Department:	Human Resources Department,	Thessaloniki, 26-01-2023
	Research Committee AUTH	Ref. No. Call: 24610/2023
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Project Code:	73597	

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 "Transformation of energy intensive process industries through integration of energy, process and feedstock flexibility" funded under European Union, with Academic Head Prof. Vakali Athina, invites candidates to submit proposals for three (3) positions as described below, through the award of a project contract, starting from the signing of the contract until 31/12/2023 and with a total anticipated remuneration 46.400 € (VAT and taxes included).

The contracts can be extended until the end date of the project 31/08/2026 (in case of extension until its completion) and within the approved limits of its budget.

One (1) person / Faculty of Sciences PhD graduate / up to 12.000,00€ / έως 31/12/2023

1. **JOB DESCRIPTION (A)**
- Identification of organizations, agencies and individuals interested in the dynamics of flexible electricity, as well as in the design of an observatory that will gather the relevant information.
- Creation of a data model and data management framework with an emphasis on the accessibility and interconnection of project data. The researcher will contribute to the creation of the large-scale data architecture that will be implemented within the framework of the project
- Development of machine learning algorithms to predict the evolution of the energy market as well as energy consumption in the factories of the project pilots
- Design, development and control of the distributed energy storage service. The researcher will deal with the analysis of the networks of the interested parties, in order to identify the important parties and their characteristics.
- Digital support for the development of a gender equality plan and the promotion of diversity at all levels of project activities. Capturing local environmental and social resources related to energy flexibility and reducing consumption and pollution.
- Communication activities, dissemination and exploitation of the results obtained during the project

The above tasks will be implemented within the project work packages:

WP1 – End-user requirements and research design specification
WP2 - Data collection and digital twin framework
WP3 - Interfacing the AI-supported decision-making system with the digital twin
WP4 - Integration of flexibility technologies
WP6 - Development and impact of the project
WP7 – Communication, Dissemination, Exploitation of results

2. **REQUIRED QUALIFICATIONS**

➢ Graduate of Faculty of Sciences

- PhD with specialization in Hybrid techniques for analyzing and mining knowledge from multiple data sources of social networks.
- Research experience of at least 36 months in research projects in the field of "Data Analysis"
- Two (2) publications in scientific journals in the field of data analysis
- Excellent knowledge of the English language (C2 level)
- Proven knowledge on:
    - Decision Support Systems
    - Graph Theory – Graph Mining

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.

3. ADDITIONAL QUALIFICATIONS

- Additional publications in scientific journals in the field of data analysis
- Master's degree of university education with a specialization related to Informatics
- Proven knowledge on:
    - Advanced Information Systems: Design, Development, Maintenance
    - Information Systems Security, Cryptography
    - Green Information Communication Technologies

Note: 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

    -
- Interview

4. QUALIFICATIONS ASSESSMENT

	Qualifications criteria	Credits (Researchersl)
1	Bachelor's degree mark	mark * 40
2	MSc degree of at least one year's studentship	200
3	Proven Knowledge Advanced Information Systems: Design, Development, Maintenance	20
4	Proven Knowledge Information Systems Security, Cryptography	15
5	Proven knowledge on Green Information Communication Technologies	15
6	Publications in scientific conferences (per publication) and up to 4	40 (per publication)
7	Interview (the evaluation criteria are graded and defined below)	<= 80

One (1) person / Graduate of the faculty of Sciences / until 14.400,00€ / until 31/12/2023

1. JOB DESCRIPTION (B)
- Creation of a data model and a framework of data management with emphasis on accessibility and connection of the data of the project
- Creation of machine learning algorithms for the prediction of the advances in the energy market and the energy consumption in the infrastructure of the pilots of the project
- Planning, creation and control of the service of distributed energy storage
- Installation, set up and confirmation of the service of distributed energy storage in the business environment of the pilots of the project

- Validation and progress in the framework of the pilots of the project, regarding smart specialization and the awareness regarding Industrial and residential cohabitation for further advancements of their energy flexibility
- Digital support for the creation of a plan of equality between the two genders and the forwarding of the dissimilarity in all the levels of the activities of the project.

The aforementioned procedures will be implemented in the framework of the work packages of the project:
WP2- Framework of data collection and digital twinning
WP3- Connection of the decision making system supported from artificial intelligence with the digital twinning.
WP4- Absorption of flexibility technologies
WP5- Activities of pilots and validation
WP6- Advancement and impact of the project

2. REQUIRED QUALIFICATIONS
- Diploma of institutional education of the faculty of Sciences
- Perfect knowledge of English language (C2 Level)
- 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:
  - Energy management in smart grids
  - Stochastic operational research
  - Statistical data analysis with R programming language

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	Bachelor's degree mark	Grade*40
2	Proven knowledge in stochastic operational research	20
3	Proven knowledge in statistical data analysis with R programming language	20
4	Proven knowledge in energy management in smart grids	10
5	Interview	<=80

All the qualifications listed above are in relevance with the project requirements and objectives.

One (1) person / PhD Candidate / Graduate in Informatics / up to 20.000,00€ / until 31/12/2023

1. JOB DESCRIPTION (C)

The candidate will work on the following tasks:
- Development of technologies for the optimization of business processes for each pilot

The tasks are part of the following work packages of the project:
- WP4: Integration of energy flexible technologies

2. REQUIRED QUALIFICATIONS
- Graduate in Informatics
- PhD candidate in a subject related to "Business Process Optimization"
  Note: the status is proven by a certificate from the relevant Department
- One (1) publication in a scientific journal in the field of business process optimization
- Two (2) announcements in scientific peer-reviewed conferences in the field of business process optimization
- Research* experience of 9 months in research projects in business process optimization
- Proven knowledge on Java programming language
  Note: The knowledge is documented with a relevant certificate or with a relevant bachelor's/ master's dissertation/ doctoral thesis or with relevant courses of the study cycle (detailed grade and if the correlation does not immediately result from the title of the course, the detailed course score must be accompanied by description of the course in the Study Guide) or with teaching of relevant courses(certificate of institution and/or contract).
- Excellent knowledge of the English language (C2 certification)

3. ADDITIONAL QUALIFICATIONS
- Proven knowledge on Artificial Intelligence
- Proven knowledge on Data Warehouses and Data Mining
- Proven knowledge on Distributed and Internet Computing
  Note: The knowledge is documented with a relevant certificate or with a relevant bachelor's/ master's dissertation/ doctoral thesis or with relevant courses of the study cycle (detailed grade and if the correlation does not immediately result from the title of the course, the detailed course score must be accompanied by description of the course in the Study Guide) or with teaching of relevant courses(certificate of institution and/or contract).
- Additional announcements in scientific peer-reviewed conferences in the field of business process optimization
- Interview

4. QUALIFICATIONS ASSESSMENT

	Qualifications criteria	Credits (Researchers)
1	Bachelor's degree mark	Mark * 40
2	Proven knowledge on Artificial Intelligence	20
3	Proven knowledge on Data Warehouses and Data Mining	20
4	Proven knowledge on Distributed and Internet Computing	10
5	Announcements in scientific conferences (per announcement) – 4 max	15 (per announcement)
6	Interview (The evaluation criteria are determined and they are graded)	≤80

All the qualifications listed above are in relevance with the project requirements and objectives.

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 for project description A,B who meet all the conditions of the call for expressions of interest will be invited for an interview (after being notified in writing by e-mail), except for those whose proposals will score at least 80 points (interview score range) lower score than the first proposal in a ranking. Candidates who do not attend the interview will be rejected. It is not necessary to conduct an interview if all the terms of the invitation meet a single proposal.

The topics of the questions and the grading system to be used are shown in the following table:

No.	Topic	Knowledge level/ Scoring Units	Maximum score
1	Specialised technical knowledge in data analysis and machine learning with programming models and use of specialised frameworks (Python, scikit-learn)	Introductory knowledge 0-10 Intermediate level 11-20 Capable 21-30 Expert 31-40	0-40
2	Specialised technical knowledge of non-relational databases (MongoDB)	Introductory knowledge 0-10 Intermediate level 11-20 Capable 21-30 Expert 31-40	0-40

Candidates for project description C who meet all the conditions of the call for expressions of interest will be invited for an interview (after being notified in writing by e-mail), except for those whose proposals will score at least 80 points (interview score range) lower score than the first proposal in a ranking. Candidates who do not attend the interview will be rejected. It is not necessary to conduct an interview if all the terms of the invitation meet a single proposal.

The topics of the questions and the grading system to be used are shown in the following table:

No.	Topic	Knowledge level/ Scoring Units	Maximum score
1	Specialised technical knowledge of code development tools (Java, Scala)	Introductory knowledge 0-10 Intermediate level 11-20 Capable 21-30 Expert 31-40	0-40
2	Specialised technical knowledge in distributed technologies (Spark, Hadoop)	Introductory knowledge 0-10 Intermediate level 11-20 Capable 21-30 Expert 31-40	0-40

Proposals and required documents should be submitted either via e-mail to to info@csd.auth.gr or in person or by post to the following address Secretariat of the School of Informatics. Building of the Secretariat of the School of Sciences, Aristotle University Campus, Gr- 54124, Thessaloniki, Greece within hours 11:00-12:30 no later than **6/2/2023.** 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 https://rc.auth.gr/proskliseis-gia-apasholisi-se-erga and on the website of "Diavgeia".

For more information and questions regarding the position, candidates may refer to *00302310-8415*
For information on the proposal submission process candidates may contact ELKE AUTh at **0030-***2310-994052,4082,4022.*

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 https://www.auth.gr/gdpr.

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

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SUBMISSION OF PROPOSAL - STATEMENT*
(with consequences of law on false/inaccurate statement)

</div>

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)

<div align="center">

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

SIGNATURE

</div>

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/a	From	To	(a) Months of Employment	(b) Days of Employment	Institution of Employment - Employer	Employer Category [1]	Task of Employment

TOTAL .... **GENERAL TOTAL MONTHS OF EXPERIENCE** [2]

(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) 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).