

Kunal Tukaram Patil B.E. (Mechanical engineering)

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CAREER OBJECTIVE

To work on challenging assignments in Mechanical Design & Product development, allowing me to leverage my technical knowledge and skills with progressive contribution towards overall growth of the organization.

PROFESSIONAL EXPERTISE AND SKILLS

- Technically accomplished professional with nearly 4+ years of experience in product design, New product development & Value product change, CAD models, Manufacturing, application engineering, project scope documentation, Cost analysis.
- Drawing release & BOM creation, large assemblies, Sheet metal, Plastic, Casting, fabrication, high quality decision making.
- Mechanical concept design & development of Generator components, Material selection, DVP&R, iDFMEA, Analytical calculation on mechanical components (Generator, shaft, housing, bearing, terminal board, stator rotor, wire harness).
- Proficient in CAD software's such as Creo-4.0, CATIA, AutoCAD-2018, Ansys. Strong expertise in GD&T standards as per ASME Y14.5M 2009, PDM/PLM & Windchill.
- Coordinate with cross functional team for preparing project plans & executing various project tasks, cost reduction activities. Investigate product problems & recommends appropriate actions.
- Daily interaction with China, UK, Romania people. Support to customer engineering & application engineering.

PROFESSIONAL EXPERIENCE

• **Name of the organization:** Cummins Generator Technologies, Pune

Designation: Junior Manager (Feb-2018 to till date)

Atlantis Lab Pvt Ltd, Pune – Deputed at Cummins as Design Engineer from Mar-2016 to Feb-2018

Job Profile:

- I am experienced with optimized design & Development of Mechanical & Electrical Components, product design and problem solving. I engage in/guide new product development and current product improvement, lead VPI projects junior manager (Product design) and contribute ideas to make competitive product in the Global market.
- Responsible for design related project coordination from DQR stage until part development & production approval.
- Design concept CAD models and drawings release using Creo-4.0, Auto-CAD. Working on PDM/PLM & Windchill for release process. BOM preparation, large assemblies, casting, machining, sheet metal design, GD&T, Welding, Surfacing.
- Responsible for material selection & ensure component designs are production feasible, cost effective & Serviceability.
- Define Design Goals & evaluate all components as per business case. Responsible for cost analysis, scope documentation, Design Reviews, Support to Proto build & Proto testing plan & ongoing production needs, Design validation, Design review.
- Perform responsibilities DVP&R, iDFMEA, analytical calculations, specialized tool required to support production & high-quality decision making. Design activities like Dimensional Variation Analysis, stress analysis on Ansys tool.
- I am also involved in Global product design function development, product knowledge, training and developing fresh engineers, introducing product design tools and processes and helping others make success in Cummins.

Projects Done:

1. S6 VPI & S7 VPI: 810 to 2500 kVA Alternator

- Working with China & UK team for new product Introduction. Mechanical & electrical design & Development like shaft, fan, frame, couplings, foot design. Stator & rotor winding design.
- Development & release for components as per UL, CA, CSA compliances. Design for marine & industrial products.
- L2D setup, Oracle support. Sound knowledge harnesses, terminal connections, control panel.
- Knowledge of thermistors, temp sensors, transformers, excitation system, testing, Electrical panels.

2. S6 India Implementation:

- Define the scope for India implementation, cost analysis, BOM comparison, part procurement.
- Supporting to plant people for tooling of assemblies, DVP&R, proto build activities, testing.

- Coordination with sourcing, sales & service team, component development & production approval.

3. P80 Localization: 2250 to 3750 kVA, LV & HV

- Supporting to Sourcing for part development & tooling.
- Design changes according to India development, update Oracle engineering attributes (NPRR).
- Proto Build, PPAP, DV & PV testing.

4. Railway Underslung: 500kVA, LV

- Waterproof machine till center height fitted below the railway coach.
- Sound learning on sealants, serviceability issues, FEA analysis for component.
- Mechanical design & development & drawing release, BOM creation, Wire Harness.

Name of the Organization: Durovalves India Pvt. Ltd., Aurangabad (Varroc Group).

Designation : Trainee (APP) (From Sept-2014 to Sept-2015)

Job Profile:

- Plan and coordinate production processes on daily basis to produce high quality products
- Maintains work flow by monitoring steps of the process, setting processing variables, observing control points and equipment.
- Responsible for set up of "CNC Automated Machines", CNC program, diagnosing quality issues.
- Assisting with Mechanical Installations or set up change of machines in shop, tolerance analysis.
- Experience on machining, Plating, forging, Grinding, Heat treatment, Robotics, Pneumatic and Hydraulic circuits, Quality measuring Instruments. Successful Project for poke yoke on induction hardening process.
- Creation of Assembly, BOM, Detailing and layouts with knowledge of GD&T, engineering materials and Creo-2.0 and CATIA-V5 software, knowledge of IC-Engine, Automobile components.

EXTRA ACTIVITIES & TRAININGS

Name of the Organization: Supreme Industries Ltd. Jalgaon (Plastic Injection Molding Company)

Designation : Trainee Engineer (3 months)

- Experience in Plastic Injection Molding, Forging.
- Plan and coordinate production processes on daily basis to produce high quality products.
- Responsible for Man Power Management on Shop Floor.
- Diagnosing breakdown problems.
- Keeping production record, breakdown record and reporting to higher authorities.

•Om Auto Services, Jalgaon

Duration:- 4 months (Motor Mechanic)

Om Auto Services is an Automobile service center and involved dispatching and repairing of Engine parts, Engine assembly, vehicle parts, automobile maintenance, Problem identification and solve. Maintenance of vehicles and special equipment.

•PROJECTS

1) Diploma in Mechanical Engineering: (College- Govt. Poly. Jalgaon.)

Project Title: "Cam Profile Recorder"

Description:

"Cam Profile Recorder" draw the displacement diagram of Cam on the paper by simply rotating handle. Rotary movement of cam converts to reciprocate the pencil and paper board in front of pencil slide by handle. So combination of both movement is use to draw the displacement diagram of Cam.

This mechanism draw more accurate displacement diagram with very short time.

2) B.E. Mechanical Engineering: (College-G.W.C.E.T., Nagpur)

Project Title: "3-way Dropping Dumper"

Description:

Normally in dumper, tractors material in trolley is unload only in back side. But in "3 way dropping dumper" material unload in 3 directions by using single pneumatic cylinder. Bellow the main chassis sub chassis is mounted above which while 3-way dropping mechanism arranged. Tilted cylinder mounted on rotating disc which operated by motor having 3 stopper to lift the trolley in 3 directions.

The aim is to provide convenient unloading of material with less movement of dumper.

•EDUCATIONAL QUALIFICATIONS

Examination	Board/ University	Passing year	% obtained	Class obtained
B.E.(Mechanical)	R.T.M.N.U, Nagpur	2011-14	63.71%	First class
Diploma (Mechanical)	M.S.B.T.E., Mumbai	2010-11	66.79%	First Class
SSC	Nasik Board	2007-08	90.15%	First class Dist.

ACHIEVEMENTS

1. Represented School at State Level Handball Championship as captain of team.
2. Runner up at Cummins India LTD for Cricket & winner for Badminton.
3. CAD certificate (CREO, CATIA, UG, Ansys) in CAD-CAM GURU, Pune (Duration - 6 Months)
4. MS-CIT (Basic knowledge of MS-word, Excel, PowerPoint.), Oracle.

STRENGTH

1. Good team player with learning attitude, Customer focused.
2. Capable of working under pressure in order to respect deadline & good sense of urgency.
3. Fast learner, punctual, Good communication skill
4. Ability to handle multiple projects.
5. Willing to travel sites worldwide.

•HOBBIES

Trekking & travelling on bike, Badminton, Listening to Music, Cooking.

PERSONAL DETAILS

Date of Birth : 22/12/1992
Language known : English, Marathi, Hindi.
Nationality : Indian
Passport No. : K1928133
Location preference : Globally Mobile