



The ELI (Extreme Light Infrastructure) Project is an integral part of the European Union plan to build the next generation of large research facilities. ELI-Beamlines as a cutting edge laser facility is currently being constructed in Prague, Czech Republic; its commissioning is scheduled for end of 2015. ELI will be delivering ultrashort, ultraintense laser pulses lasting typically a few femtoseconds (10-15 fs) with some laser systems reaching peak power up to 10 PW. It will make available time

synchronized laser beams over wide range intensities for wide range of interdisciplinary applications in physics, medicine, biology, material science etc. The high laser electric field intensities of the laser pulse will be also used for generating secondary sources of e<sup>-</sup> and p<sup>+</sup>.

This is a unique opportunity to be involved in defining and implementing the state-of-the-art laser technology and construction of a new EU science facility. More details about this project can be found on [www.eli-beams.eu](http://www.eli-beams.eu)

For implementation of the kilojoule nanosecond laser system which will be a major part of the 10 PW beamline we invite applications for a new group member

### **LASER PHYSICIST - Senior Researcher (REF:ELI-L4-LS05 High Power Beam Diagnostics)**

The suitable candidate will be responsible for

- Development of diagnostic equipment for high energy laser pulses. This will include selecting suitable commercial solutions and further developing the existing techniques for measuring parameters such as pulse energy, pulse duration, pulse contrast, or full beam wavefront measurement. The goal is to develop an integrated system for online diagnostics of a kilojoule, short pulse laser system;
- close cooperation with other European research centres and commercial companies in developing the pulse diagnostics technology needed for ELI;
- preparing technical tender documentation for technology/equipment orders;
- independent scientific research and publishing, participating in conferences.

#### **Requirements:**

- Candidates are expected to have PhD in the broad area of laser physics/quantum electronics/optics/metrology;
- at least 2 years hands-on practical experience with high power/high energy laser diagnostics;
- proven record in constructing or operating high power laser systems;
- excellent organizational skills;
- good working knowledge of the English,
- The following knowledge and experience would be also desirable:
  - Experience with femtosecond lasers, pulse compressor design;
  - Experience with control systems and data taking;
  - Experience working in an large scale research facility setting;
  - Knowledge of Matlab, C/C++, Java or LabView programming ;

#### **Location**

ELI Beamlines, Institute of Physics AS CR v.v.i., Prague, Czech Republic

#### **Duration**

2-3 years renewable, possibility of extension

#### **Application process**

Applications should be sent to Mrs Mirka Svobodova (Mirka.Svobodova@eli-beams.eu, tel: +420733690901). Please provide your curriculum vitae and cover letter (in English), as well as the names and contact details (e-mail address and phone number) of two references. Please include the following text in your cover letter, to allow us to process your personal details:

*A agree that, according to the decree 101/2000 coll.(Czech Republic), my personal details sent to FZU AV CR, v.v.i. , Na Slovance 2, 18221 Praha 8, Czech Republic can be used for the purpose of obtaining employment and management of database of employment candidates. This permission is given for the period of one year and can be at any time withdrawn by giving a notice in writing.*

The deadline for applications is open. Candidates will be reviewed and given initial feedback within about a month and

for those that pass initial review reference letters will be sought. Relevant candidates will be invited to interview by phone or videoconference, and final interviews will be held in person.