

CV

GHULAM HASSAN

M.Sc Mechanical, Aalto University
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PERSONAL SUMMARY

- 8-years of work experience in product development and mechanical design
- Experience of designing automotive related components mainly diesel and hydrogen engine projects
- Proficiency in 3D CAD software such as Siemens NX and PTC Creo
- CFD Expert (Star-CCM+ and GT-Suite simulations experience)
- Failure modes and effects analysis (FMEA) and functional safety ISO 26262 training from TU Wien Austria
- 8D problem solving tools including Ishikawa and 5 Whys usage experience
- Creative mind and an enthusiastic person with a contagiously positive approach
- Use structured approach with good analytical skills and logical thinking in solving problems
- Public speaking, negotiations, and good communication skills
- Proactive, determined, and able to work/create network across all cross-functions
- Strong organizational and time management skills

WORK EXPERIENCE

- 08.2022- Product Development Engineer | Senior R&D Professional Engineer
Research & Development, Sandvik Mining and Rock Solutions
Responsibilities: Parts for surface drill/underground rig vehicles
- Concept development for new parts (mostly shafts, gears, bearings, and housing parts)
 - Designing both castings and machined parts
 - Using computer-aided design tool NX to create detailed design and specifications
- 08.2018- Design Engineer
07.2022 Research & Development, AGCO Power Oy, Linnavuori, Nokia, Finland
Responsibilities: Valve Train/Gear Train/CCV Components for modern powertrain solutions
Projects: New Engine Family Core 75 and 50, Hydrogen Engine, Cylinder Deactivation Engine Brake projects
- Using computer-aided design tool PTC Creo to create detailed design and specifications
 - Product data management and generating ECR's/ECN's employing PTC Windchill
 - Making part and assembly drawings using GD&T and identifying key characteristics
 - DFMEA (design failure mode and effect analysis) and solving development phase reports
 - GT-Suite Simulations
 - Arranging technical meetings with suppliers from concept phase to final product
 - Arranging technical review with suppliers
 - Ordering measurement reports for prototype parts
 - Collaborating with production team for successful product launch
 - Introduced AGCO Power first Plastic Valve Cover for new engine family
- 09.2016- **Research Assistant (Mechanical Designer)**
07.2018 Engine Lab, Mechanical Engineering Department, Aalto University, Finland
Responsibilities: Design of new research-oriented cylinder head for heavy-duty engine
- Designing of new dual fuel injection system using PTC Creo
 - Designing of cooling channels for diesel engine cylinder head
 - Performing heat transfer analysis using Star CCM+ simulation tool
 - Strength analysis of structure for cylinder head using ANSYS
 - Made a robust design of cylinder head suitable for 3D printing

TECHNICAL SKILL

Software	Programming Language	Operating System
PTC Creo Siemens NX Ansys Static/MBD STAR-CCM+ GT-Suite MS Office	(Advanced Level) (Advanced Level) (Medium Level) (Advanced Level) (Advanced Level) (Advanced Level)	MATLAB (Medium Level) Windows 11 Linux

EDUCATION

- 2015 - 2017 **Masters of Science in Mechanical Engineering**
Aalto University, Finland
Major Studies: Design and Digital Manufacturing (PTC Creo), Mechanics of Material, Product Development, Internal Combustion Engine, Computational Fluid Dynamics
CGPA: 4.10/5.00 (Distinction)
Design of new cylinder head for heavy duty diesel engine – Master's Thesis
- 2009 - 2014 **Masters Diploma in Mechanical Design Engineering**
University of Engineering and Technology, Lahore
Major Studies: Computer Aided Design, Engineering Analysis, Advanced Stress Analysis, Finite Element Methods and Theory of Plasticity
- 2005 - 2009 **Bachelors of Science in Mechanical Engineering – 4 years program**
University of Engineering and Technology, Lahore
Major Studies: Machine Design, Power Plants, Hydraulic Machinery
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LANGUAGE SKILLS

English	Expert Level
Finnish	Basic Level
German	Basic Level

TRAINING/CERTIFATES

Failure modes and effects analysis (FMEA) and functional safety ISO 26262 training from TU Wien Austria
Professional certificate in lean six Sigma yellow belt - TUM Germany
Creo wiring harness training PTC University (PDSVision Oy, Tampere, Finland)
SAE certificate in Hybrid and Electric Vehicle Sytems
Project Management certificate - Google

EXTRACURRICULAR ACTIVITIES

Running (certificate of appreciation in 100 meters race)
Electronic sports
Reading science and technology magazines/journals

REFERENCES

Available on request