



Job Description: Optical Scientist

Job Title:	Optical Scientist	Prepared By:	MG, RL, CJ
Department:	Engineering/R&D	Approved By:	MF
Reports To:	CTO	Date:	11/9/2016
FLSA Status:	Exempt		

Basic Function

The Optical Scientist reports to the CTO and is responsible for specifying, developing and directing support of all laser systems used in the Lyncean Compact Light Source (CLS).

Responsibilities

1. Manage the Injector Laser System which consists of a mode-locked oscillator, regenerative amplifier, frequency conversion from IR to UV and beam delivery to the RF photocathode
2. Manage feedback servo subsystems and control interfaces
3. Manage the specification and validation of performance characteristics for all optical components
4. Specify and characterize hardware feedback systems used for frequency and/or phase stabilization of mode-locked oscillators
5. Provide a technical development roadmap for all laser technology used in the CLS
6. Direct support of fielded hardware through formulating procedures and programs to improve the CLS reliability and quality of care for customers
7. Identify areas of improvement for design and maintenance of the system
8. Manage relationships with key component vendors and collaboratively support fielded units
9. Manage the Cavity Laser System architecture and subsystems; mode-locked oscillator, pre-amplifier, power amplifier and optical transport assembly
10. Characterize Cavity Laser subsystems and develop optical models based on the layout and measured performance
11. Support ongoing development to improve the performance and stability of the Optical Cavity, as well as other source characteristics, including power delivery, mode quality and frequency stabilization

Skills

1. Self-directed, motivated and energetic team player with good communication skills
2. Strong understanding of mode-locked laser technology, feedback servo systems and optical modeling
3. Ability to design and construct experiments and to generate and analyze associated data
4. Demonstrated experience in troubleshooting complex systems in a well-documented and sequential manner

Education/Training

Masters or PhD in physics, optics or related science

Experience

Minimum 4yrs experience with lasers and optical systems

Travel Requirements

Up to 25% travel required, including international travel

Job Location

Lyncean Technologies, Inc. – Fremont, CA 94538