

Optical Science Consulting Services

The optical science consulting service is provided when you need to draw upon our expertise in the various areas of optical science and engineering to perform consulting work. This consulting work typically involves performing engineering calculations, developing specifications, performing imaging design and analysis, performing illumination design and analysis, writing technical white papers, and developing and testing instruments.

Problems We Solve for Clients

- Design a HB LED illumination system for display and transportation industries
- Design a fresnel lens to capture and collect more light
- Select and analyze the best light source for an illumination system.
- Design and analyze a condenser lens system for capturing the most light from an source and delivering it to an illumination plane.
- Developed several light engine concepts for a new type of modulator and complete an illumination design, optical design, and opto-mechanical design of the chosen light engine for prototype development.
- Analyze an existing illumination system to determine where a performance limitation has occurred and developed several solutions to solve this issue and increase system signal to noise ratio.
- Redesigned a section of an optical instrument to improve the irradiance uniformity and symmetry at an illumination plane.
- Created several new innovative designs and assist in the patent disclosure, application, and prosecution.
- Help entrepreneurs develop several concepts to obtain their Series A funding for developing optical instrument prototypes.
- Work with companies to develop optical instrument prototypes by performing vendor selection, vendor visits, metrology support and analysis, optical fabrication, optical assembly, and final system testing and characterization.
- Help Mechanical, Electrical, Physics, Chemical, and Software Engineers develop optical system specifications to achieve their optical instrument development goals.

Who Are Our Best Clients

- Our best clients range from start-up companies to Fortune 100 companies. They need to solve an optical instrument problem and are serious about engaging a consulting firm to deliver a solution to that need. Our best clients have taken the time to write a problem statement or to write a statement of work about what optical issues they need help solving. They have already budgeted and have approval to move quickly on hiring a consultant to solve their issues. They have enough time in their schedule to interact with the consultant to provide information (*or provide an internal resource who can*) when needed and to make critical decisions in a timely manner about their project. Our best clients love

what they do and have a passion for their work, a bit of a sense of humor, and appreciate working with the same kind of company.

Consulting Program Objectives

- Perform high value technical consulting to meet our clients needs
- Provide optical expertise to clients who don't need a full time continuous optical help
- Meet the needs of our clients for a high value consulting relationship with an expert in the field
- Provide for short term, fast delivery assistance on high value technical analysis and decisions
- Provide technical assistance to jump start projects
- Provide technical assistance to quickly review projects
- Use modern telecommunications devices and methods to eliminate travel and provide technical assistance when needed worldwide

How It Works

- We work on a project basis and charge a project fee based upon the value of the project
- We establish project deliverables and a schedule
- We can perform all of the work ourselves or partner with client team members
- Our work can be individually or concurrently with your other team members
- Our design work can be in our software and analysis programs or yours (if provided)
- Our clients are free to call us and don't have to worry about a clock running
- We can work on a retainer basis where we are considered part of your staff on a monthly or quarterly basis at some percentage of our time to help you complete your design and development projects

Some Typical Program Participants

- Engineering manager wants us to write a specification for a new digital projector illumination and imaging design and development program, review proposals, and attend design reviews on her behalf
- Marketing Manager needs help understanding and communicating technical aspects of their products to other engineers, perform analysis and research, and write white paper for company to use
- Inventor needs help writing invention disclosure in area of illumination design and help in crafting claims for patent application and reviewing and commenting on possible prior art in closely related areas
- QA manager needs help writing spec, selecting instruments, and setting up radiometric/photometric laboratory, and training engineers and technicians, for test and analysis of illumination systems
- R&D Manager needs help designing new biophotonic instrument which uses LED illumination source
- Project Managers needs help with forensic optics investigation of new product that has stray light problems that are decreasing the product performance with certain customers

- System Integrator needs help with specification and illumination design of new digital projector light engine that will improve the engine efficiency and color gamut of the system

What Consulting Program Participants Say About Our Service

- "As we all indicated, my colleagues and I are extremely pleased with your Phase I design analysis and report. I thought our discussion today was quite comprehensive and productive. I am looking forward to your proposal in early January and future results from your consulting services", President, Display Development Company
- "Michael, I believe the consulting work on our light engine concepts and design analysis is excellent.", Director EO Systems, Spatial Light Modulator Company
- "Michael, as usual, very high quality work. Much inspired.", President, Optical R&D Company
- "The technical content is very good in demonstrating our strengths in the area of illumination systems, especially medical optics and light pipes.", Marketing Manager, Technical Optics Company
- "It was a pleasant surprise to talk with one of those rare people who really understands this market and its technologies. Thanks for your insights.", President, Light Source Development Company

How to Enroll in the Consulting Programs

Send us a brief description of your company, position, your responsibilities, and what your current needs are from our consulting services. We will contact you to discuss your current needs to ensure that we can meet your objectives. If we can meet your objectives we will then discuss the starting schedule. Please email your initial information to me directly at: mpate@oscintl.com

See a list of some of our completed [Optical Instrument Projects](#)