

**JAI KRISHNA A**Course: **M.E.**, Design Engineering (2020 – 2022)

Institute: BITS PILANI KK BIRLA GOA CAMPUS

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CGPA: 8.71 (3rd Semester)**Work Experience / Internship****Intern, Gabriel Technology Centre (Gabriel India Ltd, Pune)****January 2022 – Till Now****Research and Development (Indian Railways and Aftermarket)**

New Product Development and Fine Tuning of Dampers for ICF, CLW, ALCO LOCO, LHB, Train – 18

Benchmarking and Reverse Engineering of other Railway damper manufacturers products.

Benchmarking and Reverse Engineering of commercial vehicles strut and shox assemblies

Tools Used: AutoCAD, Catia**Assistant System Engineer, Tata Consultancy Services Ltd (Engineering and Industrial Services)****April 2019 – October 2020****CFD Engineer (Modelling & Meshing)**

CHT, Pressure Drop Analysis and Oil Sloss and Spill analysis of General Motors Automotive Components (IC and Electric)

Tools Used: NXCAD, StarCCM+, VisualBasic**Academic Details**

Course	Specialization	Institute/College	Board/University	Score	Year
PG	Design Engineering	BITS Pilani K K Birla Goa Campus	BITS Pilani	8.71 CGPA (3 rd semester)	2022
UG	Mechanical Engineering	Sri Sairam Institute of Technology	Anna University	7.95 CGPA	2019
CLASS - XII	Science (PCM)	Prince Mat.Hr.Sec.School	TN - DGE	90.5%	2015
CLASS - X	Science	D.A.V. Public School	CBSE	8.6 CGPA	2013
Subjects / Electives		CFD, Thermodynamics, Thermal Engineering, Heat and Mass Transfer, Fluid Mechanics, Material Science, CAD, Strength of Materials, Automobile Engineering, IC Engines, MEMS			
Technical Proficiency		Drafting – AutoCAD	Surface & Sheet Metal – Catia V5		
		Solid Modelling – NXCAD, Autodesk Inventor	CFD – Ansys Fluent, StarCCM+		
		Structural Analysis – Ansys Mechanical	Coding – MatLab (CFD & FEM Solver), VisualBasic		
		ERP – SAP (Material Management & Production Planning)	Multi-Domain Modelling & Simulation – Ansys(Thermal-Electric), Simscape(Basic)		

Projects**Investigation of DoD Material Jetting Process for 3D Printing of Metallic Parts**

BITS Pilani K K Birla Goa Campus

- Studied and analyzed various process parameters of Material Jetting Manufacturing Process
- Part of Research Practice Work

Heat transfer Simulation of Double Pipe Heat Exchanger

BITS Pilani K K Birla Goa Campus

- Heat Exchanger was modelled
- Cross Flow and Counter Flow was Simulated

FEA Analysis of Hexagonal Pipe with Internal Pressure Loading

BITS Pilani K K Birla Goa Campus

- Modelled and Meshed with suitable elements
- Convergence Study
- Analyzed in plane – stress condition and normal condition

Design and Simulation of Micro-Hot plate for Gas Sensors

BITS Pilani K K Birla Goa Campus

- Designed and simulated single meander, spiral and disc shaped micro heaters using **Ansys Thermal – Electric Module**.

Automation of Measurement of Diameter Vs. Volume of Fluid Flow in Torque Converter in NX11 (VB Macro)

Tata Consultancy Services Ltd.

- Achieved Time Reduction by 90%

Automation of Industrial Boiler with Feed – Back Control System

Sri Sairam Institute of Technology

- Feed – Back and Centralized Control System was designed (**VisualBasic, Arduino**), deployed and tested

Design and fabrication of Solar Powered Portable Water Purifier

Sri Sairam Institute of Technology

- Integrated UV – LED and three – way filtration system
- Achieved 80% Purification
- Won ALL INDIA INNOVATIVE PRODUCT AWARD

Competitions**LJ Innovation Village, Ahmedabad (First Position in All India Innovative Product Contest)**

- Solar Powered Portable Water Purifier was Showcased

February 2018

SUPRA SAE-INDIA

- Group Leader - Suspension Team

June 2017

Expro'17

- Presented technical Paper on “**Compressed Air Engines**”

March 2017

Research Publications**Articulated Robotic Arm for Inspection in Nuclear Plants- Trends, Methods and Motivation for Design**

(International Organization of Scientific Research, Publication date: November 2, 2018)

November 2018

Design and Analysis of Automobile Pedal with Combined Brake and Accelerator

(International Organization of Scientific Research, Publication date: July 4, 2018)

July 2018

Technical, Procedural Perspectives and Application of Laser Additive Manufacturing Process

(International Journal of Pure and Applied mathematics, Volume 120, No.6)

June 2018

Conferences & Workshops**International Workshop on Laser Additive Manufacturing and Surface Processing**

Organized by: IIT INDORE

November 2017

International Conference on Innovation & Discoveries in Science, Engineering and Technology

Organized by: KCG College of technology

Presented Technical Paper titled “**Robotic Arm for handicapped Persons using Bio-Metrics**”

April 2018

International Conference on Advances in Materials , Manufacturing and Applied Sciences

Organized by: SAEINDIA Student Chapter

March 2017

Leadership Traits

Mechanical Symposium Sponsorship and Event Secretary – Sri Sairam Institute of technology

Languages Known

Tamil, English, Hindi