FIBERTEK, INC.
AN ADVANCED PHOTONICS COMPANY
13605 DULLES TECHNOLOGY DR
HERNDON, VA 20171
703-471-7671

Laser Communications Lead System Designer

We are searching for an innovative scientist or engineer to join Fibertek in developing new space-based Laser Communications systems for the aerospace and defense communities. You will perform a critical role in the initial definition and analysis of systems to be proposed and developed in response to mission needs for free-space laser communications links. We are looking for a self-directed technologist with demonstrated success in innovative application-driven engineering and development to join our world-class small business. You will lead a multi-disciplinary team of scientists, engineers, and technicians as a technical authority with deep expertise in laser-based optical sensors and broad awareness of available technologies and system trades.

You will have diverse responsibilities throughout the development life-cycle that include:

- Definition and analysis of system concepts that respond to customer needs
- Leadership of technical discussions with potential customers to discuss requirements, technical priorities and trades
- Authorship of technical proposals that clearly communicate the value of Fibertek's technical approach
- Leadership of engineering design teams in maturation of concepts to high-fidelity designs, and
- Oversight of design implementation including final system testing and performance verification

In this role, you will report directly to Fibertek's Chief Technology Officer and will define the technical direction of applied research and development projects that result in the delivery of advanced laser-based systems that are beyond the current the state of technology and which enable the realization of sensing, communications, and other missions for a broad range of customers. Over the long term your contributions will influence the technical direction of growing portfolios in optical sensors and communication systems with national importance.

Requirements

- Doctorate or Masters degree in Optics, Engineering, Physics, or other related field
- >10 years professional experience
- US Citizen and eligibility to obtain a US Security Clearance
- Significant experience in one or more of the following application areas: free space optical communication including PPM, OOK and/or DPSK formats, optical intersatellite links and down links, optical detection, beam propagation, and/or optical systems engineering
- Expertise in optical system definition and design, with strong analytical skills and familiarity with key factors in system design including optical link budget and performance analysis, state of the art in critical technologies including laser sources, detectors, data collection and processing, pointing control systems, optical fibers, coatings, and optical design elements, influence of environments (e.g., thermal, vibration, and/or radiation effects), and connection to data products and key metrics
- Demonstrated success in design, development, and engineering of laser-based optical systems
- Strong written and verbal communication skills
- Demonstrated success in authorship of technical proposals and delivery of new system technologies

Desired Skills and Experience

- Expertise in related disciplines, such as: engineering of space and airborne systems, lidar, modeling and analysis of laser and/or optical systems, directed energy, fiber optics, imaging systems, optical scanners, beam control and/or pointing systems, optical time transfer, photonic integrated circuits, imaging systems, signal processing or others

Why Fibertek, Inc?

Fibertek is a small business with a 35-year history of leadership in delivering advanced laser-based systems and technologies to the defense and aerospace communities with an emphasis on first-of-kind systems developed for the most challenging environments. We are leaders in delivering lasers for space-based earth-sensing LIDAR for NASA (e.g., CALIPSO and ICESat-2 laser systems) and have a broad range of products and expertise in laser-based sensors and systems. Fibertek has a rapidly growing product line in space-based laser communications across multiple mission scenarios from low-earth orbit to deep space. Fibertek fosters a progressive learning environment that values inspiration, promotes professional challenge and encourages personal growth. We offer competitive and incentivized compensation package with excellent benefits. Relocation assistance will be available.

How to Apply

Send your resume to our Human Resource department, at jobs@fibertek.com.

Fibertek, Inc. is an equal opportunity and affirmative action employer. Applicants are considered regardless of race, sex, disability, veteran status or any other protected characteristic in accordance with applicable law.