

Bucharest University of Economic Studies

Date: 30.01.2025

ANNOUNCEMENT

Bucharest University of Economic Studies is currently holding a recruitment and selection process for the following vacancy

Project Director – 1 position - within the project „*JobKG – A Knowledge Graph of the Romanian Job Market based on Natural Language Processing*” - 760274/26.03.2024, **project code 178/31.07.2023**

The employment offered for this position is part-time, with a maximum of 120 working hours per month, which may be unevenly distributed.

The gross hourly wage for this position is 241,50 lei per hour.

The individual employment contract will be concluded for a fixed period until June 30, 2026.

A. To participate in the recruitment and selection process, candidates must meet the following general and specific conditions:

1. General conditions:

- a) has Romanian citizenship, citizenship of other member states of the European Union, of states belonging to the European Economic Area and/or foreign states as defined by art. 2 lit. a) of GEO 194/12.12.2002 with subsequent amendments and completions, respectively persons who do not have Romanian citizenship, citizenship of another EU member state or citizenship of the Swiss Confederation;
- b) has the minimum age regulated by the legal provisions;
- c) has full capacity;
- d) has a relevant state of health for the position he is applying for.
- e) meets the conditions of education and, where appropriate, seniority or other specific conditions by the requirements of the post to be filled;
- f) has not been convicted of a crime against humanity, against the State or authority, or of an offence committed in the course of or in connection with the performance of his or her duties which obstructs the course of justice, or forgery or corruption, or of an offence committed with intent which would make him or her incompatible with the performance of his or her duties, unless he or she has been rehabilitated.

2. Specific conditions:

- a) level of studies: education completed with a Ph.D. degree;
- b) field of study: branch of science - economic sciences, the field of physical sciences and engineering, life sciences, computer science
- c) Other specific conditions:

- i. The candidate holds a PhD degree awarded a minimum of 3 years before the date of approval of the organization of the selection procedure (29.01.2025);
- ii. The candidate has led, in the past 7 years prior to the deadline before the date of approval of the organization of the selection procedure (29.01.2025) at least one research and development project;
- iii. The candidate is a researcher whose affiliation institution is located outside Romania and who has carried out research activities outside Romania, for at least 3 years before the date of approval of the organization of the selection procedure (29.01.2025);
- iv. Seven years prior to the date of approval of the organization of the selection procedure (29.01.2025), the candidate has published as lead author:

In the fields of (1) **PHYSICAL SCIENCES AND ENGINEERING;** (2) **LIFE SCIENCES:**

- ✓ Minimum eight papers (identified as document type/*document type article, review or proceedings paper*) published in Science Citation Index Expanded journals ranked amongst the first 50% (First [Q1] or Second [Q2] Quartile) in one subfield/Web of Science Category set by the Clarivate Analytics;
- ✓ At least four papers out of the eight papers are in the top 25% (Q1 as of the *Journal Impact Factor (JIF)* or the *Article Influence Score (AIS)*), within one subfield/ Web of Science Category set by the Clarivate Analytics;

Note: The most favourable quartiles (Q) corresponding to the values of Journal Impact Factor (JIF) or Article Influence Score (AIS) scientometric indicators from the latest edition of Journal Citation Reports (JCR) available at the time of proposal submission are taken into account.

- v. Good skills in drafting and writing scientific papers;
- vi. Advanced knowledge of English (written as well as spoken) to be able to access and disseminate knowledge from international literature.
- vii. Good organizational, communication and collaborative skills with international and multidisciplinary teams

Experience in previous similar projects will be considered a major advantage.

B. The recruitment and selection process will consist of:

Step 1: Evaluation of the files submitted by the candidates;

Step 2: Structured interview:

- *the date and time of the interview* will be communicated concurrently with the results of the evaluation of the files submitted by the candidates;
- *The place of the interview* will be communicated concurrently with the results of the evaluation of the files submitted by the candidates.

The evaluation samples are eliminatory; the minimum score to be obtained for each sample is 50 points.

C. Topics and bibliography:

1. **Topics:**

- a) knowledge graphs
- b) agent-based modelling
- c) natural language processing
- d) machine learning
- e) data analysis

2. **Bibliography:**

- a) CEDEFOP, 2019. Artificial or human intelligence? Digitalisation and the Future of Jobs and Skills: opportunities and risks. <https://doi.org/doi/10.2801/862703>
- b) de Groot, M., Schutte, J., Graus, D., 2021. Job Posting-Enriched Knowledge Graph for Skills-based Matching.
- c) Deloitte, 2018. Preparing tomorrow's workforce for the Fourth Industrial Revolution.
- d) Devlin, J., Chang, M.-W., Lee, K., Toutanova, K., 2019. BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding, in: Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, Volume 1 (Long and Short Papers). Presented at the NAACL-HLT 2019, Association for Computational Linguistics, Minneapolis, Minnesota, pp. 4171–4186. <https://doi.org/10.18653/v1/N19-1423>
- e) Dumitrescu, S., Avram, A.-M., Pyysalo, S., 2020. The birth of Romanian BERT, in: Findings of the Association for Computational Linguistics: EMNLP 2020. Presented at the Findings 2020, Association for Computational Linguistics, Online, pp. 4324–4328. <https://doi.org/10.18653/v1/2020.findings-emnlp.387>
- f) Market Accounting for Workers' Stocks and Gross Flows. *Comput Econ* 50, 21–68. <https://doi.org/10.1007/s10614-016-9577-0>
- g) Goyal, N., Sachdeva, N., Choudhary, V., Kar, R., Kumaraguru, P., Rajput, N., 2019. Con2KG-A Large-scale Domain-Specific Knowledge Graph, in: Proceedings of the 30th Acm Conference on Hypertext and Social Media (Ht '19). *Assoc Computing Machinery*, New York, pp. 287–288. <https://doi.org/10.1145/3342220.3344931>
- h) Hamill, L., Gilbert, N., 2016. *Agent-Based Modelling in Economics*, 1st edition. ed. Wiley, Chichester, UK ; Hoboken, NJ.
- i) ILO, 2021. Changing demand for skills in digital economies and societies: Literature review and case studies from low- and middle-income countries.
- j) Kant, J.-D., Ballot, G., Goudet, O., 2020. WorkSim: An Agent-Based Model of Labor Markets. *JASSS* 23, 4. <https://doi.org/10.18564/jasss.4396>
- k) Khaouja, I., Kassou, I., Ghogho, M., 2021. A Survey on Skill Identification From Online Job Ads. *IEEE Access* 9, 118134–118153. <https://doi.org/10.1109/ACCESS.2021.3106120>
- l) le Vrang, M., Papantoniou, A., Pauwels, E., Fannes, P., Vandenstein, D., De Smedt, J., 2014. ESCO: Boosting Job Matching in Europe with Semantic Interoperability. *Computer* 47, 57–64. <https://doi.org/10.1109/MC.2014.283>

- m) Peter Elias, 1997. Occupational Classification (ISCO-88): Concepts, Methods, Reliability, Validity and Cross-National Comparability (OECD Labour Market and Social Policy Occasional Papers No. 20), OECD Labour Market and Social Policy Occasional Papers. <https://doi.org/10.1787/304441717388>
- n) WEF, 2017. Accelerating Workforce Reskilling for the Fourth Industrial Revolution.
- o) World Bank, 2016. World Development Report 2016: Digital Dividends.
- p) Yao, K., Zhang, J., Qin, C., Wang, P., Zhu, H., Xiong, H., 2022. Knowledge Enhanced Person-Job Fit for Talent Recruitment, in: 2022 Ieee 38th International Conference on Data Engineering (Icde 2022). Ieee Computer Soc, Los Alamitos, pp. 3467–3480. <https://doi.org/10.1109/ICDE53745.2022.00325>
- q) Zhang, M., Jensen, K., Sonniks, S., Plank, B., 2022. SkillSpan: Hard and Soft Skill Extraction from English Job Postings, in: Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies. Presented at the NAACL-HLT 2022, Association for Computational Linguistics, Seattle, United States, pp. 4962–4984. <https://doi.org/10.18653/v1/2022.naacl-main.366>

D. Contents of the competition file to be submitted by candidates:

1. A record of the enclosed documents
2. Application for the recruitment and selection process addressed to the Rector of ASE;
3. Copy of the identity document or any other document attesting the identity, according to the law, if applicable;
4. Copy of marriage certificate or proof of name change, if the candidate changed his name (proof of name change);
5. The criminal record or a statement on his responsibility that he/she has no criminal record that makes him/her incompatible with the position for which he/she is applying;
6. Medical certificate attesting the appropriate health status issued no more than 6 months before the selection by the family doctor of the candidate or by the competent medical units, or the declaration on its responsibility, with the obligation to fill in the competition file with the medical certificate at the latest by 20th of February 2025.
7. Declaration on own responsibility, if the candidate has or does not have a husband/wife or relatives and affines, up to the III-th degree inclusively, who are employees of the Bucharest University of Economic Studies in a position of leadership, control, authority with the position for which is organised the selection and recruitment process and he/she is applying for;
8. Statement for the processing of personal data;
9. Curriculum vitae in European format (www.cveuropean.ro/cv-online.html) – signed and dated on each page;
10. Copies of documents that certify the completed level of education and any other additional documents that attest to the completion of specializations, as well as copies of documents certify the fulfilment of the specific conditions required for the position, as outlined in Chapter A, point 2.

E. Contact information:

The selection files can be submitted in a literal format between the 17th and 20th of February 2025, between 08h00 - 16h00 at the BUES Registration Office, located in the "Ion Angelescu" Building, Caderea Bastiliei Street, ground floor, room 0016, or online at the address provided by the contact person.

Contact person:

- University professor PhD Liviu Adrian Cotfas (email: liviu.cotfas@ase.ro)
- University professor PhD Petre Caraiani (email: petre.caraiani@fabiz.ase.ro)

F. Recruitment and selection calendar:

No. crt.	ACTIVITY	Date
1.	Announcement publication	30.01.2025
2.	Submitting the candidates' competition files at the BUES Registrar's Office and verification of the documents in the file	Between 17th and 20th
3.	Selection of application files by the members of the competition committee	21.02.2025
4.	Publication of the results of the selection of the application files	21.02.2025
5.	Submission of appeals regarding the results of the selection of application files	24.02.2025
6.	Publication of the results of the appeals	25.02.2025
7.	Interview	26.02.2025
8.	Communication of the results after the interview	26.02.2025
9.	Submission of appeals regarding the interview results	27.02.2025
10.	Publication of the results of the appeal	28.02.2025
11.	Publication of the final results	28.02.2025
12.	Appointment to the position	After approval from the Board of Trustees and the Directorate-General for PNRR Management and Coordination