

**Job Title: Laser Characterisation and Data Engineer****Company Name: Eblana Photonics****Job Type: Full-Time/Permanent****Date: April 2019****Position Summary:**

Eblana Photonics Ltd. has a position for a talented engineer/physicist to work on advanced photonic device development with responsibility for analysis and data management of semiconductor photonic components at pre- and post-production stages. As a key part of the device engineering team, the person will have input to drive improvements across all aspects of device design and manufacture.

**Role Description:**

As a member of the Product Development team you will have a number of primary and secondary roles, including but not limited to the following:

- Static and dynamic electro-optical test and analysis of photonic devices, such as Fabry-Perot and single frequency lasers, multimode interference couplers, Mach-Zehnder modulators, electro-absorption modulators, tunable laser diodes and superluminescent diodes.
- Analysis of devices at both individual and volume levels to link performance with underlying physical attributes
- Design of new test methodologies and automated systems for photonic component testing.
- Define and conduct design-verification tests for product development.
- Reporting on results to the team, broader company, to customers and potentially at public seminars.
- Specify, maintain and develop databases used for device data.
- Use SPC to monitor lot to lot variations.
- Device yield and failure analysis.
- Assist with specification datasheet generation.
- Assist in reliability testing, quantification of device lifetimes and quality control.
- Assist with development and maintenance of test stations, automated data measurement.

**Key Qualifications & Skillsets:**

- B.A./M.S./Ph.D. in Electronic Engineering, Physics, Materials Science, Photonics or a related discipline.
- Experience in design of experiments, verification testing and root cause analysis. Have a demonstrated capability to analyse and report on complex results.
- Experience with SQL and commercial database specifying, purchasing and application.
- Strong capability in Python, LabView, Matlab and MS Excel with VBA.
- Use of optoelectronic test components and instrumentation (e.g. photodiodes, optical and electrical spectrum analysers, current and voltage sources)
- Have a good grounding in semiconductor process science and device physics.

**Additional useful skills:**

- Direct experience with DC and/or RF high speed semiconductor device characterization, test and measurement.
- Experience with semiconductor optical and electrical simulation software.
- Practical experience of III-V semiconductor device testing. In particular of the device types described above.

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