicing) process for monosilicon bricks in the Ingot & Wafer (I&W) department.
 - Optimized the most critical and damage-prone step in the I&W process to minimize losses and defects.
 - Analyzed wafer surface features and implemented improvements to enhance surface finish and eliminate sub-surface defects.
 - Worked on a plant projected to have 144 wire saws, ensuring process efficiency and reliability.
- RNSEL - Reliance Industries Limited**
Graduate Engineering Trainee – Ingot & Wafer (Solar Value Chain)

RCP, Navi Mumbai
Aug 2023 – Jul 24

 - Part of the Ingot & Wafer (I&W) department, contributing to the startup phase of India's first 16GW solar giga complex with an integrated quartz-to-panel manufacturing approach.
 - Gained hands-on experience in the complete monosilicon ingot and wafering process, from polysilicon processing to ingot growth and wafer slicing.
 - Assisted in process planning, plant layout design, equipment procurement, and vendor management for the wafering section.
 - Worked under Dr. Hak Do Yoo & Dr. Jong Hoe Wang, pioneers in monosilicon ingot & wafer technology, as part of the technology team.
- Centre for Non-Destructive Evaluation (CNDE)**
Research intern

IIT Madras, Chennai
June 2022 – July 23

 - Worked under Prof. Krishnan Balasubramanian for a year, specializing in ultrasonic NDT techniques.
 - Studied phased array ultrasonic testing (PAUT) with FMC-TFM methodology.

- Simulated wave propagation using Abaqus to analyze material behavior.
- Conducted TFM imaging of FRP laminates, accounting for their inhomogeneity.
- **BMW Infinity Cars** *Mayapuri, New Delhi*
Intern *July 2021*
 - Got hands-on experience in sales, service, repair, and consumer relations in the automobile industry.
 - Learned about different automobile advancements and mechanical problems/failures regarding an LMV.
 - Dealt with different front desk chores and consumer management.
- **R'Vees Industries Private Limited** *Patna, Bihar*
Intern *December 2021*
 - Learned about different supply chain technologies and methodologies of a B2C business.
 - Made a deeper understanding of the challenges faced in the supply chain sector, especially the B2C market.

FURTHER EXPERIENCES

- **SAE CUSAT** *Cochin, Kerala*
Student Chairperson *Aug 2022 – Jun 2023*
Colligate chapter of the Society of Automotive Engineers
 - Envisioned and founded the *colligate chapter of the Society of Automotive Engineers*
 - Created a society of technically passionate and aspiring students to raise different ideas solving global problems.
 - SAE CUSAT now caters 8 teams competing for different SAE events (hBAJA, Supra etc.). These teams have got national awards and achievement.
- **Tarusa Motorsport** *Cochin, Kerala*
Vice Captain/Rollcage subsystem head/CAE Engineer *Oct 2020 – Mar 2022*
*A student-formed off-road racing team competes in national competitions like **BAJA SAEIndia**. We indulge in the design and fabrication of off-road ATV vehicles.*
 - Led and managed a student-formed off-road racing team competing in BAJA SAEIndia.
 - Oversaw team management as Vice Captain, ensuring smooth operations and coordination.
 - Designed and analyzed ATV components for structural integrity and failure prediction.
 - Specialized in rollcage design and CAE simulations using SolidWorks, Ansys, IPG Carmaker, and Adams.
- **TEDxKalamassery** *Cochin, Kerala*
Comm. & Editorial Lead *Nov 2020 - Nov 2021*
 - Managed content creation, speaker coordination, and promotional strategies to enhance event engagement.
 - Led editorial efforts, ensuring clear and impactful communication aligned with TEDx standards.
- **MECHANICAL ENGINEERING STUDENTS' ASSOCIATION OF CUSAT** *Cochin, Kerala*
Joint Secretary *May 2021 - April 2022*
 - Led event planning, workshops, and technical sessions for the mechanical engineering community.
 - Managed team coordination and student engagement initiatives within the association.
- **SpaceUP – International event** *Cochin, Kerala*
Host *March 2021*
 - Hosted the fourth SpaceUP event from India
 - Got a chance to interact with several renowned speakers, including MC Dathan, an Indian space scientist and former director of Vikram Sarabhai Space Centre
- **With Love, We Care** *Patna, Bihar*
Team Content and Sharing Circle *March 2021*
 - WLWC is a mental health initiative to create awareness and safe spaces.
 - Worked on curating safe content and hosting sharing circles.

- **Bihar Rapid Action Team**

Founder

Patna, Bihar

March 2021 – May 2021

- Founded a crisis aversion committee in Bihar, comprising 150+ members during the second COVID outbreak
- Responsible for managing and sharing resources (Hospital Beds, Ambulances, Oxygen Cylinders, etc.)

PROJECTS

- **TFM Imaging of Fiber-Reinforced Plastic Using Backwall Reflection Method**

CNDE, IIT-M

Jan 2023 - Present

- Developed an adaptive ultrasonic imaging technique for anisotropic FRP laminates using Full-Matrix Capture (FMC) and Modified Total Focusing Method (M-TFM) to improve defect detection.
- Accounted for angular variations in wave velocity, employing the Backwall Reflection Method (BRM) to enhance imaging accuracy and resolution.
- Conducted experiments on defective FRP specimens containing delamination, foreign object debris (FOD), and impact damage, using a phased array ultrasonic testing (PAUT) system.
- Implemented a velocity-corrected TFM algorithm, ensuring accurate defect characterization and overcoming traditional ultrasonic limitations.
- Currently working on a research paper documenting findings for publication in ultrasonic NDT and composite material inspection.

- **Millet De-husking Machine**

CUSAT, Kerala

Dec 2021 – March 2022

- Developed a small-scale millet dehusking machine for Little Millets, Foxtail Millets, and Kodo Millets, inspired by the needs of the tribal community of Attapadi and initially sought by the Government of Kerala.
- Designed for family and community use, ensuring efficient and accessible grain processing.
- Awarded first prize by The Kerala State Council for Science, Technology and Environment (KSCSTE), Government of Kerala, at a state-level tech fest and received national recognition from Indian Institute of Millet Research (IIMR), Hyderabad.
- Patent published, with an official grant awaited.

- **40 LPM Flow Oxygen Concentrator (OxyCon)**

AIPIF Labs, Hyderabad

March 2021 – Aug 2021

- Developed a low-cost, efficient oxygen concentrator during the COVID-19 crisis to address the urgent need for medical oxygen. The design was based on open-source information from OxiKit and built in collaboration with AIPIF, an NGO working across India on humanitarian grounds.
- The machine was designed to provide a steady supply of oxygen to patients in critical conditions, particularly those facing life-threatening oxygen shortages.
- Engineered to deliver 92% oxygen purity at a 40 LPM flow rate, making it capable of supporting three patients simultaneously in emergency situations.
- Received certification from Tata Institute of Fundamental Research, Hyderabad, validating its efficiency, reliability, and potential for real-world application.

- **Self Height Adjusting Table**

Hyderabad

Jul 2021 – Aug 2021

- Designed and modified a table with hydraulic actuators, allowing seamless height adjustment.
- Implemented key-controlled operation for ease of use and adaptability.
- Focused on ergonomic design and functionality, making it suitable for diverse applications.

- **Tarusa Motorsport - Off-Road Vehicle Development**

CUSAT, Kerala
April 2020 – April 2022

- *Designed and built an all-terrain vehicle (ATV) from scratch as part of Tarusa Motorsport, a student-run off-road racing team competing in BAJA SAEIndia.*
- *Started as a Design and CAE Engineer, responsible for component design and failure analysis using SolidWorks, Ansys, and Adams.*
- *Gained hands-on experience in real-time manufacturing, utilizing lathe, CNC machining, and fabrication techniques to bring designs to life.*

ACHIEVEMENTS

- *The Oxygen concentrator (OxyCon) produced 40 Liters of oxygen per minute with 92% purity, which is novel and was endorsed and certified by TIFR, Hyderabad.*
- *Team Tarusa Motorsport secured AIR 20 in SAEBAJA India for 2021*
- *The indigenous tribal people developed the Millet de-husking prototype, which won first position in the annual tech fest organized by KSCSTE on a State Level and was recognized by IIMR, Hyderabad.*
- *Won best innovator award for the session 22-23.*

TECHNICAL EXPERTISE

Programming – Python, MATLAB, C Programming

Tools – ANSYS Mechanical, Fusion360, SolidWorks, ABAQUS, MATLAB, IPG Carmaker, Lotus Shark

LANGUAGES KNOWN

English, Hindi, Urdu, Punjabi, Malayalam

