

Call for expression of interest

Call for expression of interest for the submission of proposals regarding awards of project contracts for the needs of research programs / projects entitled «**EU CISE 2020 – European test bed for the maritime Common Information Sharing Environment in the 2020 perspective**» - Grant Agreement No 608385 (E-11904), «**EuTravel – Optimodal European Travel Ecosystem**» - Grant Agreement No 636148 (E-11924), «**FLYSEC – Optimising time-to-FLY and enhancing airport SECURITY**» - Grant Agreement No 653879 (E-11925), **CDOGANA – aDvanced sOcial enGineering And vulNerability Assesment Framework**» - Grant Agreement No 653618 (E-11938), «**Hellennic CISE**» - Grant Agreement EASME/EMFF/2014/1.2.1.2/1/SI2.716272 (E-11967), «**FocusLocus: ADHD management Gaming System for educational achievement and social inclusion**» - Grant Agreement No 732375 (E-12127), «**Marine EO: Bridging Innovative Downstream Earth Observation and Copernicus enabled Services for Integrated maritime environment, surveillance and security**» - Grant Agreement No 730098 (E-12136), «**CY CISE – Cypriot information sharing environment towards an integrated national maritime surveillance awareness and enhancement of cross-sector and cross-border exchange of information**» - Grant Agreement EASME/EMFF/2015/1.2.5/003/SI2.739382 (E-12140) and «**SAINT – Systemic analyzer in network threats**» - Grant Agreement No 740829 (E-12155).

Relev: The extract of the minutes from the 613th meeting / 19-10-2017 (Topic 17) of the Board of Directors of NCSR «Demokritos»

Further to the above, the Institute of Informatics and Telecommunications (IIT) of NCSR «Demokritos», in the context of implementing the research programs / projects entitled «**EU CISE 2020 – European test bed for the maritime Common Information Sharing Environment in the 2020 perspective**» - Grant Agreement No 608385 (E-11904), «**EuTravel – Optimodal European Travel Ecosystem**» - Grant Agreement No 636148 (E-11924), «**FLYSEC – Optimising time-to-FLY and enhancing airport SECURITY**» - Grant Agreement No 653879 (E-11925), **CDOGANA – aDvanced sOcial enGineering And vulNerability Assesment Framework**» - Grant Agreement No 653618 (E-11938), «**Hellennic CISE**» - Grant Agreement EASME/EMFF/2014/1.2.1.2/1/SI2.716272 (E-11967), «**FocusLocus: ADHD management Gaming System for educational achievement and social inclusion**» - Grant Agreement No 732375 (E-12127), «**Marine EO: Bridging Innovative Downstream Earth Observation and Copernicus enabled Services for Integrated maritime environment, surveillance and security**» - Grant Agreement No 730098 (E-12136), «**CY CISE – Cypriot information sharing environment towards an integrated national maritime surveillance awareness and enhancement of cross-sector and cross-border exchange of information**» - Grant Agreement EASME/EMFF/2015/1.2.5/003/SI2.739382 (E-12140) and «**SAINT – Systemic analyzer in network threats**» - Grant Agreement No 740829 (E-12155) invites interested parties to submit proposals for the award of project contracts for the duration of six (6) months, with the possibility of extension, regarding ten (10) positions for external scientific associates, with the qualifications specified below:

Position (1) – Android Developer

Required:

- Holds a degree in Computer Science, Computer Engineering or relevant subject issued from a higher education institute (AEI)
- Minimum 2 years of programming experience in Java and Android
- Experience in designing and implementation of algorithms optimised for mobile devices (limited resources, network, etc.)
- Experience in using version control systems (e.g. Git, SVN)
- Experience in consuming RESTful APIs (JSON response serialization)
- Excellent knowledge of English

Desirable:

- Experience with Kotlin
- Experience in reactive programming (RxJava)
- Experience with SQLite

Position (2) – Game Developer**Required:**

- Holds a degree in Computer Science, Computer Engineering or relevant subject issued from a higher education institute (AEI)
- Minimum 2 years of programming experience in C#/and or C++
- Experience in developing digital games
- Experience in game engines (e.g. Unity3D, Unreal Engine, Cocos3D)
- Excellent knowledge of English

Desirable:

- Experience in developing VR/AR applications
- Knowledge in Machine Learning and Artificial Intelligence algorithms
- Knowledge in 3D modeling software (e.g. 3D Studio Max, Maya, Blender3D)
- Knowledge in image production and processing software (Photoshop) and vector graphics (e.g. Illustrator, CorelDRAW, Sketch)
- Experience in using version control systems (e.g. Git, SVN)

Position (3) - Web Front-End Developer**Required:**

- Degree in Informatics, Computer Engineering or any other relevant university degree
- Perfect knowledge of HTML5, CSS3
- Perfect knowledge and understanding of client-side scripting in JavaScript
- Very good knowledge of frameworks like React, AngularJS
- Experience in using front-end CSS frameworks like Bootstrap
- Experience in development of responsive web applications with cross-browser compatibility
- Familiar with RESTful Web Services integration
- Experience in using version control (git, svn) and issue tracking
- Excellent knowledge of English

Desirable:

- Experience in map libraries like OpenLayers, Google Maps API
- Experience in server-side CSS preprocessors (LESS, SASS)
- Familiar with package managers for easier application deployment e.g. npm, bower
- Experience in cross-platform JavaScript frameworks, e.g. Ionic
- Experience in design programs (e.g. Adobe PhotoShop, Adobe Illustrator, Sketch) to create mock-ups and wireframes
- Previous work samples will be considered
- Knowledge of CMS platforms (Drupal)

Position (4) - Web Back-End Developer**Required:**

- Holds a degree in Computer Science, Computer Engineering or relevant subject issued from a higher education institute (AEI)
- Minimum 2 years of programming experience in JAVA EE or Python
- Extensive experience in designing and administering RDBMS, preferred: PostgreSQL or MySQL
- Experience in designing and implementation of RESTful Web Services
- Experience with tools for version control (π.χ. git, svn) and issue tracking (eg. Jira)
- Experience in administration of UNIX based systems (e.g. Debian, CentOS)
- Excellent knowledge of English

Desirable:

- Experience with web application frameworks (e.g. Spring Boot, Django)
- Experience with web application servers (e.g. Wildfly)
- Experience with NoSQL βάσεις δεδομένων (e.g. mongoDB)
- Experience with test-driven development (TDD) and continuous integration tools (e.g. Jenkins, Gitlab-CI)

Position (5) – Systems Engineer**Required:**

- Holds a degree in Computer Science, Computer Engineering or relevant subject issued from a higher education institute (AEI)
- Extensive experience in administration of UNIX based systems (e.g. Debian, CentOS)
- Experience in using scripting languages (π.χ. Bash, Python) and job schedulers (Cron)
- Extensive experience in designing and administering RDBMS, preferred: PostgreSQL or MySQL
- Experience with SQL (queries)
- Excellent knowledge of English

Desirable:

- Experience in PL/SQL scripting
- Experience in maintainance of application servers (e.g. Wildfly)
- Experience with NoSQL (e.g. mongoDB)
- Experience with test-driven development (TDD) and continuous integration tools (e.g. Jenkins, Gitlab-CI)
- Experience with tools for version control (π.χ. git, svn) and issue tracking (eg. Jira)
- Knowledge of system security

Position (6) - Computational Sociology Contractor**Required:**

- Holds a degree in Computer Science, Computer Engineering, Physics, Mathematics or relevant subject issued from a higher education institute (AEI)
- Master's degree in Computational Sociology
- Excellent knowledge in mathematical modelling of human behaviour
- Experience in programming in C++ or Java.
- Proven experience in development of simulation software and/or use of 3rd party libraries about human behaviour simulation
- Experience with tools such as AutoCAD, 3D Studio Max and Maya
- Portfolio or work samples will be taken seriously into consideration
- Excellent knowledge of English

Position (7) - Junior Computer Vision Engineer**Required:**

- Bachelor degree (or higher) in Electrical Engineering/Maths/Physics/Computer Science or equivalent.
- Software/Algorithm prototyping skills (experience in MATLAB is a plus).
- Strong math and algorithmic background, problem solving and critical thinking skills (Publications are a plus).
- Experience with implementing Deep Neural Networks for computer vision problems such as object classification, object detection, semantic segmentation.
- Experience in Pattern Recognition and Machine Learning algorithms.
- Experience in Python (scikit-learn, scipy, numpy, Pandas)
- Strong communication skills and able to work collaboratively in a team.
- Proficient English language skills required.

Desirable:

- Familiarity with OpenCV or other computer vision frameworks.
- Familiarity with deep learning frameworks such as Caffe, Theano, Torch, Keras or Tensorflow.
- Experience in C/C++ programming.

Position (8) -Senior Big Data Analytics position

Required:

- Master Degree Information Technology / Computer Science / Engineering or equivalent.
- 5+ years work experience in big data analytics techniques and predictive modeling.
- Proven experience in handling and manipulating large data sets.
- Strong experience with Big Data technologies such as MapReduce, Spark, Hive, Kafka, etc
- Strong experience in relational and NoSQL databases (MongoDB, DynamoDB, Hbase, etc).
- Experience with data and machine learning services using Amazon Web Services (AWS) / Azure / Google Cloud.
- Experience in scripting languages – Python, R
- Experience in data visualization and reporting tools (e.g. Tableau) is a plus.
- Experience in Unix shell script.
- Strong analytic, problem solving and communication skills.
- Applied statistics skills (e.g. distributions, statistical testing, regression analysis, etc) is a plus.
- Good understanding of machine learning techniques and algorithms, such as k-NN, Naive Bayes, Random Forests, etc) is a plus.
- Proficient in English language.

Position (9) - Blockchain Developer/Software Engineer

Required:

- Experience in systems analysis and software architecture design
- Excellent experience and understanding of distributed ledger technologies like Ethereum and Blockchain
- Extensive experience on UNIX based systems
- Extensive experience with blockchain software like pyethapp and go-ethereum
- Excellent knowledge of at least one of the following programming languages: Python, Java, Solidity, JavaScript, C#, Go, Ruby, Parity
- Excellent knowledge of English

Desirable:

- Master's degree in Information Systems and/or Information Security
- Experience in composing of technical specification reports, project deliverables and writing of research proposals for national or European projects

Position (10) - Unity3D developer

Required:

- Holds a degree in Computer Science, Computer Engineering, or relevant subject issued from a higher education institute (AEI)
- Extensive experience in game development (e.g. Unity 3D) and development of virtual reality applications
- Extensive experience in C# and/or scripting languages for the Unity3D platform
- Excellent knowledge of English

Desirable:

- Knowledge of 3D modelling software like 3D Studio Max, Maya και Zbrush
- Knowledge of photo editing software like Adobe Photoshop, Adobe Illustrator or Adobe InDesign

Applications and complete, attached Curriculum Vitae (CV) must be submitted bindingly by **Sunday, November 19th 2017 (23:59)** via email with the title: Application Form for p.n. **015/2017-2345** Expression of Interest, to the email address of the Secretariat of the Central Protocol Department of NCSR «Demokritos» : dd.protokol@admin.demokritos.gr

The present expression of interest, as well as the application (its submission is mandatory) are posted on the website of NCSR «Demokritos» <http://www.demokritos.gr> and on the website of the Institute of Informatics and Telecommunications at the following link www.iit.demokritos.gr

In the case of interest for more than one position, **a separate application** must be submitted, accompanied by a complete Curriculum Vitae (CV)

Please note that your degree must be recognized by the Hellenic National Academic Recognition Center (HELENIC NARIC).

In order to confirm the application submission, the interested candidates will receive a relevant email from the Secretariat of the Central Protocol Department of NCSR «Demokritos».

The candidate evaluation results will be posted on the official website of NCSR «Demokritos» (<http://www.demokritos.gr>) in order to inform the interested candidates.

Candidates have the right to submit objections and to have access to the individual envelopes and individual evaluation sheets, upon request through the main Protocol Center, within **five (5) working days** from the posting of the results on the official website.

For more information, please contact, during working days and hours, with either **Ms. Kalliroi Parousi** at kparousi@iit.demokritos.gr or with **Ms. Polykseni Gialia** at pgialia@iit.demokritos.gr.

ATTENTION: Every application must include in writing the Institute (IIT), the interested position number(s) («1 ή 2 ή 3 ή 4 ή 5 ή 6 ή 7 ή 8 ή 9 ή 10»), the protocol number (015/2017-2345) of the expression of interest, the project title («EU CISE 2020 – European test bed for the maritime Common Information Sharing Environment in the 2020 perspective» - «EuTravel – Optimodal European Travel Ecosystem» - «FLYSEC – Optimising time-to-FLY and enhancing airport SECURITY» -, «DOGANA – aDvanced sOcial enGineering And vulNerability Assesment Framework» - «Hellenic CISE» - «FocusLocus: ADHD management Gaming System for educational achievement and social inclusion» - «Marine EO: Bridging Innovative Downstream Earth Observation and Copernicus enabled Services for Integrated maritime environment, surveillance and security» - «CU CISE – Cypriot information sharing environment towards an integrated national maritime surveillance awareness and enhancement of crosssector and cross-border exchange of information» - «SAINT – Systemic analyzer in network threats»), the project number (E-11904, E-11924, E-11925, E-11938, E-11967, E-12127, E-12136, E-12140, E-12155) and the names of those responsible for information (Ms. Kalliroi Parousi - Ms. Polykseni Gialia)