# Electro-Optics Engineer I

Location US-NH-Merrimack

**Overview**

Elbit Systems of America is a leading provider of high-performance products, system solutions, and support services focusing on the defense, homeland security, commercial aviation, and medical instrumentation markets. With facilities throughout the United States, Elbit Systems of America is dedicated to supporting those who contribute daily to the safety and security of the United States. Elbit Systems of America, LLC is wholly owned by Elbit Systems Ltd. (NASDAQ: ESLT and TASE: ESLT), a global high technology company engaged in a wide range of programs for innovative defense and commercial applications. For additional information, visit: www.elbitsystems-us.com or follow us on Twitter.

**Responsibilities**

We are seeking an entry level electro-optical (EO) engineer to join our team in developing cutting edge products for our defense business.  This position requires the direct application of electro-optics engineering and design expertise to a variety of electro-optics applications. The successful applicant will work in a team environment on significant design, development and research projects, and support the preparation of technical proposals.

The candidate should be knowledgeable in the areas of Optical System Design including requirements analysis, simulation, design, testing, integration and verification of systems requirements. Responsibilities include concepts development, optical system architecture, system trade-off analysis, requirements definition and flow down, and test and evaluation of optical performance parameters at both the component and system level. Analytical skills should be complimented by ability to lead and/or support electro-optics system integration and test activities. Outstanding communication skills are required to convey technical ideas to both the customer community and to company personnel. Support of proposal writing for optical and electro-optical system elements may also be required.

The position is expected to provide contribution in EO system proposal development, research, concept development, design, manufacture, integration and testing of advanced EO sensor imaging systems.  These are inclusive of Helmet Mounted Display Systems (HMDS), Night Vison Systems, Night Vision Cueing Displays (NVCD), Vehicle Mounted Applications (Forward Looking Infrared - FLIR, Eye Safe Laser Rang finders - ELRF), Man-portable Handheld Targeting Systems (HTS), Missile Warning Systems (MWS), Degraded Visual Environment Systems (DVE), as well as the test equipment to support production of aforementioned products.

 Highly desired skills include:

- Web based research in support of technology trade studies.
- Knowledge of Optical and Electro-Optical System performance modeling.
- Optical design of: VIS/SWIR/MWIR/LWIR optics for both refractive and catadioptric architectures inclusive of: zoom lenses, afocals, microscopes, multi-FOV lenses, laser optics, relay lenses, and multi-spectral optics.
- Knowledge in test and evaluation of Electro-Optic systems, such as: See-through distortion, Sensitivity, NEDT, MRDT, MTF, FOV, bore-sight, uniformity, spectral transmission, etc.
- Familiarity with the application and use of metrology equipment inclusive of: interferometers, spectrometers, image analysis (MTF), radiometers, etc.
- Direct involvement with the manufacture, assembly, and troubleshooting of systems.

**Qualifications**

Bachelor's Degree in engineering (Optics, Physics, or similar).

Proficiency with the following or similar tools is highly desired:

- Optical design software (e.g. Zemax or Code V).
- General Purpose Modeling and Analysis Software (e.g. Matlab or MathCAD)

Familiarity with the following or similar tools is desired:

- Imager system modeling software (e.g. NV IPM, NVThermIP, SSCamIP)
- Non-sequential ray-tracing software (e.g. Zemax, FRED, ASAP, Light Tools)
- Lens measurement equipment (e.g. MTF bench, spectro-photometer, interferometer, centering station, etc.)
- Matlab Image Processing Toolbox