



2018-IPR-G-000-010223

PULSE TRAIN ANALYSER

<p>Position for:</p> <p>Trainee</p>	<p>As the science and knowledge service of the Commission, the mission of Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle.</p> <p>The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: http://www.jrc.ec.europa.eu</p> <p><u>Short description of activity:</u></p> <p>The trainee position is available at the Nuclear Security Unit. The unit focus is on state of the art enabling research, the use of specific technology, development of instruments and methods, delivering technical services and training in the domain of nuclear safeguards, non-proliferation and nuclear security. In this way, the unit supports the verification of international treaties and agreements related to nuclear safeguards and non-proliferation.</p> <p>At the center of the unit's activities there are nuclear non-destructive detection methods, process monitoring and containment & surveillance technology and methods. These core-activities are complemented with proliferation assessment of new reactor systems, specialist analysis and use of open-source data including satellite imagery analysis, trade data analysis, strategic trade control and monitoring the dual use regulation, and last but not least border monitoring and the design of protocols to be used in the field of detection of nuclear materials outside regulatory control.</p> <p>The trainee is expected to contribute to the development of a Pulse Train Analyser Program for a neutron counter. The program should run on a small external board that support either Windows 10 or Linux based operating system (32-bit and 64-bit) with a complete Application Programmer's Interface (API) that could be written in C, C++, C#, Python, or Java.</p>
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	<p><u>Qualifications:</u></p> <p><u>Essential:</u></p> <ul style="list-style-type: none"> • University Degree (or an almost completed degree -according to the Rules who are receiving a university education or its equivalent and are preparing a thesis for a university degree or Master's degree or Ph.D. or its equivalent at graduate level could apply as well. The purpose of the training must be directly related to the subject of the thesis) in computer science, ICT, electronics, engineering or related field • Knowledge of computer science is required • Knowledge in IT • Knowledge of LINUX world • Good knowledge of English language (B2 level) <p><u>Advantage:</u></p> <ul style="list-style-type: none"> • experience with VHDL • experience with DAC technology • C, C++, C#, Python, or Java • Knowledge of Zynq family (REDPITAYA) <p><u>For general eligibility requirements, please read the rules governing the traineeship scheme of the JRC:</u></p> <p>https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees</p>
Unit / Directorate	<p>Unit G.II.7 – Nuclear Security Directorate G – Nuclear Safety and Security</p> <p>Further information: https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards-and-security</p>
Indicative duration	5 months
Preferred starting date	As soon as possible
JRC Site	Ispra
Country	Italy
<u>JRC contact details</u>	<p>For any technical problems with your application, please contact: HR-AMC8-RECRUITMENT-TOOLS-SUPPORT@ec.europa.eu</p>