

CURRICULAM VITAE

BASAVARAJA TALAWAR, M.Tech (Thermal), Executive MBA

203, 2nd Floor, SVS Patels Callisto Apartment,
Amruthahalli, Byatarayanapura-Post
Bangalore-560092, India.

Phone: +91-8073222102 (M) & 9663233466 (M)

Email: tbasavaraja@gmail.com

Notice Period: Immediate Joining



SUMMARY OF EXPERIENCE

- Total 15+ years of experience with various R&D centers as R&D Engineer, Senior R&D Engineer, Lead Analyst, Team Lead, Principal Engineer, Engineering Manager, Simulation Leader in the field of Thermal Engg, CFD Simulations & Heat Transfer.
- Expertise in defining, executing & reviewing complex simulation projects for NPD Support, Design Change Validation, Field Failure & Optimization.
- Experience in design and analysis of products seeks a challenging assignment in managing technology, and opportunity to make significant business impact.
- Proven record in driving the technology team through Innovation & Product Development.
- Having more than 2 years of experience in Sweden (SWEP International AB, Landskrona).
- Extensive experience in simulation driven product development, meshing and CFD simulations on some of the most complex geometries in the industry.
- Develop models and simulations to predict and optimize the thermal behavior of products.
- Strong knowledge of CFD simulation technology, Multiphase Flows, Refrigeration Systems, Heat Transfer, Thermodynamics & Fluid Mechanics.
- Extensive experience on steady state & transient multiphase analysis, conjugate heat transfer analysis and high compressible flows etc.
- Strategic Leadership | Interpret Ambiguous Data | Anticipate Challenges | Critical Business Decision | Align Differing Opinions | Integrity in Strategic Decision | Risk Management.
- Customer-focused mind-set and strong technical acumen resulted in achieving timely delivery of high-quality products and services & building motivated teams.
- Global collaboration with R&D teams to drive engineering and simulation projects for Chemical, Mechanical & Water products.
- Distinguished abilities in team management and team development; tailoring the approach to everyone in team to encourage high team morale, enthusiasm, and results.
- Strong ability to suggest and influence decisions which are critical for the business.
- Extensive Leadership Skills in executing and coordinating the various projects including the initiation and planning for the complete project process map.
- Positive attitude, willing to add value through creativity & innovation, international mindset, and ability to work with international customers.
- Annual Budget Planning for the team requirement includes Capex and Opex (project and operations costs, staff welfare cost, training/travel requirements for the team).

EDUCATION

Master's of Technology in *Thermal Engineering* at National Institute of Technology, Karnataka, Surathkal - India (2002 – 2004) with 78.3 %.

Master's of Business Administration (Executive MBA – Business Analytics) at Dayanada Sagar University, Bangalore, Karnataka - India (2020 – 2021) with CGPA 8.93.

(**Major Topics Studied under Executive MBA:** Prescriptive Analytics, Predictive Analytics, Research Methodology, Strategic Decision Making and Management, Global Business, Marketing Management, Organization Theory, Accounting for Managers, Business Law and Ethics, Managerial Economics.)

Bachelor of Engineering in *Mechanical Engineering* at UBDT College of Engineering, Davangere, Karnataka, India (1997 – 2001) with 76.6 %.

SKILLS

Leadership/Management: Engineering Leadership, Business Analytics, Project Management, Research Methodology, Program Management, Strategic Planning & Decision Making, Cross Functional Leadership, Technology/Simulation Driven Product Development, Process Governance, Budget Management, Business Development/Marketing (Internal).

CAD/CAE Tools: FLUENT (Mesh & Solver), STAR CCM+, CFX, ANSYS WORKBENCH, ICEM CFD, Spaceclaim, Blade Modeler.

WORKSHOPS/TRAINING ATTENDED

- Five days workshop on “*Foundation of Leadership*” organized by GE Global Crotonville.
- Five days workshop on “*Change in Acceleration*” (CAP) Process Model.
- Two days workshop on “*Presentation and Influencing Skills*”.
- One day workshop on “*Emotional Intelligence*”.
- Attended the various “*Ansys User Conferences*” in India as well as in Europe.

WORK EXPERIENCE

- 1. Johnson Controls, Bangalore, India** **April 2017 – Till Date**
Tech IV -ML1 (Simulation Lead – Thermal & Predictive Modeling Group, R&D)
 - Leading the predictive modeling and simulation team in Bangalore & responsible for scheduling projects activities/tasks and motivating the team members.
 - Review and Monitoring of various projects/tasks undergoing in the team with different team members and responsible for the team quality of work and deadline of the project.
 - Project Management | Road Map | Review Timelines | Generating Monthly Metrics | Forecasting Delays | Monthly and Quarterly Reports for Higher Leadership Review.

- Effective global collaboration with R&D teams to drive engineering and simulation projects for fire suppression products.
 - Design optimization using CFD techniques for Fire Suppression Products for NPI, VAVE and Sustaining Engineering projects.
 - Methodology development on complex Conjugate heat transfer & multiphase analysis for gas dispersion predictions using species transport equations for the prediction of fire suppression phenomena. (Oxygen concentration reduction in room with time by adding clean agents like Inergen and Inert gases).
 - Multiphase CFD analysis for various water sprinklers, nozzles & proportioner cones with Newtonian and non-Newtonian fluids.
 - Working on transient multiphase simulations for various products (VOF, Mixture Models, Species Transport) and various conjugate heat transfer analysis for NPI.
 - Actively participate in various brainstorming sessions weekly/biweekly within a team on any business/product related topics for generating new ideas, which would help for bringing the new product and/or cost reduction of existing products.
 - Working closely with Advanced Engineering Department & Innovation Group globally and provide innovative ideas and design recommendations to develop the new products.
 - Responsible for reporting and presenting the results from team along with the design recommendations to respective stakeholders through Effective Communication.
-

2. GE India Technology Center Pvt Ltd, Bangalore, India
Position: Lead Analyst – CFD Simulations

Nov 2012 – April 2017

- Multiphase CFD simulations of refrigerant flow using Fluent (VOF Model) to understand the phase change phenomena in heat exchangers.
 - Methodology development on complex Conjugate heat transfer analysis, Steady & Transient CFD simulations of fluid flows for refrigeration systems and other home appliances products.
 - Worked on simulation of airflow across refrigerator fresh food and freezer compartments, suggest the design recommendations based on velocity profile, and flow pattern to avoid icing on ducts and improve the system performance.
 - Worked on conjugate heat transfer to optimize the cooling phenomena for oven doors and optimized the various ducts & thickness of the insulation materials & provided design guidance.
 - Worked on simulation of Rotating Components like Fans, Blowers, and Pumps.
 - Worked on CFD tools like CFX, FLUENT, ICEM CFD, ANSYS WORKBENCH, and STAR CCM+.
 - Worked closely with Innovation department, provide the innovative ideas, and design recommendations to develop the new products on Refrigerator, Oven, Dish Washer etc.
 - Participating in the appliances lab for measurement & performance and product testing.
 - Developed CFD methodology and provided technical insights in optimizing the design parameters for Dishwasher particle filtration system, which includes stationery filters (Porous Medium) & Rotating Blades.
-

3. SWEP International AB, Landskrona, Sweden
Position: R&D Engineer, Heat Transfer Research Group

Dec 2010 – Nov 2012

- Managed to bring latest simulation technologies and best tools for the team with the continuous interaction and coordination of global Ansys support team.
- Coordinate with cross functions in the organization & educate the design engineers for the benefit of simulation techniques in reducing the total design cycle time.
- Worked on developing the various methodologies on CFD simulations for prediction of thermal and hydraulics performance for plate heat exchangers to develop the new products as well as continuous research projects for HVAC applications.
- Responsible for heat transfer and pressure drop calculations of compact brazed heat exchangers.
- Worked on Multiphase Flows for plate heat exchangers (Evaporators & Condensers) with various refrigerant fluids using VOF & Mixture Models in Fluent and provided the design recommendations based on effective heat transfer rate with minimum pressure loss in the system.
- Develop methods for Meshing Techniques using ICEM CFD & Fluent Meshing and setting up the CFD simulations using CFX & FLUENT solvers for NPD (New Product Development) and research projects.
- Simulation of existing designs and optimizing the design parameters to increase the performance and suggest design changes to improve the product performance.
- Analyze the CFD results to understand the flow patterns, maldistribution and recognize the influence of parameters on thermal and hydraulic performance.
- Methodology development on complex Conjugate heat transfer analysis, Steady & Transient CFD simulations of fluid flows for different designs of plate heat exchangers.
- Worked closely with Design & Innovation Engineers to bring the new product more efficiently by supplying accurate CFD simulation results.
- C# dot net (Visual Studio 2010) programming to develop windows tools for heat transfer applications.
- Involved in the lab tests to measure the performance of heat exchangers in the HVAC system.
- Documentation/ Project Reports on CFD results and methods.

4. Dover India Pvt Ltd, Bangalore, India
Position: Senior R&D Engineer – Heat Transfer Research Group

Aug 2006 – Nov 2010

- Conduct CFD simulations of new concept of heat exchanger plates to measure and compare thermal and hydraulic performance (Single & Multiphase Flows).
- Develop methods for Meshing Techniques using ICEM CFD & FLUENT Meshing and setting up the CFD simulations using CFX & FLUENT solver for NPD (New Product Development) & research projects.
- Worked on simulation of Vapor Compression System (Refrigeration System) using dot net programming with the help of software engineers.
- Developing mathematical models for refrigerant fluid properties and update the fluid database.

- Development of accurate fluid properties library using curve fitting, non-linear regression method, finite grid, and interpolation methods etc.
- Heat transfer calculations and pressure drop calculations of compact brazed heat exchangers.
- Initiate research projects to improve the performance of a heat exchanger.
- Programming using C Sharp dot net (Visual Studio 2005 Team Suite) for development of heat transfer software applications.
- Calculation of pressure drop and flow performance for the various types of ducts, bends and pipe fittings.
- Preparing the Weekly/Monthly/Quarterly performance reports and send across the higher leadership and plot the performance metrics to understand the team performance and employee's engagement.
- Review and monitoring of various projects/tasks undergoing in the team with different members (code review, research report review, calculations review etc.) and I was the responsible for the quality of work and deadline of the project.

Other Achievements at DSI:

- Worked as a Chief Coordinator of the DSI International Conference held in Feb 2010 at Bangalore and made it grand successful. Around 50 international guests participated in this conference.

5. Indian Institute of Science, Bangalore, India

Oct 2005 – July 2006

- Worked as a Project Assistant in the Engine Research Lab.
- Expt investigations of Biogas fuelled TVS victor GLX engine for Performance and Emission.
- 3D CFD Analysis of Intake and Exhaust manifolds and 1D simulation using GT Power

6. ALSTOM Projects India Ltd, New Delhi, India

Nov 2004 – Sept 2005

- Worked as Engineer Trainee in the Thermal Design Department to understand the flow distribution and pressure drop.
- Involved in the design of heat exchanger & CFD simulations for Air Preheater & Economizer.

PAPER PUBLICATIONS

- Fredrik Stromer, Vijay Sekhar Gullapalli, and Basavaraja T ***"Finite Grid Method for Fluid Properties"***, International Technical Conference conducted by DSI (Dover Software India) at Bangalore on Feb 26-28, 2008.
- Basavaraja T and DR R P Reddy ***"Investigation of Thermal and Hydraulic Performance of the Plate Heat Exchangers using CFD Tools"***, National Conference on Fluid Mechanics and Fluid Power conducted by NITK Surathkal, Karnataka, Bangalore on December 14-16, 2015. FMFP15-D-83.

- D C Savitha, P.K Ranjith, Basavaraja Talawar and N Rana Pratap Reddy ***“Refrigerants for Sustainable Environment -a Literature Review”***. International Journal of Sustainable Energy. Published on 22 May 2021. DOI: 10.1080/14786451.2021.1928129.
- Basavaraja T, Ranaprathap Reddy and Vidya Swamy ***“Effect of Injection Pressure on Engine Performance and Emissions of Diesel Engine with Esterified Non-Edible Vegetable Oil (Pongamia Methyl Ester) and Blends with Diesel”***. SAE Paper No. 2005-26-030.
- N Kapilan, R P Reddy and Basavaraja T ***“Effect of injection pressure on the performance and emission of Diesel Engine using Blend of Methyl Esters of Karanja Oil and Diesel as Fuel”***. SAE Paper No. 2006-32-0025 (JSAE 20066525).
- Basavaraja T, Ranaprathap Reddy ***“Performance and Emissions of Diesel Engine using Biodiesel and its Blends”***, International Conference on Biofuels, Win rock International, New Delhi.
- Basavaraja T, Ranaprathap Reddy ***“Performance and Emissions of Diesel Engine using Methyl Ester of Honge Oil and its Blends”***, National Conference on Energy and Fuel Issues of Future, Pune Institute of Engineering and Technology, Pune.

PERSONAL INFORMATION

Date of Birth & Age : 5 March 1979, 44 years.

Father's Name : Nagappa

Marital Status : Married

Nationality : Indian

Passport No: : J2392731

Visa : USA B1 (Business Visa Expired on Mar 2023)

Permanent address : Basavaraja T s/o Lalithamma T
3rd Ward, Mariyammanahalli-post
Hopset-Taluk, Bellary-Dist
Karnataka-State, Pin-583222. INDIA

REFERENCES

- | | |
|---|--|
| 1. Anand Bandyal
Director – India Technology Centre
Johnson Controls India Pvt Ltd
Bangalore, INDI | 2. Dr. R V Ravikrishna
Professor, Dept. of Mech Engg (Engines)
Indian Institute of Science
Bangalore, INDIA |
|---|--|

Place: Bangalore

Yours Faithfully

(BASAVARAJA TALAWAR)