MUTHU V
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Education

- ✓ **Bachelor of Engineering** – Mechanical - Amrita Institute of Technology and Science - passed out in 2003 with an aggregate of 84%

Expertise Summary

Professional Experience of 17+ Years in the following Technical Areas

- 1 year in NC code programming for the forging dies.
- 4 years in Design Support for the fan-fan drives and product design of timing chain systems.
- 4 years in Design and analysis support for heavy machineries (Construction and Agricultural equipments).
- 8+ year experience in upstream applications in Oil Field Services (OFS)

Organizational Experience

Apr 2014 – Till Date	Tata Consultancy Services, Chennai
Aug 2010 – Mar 2014	Dell Services, Hyderabad
Dec 2006 - Jul 2010	BorgWarner Thermal Systems, Chennai
Sep 2005 - Nov 2006	EL Forge Limited, Chennai
Nov 2003 - Aug 2005	AD Technologies, Chennai

Technical Competency

Oil & Gas	Upstream applications and products, Tolerance study, Design Calculations, Technical Data Sheets, Design Layouts
Automotive	Product design of timing chain kit Static structural analysis of timing chain components using Ansys Workbench Application of GD & T and Stack-Up Analysis for timing chain components Design Support for fan and fan drives NC programming for forging dies for manufacturing of connecting rods etc.
Heavy Engineering	Product Design and Validation of Light Structure components in Medium Wheel Loaders.

Software Skills

CAD/CAE	Solidworks 2015 Pro-E WF4 – Modelling, Assembly, Detailing and Mechanica Unigraphics NX5 Autodesk Inventor 2010 & 2012 Ansys Workbench11.0
Modules skill	Modelling, Assembly and Detailing (Solidworks, Unigraphics, Pro-E & Inventor) Sheet metal using Solidworks **Static Structural Analysis** using Ansys Workbench
PDM/PLM	Smarteam and Teamcenter

PROFESSIONAL EXPERIENCE

Tata Consultancy Services, Chennai – Technical Lead & Program Manager

Major Responsibilities

1. Currently handling a team of 80+ associates across India, Mexico and US 2. Responsible for SOW creation and approval, managing the team expertise levels, gaining customer approval in sizing up the team, managing infrastructure facilities at offshore co-ordinating with all operating teams. 3. Responsible for budgeting the resources and billing submission every month, had to ensure the billing is within the budget allocated by client every quarter. 4. Manage all projects which includes product design, software applications, Simulation, Technical Publication, Metallurgy, Data Management 5. Responsible for all deliverables made by the team and have to be clear in all the project scope, a solution provider for any issues with the deliverables. 6. Connect with all client stakeholders weekly, monthly or quarterly to foresee any additional projects and increase the budget to include more product support from the service provider.	Project Management

Major Projects Handled

7. Concept Design for various sizes of Frac Plugs (Plug & Perf), Multipoint Frac Sleeves (BACS) & Optipackers (CTACS) 8. Co-ordination with onsite engineers to understand the technology and lead in distributing the work among the team, execution and prompt delivery. 9. Tolerance Stack calculations for the gaps identified in the assembly to verify the functionality at setting and run-in positions. 10. Design Calculations at part level validation to confirm the performance of the parts at setting and operating conditions. 11. Co-ordination with the internal FEA team to validate the product designed to eliminate any issues during operating conditions. 12. Conceptual layouts creation for design chair meetings at CDR & DDR. 13. Creating material master for the assembly components using SAP. 14. Organize weekly meetings with the client to submit the project status report.	Cad Competency Solidworks PLM – Teamcenter End user - SAP

DELL Services, Hyderabad - Mechanical Associate Engineer

✓ Product Design support for MWL - Caterpillar 15. Structural analysis of platform, fenders, fuel tank, handrails and hood supports 16. Extensive work to support onsite in NPI and CPI programs 17. Knowledge of using Pro-Mechanica to give best possible design for MWL	Cad Competency Pro-E WF4 Mechanica
✓ Design support to the tractor loader for AGCO Hesston 1. 3D Modelling of the components like connecting rods etc. for tractor loader 2. Creation of 3D assembly models for the space claim study 3. Creation of checklists to confirm the 3D models are free of errors	Cad Competency Pro-E WF3
✓ Wire harness design for Combine Harvester, AGCO 1. Design and development/modification of harness/groups as per the scope 2. Flattening of the harness after the design gets approved 3. Detailing of the harness design	Cad Competency Pro-E WF3
✓ Design support to CNH, Goodfield (MRX690 MULCH TILL RIPPER - 12FT) 1. Creation of 3D part, sheet metal models and Assembly ensuring CNH standards to develop the new machinery for CNH	Cad Competency Pro-E WF4

- ✓ Detailing support to CNH, Burlington and Mt.Joy facility

    1. Detailing of part and assembly models for the construction equipments called dozers (1650M,1150M, 2050M, 850M & 650M) - Push beam, Cover, Undercarriage, Cooling package, Axle support, Mufflers, Fuel lines etc.
    2. As per the need, installation drawings using background geometry were made to provide the manufacturing to have a view where the components get installed while on assembly.

- ✓ 3D Modelling, Assembly and Detailing of Quantima HSU Frame 0 and Frame 1 Compressors **(Inventor)**

    1. Creation of 3D models of the components in Quantima Frame 0 & Frame 1 compressor. After getting customer approval of the models, assembly and detailing of all the components has been done.

- ✓ Reverse Engineering of Starter box assembly **(Autodesk Inventor 2010)**

    1. Finalization in getting the electrical components approved by the customer according to the specifications in replacing the GE components with ABB and Schneider.
    2. Search for the 3D models in the Internet, 3D modelling of the electrical components, assembly of all approved components as per the physical sample.
    3. Designating the wires connecting the electrical components, measuring the wire lengths from physical sample, creation of complete assembly of the starter box through cable and wire harness.

- ✓ Reverse Engineering of 3CDC Compressor **(Autodesk Inventor 2012)**

    1. 3D modelling of the components from the input scan data in the form of iges.
    2. Prototyping of the drawings for the components modelled. Assembly of the components modelled as per the physical sample.

Senior Design Engineer - BorgWarner Thermal System, Chennai

Client: TATA Motors, Pune
Mahindra & Mahindra, Pune

Product Design of timing chain kit for 3.0L engine, Eagle Gasoline

1. Layout design of the timing chain kit based on customer input on the position of crank, cam, FIP and oil pump sprockets 2. Once the design criteria is met with the layout design, prototype 3D models are developed based on the layout design 3. Initial validation of all the components in timing chain system 4. Upon customer approval, R2 (MLP) and R3 (Production) stages are carried out 5. Design of instrumentation brackets and modification of timing chain components to help the testing team to carry out the engine testing sessions	Cad Competency Pro-E WF3 Ansys Workbench Teamcenter

Design Support to BorgWarner US and Germany facilities

✓ 3D modelling and detailing of fan and fan drives based on the ERs generated by the US and German application engineers through Smarteam ✓ Extensive use of Smarteam in creating projects, uploading files, new production and experimental part numbers, chartered drawings etc. ✓ Support to General Motors, US in using GM tool kit for the proposal of fan and fan drive drawings and models.	Cad Competency Solidworks 2008 Unigraphics NX4 Smarteam

Overseas Experience

4 months onsite work and training exposure in BorgWarner Morse TEC, Italy

CAD Engineer - EL Forge Limited, Chennai

✓ Generation of NC codes (Fanuc) for forging dies in manufacturing of components like connecting rods, cam shafts, crank shafts, yokes, spiders and sockets ✓ Verification of the tool path and generating process sheets for the shop floor people in machining the dies.	Cad Competency Unigraphics NX3 FFAUT Vericut

CAD Engineer - AD Technologies, Chennai

✓ Faculty in transferring knowledge on CAD softwares to college students and industry experts	Cad Competency Solidworks AutoCAD
✓ Deputed to Barry Wehmiller International Resources, Chennai to work on their projects in 3D modelling and detailing of the paper machinery components.	

Personal Details

Name	V MUTHU
Father's Name	Mr. VR. VEERAPPAN
Date of Birth	18th April 1982
Gender	Male
Nationality	Indian
Marital Status	Married