



UNIVERSITY OF ZAGREB

Faculty of Electrical
Engineering and
Computing



Job Announcement:

PhD positions in a Horizon Europe Funded Project

deadline for submission - March 1, 2023

The University of Zagreb Faculty of Electrical Engineering and Computing (UNIZG-FER; www.fer.unizg.hr/en), Laboratory for Underwater Systems and technologies (LABUST; <https://labust.fer.hr/>) is looking for two (2) highly talented PhD students / first stage researchers (equivalent to R1 ERA researchers) in signal processing for the broad application of Internet of Underwater Things including: networking, communications, object detection, bioacoustics, underwater localization and navigation, and sonar processing. The student will be part of the newly established Internet of Underwater Things Research Group (UWIN-LABUST Research Group), in the framework of the Horizon Europe EU funded project "UWIN-LABUST - ERA Chair in Internet of Underwater Things at LABUST" (<http://uwin-labust.fer.hr>). The UWIN-LABUST project has received 2.5 million EUR funding from the EU Horizon Europe ERA Chair programme, HORIZON-WIDERA-2022-TALENTS-01 Call (please see [here](#) for more information about the Call).

Job description:

The UWIN-LABUST Research Group will be part of the Laboratory for Underwater Systems and Technologies (LABUST; <https://labust.fer.hr/>) at UNIZG-FER. LABUST has significant expertise in marine robotics, obtained through a number of capacity building and research projects. UWIN-LABUST aims to achieve excellence in the broad application of Internet of Underwater Things through three main strategic research domains: underwater sensor communications (underwater communication networks, underwater communication technologies, environmental sensing technologies), underwater acoustic signal processing (acoustic-optic Multimodal, sonar image processing, acoustic localization), and underwater collaborative autonomy (energy harvesting, low-power systems, collaborative operation).

The UWIN-LABUST Research Group will be led by the ERA Chair, Prof. Roee Diamant, Head of the Underwater Acoustic & Navigation Laboratory (ANL) at the University of Haifa that is a partner in the UWIN-LABUST project. ANL is focused on underwater acoustics and develops probabilistic and machine learning algorithms for marine applications.

Required candidate's qualifications and experience:

- Master degree with thesis (or close to finishing) in electrical engineering, computer science, physics, artificial intelligence, robotics and automation, control engineering, data science, mathematics or closely related domains.
- Excellent written and oral communication skills in English.
- Capability to work autonomously, entrepreneurial attitude, lifetime learner
- Bold and creative research attitude, team worker.

Desired candidate's qualifications, experience and skills:

- Background in Signal processing, telecommunications, Networking, Machine learning, Control Theory, Information Theory, propagation, probability analysis.
- Applied and Theoretical Mathematics, in particular computation and random processes
- Python, C++, or Matlab
- Scikit, Tensorflow, PyTorch, Keras and/or similar

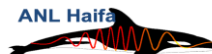


UWIN-LABUST project has received funding from the Horizon Europe Framework Programme of the European Union (Grant Agreement No. 101086340 HORIZON-WIDERA-2022-TALENTS-01).

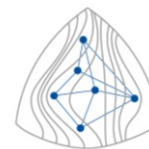


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Underwater Acoustic & Navigation



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- OpenCV and/or similar
- Kaggle and/or similar

Our offer to the ERA UWIN-LABUST Fellows:

The selected candidate will be offered the following:

- An option for a dual PhD degree from the university of Zagreb and the University of Haifa
- A full-time employment contract for the duration of up to the project end (December 31, 2027).
- An internationally competitive salary commensurate with qualifications and experience, an attractive remuneration package, pension scheme, health insurance, and a minimum of 24 working days of an annual vacation.
- Substantial travel budget for conference attendance and networking.
- Support for relocation and settling in the City of Zagreb.

Application process:

Applicants are invited to submit the following documents:

1. A signed cover letter with motivation and career goals.
2. Transcripts of Bachelor and Master degrees.
3. Copies of any published papers.
4. Curriculum Vitae.
5. Two letters of reference with contact details from academic faculty who can be contacted for an opinion on the candidate.
6. Any additional information the candidate finds useful for the evaluation process.

All the above documents in the electronic form compiled to a single file should be sent to uwin-labust@fer.hr mentioning "UWIN-LABUST – PhD Student" in the subject **until March 1, 2023 (11:59 PM Central European Time)**. The candidate will get a confirmation email of the application submission and feedback on the outcome of the evaluation or the result of the eligibility check. All applications submitted until the deadline will be considered for evaluation and treated in full confidentiality. The application language is English.

Recruitment process:

The PhD Students will be recruited through an open, transparent, and merit-based selection process fully in compliance with the [European Charter for Researchers and the EU Code of Conduct for the Recruitment of Researchers](#). The process will be carried out by the Recruitment Committee consisting of the ERA Chair holder, the UWIN-LABUST project coordinator, and three external members. Selection of the best applicants will be accomplished in two rounds.

In the application screening round, each applicant's profile will be assessed in line with the job description. The application documents screening will aim at ranking applicants according to their CV, motivation and career goals.

In the second round, up to six best ranked applicants will be invited for a teleconference interview to assess their research skills, presentation skills, technical expertise and self-management/interpersonal/leadership skills. The contract will be offered to the candidates with the highest final score.

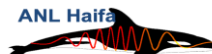


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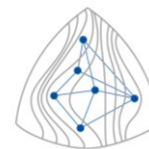


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Recruitment process timeline:

- Deadline for applications: March 1, 2023
- The results of the applications screening sent to applicants: by end of March 2023
- Teleconference interviews with the shortlisted applicants: by end of April 2023
- The results of the teleconference interviews: by end of May 2023
- The expected start date of the employment: July 1, 2023 (negotiable)

Eligibility criteria:

Any candidate fulfilling these Job Announcement requirements is eligible for application, regardless of gender, age, nationality, race or ethnicity.

Work location:

University of Zagreb
Faculty of Electrical Engineering and Computing (UNIZG-FER)
Department of Control and Computer Engineering
Laboratory for Underwater Systems and Technologies

Further information:

For any further information or request, please do not hesitate to contact us at uwin-labust@fer.hr with the email subject "UWIN-LABUST – YOUR LAST NAME".

Note:

Please include in your cover letter the following statement:

„I agree to the processing of personal data provided in this document for realizing the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000 and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).“

Some useful links:

- [UNIZG-FER mission, vision and development strategy](#)
- <https://www.lovezagreb.hr>
- <http://www.zagrebexpat.com/site/>



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