



French-German Research Institute of Saint-Louis

The **French-German Research Institute of Saint-Louis (ISL)** situated in the border triangle of Germany, France and Switzerland is an internationally renowned research institute belonging to a global industrial and economic network. The spectrum of our core activities comprises a variety of topics: aerodynamics, energetic and advanced materials, lasers and electromagnetic technologies, protection, security and situational awareness. Our activities are related to both basic and applied research.

www.isl.eu

For immediate placement, we are currently looking for a

Research scientist in the field of acoustics – modelling of pulse sound waves (m/f/d)

Field of activity

Your scientific group conducts innovative studies in the field of acoustics. The aim is to increase the efficiency of individual protection and communication systems of soldiers against weapon noises, blast waves and non-penetrating impacts, to enhance the collective protection of soldiers by means of acoustic threat detection at a safe distance, and sound restitution of threats.

Your new tasks and responsibilities - challenging and future-oriented

- ◆ Specific tasks:
 - Develop digital tools (own design, operation of existing tools which might be commercially available) to model pulse sound wave generation and propagation (blast or weapon generated). Participate in experimental validations (protocols and tools)
 - Basic research on the influence of the environment (atmosphere, ground, obstacles, urban environment) on the propagation of sound waves in the air at the scale of a battle field or at shorter distance (indoor environment)
 - Contributions to other studies of the group APC in the field of pulse sound characterisation at its source, hostile sound detection at higher radius and soldier's protection from blast waves
- ◆ Generic tasks
 - Implement research project(s) or contract services together with the group's research scientists: contribute to technical proposals, experimental and/or theoretical works, validate work and interpret results
 - Monitor the relationships with the different contracting authorities, academic and industrial partnerships, in France, Germany, and abroad
 - Propose subjects for internships and theses contributing to the group's work, mentor and monitor students and PhD students
 - Write and publish scientific knowledge (publications / papers / reports, oral presentations)

Your qualifications – solid and appropriate

- ◆ Hold a university Master's or engineering degree and a PhD in wave propagation, theoretical and digital modelling
- ◆ You have work experience in conducting research and have sound knowledge of software like Matlab or Comsol
- ◆ Profound in-depth skills and knowledge in acoustics and programming Fortran, C++ and Matlab
- ◆ Good communication skills. You like to work in a team and to take initiatives. You are an effective organiser, easily adapting to new situations.
- ◆ You have a good level in French and/or German
- ◆ Professional experience is not required, but would be considered an asset

Our offer

- ◆ Fixed-term contract of 5 years, possibility of conversion to permanent contract
- ◆ Attractive remuneration, flexible working time and balanced working-private life
- ◆ Various possibilities of advanced training
- ◆ An international and modern working environment with about 400 colleagues
- ◆ Career development opportunities
- ◆ The position is open to people with disabilities

If this challenging description fits your profile, we are looking forward to receiving your complete application (letter of motivation, curriculum vitae in tabular form, school certificates, university degrees with detailed examinations, work references and other relevant documents), mentioning the following keyword: "APC-S".

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