

Engineer – Support and Development

General description:

Neurotechnology Laboratory is part of IICT-BAS (Institute of Information and Communication Technologies, Bulgarian Academy of Sciences). We are newly formed research group and the group's topic of research is focused on brain and computer/machine interfaces, as well as developing invasive and non-invasive technologies to interact with and monitor the brain for diagnostics, medical or control of external devices purposes.

For our current ongoing project, The Horizon Europe ERA Chair VIBraTE (<https://vibrate-project.eu/>), we are seeking a highly motivated and skilled IT engineer (software and hardware) to join our research team. The successful candidate will work with a team of interdisciplinary researchers and will maintain the hardware and software infrastructure of the group as well as participate in various developments within the group's projects.

The ERA Chair VIBraTE is headed by Assoc. Prof. Dr. Dimiter Prodanov at the Institute of Information and Communication Technologies of the Bulgarian Academy of Sciences (IICT). ERA Chairs are funded by the European Union to support the development of research excellence in specific scientific areas. The objective of the ERA Chair project is to attract and maintain high-quality researchers at the host institution, improve research quality and impact, and enhance the institution's research environment. The project provides funding for research projects, mobility opportunities, and training activities for researchers.

The EU-funded VIBraTE project aims to support the establishment of a Neurotechnology Lab with a focus on BCI (Brain-Computer Interfaces) at the IICT. Among the objectives of the Neurotechnology Lab will be to model and investigate the properties, geometry, and mechanical effects of the interaction of the brain with implanted electrodes.

Location: IICT-BAS, Sofia, Bulgaria

Group (Web): <https://vibrate-project.eu>

IICT (Web): <https://www.iict.bas.bg>

Responsibilities:

Help the group to maintain and develop its software and hardware infrastructure and assist scientists to perform their daily tasks. The main duties can be summarized as following:

- IT administration tasks: maintain PCs (software and hardware), installing and setting up OSs, server software, application software, backups, setting up new user accounts, resolving IT issues etc
- Software tasks: participate in developing and maintaining the software created or used in the group - Microscopy Imaging Software, Inventory Software, ML & AI models, etc
- Laboratory tasks: maintaining devices and equipment, handling 3D printing jobs, keeping track of inventory and equipment etc

- Engineering tasks: designing custom components (using CAD software) for CNC and/or 3D printing, helps the group in the development of new instruments and tools

Requirements:

- Suitable technical education – proven by university degree or technical high school diploma
- Excellent written and oral communication skills in English
- Knowledge and experience in using and maintaining operating systems: Windows and Linux
- Knowledge and experience in one or more of the following programming languages (and desire to learn some of the others if needed): Python, Java, Matlab, C++/Qt, C#, Web Dev Stack (HTML/JavaScript/CSS/PHP)
- An advantage: Knowledge and experience in CAD design, Arduino, laboratory equipment handling (oscilloscopes, cameras, electronics, electrical multi-meters etc)

What we offer:

- A competitive salary according to the Marie Curie European standards
- An international research environment
- Access to state-of-the-art facilities and equipment
- Opportunities for professional development
- Specific training depending on projects and needs
- Being part of the leading scientific organization in Bulgaria

This is a full-time position for one year with the possibility of an extension until the end of the project (Jan 2028) based on the performance of the candidate. The position is available from January 2024, and applications will be reviewed on a rolling basis until the position is filled.

Application:

We look forward to receiving your application and will screen it as soon as possible. To apply, please submit the following documents:

- CV
- Cover letter, in which you describe your motivation and qualifications for the position
- Copy of the high school or university diploma
- Links to websites or repositories to showcase some of your realized projects

Shortlisted candidates will be invited to an interview and may be asked to solve a test case example. Applications should be sent to Tsvetelina Yorgova: tsvetelina.yorgova@iict.bas.bg (and cc: vibratelab@gmail.com)

All candidates will be informed for the outcome of their application