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Category: Job vacancies

Job Information

- **Organisation / Company:** University of Ljubljana, Faculty of Mathematics and Physics
- **Department:** Department of Physics
- **Research Field:** Soft Matter Physics
- **Researcher profile:** Research Assistant
- **Position code:** ULH0001
- **Country:** Slovenia
- **Application deadline:** 12 May 2024 - 23:59 (Europe/Ljubljana)
- **Type of contract:** Temporary
- **Job status:** Full-time
- **Hours Per Week:** 40
- **Offer starting date:** 1 October 2024
- **Type of contract:** temporary until: 30 September 2027

Reference number: PF81313

Is the job funded through the EU Research Framework Programme? Yes (HE /MSCA)

Is the Job related to staff position within a Research Infrastructure? No

Offer Description

- The Marie Skłodowska-Curie Actions Doctoral Network (MSCA-DN) “Magnetic Soft Matter for Robotics” (MAESTRI, Grant ID 101119614) is an interdisciplinary research training network of seven universities and two companies from five countries. It is founded under “the first pillar” of the Horizon Europe program called “Excellent Science”. The MSCA-DN MAESTRI reflects the demand for training a new kind of experts in the emerging application field of magnetic soft robotics that we believe will yield groundbreaking technologies in the near future. It is an interdisciplinary collaboration of specialists from different fields of Materials Science, Biology, Physics, and Engineering Science.

Roles and Responsibilities:

- The main part of your work will be carried out at the University of Ljubljana, Faculty of Mathematics and Physics, Department of Physics (Ljubljana, Slovenia) in the group of prof. Irena Drevenšek Olenik, head of the Program group “Light & Matter”, and secondment placements will take place at the Ostbayerische Technische Hochschule Regensburg (Regensburg, Germany, 3 months), the Scuola Superiore Sant’Anna (Pisa, Italy, 3 months) and the Prensilia SRL (Pontedera, Italy, 3 months). The doctoral project is funded for three years and would start by 1st October 2024 or later.
- Your doctoral degree will be awarded on the basis of successful completion of the research work and the PhD study requirements of University of Ljubljana. You will be also required to participate in the training activities and workshops organized by the

MSCA-DN MAESTRI. As a Marie Skłodowska-Curie Actions Fellow, you are also expected to contribute to the dissemination of your project's results through public engagement and various scientific platforms.

Topic: Magnetic-field-induced optical effects as a base for optical addressing and manipulation of magnetoactive soft matter [This](#)

PhD research will focus on:

General description

- scientific research work on an international project
- the provision of training for work in the field of research
- organising, coordinating, planning and monitoring the work of the research activity
- the integration of research activities with other research institutions
- carrying out work as directed by the line manager (project leader)
- carrying out other work as specified in the job description for his/her post

Detailed description

- investigation of modifications of surface optical properties of magnetoactive elastomers (MAEs) caused by application of magnetic field
- development of precise optical sensing methods for detection of magnetic-field-induced modification of shape and/or surface structure of objects fabricated from MAEs
- design of optical response-based feedback and manipulation mechanisms for control of soft robotic parts made from MAEs

Requirements

Research field: Physics

Education level: Master degree or equivalent

Skills/Qualifications

- The applicant should have completed at least four- or five-years education with a Master's degree or its equivalent in Physics, Materials Science, Photonics Engineering, Microsystems Engineering or a related field from a recognized university and should be eligible as a doctoral candidate at the University of Ljubljana (in the study year 2024/25).
- The applicant should show interest in conducting a research project independently and at the same time enjoy the work in an international, interdisciplinary environment.
- At the time of recruitment, the applicant must not have resided (or carried out her/his main activity, e.g., work, studies, etc.) in Slovenia, for more than 12 months in the last 3 years immediately prior to the reference recruitment date.
- The applicant should have a solid foundation in physics and/or materials science and/or photonics engineering. Experience with experimental optics and/or magnetic materials and/or polymer science are welcome.

- The applicant should have an excellent command of the English language at a proficient level (spoken and written).

Additional information

Benefits

We offer a gross annual salary of around 26.000 € for three years, plus a mobility allowance in the gross sum of 600 € per month and, in case the recruited researcher has a family (which means “persons linked to the researcher by marriage (or a relationship with equivalent status to a marriage recognised by the legislation of the country where this relationship was formalised) or dependent children who are actually being maintained by the researcher.”) we offer a family allowance in the gross sum of 495 € per month.

University of Ljubljana honors and respects the equal opportunities and diversity-oriented personnel and university policy. It provides equal opportunities to all employees and qualified applicants regardless of sex and/or gender, nationality, race or ethnicity, health condition, disability, religion or faith, age, social status, sexual orientation, gender identity or gender expression, family status or any other personal circumstance.

The Doctoral Network MAESTRI aspires to be an equitable and inclusive community. We nurture an open culture, where everyone is supported to fulfil their potential. We see inclusivity of talent as the basis of our successes, and the diversity of perspectives and people as a highly valued outcome. We look forward to welcoming you in our community.

Eligibility criteria

Supported researchers must be doctoral candidates, i.e. not already in possession of a doctoral degree at the date of the recruitment. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will not be considered eligible.

The applicant should have completed at least four- or five-years education with a Master’s degree or equivalent in Physics, Materials Science, Photonics Engineering, Microsystems Engineering or a related field from a recognized university and should be eligible as a doctoral candidate at the University of Ljubljana for enrolment in the study year 2024/25 (<https://www.uni-lj.si/study/doctoral/>)

At the time of recruitment, the applicant must not have resided (or carried out her/his main activity, e.g. work, studies, etc.) in Slovenia, for more than 12 months in the last 3 years immediately prior to the reference recruitment date.

Additional information provided by the European Commission on terms and conditions related to MSCA doctoral networks can be found in the MSCA document library: https://marie-sklodowska-curie-actions.ec.europa.eu/document-library?facets_field_eac_audience=274

Selection process

- 1st stage: Review of application documents to verify the applicant's eligibility and if the work and/or educational experiences would fit the position requirement
- 2nd stage: Panel interview

- **3rd stage: Internal deliberation and ranking of candidates. This will be based on the conducted interview, work/educational experiences, and letter of recommendation from your referees**

Application procedure

To apply for this position, kindly provide: i) a letter of motivation including a 1-page statement of your research interests, relevant skills and experience; (ii) a CV (Europass model mandatory) including a publication list (if relevant); (iii) copies of relevant certificates and (iv) names and contact details of at least two referees willing to write confidential letters of recommendation. All materials should be attached as a single PDF file (max. size 5 MB).

Interested applicants should send complete documents as a single PDF file (max. size 5 MB) to our recruitment email address application.maestri.physik@univie.ac.at using exclusively the combination DC4 in the subject line (please do not use any additional text in the subject line of your email (except DC4)).

Deadline: The closing date for all applications is May 12th 2024, 23:59 (Europe/Ljubljana).

Enquiries:

- For further general information about MAESTRI and the Doctoral Candidate positions, you may visit the MAESTRI webpage at <https://maestri-project.eu/>.
- For further specialist information regarding this position, you may contact prof. dr. Irena Drevenšek Olenik at University of Ljubljana (irena.drevensek@fmf.uni-lj.si).

Work Location(s) Number of offers available: 1

Company/Institution: University of Ljubljana, Faculty of Mathematics and Physics

Country: Slovenia

City: Ljubljana

Postal code: 1000

Street: Jadranska ulica 19

Geofield

Where to apply

- **E-Mail to:** application.maestri.physik@univie.ac.at

Contact Websites:

- <https://www.uni-lj.si/university/>
- <https://www.fmf.uni-lj.si/en/>
- <https://maestri-project.eu>

E-Mail: irena.drevensek@fmf.uni-lj.si