KEITH R. THOBE, P.E.
SENIOR STAFF CONSULTANT

krthobe@engsys.com

Mr. Thobe has over 27 years of experience in engineering, which includes working with powertrain, construction equipment, marine, locomotive, power generation, and medical devices. He has been involved in the design, analysis, testing, and manufacturing of engineered products, as well as having extensive involvement in the application of statistical methods. His capabilities include data analysis, Failure Mode and Effects Analyses (FMEA), Design of Experiments (DOE), and statistical modeling.

Prior to joining ESI in 2020, Mr. Thobe worked in the medical device industry where he created study designs and performed statistical analysis for design quality assurance, including work with gage studies and process capability. He also trained employees in statistical methods and software tools.

In addition, Mr. Thobe has been deeply involved with customer support, working as an application engineer and technical liaison on an overseas assignment. He has also been a team leader and project manager.

Areas of Specialization

Applied Statistics
Reliability Analysis
Product Design and Development
Study Design
Six Sigma
Manufacturing Process Validation and Continuous Improvement

Education

M.A., Applied Statistics, University of Michigan, Ann Arbor, MI, 2008

B.S., Mechanical Engineering, Purdue University, West Lafayette, IN, 1992

Licensed Professional Engineer (P.E.)

State of Michigan license number   6201308995

State of Indiana Engineer in Training (1992) license number ET00920543

Positions Held

Engineering Systems Inc., Ann Arbor, MI

Senior Staff Consultant – 2020-Present

Terumo Cardiovascular Group, Ann Arbor, MI

Statistician – 2015-2020

Federal-Mogul Corp., Ann Arbor and Plymouth, MI

> Sr. Application Engineer, European Project Support – 2009-2015
> Team Leader, Steel Pistons – 2006-2009
> Application Engineer, Steel Pistons for Heavy Duty Diesel – 1999-2006

Caterpillar, Inc., Large Engine Center, Lafayette, IN

> Design Engineer – 1996-1999
> Test and Reliability Engineer – 1994-1996
> Designer – 1993-1994

Certificates

American Society of Quality (ASQ)
> Certified Reliability Engineer (CRE)
> Certified Quality Engineer (CQE)

Software Packages

Experienced with or proficient in statistical software packages including, but not limited to:

- R (statistics-based programming language)
- Minitab

Continued Education

Event Data Recorder Update and Analysis, Ruth Consulting, 2023, Norcross, GA, September 12, 2023

Six Sigma Green Belt training (DMAIC), Caterpillar University College of 6 Sigma

Traffic Signal Timing Records Interpretation and Analysis, Traffic Signal Academy, University of Tennessee, Norcross, GA, October 21, 2020

Case Study

ESi Major Pipe Recall, (2022), Pettinger, Alfred M.: **Thobe, Keith R.**; Wright, Ellen E.; Pruitt, Reed A. Statistical analysis of the production and test records associated with the manufacturing process's capability to manufacture pipe consistent with the technical specifications.