

ΑΝΑΡΤΗΤΕΑ ΣΤΟ ΔΙΑΔΙΚΤΥΟ



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΑΝΑΠΤΥΞΗΣ ΚΑΙ ΕΠΕΝΔΥΣΕΩΝ
ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΡΕΥΝΑΣ ΚΑΙ ΚΑΙΝΟΤΟΜΙΑΣ

ΙΔΡΥΜΑ ΤΕΧΝΟΛΟΓΙΑΣ ΚΑΙ ΕΡΕΥΝΑΣ, ΙΝΣΤΙΤΟΥΤΟ ΠΛΗΡΟΦΟΡΙΚΗΣ

Ταχ. Διεύθυνση: Ν. Πλαστήρα 100, 70013 Ηράκλειο Κρήτης

Α.Π. 98513
Ηράκλειο, 16-1-2023

Call for expression of interest for one (1) position, for one (1) Postdoctoral Researcher at the Institute of Computer Science (ICS) Foundation for Research and Technology – Hellas (FORTH)



Position(s): One (1) position for the HORIZON project ARGOS-CDS

Project: “ARGOS Conceptual Design Study: Designing a Next-Generation Radio Facility For Multi-Messenger Astronomy” (Grant Agreement number: 101094354) funded under HORIZON-INFRA-2022-DEV-01

Desired starting date: March 1st, 2023

Duration: 1 year with possibility of extension

Location: Heraklion, Crete, Greece

Opening date: 16/01/2023

Closing date: 31/01/2023

Ref.: “ARGOS-PostDocBDA2023”

Description

This is an exciting opportunity to work as a Postdoctoral Researcher on a new international research project within the Institute of Computer Science (ICS), Foundation for Research and Technology – Hellas (FORTH). We seek a candidate with the drive and passion to deliver high-quality R&D support in the context of the HORIZON project “ARGOS Conceptual Design Study: Designing a Next-Generation Radio Facility For Multi-Messenger Astronomy”, funded under HORIZON-INFRA-2022-DEV-01 program. The ideal candidate will be self-motivated, have great attention to detail, with strong organizational and communication skills, and will be able to work on their own initiative. The candidate will be working in an international and multidisciplinary team, with plenty of opportunities for training and development. The role will be based at the premises of FORTH in Heraklion, on the beautiful island of Crete.

The post holder will provide comprehensive R&D support for the project, with the following key responsibilities:

- Design of large-scale hierarchical and distributed data learning schemes for high-level big data analytics.

- Develop machine/deep learning frameworks for source extraction and transient identification in time series data, in conjunction with data classification and vetting.
- Implement services built on top of unified analytics engines (e.g. Apache Spark with Akka and Scala) to achieve large-scale distributed storage and distributed processing.
- Collaborate with ARGOS-CDS' lead system engineer to support the implementation of the relevant algorithms/software running on DSP or FPGA accelerators, and to verify the robustness of the archiving and alerting subsystem.

ARGOS-CDS is a project aiming to design and deploy a European "Small-D/Big-N" astronomical interferometer. Astronomy is being transformed by surveys performed with instruments capable of searching the sky for multi-messenger signals with high speed and sensitivity, while delivering science-ready datasets to the community. While radio astronomy is not yet fully participating in this revolution, an instrument following the same philosophy that would finally open the dynamic radio sky for exploration is not only urgent but inevitable. ARGOS-CDS is a concept (TRL2) for a leading-edge, low-cost, sustainable "small-D/big-N" radio interferometer that will realize this ambition, directly addressing multiple fundamental scientific questions, from the nature of dark matter and dark energy to the origin of fast radio bursts.

Position: Postdoctoral Researcher at ICS-FORTH

Required qualifications:

- Ph.D. in Computer Science, Electrical Engineering, Astrophysics, or related field.
- At least 3 years demonstrated experience with the development of big data analytics platforms.
- Publications in related fields.
- Working experience in relevant European and/or National R&D projects.
- Willingness and ability to work cooperatively within a team, to learn, and to adapt to the projects.
- Excellent organization and time management skills.
- Very good written and verbal English communication skills.
- Two (2) letters of recommendation.
- Physical presence at FORTH, Heraklion, Crete for the duration of the position.
- Completed military services (if applicable).

Desired qualifications:

- Experience in embedding algorithms/software in high-performance computing platforms (e.g. GPUs, FPGAs).
- Experience with radio interferometers and/or radio-astronomical data is a plus but not a prerequisite.
- Decision-making and representation of the team/laboratory/institute at both national and international levels.

Application Submission

Interested candidates can submit their applications via <https://www.ics.forth.gr/jobs/en/> using the link "**Apply for the position**" under the announcement. Applications must include:

- Detailed CV, including qualifications and interests in the above areas and proof thereof.
- Scanned copies of academic titles; academic transcripts for undergraduate and postgraduate degrees.
- Two (2) letters of recommendation, detailed presentation of prior work, demonstrating knowledge of desired skills.
- Certificate of completion of military obligations (for Greek citizen male candidates).

Contact Information:

For information and questions about the advertised position, the activity of the group or the Institute, please contact Dr. George Tzagkarakis at gtzag@ics.forth.gr.

Selection Announcement

The result of the selection will be announced on the website of ICS-FORTH. Candidates have the right to appeal the selection decision, by addressing their written objection to the ICS secretariat within five (5) days since the results announcement on the web. They also have the right to access (a) the files of the candidates as well as (b) the table of candidates' scores (ranking of candidates results). All the above information related to the selection procedure will be available at the secretariat of ICS-FORTH in line with the Hellenic Data Protection Authority. Access to personal data of co-candidates shall be limited to personal data (and relevant data) and supporting documents which have been the basis of the evaluation of the candidates for the specific post(s). Prior to the announcement of the personal data and/or documents of the co-candidates to the applicant, FORTH will inform the data subjects in an appropriate way.

Disclaimer

FORTH is compliant with all legal procedures for the processing of personal data as defined by the **Regulation EU/2016/679 on the protection of natural persons with regard to the processing of personal data**.

FORTH processes the personal data and relevant supporting documents that you have submitted to us. Processing of that data is carried out exclusively for the needs and purposes of this specific call. Such data shall not be transmitted to or communicated to any third party unless required by law.

FORTH retains the above data up to the announcement of the final results of the call, unless further process and reservation is required by law or for purposes of exercise, enforcement, prosecution of certain one's legitimate legal rights' as defined in the Regulation EU/2016/679 and/or in national law.

We inform you that under the **Regulation EU/2016/679** you have the rights to be informed about your personal data, access to, rectification and erasure, restrictions of process and objection to as provided by applicable regulation and national laws.

We acknowledge also to you, that you have the right to file a complaint to the national Data Protection Authority. For any further information regarding exercise of your personal data protection rights, you may contact the Data Protection Officer at FORTH at dpo@admin.forth.gr.

You have the right to withdraw your application and consent for the processing of your personal data at any time. We inform you that, in this case, FORTH shall destroy such documents and/or supporting documents submitted and shall delete the related personal data.