MIRICO

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Job title: Laser Instrument Design Engineer
Location: Rutherford Appleton Laboratory, Oxford, OX110QX, United Kingdom
Salary: £30,000 to 38,000 (dependant on experience and skills)
Term: Full time role

About MIRICO

MIRICO is developing highly innovative analytical instruments that operate on the principles of tuneable laser absorption spectroscopy using lasers that emit light in the mid-infrared spectral region. These instruments have broad applicability in medical diagnosis, environmental monitoring, oil and gas exploration and pharmaceuticals. MIRICO is in its early development stage, as such this is a unique opportunity to be part of a rapidly growing company and be integral to the shaping of a new technology that has potential to improve healthcare outcomes, scientific capability and enable new applications.

Main Responsibilities

The post holder will be responsible for the management, design, and execution of technology development with MIRICO's collaborators. This will involve reporting directly to MIRICO's founding members with a high degree of autonomy. Working with a small technical team in the creation of internal reports and technical notes is expected. This role requires in depth experience of working in experimental physics with relation to optics and laser spectroscopy. Importantly, the successful candidate will be able to demonstrate hands on lab skills and have a proactive approach that will drive the project forward and contribute to the success of the entire company. MIRICO has access to world class facilities and expertise at the Rutherford Appleton Laboratory that will be on hand to support and guide the post holder.

Duties & Responsibilities

- To contribute to the design and development of a laser spectrometer product. This will require knowledge of laser physics, optics and electronic engineering.
- Systematic experimental studies and associated error propagation modelling to determine and understand measurement errors and biases.
- To record, analyse and write up the results of the experiment.
- To report and disseminate data to members of the team.
- To complete detailed protocols and standard operating procedures to feed into knowhow and IPR generation.

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- To liaise with (or manage) external contractors to deliver technical work packages on subsystem developments and incorporate these into MIRICO's products.

Person Specification for the Post

Qualifications

Ph.D./D.Phil. in experimental physics in relation to Laser Spectroscopy. Knowledge of laser spectroscopy sensing practical applications is desirable.

Essential:

- Experience in optical instrument development.
- Knowledge of research techniques particularly with regard to design, specify and build of optical systems and performing measurements.
- Knowledge and experience in laser physics.
- Knowledge/ experience in optics / optical engineering.
- Proven experience in performing experimental / applied research using lasers and optical systems.
- Experience in the design and use of laser spectroscopy based instruments.

Desirable:

- Experience in developing and applying data analysis algorithms and developing physical models using mathematical software packages or programming languages (e.g. IDL/ MATLAB, PV.WAVE, MS Windows / Unix, Fortran or C).
- Previous technical experience in a commercial environment or collaborative research with commercial entity.
- Strong research skills in laser physics.
- Enthusiastic on the prospect of a commercial project..
- Effective written and verbal communication skills.
- Highly proficient in the relevant technical knowledge.
- Ability to present complex information effectively to a range of audiences.
- Ability to apply a logical approach to problem solving.
- Entrepreneurial outlook.

Application Process

A 1 page cover letter and 2 page CV to be submitted to info@mirico.co.uk as soon as possible. Include job title in subject line. Deadline for submissions will be on the 25th August, however we are looking to fill this post immediately.