

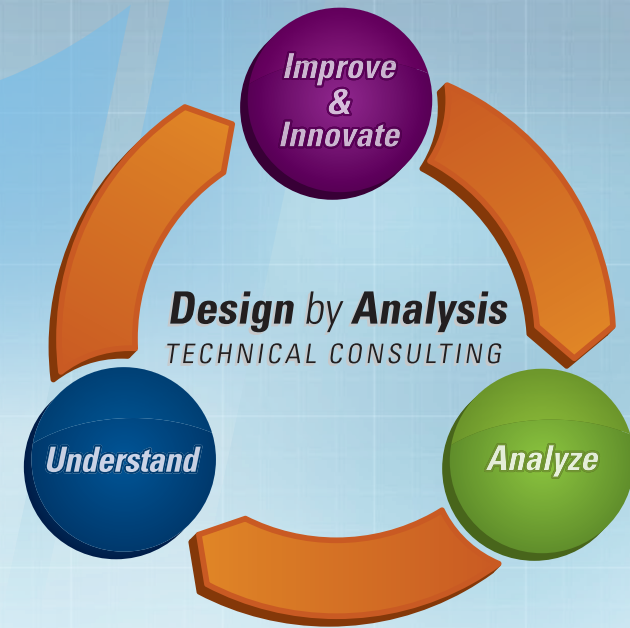
Design by Analysis

TECHNICAL CONSULTING

Analyze | Understand | Improve & Innovate™

Driving Tomorrow's Innovation by Understanding Today's Performance

Design by Analysis Technical Consulting is a thermal and mechanical engineering consulting firm that delivers innovation and improvement in our client's products. We do this through analysis of today's products and insightful understanding of those results, leading to refinements or innovative changes in the next generation design.



Improve & Innovate

- Improvements to Designs
- Innovations of New Concepts
- Product Differentiation
- Technology Leadership
- IP Position
- Development

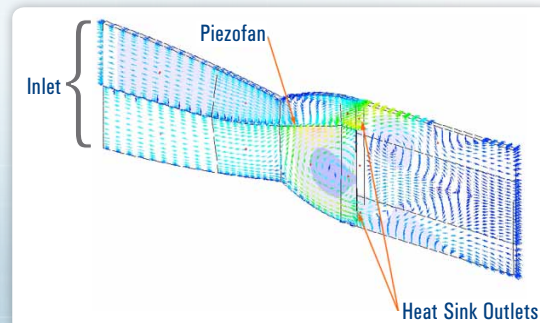
The Deployment of Understanding™



Understand

- Testing
- Correlation to Analysis
- Design of Experiments
- Deep Evaluation of Analysis Results
- Research

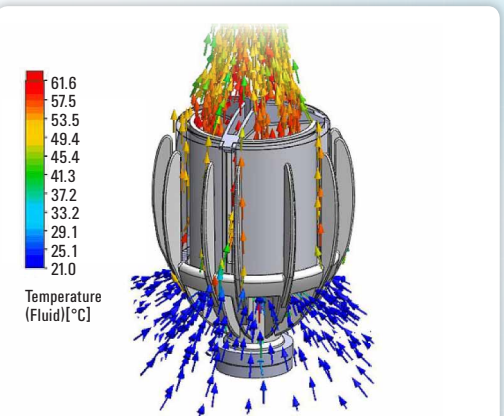
The Insight into Analysis™



Analyze

- Classical Methods
- Spreadsheet Models
- Mathcad Models
- Finite Element Analysis (FEA)
- Computational Fluid Dynamics (CFD)

The Assessing of Performance™



Design by Analysis

TECHNICAL CONSULTING

Analyze | Understand | Improve & Innovate™

Driving Tomorrow's Innovation by Understanding Today's Performance

Tools

SolidWorks

SolidWorks Simulation (FEA)

SolidWorks Flow Simulation (CFD)

Mathcad

Thermocouple Datalogger & FLIR IR

Camera (testing)

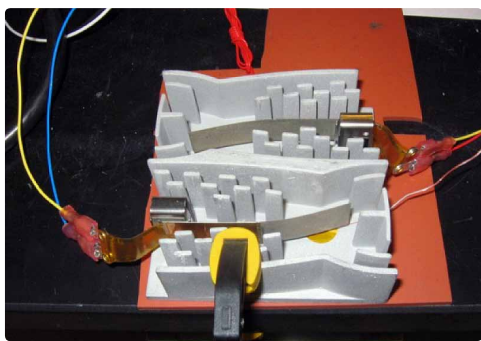
James Petroski

Cleveland, OH | 440.941.5817 | james.petroski@desbyanalysis.com

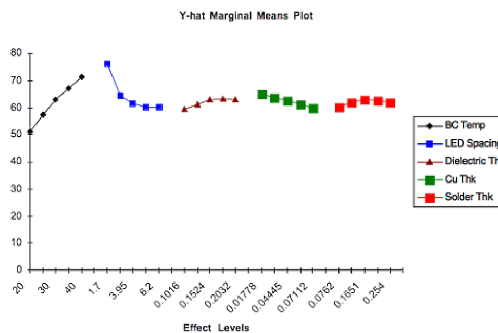
James Petroski is the founder and Principal Consultant of **Design by Analysis** Technical Consulting, with 35 years experience in thermal and mechanical engineering of diverse and difficult problems across a broad range of fields. His strengths lie in developing key insights into engineering analysis so that unique innovations and designs become part of a client's product development.

He has authored numerous papers related to LED and heat transfer in electronics packaging and has 29 patents pertaining to heat transfer and solid-state lighting. He is currently a member of the ASME K-16 Sub-committee on Heat Transfer in Electronics, and a past member of the Department of Energy working group for the Reliability and Lifetime of Solid State Luminaires.

Improve & Innovate



Understand



Analyze

