



Rishi Dhar

Researcher and Project Manager

Profile

LCA for Battery Cells | Battery development | Multiphase Solver Development | Experienced Design Engineer | Oil and Gas Project Management | Renewal Energy Feasibility and Implementation |

Professional Work

Master Thesis at SIEMENS

May 2023 — November 2023, Munich, DE

- Working on Battery Slurry modelling and Battery recycling processes.
- Preparing a Life-Cycle-assessment chart for clients who are in process of setting up manufacturing plants for Lithium Ion Cell Manufacturing.

Intern at SIEMENS

March 2023 — May 2023, Munich, DE

- Validated models for Battery Slurry mixing using CCM + and NX.
- Made a data-driven approach to verify the slurry quality using RNN models.

Assistant Manager at Bharat Petroleum Corporation Limited, Vadodara

July 2017 — June 2021, Vadodara, IN

- Worked on integrating the existing automation and safety PLC along with managing an expansion project for the Manmad terminal worth 600 Cr INR capex.
- Digitized Audits for easier accessibility and higher governance. The projected occurred in tandem with SAP and Salesforce to cover aspects of regular maintenance checks across the plant.
- Worked on the SLOP management project on environmental clearances for waste product management and liaison for BPCL with local bodies.
- Data Analysis on retail outlet location feasibility, setting up the outlets and managing a 75+ retail client network across 5 districts of Gujarat, India.
- Lead a CNG extension line for 3 towns coordinating with GAIL, District administration and PESO (Petroleum Safety Organization). Floated and awarded tenders worth 70 Cr INR and closed multiple Capex projects worth 321 Cr INR with negotiations across several district and local authorities.

Summer Intern at Hero Moto Corporation Limited

May 2016 — July 2016, Gurgaon, IN

- Designed and submitted a patent request for an Engine Test Bench for CKD engines. This helped in delivering 100% quality certification on engine exports for Africa Market.

Education

Masters in Computer Aided Conception in Mechanical Engineering, RWTH Aachen

October 2021 — April 2024, Aachen, DE

Grade: 2,0

Bachelors in Mechanical Engineering, Maulana Azad National Institute of Technology

April 2013 — June 2017, Bhopal, MP, IN

- Graduated among top 10% of Class.
- Grade 1,9

Details

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Date / Place of birth

08/11/1995

Kolkata, India

Nationality

Indian

Links

[Linkedin](#)

Skills

Star CCM +

Java

OpenFOAM

NX

Python

FORTRAN

Ansys

Data Analysis

Tecplot

Matlab

Solidworks

Hypermesh

Contract Negotiation

Management Skills

Flexibility and Adaptability

Languages

German

English

Hindi

Academic Experience

Student Research Assistant , Institut für Technische Verbrennung

February 2022, Aachen, DE

- Spray Simulations (using Fotran) on RWTH cluster preparing reduced order models in coherence with experimental results.
- Extending the model for multi fuel multiphase fuel injections using ECN data for validation along with in house experimental data.

Student Research Assistant, Institute of Jet Propulsion, RWTH Aachen

December 2022 — April 2023, Aachen, DE

- LES for Compressor Blade Cascades using Trace for Periodic Boundary Conditions in coordination with MTU.
- Postprocessing using Tecplot and Pytecplot for Temperature and Pressure Contours.
- Data filtering and model validation in python.

Projects

Design Lead at Electric Solar Vehicle Championship, Bhopal, India

January 2015 — July 2016, Bhopal, IN

- Leadership and Budget responsibilities for 5 member Team.
- Design and Manufacturing of 1.2 Cd Drag Chassis for a Solar Operated Vehicle including Lightweight Alloys and highly ergonomic and safe roll cage.

Project Leader at Canard Missile Design

July 2016 — January 2017 Bhopal, IN

- Designed Nose Profile(CATIA and Solidworks) for Canard type Missiles analyzing Mach profiles at Transonic Flows (ANSYS)

Team Member at Exhaust Gas Recirculation

January 2015 — June 2015, Bhopal, IN

- Prototyped an EGR for simulating real-time behaviour.
- Measured COx, NOx emissions using Exhaust Gas Analyzer under different Load conditions.

Courses

Introduction to Machine Learning in Python, Coursera

Artificial Neural Networks, Udemy

Engine and FI Technology, Bosch

Achievements

Gear Up for GMV, Bharat Petroleum Corporation Limited

July 2020

FINO payments Bank Limited's collaboration with BPCL has promoted banking at the village level. This has also been achieved through our presence in the rural market. The innovative relationship between BPCL and FINO has simplified the distribution and handling of cash and made life easier for countless citizens.

Best Design Award, Electric Solar Vehicle Championship.

April 2016

Award for the best design for a solar-powered vehicle in a nationwide competition called ESVC in 2016. Across India, more than 150 universities participated, of which our design was rated best in the areas of safety, weight reduction, and ergonomics.