

ELI-HU Research and Development Non-Profit Limited Liability Company is announcing a

job opening in **Early-Stage Researcher** and **Research Fellow** positions
in the **Terahertz Sources and Applications Group**
within the **Particle and Terahertz Sources Division**

Location: Extreme Light Infrastructure Attosecond Light Pulse Source (ELI-ALPS),
Szeged, Hungary

Reference code: PaTHz_THz

The Hungarian ELI: The Attosecond Light Pulse Source (ALPS)

The first civilian large-scale research facility based on high-power lasers, the Extreme Light Infrastructure (ELI), is being constructed with international cooperation at three locations with a coordinated management and research strategy. The Attosecond Light Pulse Source (ALPS) research centre is in the final stages of construction in Szeged, Hungary and will be devoted to the study of electron dynamics on the femtosecond-attosecond time scale in atoms, molecules, plasmas, and biological samples.

The primary mission of the ELI-ALPS research facility in Szeged is to make a wide range of ultrafast light sources accessible to users of the international scientific community, with special consideration to coherent extreme-ultraviolet (XUV) and X-ray radiation, and to attosecond pulses. The secondary mission of the facility is to contribute to the scientific and technological development towards high average power high peak intensity lasers.

ELI-HU Non-Profit Research and Development Ltd. coordinates the preparation, construction and operation of ELI-ALPS, an international laser research centre.

Job description:

The applicant will join the Terahertz Sources and Applications Group within the Particle and Terahertz Sources Division. He/she will contribute to our efforts to implement and further develop the research program outlined in the [Scientific Case of ELI-ALPS](#). He/she will take part in the development and application of advanced terahertz (THz) spectroscopic techniques and intense pulsed THz sources. The work will include THz nonlinear spectroscopic studies, spectrally resolved THz imaging, and applications using extremely intense THz pulses. The applicant will interact and carry out joint research with our internal and external collaboration partners and facility users.

Requirements from applicants:

The candidate should have hands-on experience with at least some of the following: lasers, ultrashort light pulses, nonlinear optics, spectroscopic investigations. Experience with THz technology, applications of THz pulses, or spectroscopy of solids and other materials is of advantage.

A solid academic foundation in optics and photonics related field is expected. Experience in programming and numerical simulations is of advantage. We are looking forward to highly motivated candidates with good written and verbal English communication skills. Good interpersonal skills will be required to interact with an international user community.

1. *For Early-Stage Researchers:*

- University students in the last year of an MSc program in relevant specialization field (physics, engineering physics, or chemist), assuming that they recently completed their studies or will complete it before September 1, 2016;
- PhD students working in relevant research fields;
- Early-stage researchers or engineers without a PhD degree.

2. *For Research Fellows:*

- Doctoral degree or submitted PhD thesis in a relevant research field.

We offer:

- Competitive salary
- Attractive fringe benefits
- Challenging job with carrier opportunities
- Pleasant working environment in a new research infrastructure

During the employment an early-stage researcher may have the opportunity to enroll to a PhD program and work for a PhD degree. The successful applicant may have a duty to do part of his/her research and development work at contracted partners or collaborators of ELI-HU Non-Profit Ltd.

The application must contain:

- Europass curriculum vitae or detailed scientific curriculum vitae
- Full list of publications, highlighting the list of articles published in refereed journals and containing the following data:
 - h-index
 - cumulative impact factor (calculated by summing of impact factors of journals characteristic for the year of publication of each article)
 - number of citations without self-citations
- Motivation letter
- The name and contact details of two scientific supervisors or professors, who could give expert opinion about the applicant's skills
- The applicant's postal address and other contact data (e-mail, Skype ID, phone, fax)

Schedule:

- Application deadline: continuous, open until filled
- Foreseeable date of the interview for shortlisted applicants: within 8-10 weeks of application submission

Please visit our website (<http://www.eli-alps.hu>) for further information on ELI-ALPS. For position-related information, please contact Dr. József FÜLÖP (Jozsef.Fulop@eli-alps.hu).

If you are interested in this position and meet the required criteria, please submit your application documents at <http://www.eli-alps.hu/career/>. Please use the reference "Early-Stage Researcher (PaTHz_THz)" or "Research Fellow (PaTHz_THz)" in any correspondence.