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Thessaloniki, 07-04-2023 Ref. No. Call: 100499/2023

TO BE PUBLISHED ONLINE

CALL FOR EXPRESSION OF INTEREST

(For submission of proposals for the conclusion of a project lease contract)

The Research Committee (Special Account for Research Funds) of Aristotle University of Thessaloniki (ELKE AUTh), in the framework of the project "MASTERMINE - European Mining in the Green and Digital Era" funded under the European Union, with Academic Head Prof. Athena Vakali, invites candidates to submit proposals for four (4) positions as described below, through the award of a project contract, starting from the signing of the contract until 30/11/2026 and with a total anticipated remuneration $88.900,00 \in$ (VAT and taxes included). The contracts can be extended in case of extension of the project, until the new end date and within the approved limits of its budget.

<u>One (1) person / PhD Candidate / Computer Science Graduate / up to 27.500,00 € / until 30-11-</u> 2026

1. JOB DESCRIPTION (A)

- Requirements specification and system design principles
- Development of API for data collection and visualization with respect to increasing occupational safety and reducing environmental hazards
- Exploitation technologies management of project's research outcomes

The above tasks will be implemented under the framework of

- WP1: Industrial demonstrators analysis & system specifications
- WP4: MASTERMINE Demonstration
- WP5: Public Awareness and Market Uptake

2. REQUIRED QUALIFICATIONS

- Graduates from departments of Faculty of Sciences or Faculty of Engineering (Universities) with specialization in Informatics
- PhD candidate in the field of "Decentralized Information Technologies"
- Good knowledge of the english language (level C1)
- One (1) scientific publication in a scientific journal or scientific conference relevant to distributed databases
- A minimum of 24 months of research experience in research projects with the subject of "Design, testing and implementation of a software platform"
- Proven knowledge on:
 - 1. Methods for software design quality assessment
 - 2. Transactions and concurrency control in databases

The knowledge is documented by relevant dissertation (thesis) or with relevant courses in the course of studies (detailed grades and if the title of the course does not directly lead to the correlation, the detail

grades document will be accompanied by the description of the course in the course of study) or a relevant certificate.

3. ADDITIONAL QUALIFICATIONS

- University MSc (minimum of one year's duration) with specialization in Informatics
- Proven knowledge on:
 - peer-to-peer (P2P) networks
 - software design principles and design patterns
 - development of test cases for software
- Interview

The knowledge is documented by relevant dissertation (thesis) or with relevant courses in the course of study (detailed grades and if the title of the course does not directly lead to the correlation, the detail grades document will be accompanied by the description of the course in the course of study) or a relevant certificate.

4. QUALIFICATIONS ASSESSMENT

	Qualifications Criteria	Credits (Researchers)		
1	Master's degree in Informatics of at least one year of studies	200		
2	Proven knowledge on P2P networks	20		
3	Proven knowledge of software design principles and design patterns	20		
4	Proven knowledge of development of test cases for software	10		
5	Interview (Qualification criteria are determined)	<=80		

The counting of grading units is carried out for those qualifications, which refer to the required or additional qualifications-criteria of the call and are objectively relevant to the requirements of the project.

<u>One (1) person / PhD Candidate / Computer Science Graduate / up to 23.400,00 € / until 30-11-</u> 2026

1. JOB DESCRIPTION (B)

The candidate is going to work with:

• Creating usage scenarios related to MASTERMINE.

• Spread of MASTERMINE from several social networks and from the organization of several events within the context of the project which will include its analytical description and the presentation of several key results of the project and extra information within the context of the project.

The above object will be implemented within the Work Packages:

- WP1. Industrial demonstrators analysis & system specifications
- WP5. Public Awareness and Market Uptake

2.REQUIRED QUALIFICATIONS

• Degree of University Education (PE), in the science of Informatics

• PhD candidate in a subject related to "Web Information Systems"

Note: the status is proven by a certificate from the relevant Department

• Proven Knowledge of:

o Data Management and Integration

o Social Network Analysis

Note: The knowledge is proven with a relevant certificate or with a relevant degree/master/doctoral thesis/dissertation or with relevant courses of the study cycle (transcript of grades and if the correlation is not immediately apparent from the title of the course, the analytical grade should also be accompanied by the course description in the Study Guide) or by related courses (institution certificate and/or contract)

• Good knowledge of the english language (level C1)

• One (1) publication in a scientific journal in the field of data description

3. ADDITIONAL QUALIFICATIONS

• Knowledge of:

o Neural Networks – Deep Learning

- o Web Data Mining
- o Decentralized Technologies

Note: The knowledge is proven with a relevant certificate or with a relevant degree/master/doctoral thesis/dissertation or with relevant courses of the study cycle (transcript of grades and if the correlation is not immediately apparent from the title of the course, the analytical grade should also be accompanied by the course description in the Study Guide) or by related courses (institution certificate and/or contract)

Interview

4. QUALIFICATIONS ASSESSMENT

	Qualifications Criteria	Credits (Researchers)
1	Proven Knowledge in Neural Networks – Deep Learning	20
2	Proven Knowledge in Web Data Mining	20
3	Proven Knowledge in Decentralized Technologies	10
4	Interview	<=15

The counting of grading units is carried out for those qualifications, which refer to the required or additional qualifications-criteria of the call and are objectively relevant to the requirements of the project.

One (1) person / Graduate of the faculty of Sciences / up to 19.000,00 € / until 30-11-2026

1. JOB DESCRIPTION (C)

• Spread of MASTERMINE from several social networks and from the organization of several events within the context of the project which will include its analytical description and the presentation of several key results of the project and extra information within the context of the project.

The above tasks will be implemented under the framework of WP5: Public Awareness and Market Uptake

2. REQUIRED QUALIFICATIONS

- Diploma of institutional education of the faculty of Sciences
- Good knowledge of the english language (level C1)
- Proven knowledge in:
 - Managing and mining complex networks
 - Deterministic Methods of Optimization

Note: The knowledge are justified with a relevant certificate or with a relevant undergraduate/master/PhD thesis or with relevant lessons of the current cycle of studies (analytical grading and if there is no correlation from the name of the lesson, the analytical grading should be accompanied by the description of the lesson in the graduate guide) or with teaching of relevant lessons (certification of the regulator or the agreement)

3. ADDITIONAL QUALIFICATIONS

- Proven knowledge in:
 - Statistical data analysis with R programming language
 - Stochastic operational research
 - Energy management in smart grids

Note: The knowledge are justified with a relevant certificate or with a relevant undergraduate/master/PhD thesis or with relevant lessons of the current cycle of studies (analytical grading and if there is no correlation from the name of the lesson, the analytical grading should be accompanied by the description of the lesson in the graduate guide) or with teaching of relevant lessons (certification of the regulator or the agreement)

Interview

4. QUALIFICATIONS ASSESSMENT

	Qualifications Criteria	Credits (Researchers)	
1	Proven knowledge in statistical data analysis with R programming language	20	
2	Proven knowledge in stochastic operational research	20	
3	Proven knowledge in energy management in smart grids	10	
4	Interview	<=15	

The counting of grading units is carried out for those qualifications, which refer to the required or additional qualifications-criteria of the call and are objectively relevant to the requirements of the project.

One (1) person / Graduate of the faculty of sciences / up to 19.000,00€ / until 30-11-2026

1. JOB DESCRIPTION (D)

- To accurately communicate, disseminate, engage with stakeholders, and raise public awareness.
- To prepare exploitation plan.

The above tasks will be implemented under the framework of WP5: Public Awareness and Market Uptake.

2. REQUIRED QUALIFICATIONS

- Graduates from departments of Faculty of Sciences
- Good knowledge of the english language (level C1)

3. ADDITIONAL QUALIFICATIONS

- MSc degree from departments of faculty of sciences
 - Proven knowledge on:
 - Big Data analysis
 - Machine learning methods
- Interview

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The knowledge is documented by relevant dissertation (thesis) or with relevant courses in the course of study (detailed grades and if the title of the course does not directly lead to the correlation, the detail grades document will be accompanied by the description of the course in the course of study) or a relevant certificate.

4. QUALIFICATIONS ASSESSMENT

	Qualifications Criteria	Credits (Researchers)		
1	Master's degree	200		
2	Proven knowledge of machine learning methods	30		
3	Proven knowledge of big data analysis	20		
4	Interview (Qualification criteria are determined)	<=75		

The counting of grading units is carried out for those qualifications, which refer to the required or additional qualifications-criteria of the call and are objectively relevant to the requirements of the project.

Required Documents:

- 1. Submission of Proposal Statement (see appendix)
- 2. Detailed table data for the proof of experience, if needed (see appendix)
- 3. Detailed Curriculum Vitae
- 4. Copies of the Degrees (Note: In case the specialization / direction do not result from the Degree, the Detailed Score should be attached. In cases where the degree is a grading criterion and is not indicated in the copy of the degree then the detailed score is submitted additionally)
- 5. Copies of certificates and certifications of previous service, as well as any other document that will certify the information mentioned in the CV and which are related to the Required or Additional qualifications-criteria of this call for expression of interest.
- 6. Copy of certificate of military stats or discharge papers / Copy of deferral of enlistment (for male candidates)

** Proof of Research Experience:

Research or participation in research centers or programs can be counted as experience time provided that the proposal includes: certificate of the employer proving the period of employment, the subject of employment, the title and the Academic Head for each research program or project. If the object of the project does not result from the above then a relevant certification from the Academic Head is required for each research program, in which the object of the research will be mentioned.

All the above concerning the experience apply if the candidates during their participation held the required basic qualification or the required professional license or other professional license or certificate.

Male candidates must have fulfilled their military obligations or have been legally discharged from them or have been deferred for the entire duration of the project. In case the time for which a deferral of enlistment has been received does not cover in its entirety the duration of the project, ELKE AUTh is obliged to terminate the respective contract at the expiration time of the above deferral. Both the contractor of the Special Account and the Academic Head Officer of the project are obliged to immediately inform ELKE AUTh one (1) month before the end of the deferral.

Candidates who meet the required qualifications for Job Description A will be called for an interview (after being notified in writing by email), except those who score at least 80 points (interview score range) less than the first ranked candidate . Candidates who do not attend the interview will be rejected. In the case of a single candidate it is not necessary to conduct an interview.

The subject areas of the questions and the marking system to be used are shown in the following table:

A/A	Thematic Unit	Knowledge Level/Grading Units	Maximum Score
1	Expertise in containerization tools (Docker)	Introductory knowledge 0-10 Intermediate level 11-20 Capable 21-30 Expert 31-40	0-40
2	High level of familiarity with source code version control (git,svn)	Introductory knowledge 0-10 Intermediate level 11-20 Capable 21-30 Expert 31-40	0-40

The candidates of Job Description B who meet the required qualifications will be called for an interview (after being notified in writing by email), except those who score at least 15 points (interview score range) less than the first ranked candidate . Candidates who do not attend the interview will be rejected. In the case of a candidate it is not necessary to conduct an interview.

The subject areas of the questions and the marking system to be used are shown in the following table:

A/A	Thematic Unit	Knowledge Level /Grading Units	Maximum Score
1	Specialized knowledge techniques in database management (MySQL, MongoDB)	Basic 0-4 Intermediate 5-8 Standard 9-12 Specialist 13-15	0-15

Subject C candidates who meet the required qualifications will be invited for an interview (subsequently informing them in writing via e-mail), except for those who will collect at least 15 points (interview score range) lower score than the first in ranking order candidate. Candidates who do not attend the interview will be rejected. In case of a single candidate, it is not necessary to conduct an interview.

The subject areas of the questions and the marking system to be used are shown in the following table:

A/A	Thematic Unit	Knowledge Level/Grading Units	Rating Range
1	Specialized technical knowledge in data analysis and machine learning in programming models and use of specialized frameworks (Python, scikit-learn)	, <u>,</u>	0-15

Candidates (D) who meet the required qualifications will be called for an interview (after being notified by email), except those who score at least 75 points (interview score range) less than the first ranked candidate. Candidates who do not attend the interview will be rejected. In the case of only one candidate it is not necessary to conduct an interview.

The subject areas of the questions and the marking system to be used are shown in the following table:

A/A	Subject area	0 0	Interview score range
		system	
1	Specialized knowledge in data analysis and	Basic level 0-18	0-75
	machine learning algorithms using state-of-the- Intermediate level 19-37		
	frameworks (Python, scikit-learn) Standard level 38-56		
		Expert level 57-75	

Proposals and required documents should be submitted either via e-mail to the secretariat of the department of Informatics of AUTH or in person or by post to the following address Administration Buildingof the School of Sciences within hours 11:00-12:30 no later than **18/4/2023** and hour 12:30

Proposals will be attributed a reference number from the Secretariat of the Department of the Academic Head of the project.

This Invitation will be published on the website of ELKE AUTh <u>https://rc.auth.gr/proskliseis-gia-apasholisi-se-erga</u> and on the website of "Diavgeia".

For more information and questions regarding the position, candidates may refer to.... For information on the proposal submission process candidates may contact ELKE AUTh at *00302310-994052*, *00302310-994082*, *00302310-994053*.

Submitted proposals will be evaluated by a three-member Evaluation Committee based on the requirements/provisions of the call.

The candidate who wishes to submit an objection to the result (Decision for Approval of Results) is entitled to recourse either via e-mail to prosk@rc.auth.gr or in person or by post to the Special Account of Research Authorities of the Aristotle University of Thessaloniki (Research Committee AUTh, 1st floor, Office 101 - 3rd September Str., University Campus 546 36, Thessaloniki, Greece) within five (5) days from the day following the posting of the Decision for Approval of Results on the website of ELKE AUTh and Diavgeia. The candidate has the obligation to be informed about the posting of the results from the website of ELKE https://rc.auth.gr/proskliseis-gia-apasholisi-se-erga in the online posting of this call for expression of interest in Diavgeia. Candidates are entitled to access the data of the individual proposal file and the assessment and evaluation papers of their own and of their other co-candidates, upon written request within five (5) days of the day following announcement of the results on the website of Diavgeia and under the conditions of articles 5 of Law 2690/1999, 42 of Law 4624 / 2019 and 6 par. 1 lit. f of the GCC (EU 2016/679).

ELKE AUTH takes all appropriate measures for the protection of personal data during the evaluation process and it is strongly recommended that you read about the data protection policy and your rights on the AUTh website <u>https://www.auth.gr/gdpr</u>.

EVALUATION PROCEDURE – OTHER CONDITIONS

- 1. From all the proposals submitted according to the above specifications, the one that best meets the project's requirements will be selected and awarded a work contract on the basis of contractual freedom.
- 2. Only proposals / objections that will be received by the set date and time will be considered. In the case of postal submission, the deadline is judged on the basis of the date mentioned in the shipping file, provided that it will be received by ELKE AUTh no later than the announcement of the results. ELKE AUTh bears no responsibility for the content of the candidacy files that will be sent.
- 3. Changes to the proposals (replacements, corrections or submission of additional documents) are not allowed after the expiration of the deadline.
- 4. Any diplomas of higher education (undergraduate, postgraduate and doctoral) which are included in the Required or Additional Qualification and have been awarded by institutions abroad, must be accompanied by certificates of recognition by the Hellenic National Academic Recognition and Information Center (Hellenic NARIC). In case the diplomas mentioned above have not been recognized during the submission of the proposal, the relevant application for recognition by NARIC can be submitted. It is pointed out, however, that a contract cannot be concluded without the submission of the recognition of the academic titles by NARIC. In any case, ELKE AUTh reserves the right and discretion, depending on the needs of each research project and especially the time of its implementation, to finally contract with the next candidate that holds such certificates. In addition, when the call for expression of interest stipulates a grading/points scale of the degree, it is required to submit a certificate of the equivalent degree grade issued by NARIC. In the case that, all certificates for the recognition of a degree are provided but the certificate of the equivalent degree grade by NARIC is not submitted, the candidate's proposal will be accepted but no points for the degree will be awarded.
- 5. In case the diplomas of higher education have been awarded by institutions in Greece and the call requires a grading /points scale of the degree, it is required that the grade is indicated in the presented degree. If the grade is not indicated in the degree, then the detailed course score is presented. In case the degree does not indicate the grade and a detailed course score has not been submitted, the proposal of the interested person is not rejected, but the specific required qualification is not graded.
- 6. It is pointed out that the procedure for submitting proposals for the conclusion of a project lease contract is not competitive, while the selection of a contractor has the character of accepting the proposal and not "recruitment". The evaluation process will be completed by compiling a ranking list and / or a list of excluded, while those selected will be notified individually. In case of a tie, the proposal of the interested person is selected in order a) with the longest experience, b) with the highest bachelor's degree mark, c) with the highest master's degree mark.
- 7. The proposal that is first in the ranking table and has the highest score in all the scoring criteria will be the one that will be selected. In case of obstruction of the person who submitted it, the next proposal is selected until the ranking order is exhausted.
- 8. Any submitted proposal that does not meet the criteria of the call of the expression of interest will not be examined any further and will be automatically rejected.
- 9. Throughout the duration of the project, it is possible that the selected candidate(s) may be replaced, if necessary, by other candidate(s) of the present call and in accordance with the ranking list.
- 10. The contract may be extended without restriction, following a decision of the competent body of ELKE AUTh and if the required budget of the project allows it, without a new invitation, until the end date of the project (and in case of extension of the project until its new end date).
- 11. ELKE AUTh does not undertake any commitment to conclude a contract, as it is left to its full discretion to conclude or not contracts, as well as their number, excluding any claim of the interested parties.
- 12. The project assignment will take place in accordance with the provisions of the Program Implementation Guide.
- 13. The knowledge of foreign languages is certified in accordance with the provisions of the Presidential Decree 85/2022 "Determining the qualifications for appointment to positions of public sector" (A'232/17.12.2022), especially according to the articles 10, 14 par. 3 and 15 par. 7. Foreign documents must be accompanied by photocopies of their official translation into the Greek language except for English, French, German, Italian and Spanish language certificates which, if they meet the conditions of the P.D. 85/2022, are accepted without requiring their translation.
- 14. For candidates, computer skills shall be certified according to the Presidential Decree 85/2022 "Determining the qualifications for appointment to positions of public sector" (A'232/17.12.2022), especially according to the article 9.
- 15. It should be noted that the project assignment to candidates employed in the Public Sector, in Public and Private Bodies, etc. is subject to the provisions of paragraph 14 of Article 12 of YAKED 110427/EYTHY1020/01.11.2016

The President of the Research Committee

Professor Efstratios Stylianidis Vice Rector Research and Lifelong Learning

SUBMISSION OF PROPOSAL - STATEMENT*

(with consequences of law on false/inaccurate statement)

Mobile phone: E-mail: VAT number:

Please note in this proposal - statement and outside of the postal file the following (To be completed by the candidate):

1. The protocol number of this call

2. The code of project object you would like to participate (A,B,C etc)

I affirm that the information given in this proposal - statement is accurate and true

SIGNATURE

Date : ___/__/___

Find attached : 1. 2.

*Incomplete filling of the proposal – statement constitutes a criterion for exclusion

DETAILED TABLE DATA FOR PROOF OF EXPERIENCE

(The person concerned records all relevant experience to the subject of the call if required)

			(a)	(b)		(1)	
a/ a	From	То	Months of Employment	Days of Employment	Institution of Employment - Employer	Employer Category ⁽¹⁾	Task of Employment
<u></u>		TOTAL			GENERAL TOTAL MONTHS C	DF EXF	

(1) Complete as appropriate with 'PR' or 'PU' depending on the category of the Employment Office, where PR: Private sector, individuals or private legal entities (corporations, etc.) • PU: Public sector, government agencies or public entities or local authorities of first and second degree or private entities in the public sector of par. 1 of Art. 14 of Law. 2190/1994 as in force or bodies of par. 3 of Art. 1 of Law. 2527/1997. In the case of self-employed, complete with the indication "SE".

(2)

(2) Complete the GENERAL TOTAL MONTHS OF EXPERIENCE. When, in Column (b) shows experience, the total days of employment divided by 25 (if the experience has been calculated as the number of wages) or by 30 (if the experience has been calculated as the period from the start day until the expiration date of employment) and the resulting integer is added to the total months of employment of the column (a).