Milan Bahadur Chhetri

BIW Engineer |Mechanical Engineer |Design Engineer

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Profile Summary

Highly skilled mechanical engineer with over 6 years of experience in product design and development, specializing in BIW and battery case mechanical design. Proficient in concept generation, manufacturing processes, Hand calculation & FEA, with expertise in adhesive testing and selection. Demonstrated leadership in managing cross-functional teams and optimizing designs for weight, safety, and efficiency. Strong background in CAD software, including Siemens NX, Catia V5/V6, and Creo, with a proven ability to execute complex projects from concept to production. Committed to continuous learning and seeking a challenging position in a forward-thinking company that offers opportunities for professional growth and advancement.

Education

MSc (Res) Advanced Manufacturing Technologies
(The University of Sheffield)
2022-2023
Merit

B. Tech. Mechanical Engineering
(Lovely Professional University)
2011-2015
Honours

Brief Profile

Full Name-Milan Bahadur Chhetri
Nationality- Nepalese
Work Experience-7 Years
Birth Date-12-Feb-1995
Father's Name- C. B. Chhetri

Skills & Expertise

BIW
Sheet Metal/Plastic
Adv. Solid Modelling
Adv. Surface Modelling
Benchmarking
G D & T
Mechanism/Motion Simulation
DFMEA
3D Printing (Additive Manuf.)
MS Office
Finite Element Analysis
Stamping/Casting/Extrusion
Hand Calculation
DVA
DVP&R
Communication
Quick Learner

Work Experience (6+ Years)

Commodity Engineer-ACCELERA BY CUMMINS (UK)
Duration: October 2023 to till now
Department: Battery case mechanical design
Tools: Creo, Windchill, Ansys

1) Performed and investigated benchmarks for battery case frames and cell stacking methods, identifying opportunities for concept improvements to enhance feasibility and efficiency.
2) Conducted adhesive, welded & bolted joint comparison, testing and selection, evaluating tensile, peel, and shear strength, as well as temperature, humidity resistance, and long-term aging performance.
3) Designed and developed compression jig to apply and retain beginning-of-life load to the cell stack, along with a fixture for testing the cell stack under vibration and shock.
4) Developed CAD models and managed the release process for owned components, conducted DFMEA and DVA for assemblies, ensured DFM through supplier engagement, created build process plans for cell stacks, and designed experiments to validate materials and joinery methods.
5)Conduct hand calculations & FEA to validate design integrity and performance.

Senior Engineer-Renault Nissan Technology Business Centre India
Duration: September 2017 to September 2022
Department: Product Design & Development – BIW
Tools- Catia V6, Siemens NX, Ennovia, Team center

Project - Alpine
1)Managed a four-person team to mass-optimize BIW to meet CAFÉ targets.
2)Studied master sections for Roof, Roof Bow, Front Roof Rail, and Cantrail.
3)Mentored Graduate Engineer Trainees (GET) on various BIW knowledge areas.
4)Conducted vehicle benchmarking and prepared A2MAC assembly comparison documents to track OEM market trends.
5)Designed Body side Outer/Inner panels in accordance with styling updates.

Decision Making
Adaptability/Flexibility
Time Management
Self-Motivated
Creativity

Languages

English	Proficient
Hindi	Native
Nepali	Native

Software Skills

Catia V5/V6	Proficient
Siemens NX	Proficient
Creo	Proficient
Enovia	Proficient
Team Centre	Proficient
Windchill	Proficient
Ansys	Skilled
Solidworks	Skilled

Hobbies

Table Tennis	Futsal
Cooking	PC-Games
Watching Anime	Team Sports

6)Prepared team management documents for presentations to higher management.

Project – Battery Case/EV Platform
1)Led a two-member team in designing and packaging an aluminium battery case for EV and PHEV applications.
2)Optimized battery case mass to achieve high energy density targets.
3)Designed the Shotgun structure to meet EV charging connector requirements and SOL crash regulations.
4)Designed an aluminium cowl top to meet mass targets.
5)Analyzed sill assembly master sections.

Design Engineer - TATA TECHNOLOGIES (Vendor)
Duration: June 2016 to September 2017
Department: Painted Body & Closure-BIW (Volvo)
Projects: Polestar-1
Tool- Catia V5, Team center

1) Designed A-Header & C-Header (Carbon Fibre).
2) Designed carbon fibre & glass fibre parts.
3) Designed B-Pillar reinforcement &structural Foam, Cant-rail Capping, Braided tube & Foams.
4) Designing Structural Adhesive, Cosmetic & Seam Sealant paths between Carbon Fibre parts.
5) Designed Fuel Flap & EVI mounting bracket.
6) DPA check on vehicle's node with BIW nodes