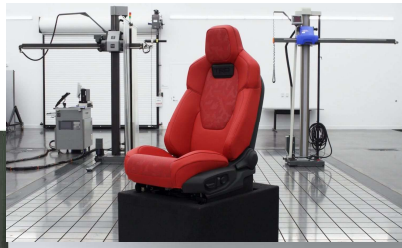
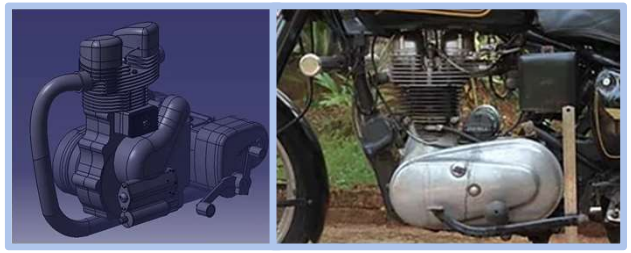
MY WORK EXPERIENCE

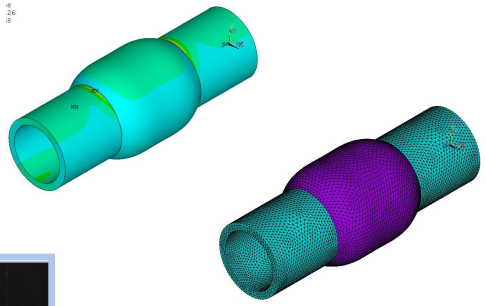
ASHWIN PUTHAN PURAYIL



EDUCATION

- Masters of Engineering, Mechanical Engineering. GPA: 3.8/4.00
- Master Diploma, Product Design and Analysis
- Bachelor of Engineering, Mechanical Engineering FIRST CLASS



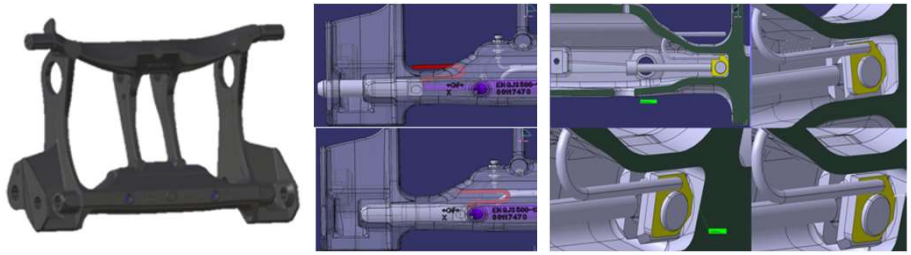


- Awarded scholarship to pursue Masters in Mechanical Engineering at RIT.
- Worked as Graduate Teaching Assistant for FEA Lab at RIT.
- Worked as an instructor at CADD CENTRE.

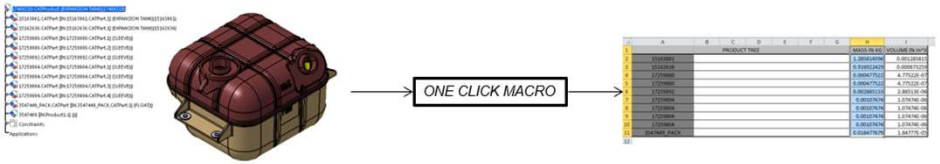
VOLVO CONSTRUCTION EQUIPMENT

DESIGN ENGINEER *(INTERNSHIP)*

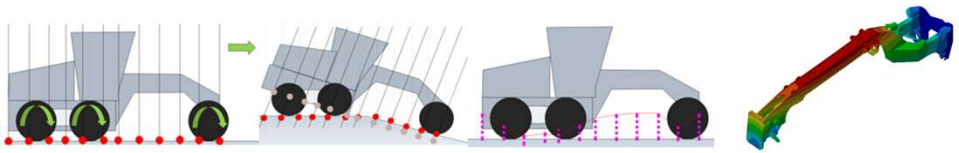
BENCHMARKING



WHEEL LOADER ATTACHMENT



COST REDUCTION USING VB SCRIPT

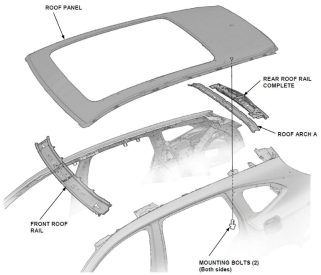


SIMULATION

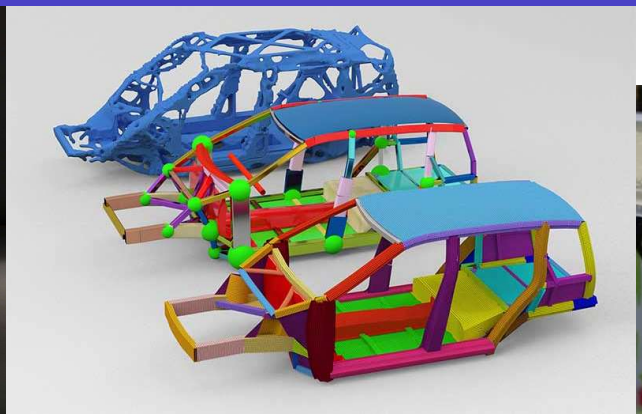
HONDA R&D AMERICAS, INC

DESIGN ENGINEER

- Designed & developed BIW components of Honda Acura vehicles using CATIA.
- Part consolidation of roof structure components using Tailor Welded Blank.
- Performed tolerance stack-up analysis and created engineering documents.
- Participated in the topology optimization studies for BIW structures.
- Worked on the platform development program, which was used in several other projects.
- Improved NVH performance by controlling the foam using resin structures at B pillar.



HONDA
Honda R&D Americas, Inc.

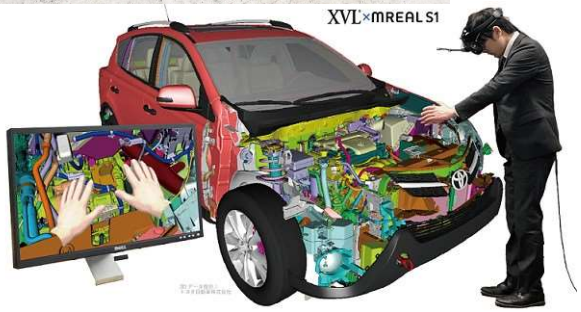


TOYOTA NORTH AMERICA

DESIGN ENGINEER

TOYOTA MOTOR NORTH AMERICA

- Worked on the skid plate that brought 135k savings on trucks.
- Worked on the Assembly of prismatic HEV Lithium-Ion batteries for Toyota vehicles.
- Lead a team of 2-5 people for the build of chassis & worked on autonomous retrofit.
- Worked on the development of Lexus Kinetic seat, Tacoma, Tundra & Camry.
- Improved assembly quality by developing a new sequencing method using 3D data.
- Team Lead for redesigning conveyance system to reduce assembly build lead time.
- Contributed ideas for kaizen activity, which was implemented & funded by the company.

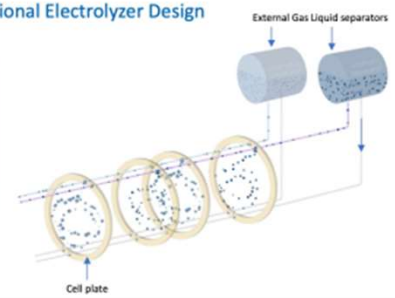


NEXT HYDROGEN
PRODUCT ENGINEER

NextHydrogen

Conventional Electrolyzer Design

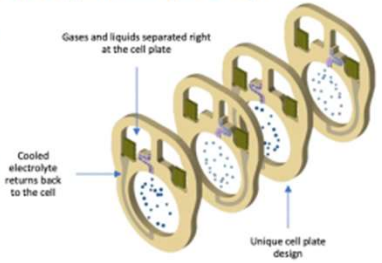
Electrolyte and gases are required to flow through pipes to external separators which limits the performance of electrolyzers



- External gas-liquid separators, outside of stack
- Potential for flow restrictions leading to uneven gas-liquid and temperature distributions at higher current densities and multi-MW scale
- Low dynamic response given distance from gas-liquid separators

NextHydrogen Electrolyzer Design

All electrolyte and gas-liquid separation occurs at each cell plate, removing limiting design features of conventional electrolyzers



- Internal gas-liquid separators in each half cell
- Decentralized gas-liquid separator ensures no fluid and gas flow restrictions across the system for higher current densities and multi-MW scale
- Superior dynamic response as gases and liquids are separated right above the cell plate

SURFACE TENSION

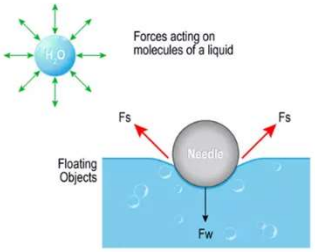


Figure – The failed bracket fracture surfaces exhibited features characteristic of environmental stress cracking (ESC). *Source: Thermo Fisher*

OUR NEXT ENERGY

Sr DESIGN RELEASE ENGINEER

- Designed & released structural components of battery energy storage systems.
- Worked on the development of Aries Grid which won the contract from GE Vernova.
- Actively participated in the new module enclosure for the next gen Aries Grid.

TTP LFP Cell

Top terminal prismatic LFP cell engineered for 8,000 cycles. UL certified for utlity-scale applications.

Aries LFP

Available in 79 kWh and 105 kWh modules configured for stationary storage. Produced at scale in Michigan.

Customizable ESS

The entire Aries Grid system can be customized for your application.

Ashwin Puthan Purayil

ashwinputhanpurayil@gmail.com

www.ashwinpurayil.com

Thank you