

## 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. 63510  
Ηράκλειο, 20-10-2021

**Call for expression of interest for two (2) positions, one (1) MSc holder in Electronic and Computer Engineering and one (1) BSc holder in Computer Science, in the Institute of Computer Science (ICS) Foundation for Research and Technology – Hellas (FORTH)**

**Position(s):**

One (1) MSc holder in Electronic and Computer Engineering  
One (1) BSc holder in Computer Science

**Project:** “Optimizing Manufacturing Processes through Artificial Intelligence and Virtualization” (OPTIMAI) (Grant Agreement number: 958264), funded under Horizon 2020, DT-FOF-11-2020 Quality control in smart manufacturing (IA)

**Desired starting date:** January 1st, 2022

**Duration:** 12 months on a full-time basis with possibility of extension

**Location:** Heraklion, Crete, Greece

**Opening date:** 20/10/2021

**Closing date:** 04/11/2021

Ref.: “OPTIMAI-Oct2021”

**Description**

We seek two experienced members for our team, with a background in Electronic and Computer Engineering and Computer Science. The candidates will participate in the R&D activities of FORTH in the context of the project “Optimizing Manufacturing Processes through Artificial Intelligence and Virtualization” (OPTIMAI), funded under Horizon 2020, DT-FOF-11-2020 Quality control in smart manufacturing (IA).

OPTIMAI is coordinated by CERTH and FORTH-ICS is a member of the project consortium. The project aims to create an industry ecosystem that will optimize production through Smart Instrumentation, Metrology, Artificial Intelligence, Virtualization and Augmented Reality. To this direction, a multimodal sensorial network will be integrated in the production line, enhanced with edge-processing capabilities for improved acquisition and pre-processing. A sensors’ network will be orchestrated by a middleware layer, enabling the collection of time-stamped, registered and semantically fused data while supporting two-way

communication both for actuation and data collection. OPTIMAI will be secured through a designated cyber-defence module and a distributed ledger mechanism that will ensure data validity and monitor communication transactions ensuring accountability and traceability. Artificial Intelligence methodologies will be developed for zero defect manufacturing through the analysis of multisensorial quality inspection data, the detection of defects and the identification of defects' causes upstream in the manufacturing process. For rapid reconfiguration of production parameters cutting edge Human-Computer Interfaces (HCI) will be developed based on computer vision methodologies and AI in order to understand operator's intentions and proceed with actuation or recalibration.

### **Position 1: MSc holder in Electronic and Computer Engineering**

Requirements:

- MSc degree in Electronic and Computer Engineering
- Excellent knowledge of C, C++, C#, Java, Kotlin, Python, HTML, JavaScript, TypeScript, VRML/X3D
- Rich experience with Web and Enterprise Development Technologies (Java EE, EJB, XML, XML schema, JSON, JAX-WS, JAX-RS, REST, JavaScript/TypeScript/Databases)
- Experience in User Interface Adaptation (DMSL – Decision Making Specification Language)
- Experience in Systems Programming Technologies
- Previous experience with EU- and/or national- funded RTD projects
- Paper publications in related International Conferences and Journals
- Very good knowledge of English
- Physical presence at FORTH, Heraklion, Crete for the duration of the position

Desired qualifications:

- Good knowledge of SQL (MySQL, SQLite, H2, PostgreSQL)
- Good communications skills to collaborate with other team members
- Willingness and ability to work cooperatively within a team, to learn, and to adapt to the project requirements.

### **Position 2: BSc holder in Computer Science**

Requirements:

- BSc degree in Computer Science
- Excellent knowledge of C, C++, C#, Java, JavaScript, HTML, PHP
- Experience in the design and development of 3D models and virtual environments
- Rich experience in the design and development of virtual and augmented reality applications for Head Mounted Displays
- Rich experience in the design and development of depth sensor programming
- Experience with digital content adaptation algorithms
- Paper publications in related International Conferences and Journals
- Previous experience with EU- and/or national- funded RTD projects
- Letter of recommendation
- Good knowledge of English
- Physical presence at FORTH, Heraklion, Crete for the duration of the position

Desired qualifications:

- Good knowledge of OpenGL, WebGL, OpenCV, Win32, Qt, Blender, Unity, Kinect, HoloLens, Oculus VR
- Experience in the design and development of augmented and virtual reality applications
- Willingness and ability to work cooperatively within a team, to learn, and to adapt to the project requirements.

**Application Submission**

Interested candidates can submit their applications via <http://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;
- Scanned copies of academic titles;
- Detailed presentation of prior work, studies and/or publications, references etc. demonstrating knowledge of desired skills (e.g. experience on specific programming languages and hardware platforms).

**Contact Information:**

For information and questions about the advertised position the activity of the group or the Institute, please contact Iosif Klironomos at [iosif@ics.forth.gr](mailto:iosif@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](mailto: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.