



Ref: [ [jo-48-0507](#) ]

## **CALL FOR TWO MARIE SKLODOWSKA-CURIE ITN EARLY-STAGE RESEARCHERS (PHD POSITIONS): ADVANCED VISUAL AND GEOMETRIC COMPUTING FOR 3D CAPTURE, DISPLAY, AND FABRICATION (EVOCATION)**

18-03-2019

The Center for Research, Development, and Advanced Studies in Sardinia (CRS4) is an interdisciplinary research center focusing its activities on enabling computational technologies and on their application in thematic areas characterized by a high economic and social impact. In the field of Visual Computing, CRS4 is at the forefront of research in the acquisition, storage, processing, distribution, and interactive exploration of massive data. More information on the Visual Computing group is available at <http://vic.crs4.it/>

We are happy to announce the availability at CRS4 of 2 Early-Stage Researcher (ESR) PhD positions in the Marie Skłodowska-Curie Innovative Training Network on Advanced Visual and Geometric Computing for 3D Capture, Display, and Fabrication (EVOCATION). This project has received funding from the European Union's (EU) Horizon 2020 research and innovation program under Marie Skłodowska-Curie ITN Project under grant agreement No 813170.

EVOCATION, started in October 2018 and lasting four years, is a leading European-wide doctoral Collegium focusing on scalable and high-fidelity shape and appearance acquisition, extraction of structure and semantic information, processing, visualization, 3D display and 3D fabrication in professional and consumer applications. The ESRs will receive scientific skills in cutting-edge techniques in a highly stimulating and collaborative international environment, and will be requested to register for the Doctorate program in Computer Science of the University of Cagliari. Further information on the EVOCATION network is available at <http://www.evocation.eu/>

### **1) OPEN POSITIONS**

A public call for applications is open at CRS4 in order to recruit two ESRs for a fixed-term research position. The ESRs hosted at CRS4 will focus on the following activities:

- **ESR03:** Scalable reconstruction and exploration of complex indoor environments
- **ESR04:** Scalable exploration of complex objects & environments beyond visual replication

The duration of the fixed-term contract is 36 months. The candidate will be framed at level 7 of the metalworking and mechanical engineering industry collective agreement applied by CRS4. ESRs will receive a highly competitive salary according to Marie Skłodowska-Curie Actions rules. The salary will include living and mobility allowances.

It should be noted that this selection is subject to the positive outcome of the preliminary check carried out by Sardegna Ricerche (also in the form of silent consent, once the terms provided by the "Regulation on the control of subsidiaries" have expired). Therefore, in the event of a negative outcome of the aforesaid control, the selection procedure will be revoked.

### **2) REQUIREMENTS**

The call is open to applicants fulfilling the following requirements:

- Candidates must have registered in the recruitment section of the EVOCATION project website <https://evocation.eu/recruitment/>
- Researchers must hold a Master's Degree fulfilling the conditions to be admitted in the PhD program in Computer Science at the University of Cagliari. These conditions must be fulfilled at the starting date of the contract and will be verified by the University of Cagliari before the contract. Candidates not passing this verification will be excluded
- At the time of recruitment, researchers must be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree. Full-Time Equivalent Research Experience is measured from the date when a researcher obtained the degree which would formally entitle them to embark on a doctorate, either in the country in which the degree was obtained or in Italy, irrespective of whether or not a doctorate is or was ever envisaged
- At the time of recruitment, researchers must not have resided or carried out their main activity (work, studies, etc.) in Italy for more than 12 months in the 3 years immediately prior to the recruitment date/starting date of the activities. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention are not taken into account

- Applicants must consent to transnational mobility availability for up to 30% of the duration of the contract.
- Applicants must be able to read, write, speak and understand English
- Any nationality and gender is allowed to participate in this selection

### 3) JOB DESCRIPTION

The open positions are for Early Stage Researchers in computer science with a focus on interactive 3D computer graphics and computer vision. The two specific research topics are the following:

- **ESR03:** Scalable reconstruction and exploration of complex indoor environments – the fellow will study techniques to apply prior knowledge for the extraction of structured representation of multi-room environments from incomplete and noise sampling data. Methods for the representation and display of the recovered structures will be also studied. Expected results include scientific publications and prototype implementation of indoor capture and exploration systems
- **ESR04:** Scalable exploration of complex objects & environments beyond visual replication – the fellow will study modeling methods and interaction techniques for permitting exploration of high fidelity 3D models annotated with semantic information. Researched topics will include information modeling, rendering methods, and user interfaces. Expected results include scientific publications and prototype implementation of exploration systems

On the part of the applicant, this requires interest not only in visual-computing-related algorithms and data structures but also in the task and data complexity of targeted applications, and collaboration with domain scientists and other institutions.

Furthermore, a strong interest and good skills in learning new programming frameworks, 3rd-party code and applied mathematics is necessary, as the targeted research project also builds on other and previously developed techniques.

The main goal is to conduct excellent research, generating results which are published and presented in top international journals and conferences, while being practically applicable for solving challenging large scale visualization problems. The activities will not only include research and continuing education for network participants, but also support in teaching (esp. to other network participants), as well as system/software maintenance and administrative tasks. The work will include also pursuing a PhD degree at the University of Cagliari.

### 4) JOB SKILLS

The prospective candidates are supposed to have an excellent background in computer science and systems, as well as theoretical and practical experience in computer graphics and computer vision. Exposure to parallel programming and distributed systems is also welcome. Strong interest in collaboration with domain scientists is of further importance as well.

### 5) APPLICATION AND DEADLINE

Applications to participate in the selection must, under penalty of exclusion, include all the following documents:

- Application form, dated and signed [Attachment n. 1]
- Disclosure pursuant to article 13 of EU Regulation no. 679/2016, dated and signed [Attachment n. 2]
- Declaration of compliance with requirements, dated and signed [Attachment n. 3]
- Resume (in English or Italian, dated and signed)
- Copy of an unexpired document of identity (such as a passport or identity card, for example)

The curriculum vitae must indicate in particular: personal data, training, post-graduate training, professional skills and experience acquired in relation to what is specified in paragraph 4), foreign languages, details of computer skills, list of publications.

All the required documents and attachments must be submitted in PDF format no later than April 23, 2019 at 12:00 to the following address:

[ufficiodelpersonalecrs4@legalmail.it](mailto:ufficiodelpersonalecrs4@legalmail.it)

The email subject must be:

#### **SELECTION FOR THE RECRUITMENT OF EARLY-STAGE RESEARCHERS WORKING ON THE MSCA-ITN-2018 PROJECT EVOCATION (jo-48-0507)**

As an alternative, all the required documents and attachments must be received no later than April 23, 2019 at 12:00 by hand, or by courier service, or by registered mail with return receipt at the following address:

CRS4  
Località Piscina Manna Ed. 1  
09050 Pula (CA)

ITALY

The envelope must have the following label:

**SELECTION FOR THE RECRUITMENT OF EARLY-STAGE RESEARCHERS WORKING ON THE MSCA-ITN-2018 PROJECT  
EVOCATION (jo-48-0507)**

Applications which are not sent as requested above or which are received after the deadline specified above will be excluded from the selection.

## 6) SELECTION PROCEDURE

For the selection of applications, CRS4 will, through the establishment of a selection committee, evaluate the curricula in order to identify the candidates to be interviewed. The evaluation of the curricula will be carried out on the basis of the criteria defined in paragraph 7 below and those set out in the previous paragraphs. Candidates deemed suitable on the basis of the criteria indicated will be admitted to the interview.

The list of suitable candidates, admitted to the interview, will be available on the website of CRS4 at the address <http://jobs.crs4.it>.

CRS4 reserves the right to proceed with the selection and to stipulate the employment contract, which is the subject of this notice, even in the case of submission of only one application, without prejudice, in any case, to the assessment of the suitability of the candidate to hold the position in question. Successful candidates must fulfill the conditions to be admitted in the PhD programme in Computer Science at the University of Cagliari. These will be verified by the University of Cagliari before signing the contract. Candidates not passing this verification will be excluded from the selection.

## 7) EVALUATION CRITERIA

The selection committee shall draw up a ranking list. Candidates not meeting the requirements detailed in Section 2) will be excluded from the ranking.

For each eligible candidate, the selection committee awards up to a maximum of 40 points for the evaluation of the resume, and 60 points for the evaluation of the interview.

The **40 points for the evaluation of the resume** are subdivided as follows:

- **Up to 15 points** : Relevance of the study plan and degree obtained with respect the research program object of the selection
- **Up to 15 points** : Consistency of the candidate's overall profile with respect to the content of the research program object of selection
- **Up to 10 points** : Relevance and quality of publications, theses and scientific products presented with the research program object of selection

The candidates that will obtain a minimum score of 24/40 points will be admitted to the interview. The list of suitable candidates admitted to the interview will be available at <http://jobs.crs4.it>.

The interview will be conducted in English. The **60 points for the evaluation of the interview** are subdivided as follows:

- **Up to 25 points** : Competences and experiences in computer science and systems
- **Up to 30 points** : Competences and experiences in computer graphics and computer vision
- **Up to 5 points** : knowledge of English

The interview is considered as successfully passed with a minimum score of 36/60 points.

## 8) RANKING

At the end of the selection phase, the selection committee will establish the merit ranking on the basis of the overall score obtained by each candidate. The overall score is the sum of the points obtained in the evaluation of the qualifications and in the interview. Candidates with an overall score less than 60/100 will be considered not eligible. The Commission will usually close its activities within 180 days of the deadline for submission of applications.

The ranking will be approved by CRS4 and published on the website at <http://jobs.crs4.it>

## 9) CONTRACT

Following the publication of the ranking list, CRS4 will contact candidates according to the order of the ranking for the awarding of ESR positions, until all the positions will be filled. Candidates that will renounce, will fail to provide the documentation requested for establishing the contract, or will not be considered admissible to the PhD program of the University of Cagliari will be removed from the ranking.

Successful candidates will receive a 36-months fixed-term contract as detailed in Section 1). The salary will be determined according to Marie Skłodowska-Curie Actions rules and will include living and mobility allowances.

CRS4 will provide accident insurance and will fulfill all other legal obligations in the field of employment. This notice and additional documentation are available and can be downloaded free of charge from <http://jobs.crs4.it> . The person in charge of the procedure is Dr. Enrico Gobbetti.

It should be noted that CRS4 has implemented the provisions of Legislative Decree no. 231/2001 and has, therefore, approved an organizational and control model called Organizational Model 231, with a Code of Ethics that is an integral and substantial part of the Model itself, which defines the ethical and social responsibility of all those who participate in the company. The candidates to this Selection Notice declare that they have read and understood the provisions of the aforementioned Model, which can be consulted on CRS4 website.



Attachment. n. 1

TO: CRS4 SRL

EDIFICIO 1

LOCALITA' PISCINA MANNA

09050 PULA

**Jo-48-0507. Call for two Marie Sklodowska-Curie ITN Early-Stage Researchers (PhD positions):  
Advanced Visual and Geometric Computing for 3D Capture, Display, and Fabrication (EVOCATION)**

**APPLICATION FORM**

I, the undersigned,

Name (in full) \_\_\_\_\_

Born in \_\_\_\_\_ on \_\_\_\_\_

Living in (address) \_\_\_\_\_

Town \_\_\_\_\_ ZIP Code \_\_\_\_\_ Country \_\_\_\_\_

**ask**

to participate in the selection Jo-48-0507 - Call for Two Marie Sklodowska-Curie ITN Early-Stage Researchers (PhD positions): Advanced Visual and Geometric Computing for 3D Capture, Display, and Fabrication (EVOCATION)

**Date** \_\_\_\_\_

**Signature** \_\_\_\_\_

## Attachment n. 2

CRS4 SRL

Località Piscina Manna, snc Ed 1

09010 Pula (CA)

C.F.: 01983460922

### *Information Notice on collection and processing of personal data*

1 In accordance with Regulation (EU) 2016/679 ("GDPR" or "General Data Protection Regulation"), CRS4 S.r.l. sets out below the information notice on the processing of your personal data - obtained directly from you and/or obtained from third parties – for the purposes of the public call: **Call for Two Marie Sklodowska-Curie ITN Early-Stage Researchers (PhD positions): Advanced Visual and Geometric Computing for 3D Capture, Display, and Fabrication (EVOCATION)**

#### **Identity and contact details of the Data Controller**

The Data Controller is CRS4 S.r.l. with headquarters in Pula (CA), loc. Piscina Manna, Building 1, e-mail INFO@CRS4.IT, PEC CRS4@LEGALMAIL.IT (hereinafter also referred as "Data Controller" or "CRS4").

#### **Contact details of the Data Protection Officer ("DPO")**

CRS4 has appointed a Data Protection Officer who can be contacted at the e-mail address dpo@crs4.it, or via phone, at the number 393/1065076. The data protection officer can be contacted for any issues relating the processing of your personal data, or any question regarding your rights as a data subject.

#### **Purpose of the processing**

Your personal data is processed for:

Management and administration of work performance contracts, (including the management of the pre-contractual relationship and / or inclusion in the CRS4 supplier register), including salary aspects;

Fulfillment of the legal obligations in the tax, accounting, social security and insurance fields, as well as in relation to the obligations related to the anti-money laundering legislation;

Fulfillment of the legal obligations, in particular those pursuant to Legislative Decree 50/2016 (Public Contracts Code), and the Anti-Corruption Law (Law 190/2012), and related legislative decrees;

Management of the obligations connected to the Legislative Decree 231/2001 - Administrative liability of legal entities with regard to crimes - and to the related organizational model, adopted by CRS4;

Management of any litigation, execution of internal controls (security, productivity, quality of services, integrity and financial soundness), certification;

Assessment of the existence of ethical and legal requirements identified by CRS4 in the Code of Ethics and in the context of audits;

## **Legal basis of the processing**

CRS4 processes your personal data exclusively in accordance to an appropriate legal basis, if:

the processing is necessary for the execution of a contract of which you are part or for the execution of pre-contractual measures adopted upon request;

the processing is necessary to fulfil a legal obligation of CRS4 (also as regards the data regarding criminal convictions or crimes);

the processing is based on the legitimate interest of the owner, for example for verifying the ethical requirements and the financial soundness;

for particular categories of data, where the processing is necessary to fulfil the obligations and exercise the rights in the field of labour law and social security and social protection, preventive medicine or occupational medicine and assessment of working capacity.

## **Categories of personal data**

The personal data processed for the aforementioned purposes, and during the performance of the contractual relationship, can be:

name, address and other contact details (phone number, e-mail address and PEC);

date / place of birth, nationality, professional activity, identity document data, subscription data, fiscal code, VAT number;

bank and payment data, insurance data;

data relating to training, work and professional experiences.

The CRS4 will be able to process personal data relating to criminal convictions and crimes exclusively in the cases provided for by law or public authority (for example, for the verification of the conditions impeding participation in tenders and tenders pursuant to the Code of the contracts and for the verification of the requirements of integrity).

## **Data processing and retention period**

The processing of personal data will be carried by automated and non automated means, in any case by expressly authorized people.

Your personal data will be stored for the duration of the contract and, subsequently, for the time in which the CRS4 is subject to retention obligations, also for accounting and tax purposes (for example the obligation to keep invoices and the documentation for 10 years). or for other purposes, by law or regulation.

## **Nature of the providing of personal data**

The provision of data is mandatory, as it is necessary for the fulfilment of contractual, remuneration, social security, insurance, tax, accounting, and other obligations provided for by the law, including those regarding public contracts law.

Your refusal to provide such data, or your incorrect communication of any of the mandatory information, therefore entails the objective impossibility for CRS4 to comply with these obligations.

## **Recipients of personal data and data dissemination**

For the purposes listed above, the Data Controller may disclose your personal data to third parties, such as, for example, those belonging to the following categories:

police forces, the armed forces and other government bodies (including Sardegna Ricerche), for the fulfilment of the obligations envisaged by law, regulations or EU legislation;

companies specialized in credit recovery;

other companies contractually bound to the Data Controller that provide consultancy, service delivery support, banking and insurance services; etc.

Employees and collaborators of CRS4, expressly designated and authorized to whom specific instructions have been provided. Authorized users have different levels of access, depending on their specific duties.

The Data Controller will take the utmost care to ensure that the disclosure of your personal data to the above recipients involves only the data required to accomplish the specific purposes for which it is intended.

Your data, exclusively as required by legal disclosure and transparency obligations, and in compliance with the principle of data minimization, may be subject to dissemination via publication in the website of CRS4.

## **Personal data sources**

The personal data that the CRS4 processes are collected from the data subject, or can also be obtained through other channels including, for example:

websites and social networks, to which we invite you to consult the specific information published on the CRS4 website and on the websites of the third-party platform managers;

public lists and sources accessible to the public (for example commercial and trade registers, press, media);

other Data Controllers / joint controllers, including Sardegna Ricerche.

## **Transfer of data to a third country and automated decision-making, including profiling**

Your personal data will not be transferred outside the European Union and will not be subject to any automated decision-making process, including profiling.

## **Rights of data subjects**

As the data subject, you are entitled to ask CRS4 to give you access to your personal data and to the information relating to its processing; you have the right to rectify any inaccurate personal data, as well as, taking into account the purposes of the processing, complete any incomplete personal data, including by providing a supplementary statement. You also have the right to delete your personal data and to restrict its processing in the cases provided by law.

You have also the right to data portability (for automated data processing based on contract or consent), i.e. the right to receive the personal data concerning you, which have been provided to CRS4, in a structured, commonly used and machine-readable format and the right to transmit those data to another controller without hindrance.



You can exercise such rights by contacting CRS4, via also the Data protection officer, at the above mentioned contact details.

The form for exercising the rights is available at <https://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/1089924>.

You are also entitled, if you consider that the processing of personal data is in violation of the provisions of the European Regulation, to make a complaint to a supervisory authority (Authority for the protection of personal data - [www.garanteprivacy.it](http://www.garanteprivacy.it)), or to file a complaint before the appropriate judicial authority.

**The personal data will be processed according to the information attached to the public call: Jo-48-0507.**

**The candidate declares to have knowledge of the attachment.**

Date \_\_\_\_\_

Signature \_\_\_\_\_



**Attachment n. 3.**

**Jo-48-0507. Call for Two Marie Skłodowska-Curie ITN Early-Stage Researchers (PhD positions):  
Advanced Visual and Geometric Computing for 3D Capture, Display, and Fabrication (EVOCAATION)**

**DECLARATION**

Name(in full) \_\_\_\_\_

Born in \_\_\_\_\_ on \_\_\_\_\_

Living in (address) \_\_\_\_\_

Town \_\_\_\_\_ ZIP Code \_\_\_\_\_ Country \_\_\_\_\_

I have registered in the recruitment section of the EVOCAATION project website  
<https://evocation.eu/recruitment/>

I have not yet been awarded a doctoral degree.

I am in the first four years (full-time equivalent research experience) of my research career. Full Time Equivalent Research Experience is measured from the date when a researcher obtained the degree which would formally entitle them to embark on a doctorate, either in the country in which the degree was obtained or in Italy, irrespective of whether or not a doctorate is or was ever envisaged.

I have not resided or carried out my main activity (work, studies, etc.) in Italy for more than 12 months in the past 3 years. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention are not taken into account.

Upon recruitment, I will consent to transnational mobility availability for up to 30% of the duration of the contract.

**Date** \_\_\_\_\_

**Signature** \_\_\_\_\_