RISHI SHARMA
M E, MECHANICAL ENGG
(CGPA 8.88)
BITS, PILANI

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CAREER VISION

To work in a challenging environment demanding all my skills and efforts to explore and adapt myself in different fields and realize my potential where I get the opportunity for continuous learning in the field of Thermal design and other interesting fields.

RELEVENT EXPERIENCE

THERMAX LTD, PUNE   Jan, 2016 – June 2016
Project Intern   R.S JHA, Innovation-Head, Heating innovation

- Combustion modeling of a reciprocating grate furnace with the application of CFD.
- Tools/ Software used: Gambit, FLUENT™
- Non-premixed, K-ε, P1 models were models were used.
- Additional assignment: Worked with SC team for development of new vendor at Aurangabad.

Graduate Teaching Assistant, BITS-PILANI   Aug, 2014 – Nov 2015

- Have worked as Teaching Assistant for two courses : Engineering Graphics (1st year course), Manufacturing Processes(3rd year Course)

TECHNICAL SKILLS

Languages	Design Software
• MATLAB	| Auto-CAD
• Free FEM++	| SolidWorks
Solvers	**Pre-processor**
• Ansys-Fluent	| Gambit.

EDUCATIONAL QUALIFICATIONS

Bachelor of Technology in Mechanical Engineering , Punjab University, Chandigarh   May 2013
University Institute of Engineering and Technology

10+2 (Central Board Of Secondary Education)   May 2009
Shishu Niketan Model Senior secondary school

High School (Central Board Of Secondary Education)   May 2007
K.V Sector 31 chandigarh

PROJECTS

CFD Analysis of Coolant Flow in a Grinding operation   Aug 2015 – Nov 2015

- Multiphase flow with air and liquid using VOF model has been analyzed.
- Contours for velocity, turbulence intensity, pressure distribution has been obtained.
- The results may be used to optimize the fluid inlet.

Learnings: Theoretical basis for different multiphase models, Turbulence modeling.

To Analyze the Supersonic Flow over a wedge   Jan 2015 - Feb 2015

- Objective of the project was to calculate the Mach number, static and total pressure, shock angle, pressure coefficient and drag coefficient.
- Ansys-Fluent was used (density solver), and comparison was done with the analytical results.

Learnings: Difference between pressure and density based solvers, theoretical details associated with compressible flow

Study Projects

Application of Numerical Techniques to find size of Tumor.

- Study of application of various methods used to find size of the breast tumor with special focus on Finite Volume Method.

Learnings: Difference between explicit, semi-implicit and fully implicit methods of discretization, Basics of Genetic Algorithm.

Workspace Determination

- Study of methods used to determine the workspace for a given 3-DOF symmetrical planner parallel manipulator, Correlation between link: length ratio and workspace shape was studied.

Learnings: Forward and inverse kinematics.

Practical projects and Internships.

Design Project- Design and Fabrication of Portable Load Carrier

Designed a light weight load carrier using customer survey, fabrication was done at BITS-Workshop.

Mahindra & Mahindra (Swaraj division), Mohali   June 2012- July 2012

Learned basics of Quality Standards used in industries, such six-sigma quality control, lean practices, Kanban systems. Also attained basic knowledge about different components used in a tractor.