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**Institutul Național de C&D
pentru Fizică și Inginerie Nucleară
Horia Hulubei**

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“Horia Hulubei” National Institute for Research and Development in Physics and Nuclear Engineering is hiring 1 (one) scientific research assistant, full time (8 h / day) position, for a definite duration, until 30 September 2022, within the Multipurpose Irradiation Facility Centre IRASM.

Requirements to fill the position:

1. Graduate of one of the faculties: Physics, Chemistry, or a faculty in the Polytechnic University, in one of the following fields: Materials Engineering or Chemical Engineering.
2. Master program student or master graduate in one of the specializations mentioned above.
3. Knowledge of PC operation: use of word processing software and spreadsheet applications.
4. Foreign languages: English - at least intermediate level (writing and speaking);

Skills and abilities: communication skills, able to work independently, curious, tidy and organized person, careful about details.

Main responsibilities:

- high-dose dosimetry
- dose mapping
- gamma (Co-60) irradiation of samples
- statistical analysis of experimental data
- implementation of new dosimetric systems
- Electron Paramagnetic Resonance (EPR) Spectroscopy for EPR/Alanine dosimetry and biological samples

Applications will contain the following documents:

- Request for competition registration - can be found at www.nipne.ro/careers/jobs/jobs.php, specifying the name of the department;
- Copies of the study diplomas (baccalaureate included);
- Curriculum Vitae;
- Certificate indicating the capacity of master programme student;
- Copy of the identity document/passport.

The competition will consist of a written test and an interview in the field of the position topics. The interview can be held only by the candidates who have obtained a minimum score of 7 in the written test. The candidates who have obtained a minimum score of 7 at the interview are declared admitted. The final score is calculated as arithmetic mean of the scores obtained for the written test and the interview and must be at least 7. The candidate who has obtained the highest score among the candidates competing for the same position is considered admitted, provided that they have obtained the minimum necessary score.

The applications will be sent to e-mail address: resum@nipne.ro, until 15.10.2021.
The written test and the interview will take place on 19.10.2021, at 10:00 hrs.
Further information can be obtained by phone 021/404.61.78 or 021/404.23.00 int. 5612.

Topics:

1. Interactions of ionizing radiation (chiefly gamma-rays) with matter – basic concepts.
2. Detection and measurement of ionizing radiation – basic concepts.
3. Statistics and metrology – basic concepts.
4. Radiation protection – basic concepts.
5. Electron Paramagnetic Resonance Spectroscopy – basic concepts.

Bibliography:

1. Glenn F. Knoll, Radiation Detection and Measurement (John Wiley & Sons, Inc.)
2. Evaluation of measurement data — Guide to the expression of uncertainty in measurement (GUM)
https://www.bipm.org/utis/common/documents/jcgm/JCGM_100_2008_E.pdf
3. James E. Martin, Physics for Radiation Protection (John Wiley & Sons, Inc.)
4. Eaton et al., Quantitative EPR (Springer Science & Business Media)