

Sonal Priya

 Columbus, IN 47201  (864) 346-4709  spriya@g.clemson.edu  <https://www.linkedin.com/in/sonal-priya/>

CAREER SUMMARY

Mechanical engineer with 5+ years of experience of working as Product Design, Application and Product Problem Solving Engineer, leading various design and cost saving for components with range of complexity. Experience with working in a highly collaborative work environment and produce excellent results. Seeking to leverage my expertise as a Mechanical Engineer.

SKILLS

Software: *Creo, SolidWorks, MATLAB, Concerto, Minitab, ANSYS, Microsoft Office*

Tools: *Fault Tree Analysis, RCA, GD&T, DVP&R, DQR, DFMEA, 7-Step Problem Solving*

Trainings & Certifications: *Design for Six-Sigma (6S), Engine Familiarization,*

PROFESSIONAL EXPERIENCE

Cummins Inc, Columbus, IN

Product Problem Solving Engineer-Transit Bus Segment

Feb 2018 – Present

- Led **7-Step Problem Solving** projects for various powertrain components on diesel and hybrid engines
- Conducted on-site failure analysis on In-Service vehicles and warranty data analysis to gather initial information for various powertrain components
- Led cross-functional **Fault Tree Analysis (FTAs)** to find the probable causes of failures
- Recommended and implemented **Step-3 Solution** as a temporary fix, if possible, to mitigate customer pain and save warranty cost
- Developed the project plan that documents tasks, methods, tools, tests and analyses required to ensure FTA tasks are completed as per the schedule
- Reduced Exhaust Manifold Gasket failures by ~85% in on-field transit bus with a 9-liter diesel engine using by 7-Step Problem Solving project.
- Leading Crankshaft Cracking 7-Step Problem Solving project in on-field 6-liter hybrid engine
- Conducted **Root Cause Analysis (RCA)** on the Water Inlet Connection leakage issue on 9-liter diesel

Cummins Inc, Columbus, IN

Intern – Application Engineer

May 2017 – Aug 2017

- Acted as a technical liaison between OEM and Cummins back-end team for new as well as current product
- Created bill of materials (BOM) for new engine development based on OEM's technical and package specifications
- Designed, validated and supported analysis for an electric fan clutch development

Cummins Inc, India

Product Tailoring Engineer

July 2013 – June 2016

- Designed and validated various components for industrial engines used in segments like mining, marine, construction, locomotives, etc.
- Created design considering various factors, including cost, performance requirements, materials, capabilities and limitations of mechanicals systems and manufacturing methods
- Conducted **Design Failure Mode and Effect Analysis (DFMEA)** and **Design Quality Reviews (DQRs)** for various engine systems including Cooling, Air Intake and Exhaust.
- Completed **Six-Sigma** and cost saving projects for cooling system selection and design
- Conducted **Design Reviews** to communicate design intent and executed **Design Validation Plan & Reports (DVP&R)** for various engine components to adjacent teams
- Led a **Cost Saving Project** for new Cooling Fans development for multiple OEMs and applications with a new supplier saving approximately \$35000 per year for Cummins
- Published **Technical Reports** on the analysis and design review conducted for my projects

EDUCATION

• **Clemson University, Greenville, SC**
Master of Science in Automotive Engineering

Dec 2017
GPA: 3.44/4.00

• **Uttar Pradesh Technical University, India**
Bachelor of Science in Mechanical Engineering

June 2013
Percentage: 78.32/100.00