

Meredith L. Woodard, M.S.



Professional Competencies:

Optical Engineer who investigates:

- Vehicle and tractor-trailer accidents and other incidents involving optics, lighting, and conspicuity
- Pedestrian and bicycle accidents
- Human vision, lighting, conspicuity, and visibility
- Slip, trip, and fall incidents

Product Design Engineer with expertise in:

- Optical product design
- Project management
- Operations management and technical communication
- Quality management systems
- Design and process FMEAs
- Design for Manufacturing (DFM)

Experience Summary

- Automotive optical systems design
- Project and operations management

Employment History:

Wolf Technical Services, Inc., Fishers, IN

Optical Engineer, Accident Reconstructionist (2022 to present)

Expert analysis of automotive collisions, pedestrian strikes, railroad grade crossing collisions, and other incidents involving optics, lighting, physics, and mechanics of motion. Strong emphasis on human vision, lines-of sight, lighting, visibility under the influence of glare, darkness, fog, etc., stereoscopic depth perception, and other vision issues. Images and interprets data from Event Data Recorders (EDRs).



Meredith L. Woodard, M.S.

Page Two

P3-USA, Inc., Greenville, SC

Consultant/Quality Gates Manager (2019-2022)

Responsible for coordinating all activities relating to the delivery of quality sorting and containment projects for various Tier1 suppliers in the automotive industry. HR activities included designing, implementing and enforcing the HR and attendance policies, interviewing, hiring, and onboarding new employees, providing performance feedback for all employees, initiating disciplinary actions, reporting time, and other duties as necessary. Operations activities included making the shift schedules for each location and overseeing on-shift activities and between-shift communications of inspectors and supervisors. Process activities included inspection process design, coordinating new hire and continuous improvement training, collecting operator feedback and implementing process improvement measures.

NWS Technologies, Spartanburg, SC

Project Engineer (2015 to 2019)

Worked closely with nuclear site engineers and purchasing departments and NWS operations to coordinate all as-found testing, repair/refurbishment activities, and certification testing for nuclear plant safety valves for 10+ different nuclear power plants across the US. Responsibilities included review of PO to ensure all testing/refurbishment requirements were met, oversight during repair of valves under the NR/VR programs, site-specific procedure reviews and revisions as necessary, and quality review of all testing and repair/refurbish/replacement documentation.

AFL, Duncan, SC

Applications Engineer, Premise Cable (2012 to 2014)

Served as primary technical point of contact for premise/utility cable customers, sales agents, and customer service representatives. Recommended cable types based on application, project requirements, and technical specifications. Maintained warehouse inventory levels for two locations. Also assisted the premise cable PLM with creation of product information documents and other various marketing materials.

Valeo Sylvania, Seymour, IN

Optical Engineer, P2 Development (2011 to 2012)

Designed optical systems for exterior automotive applications for the consumer market, specifically the high beam on the 2014 Cadillac Escalade. Optimized light blade design, simulated system, evaluated and recommended LED sources, developed mounting system, built and tested physical prototypes, and analyzed test data and simulation results.



Meredith L. Woodard, M.S.

Page Three

Education:

Rose-Hulman Institute of Technology, Terre Haute, Indiana

B.S. Optical Engineering

2010

Master's Engineering Management

2012

Certifications, Memberships & Affiliations:

Bosch Certified Crash Data Retrieval (CDR) Technician

Member, Society of Automotive Engineers (SAE)

Continuing Education:

IPTM Advanced Traffic Crash Investigation

December 2023

HVE Forum, Engineering Dynamics Corporation

February 2023

IPTM Pedestrian/Bicycle Crash Investigation – Level 1

February 2023

IPTM At-Scene Traffic Crash/Traffic Homicide Investigation

December 2022

SAE Fundamentals of Vehicle Dynamics

August 2022

Clearly Visible Optics, Lighting & Visibility for the Forensic Investigator

June 2022

SAE Driver Distraction from Electronic Devices Insights and Implications

June 2022

IPTM Bosch CDR Tool Technician Training

June 2022

IPTM Fundamental Techniques of Crash Investigation

May 2022

- Vehicle Lamp Examinations in Traffic Collisions
- Safety Belt Examinations
- Roadway Evidence
- Tire Examinations – Tire and Wheel Forensics
- Case Preparation and Courtroom Presentation