

Bhaskar C Saha (IIT MTech 16 years in CAE, Testing & Correlation, NPD, DFMA, Project & People Management)

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Profile Summary and Career Interests

A dynamic, result oriented, committed, organized and self-motivated mechanical engineer having **16 years** rich and diverse work experience in industrial products after MTECH from IIT, Kharagpur. Worked with globally reputed OEMs, research organizations and engineering consultancies. Specialized in CAE based design verification, improvement and optimization, FEA correlation with measured data, test planning, lab experiments and measurements, product life cycle, design & development, NPD, DFMA and material selection. **9 years** adept in project management (QCD)- estimation, scheduling, reviews and deliverables. **5 years** skilled in people management- problem solving, motivation, delegation, coordination, resource planning, timely communication, decision making, appraisal, recruitment and employee development- mentoring, coaching and training. I love continuous learning and up-skilling. I desire to join a stable and progressive organization for long association.

Skills, Competencies and Abilities

Technical Expertise

Domain knowledge in diesel engine components, frame, BIW, cabin and loadbody. Adept in collaborative robot development. Specialized in structural analysis, NVH & vibration isolation, durability, fatigue (HCF & LCF) life calculation, analytical solutions, heat transfer & thermo-mechanical analyses, optimization, NPD, DFMA, DFMEA, testing, FEA correlation with test data. Knowledge in material selection and fracture mechanics.

Technical Leadership

Years of working in engineering, R&D and manufacturing has given me excellent coaching, mentoring, review, analytical, problem solving, communication and interpersonal skills. I can effectively lead and guide simulation driven product development and NPD globally and cross-functionally. Can efficiently handle multiple projects simultaneously utilizing various resources across functions and balancing priorities with commitment.

Project Management and People Management

Utilize resources optimally and monitor project's progress regularly to deliver superior results on estimated schedule and cost. Regular interaction with internal & external stakeholders reduces delay and streamlines the resources. Visit existing and prospective clients, suppliers, and vendors. Lead by Example. Proven ability of effectively managing and mentoring 10+ engineers working for different clients on a wide range of products.

Diesel Powertrain/ Chassis/ Cabin/ Loadbody	Automotive/Rail/Off-Highway/Robotics/Aerospace
BOM, NPD, Tollgate Reviews, Design Recommendation	Lab Experiments/ Measurements/ LMS/ NI
Modal, Frequency & Transient Response and PSD analyses	FRFs/ Driveline TVA/ TPA/ Boom Noise
Static (linear & non-linear), Lifting, Optimization, Buckling	Thermal & Thermo-Mechanical analyses/ HCF/ LCF
Steel/ Aluminium/ Plastics/ Rubbers/ FRPs	Casting/ Moulding/ Welding/ Machining/ Curing/ Forming
NASTRAN/ ABAQUS/ ANSYS/ OptiStruct/ FEMFAT	HyperMesh/ SimLab/ HperView/ HperGraph
Material Selection/ NVH and its Standards and Regulations	LMS virtual lab, NX/UG, MATLAB
DFMEA/DFMA/7-step Process/DMAIC/FTA/RCA	Time Management, Resource Management, Team Player

Employment History

Zuti Engineering Solutions Pvt. Ltd (Svaya Robotics, a subsidiary), Hyderabad **Since Nov'18**
Technical/Engineering Manager- CAE, NVH, Durability & Fatigue, NPD, testing, DFMA, DFMEA

Key Responsibility Areas (KRAs) and Achievements:

- Lead, mentor and manage CAE engineers on passenger & commercial vehicles and off-highway equipment
- Guide NPD, DFMA, design & optimization, simulation, testing & correlation of systems of collaborative Robot
- Provide technical leadership in component engineering (NPD) of robotics- torque sensors, safety brakes, etc.
- Initiatives in building team's competencies. Trainings. Share techno-commercial proposals. Visit clients.
- Talent hiring. Set KRAs and Review performance of team members. Project & People management
- Cross-functional coordination- design, CAE, testing, integration, sourcing, sales, electrical eng. and factory
- Built CAE capabilities on NVH, thermal & thermo-mechanical analyses, fatigue life estimate, and Polymers

Onward Technologies Limited, GE- Transportation project, Pune **May'16 to Jun'17**
Sr. Team Lead (CAE)- Delivery Manager

Key Responsibility Areas (KRAs):

- Led, mentored and supervised a team of 8-10 CAE engineers working in diesel engine, exhaust system and propulsion components and sub-systems, various cabins, chassis, truck frames, etc. in off-highway industry
- Reviewed SoW, FE models, analysis decks, results and analysis reports. First time correct > 90%

- Project planning, estimation and scheduling and resource planning. Schedule adherence > 90%
- Utilized resources optimally to deliver on quality, on schedule and on cost. Productivity > 90%
- Coordinated between clients and team members. Regularly interacted with clients for upcoming work
- Resolved conflicts within team. Prepared, updated and deployed checklists to minimize defects and rework

Achievements:

- Built competencies of the team. Customer satisfaction and appreciation. Received more complex projects
- Developed more diverse workforce through mentoring, training and providing more learning opportunities
- *Awarded as the best supplier by the client among their four suppliers in 2016-17*

Cummins India Limited, Pune **Jan'15 to Nov'15**
Sr. Technical Specialist, DGM at machine and vehicle integration, application engineering

Responsibilities and Achievements:

- Led field issues of diesel engine application. Provided short and long-term solutions referring 7-step process
- Led and guided engineers across functions. Trained engineers. Interacted with suppliers and customers
- Assessed powertrain mounts' NVH performance by experimentally measuring vibration and transmissibility
- Identified root causes of high vibration of engine coach in locomotive and of auxiliary genset on a ship
- Identified root cause of high noise and harshness in commercial passenger vehicle

GE- Transportation, Bangalore **Jul'11 to Dec'14**
Lead Engineer- CAE, Durability and Fatigue (HCF & LCF)

Responsibilities and Achievements:

- Led, coordinated and executed CAE based design verification of Tier-4 rail and marine diesel engine and exhaust system components primarily and of locomotive subsystems guiding 2-3 vendor engineers
- Focused primarily on structural vibrations and fatigue life of various NPDs, field-failures and cost reductions
- Validated FE model with field measurement data. Correlated simulation results with experimental data
- Recommended design improvements and validation plans. Recommended trainings for vendor engineers
- Filed many invention disclosures. Documented analysis methodologies & guidelines and published globally
- Developed great many .xls based tools and macros to enhance performance and productivity of the team

Tata Consultancy Services Ltd, GM- Powertrain project, Bangalore **Mar'08 to Jun'11**
Technical Lead- Design and Analysis of light duty diesel Engine components

Responsibilities:

- Led CAE based design verification and improvement of diesel engine and exhaust system components
- Primarily focused on structural vibrations and noise calculation and on powertrain fatigue life prediction
- Mentored and technically guided team members. Documented design recommendations and best practices

Zentech Offshore Engineering Pvt. Ltd., Bangalore **Jul'07 to Feb'08**
Structural Engineer- supporting to Texas team and USA clients

Responsibilities:

- Performed CAE based design verification of offshore and marine structures. Primarily focused on fatigue life

ISRO, Vikram Sarabhai Space Centre, Composite Structures Entity, Trivandrum **Jul'04 to Jul'07**
Product Engineer; Scientist-D

Responsibilities:

- Designed and developed composite launch vehicle and satellite structures of FRPs from concept to launch
- Performed design calculations and CAE based structural analysis. Released drawings. Prepared testing plans
- Coordinated in manufacturing and assembly and testing of components and for material characterizations
- Supplier interaction and visit. Tendering, RFQ, quotation evaluation, supplier selection and procurement
- Played a key role in the realisation of 3D preforms, 3D composites and C-C composites

Education and Professional Development

- **MTech** (Mechanical Engineering- GATE 99.46) from **IIT, Kharagpur** in 2004 with 9.21 CGPA & Ranked **1st**
- **B.E** (Mechanical Engineering- JEE rank 349) from **IEST, Shibpur, Howrah, WB** in 2001- 73.71%
- Attended 4-day training on "Business Essential Leadership Skills" from GE in 2014
- Attended trainings on "Effective Communication & Presentation Skills" and "Leadership Development Skills"

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