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| Field name | **Description** |
| University | **“Aurel Vlaicu” University of Arad** |
| Faculty | **Faculty of Engineering** |
| Department | **Department of Automation, Industrial Engineering, Textiles and Trans­portation** |
| Position in the state functions | **No . 48** |
| Function | **Lecturer** |
| Subjects in the curriculum | 1. **Computational logic** 2. **Applied Informatics I;** 3. **Applied Informatics II;** 4. **Microprocessor systems;** 5. **Cloud Computing;** 6. **Object Oriented Programming;** |
| Scientific field | **Systems engineering** |
| The job description for which a promotion exam is being organized (detailed description of the educational activities provided in the state functions) | **The position of university lecturer, position no. 48, a position proposed for the promotion exam, consists of:**   1. **Computational logic**   - The study program (Bachelor's degree) Automatic Control and Applied Informatics , a course taken in the first year, second semester, with 1 hour of lecture, for a total of 1 conventional hour per week.   1. **Applied Informatics I**   **-**  The study program (Bachelor's degree) Automatic Control and Applied Informatics , a course taken in the first year, first semester, with 1 hour of lecture, for a total of 1 conventional hour per week.   1. **Applied Informatics II**   - The study program (Bachelor's degree) Automatic Control and Applied Informatics , a course taken in the second year, first semester, with 1 hour of lecture, for a total of 1 conventional hour per week.   1. **Microprocessor systems**   **-**  The study program (Bachelor's degree) Automatic Control and Applied Informatics , a course taken in the third year, second semester, with 2 hours of lecture, 1 hour of laboratory and 1 hour of project, for a total of 4 conventional hours per week.   1. **Cloud Computing**   **-**  The study program (Bachelor's degree) Automatic Control and Applied Informatics , a course taken in the third year, second semester, with 2 hours of lecture and 2 hours of laboratory, for a total of 4 conventional hours per week.   1. **Object Oriented Programming**   **-**  The study program (Bachelor's degree) Automatic Control and Applied Informatics , a course taken in the fourth year, first semester, with 2 hours of lecture and 2 hours of laboratory, for a total of 4 conventional hours per week. |
| Responsibilities/activities associated with the vacant teaching position, including the teaching standard and types of activities included in the teaching standard | **1. The teaching standard will include:**  a) Teaching activities;  b) Seminar activities, practical works, guidance of year's projects;  c) Guiding the elaboration of the bachelor's papers;  d) Guiding the elaboration of dissertation papers;  e) Other didactic, practical and scientific research activities included in the curriculum;  f) Evaluation activities;  g) Tutoring, consultations, guidance of student scientific circles;  h) Scientific and methodical training activities and other activities in the interest of education;  i) Participation in the activities organized by the department, faculty and / or university;  j) Participation in councils and commissions in the interest of education.  **2. The research standard**  a) Activities within the research center provided for in the internal plan;  b) Elaboration or participation in research or cultural projects, national or international;  c) Development of research projects or development of innovative approaches in design;  d) Publication of articles or scientific papers in recognized journals. |
| The minimum salary upon hiring for the position | **4326 lei** |
| EXAM CALENDAR |  |
| Publication date in the Official Gazette of Romania, Part III | **Monitorul Oficial no. 152, April 24th, 2023** |
| Start and end of registration period | 24th April 2023 - 19th June 2023 |
| Date, day of the week and time of the lecture | **July 6th, 2023, Thursday, 10.00 AM –** holding the teaching lecture 1 hour  **July 6th, 2023, Thursday, 11.00 AM –** sustaining the public lecture 1 hour |
| Place of the lecture | "Aurel Vlaicu" University of Arad, Faculty of Engineering, Str. Elena Drăgoi, nr. 2, Arad, Room 304 |
| The dates of the competition tests, including lectures, courses, etc. | July 6th, 2023 |
| Date of communication of the results | July 6th, 2023 |
| The start and end period for appeals. | July 7th, 2023 – July 11th, 2023 (on business days) |
| The topics of the exam tests, including lectures, courses, or similar, or the topics from which the examination board can choose the actual test topics | **Bibliography:**  1. Marinescu D. C., Cloud Computing: Theory and Practice, Third edition, 2022   1. 2. Sage, K. Concise Guide to Object-Oriented Programming. Springer, Cham, 2019 2. 3. M. Bălaş. „Introducere în electronică. Circuite electronice liniare.” Editura Universităţii Aurel Vlaicu din Arad, 2013. 3. 4. M. A. Mazidi, S. Naimi, The AVR Microcontroller And Embedded Systems Using Assembly and C, Pearson Education, Inc., 2017   5. S. Nakov, V. Kolev & Co, Fundamentals of Computer Programming with C#, 2013  **Topics of the lectures:**   1. Logic of sentences; Logical equivalences; Rules of inference; Logic of predicates; Veitch-Karnaugh diagrams; Implementation of logical formulas in automatic systems; Programming paradigms; Variables and constants; Functions; Structures; Pointers; Static, automatic and dynamic memory allocation; von Neumann and Harvard architectures; Control of CPU processes; The fetch-decode-execute cycle; Ways of addressing; Format of instructions; The processor's instruction set; Memory organization; Microcontroller applications; Cloud computing architecture; Types of cloud platforms (SaaS, PaaS, IaaS, FaaS, serverless computing); Authentication and encryption methods; Classes and objects; Static and court members; The principles of OOP; Abstraction; Encapsulation; Polymorphism; Inheritance; Interfaces and abstract classes; Exception handling; |
| Description of the examination procedure, including specific conditions for occupying the position (holding a diploma of completion of undergraduate studies in the specialization of the position, holding a doctoral diploma in the field of the position's disciplines, as well as conditions of seniority and annual evaluation provided in Article 10 of the University’s methodology). | **The requirements for registration** for the position of **university lecturer** are:  a) holding a doctor's degree in the field of the job's disciplines or in a related field;  b) possession of the didactic master's degree/ certificate of graduation of the psycho-pedagogical module or other equivalent documents;  c) meeting the minimum standards of the university for the occupation of teaching positions, specific to the teaching position of university lecturer, provided by its own methodology, in **Annex 1**.  The competition committee evaluates the candidate from the perspective of the following aspects:  a) meeting the criteria imposed by the minimum standards of the university by analyzing the verification sheet for meeting the minimum standards of the university, which will be signed by all the committee members (the president will sign each page of the respective sheet).  b) the relevance and impact of the candidate's scientific results;  c) the candidate's ability to guide students or young researchers;  d) didactic skills of the candidate;  e) the candidate's ability to transfer his knowledge and results to the economic or social environment or to promote his own scientific results;  f) the candidate's ability to work in a team and the efficiency of his scientific collaborations, depending on the specifics of the candidate's field;  g) the candidate's ability to lead research - development projects;  h) the professional experience of the candidate in institutions other than UAV.  The professional competences of the candidate are evaluated by the competition committee based on the competition file and, additionally, through one or more competition tests, including lectures, taking courses or similar, according to its own methodology, U.A.V. announces on the competition web page and the UAV web page, the day, time and place of the competition tests.  For the position of lecturer, the candidate will deliver a didactic/scientific lecture on a topic from the position structure established by the committee and announced to the candidates 48 hours before the presentation by e-mail and on the website of the U.A.V. in addition, the candidates will give a public lecture of at least 45 minutes in which they present their most significant previous professional achievements and the future university career development plan. This sample must also include a session of questions from the committee and the public. |
| Full list of documents that the candidate must include in the exam file: | 1. the guard page of the file according to the model in Annex 12 2. List of files (list of documents in the competition file, number of documents' sheets and the page where the document is found) according to the model in Annex 13. 3. the application for registration in the competition, signed by the candidate, which includes a declaration on his own responsibility regarding the veracity of the information presented in the file, registered with the U.A.V. Registry **(Annex 2**). 4. a proposal to develop the candidate's university career both from a didactic point of view, in the case of teaching positions, and from the point of view of scientific research activities; the proposal is drafted by the candidate, includes a maximum of 10 pages and is one of the main criteria for the separation of candidates. The document is signed on each page in the lower-right corner with a blue pen or ink. 5. curriculum vitae of the candidate in printed and electronic format, drawn up in accordance with Article 15. The document is signed on each page in the lower-right corner with a blue pen or ink. 6. the list of papers of the candidate, in printed and electronic format, drawn up in accordance with Article 16. The document is signed on each page in the lower-right corner with a blue pen or ink.   **Note: for research positions, the list of published papers will be accompanied by a copy of at least 5 representative papers.**   1. the verification sheet for the fulfillment of the university's standards for presentation at the competition, the standard format of which is provided by its own methodology in **Annex 4.**  The verification sheet is filled in and signed by the candidate on each page in the lower right corner with pen or blue ink. It will be accompanied by proof of compliance with the criteria in electronic format. 2. documents related to the possession of the doctor's degree: copy according to the original or legalized copy of the doctor's degree and, if the original doctor's degree is not recognized in Romania, the certificate of its recognition or equivalence; 3. documents related to the possession of the certificate of empowerment in the field of disciplines in the competition post (for candidates for the post of university professor): copy of the certificate of empowerment according to the original or legalized; 4. the summary, in the Romanian language and in a language of international circulation, of the doctoral thesis and/or, as the case may be, of the empowerment thesis, on a maximum of one page for each language; 5. declaration on the candidate's own responsibility indicating the incompatibility situations provided by Law no. 1/2011 in which it would be in case of winning the contest or the absence of these incompatibility situations **(Annex 8);** 6. a copy of the Official Gazette in which the post was published; 7. copies of other diplomas attesting to the candidate's studies: baccalaureate diploma or equivalent; bachelor's degree or equivalent; master's degree (accompanied by the diploma supplement / transcript) - copies according to the original or legalized; 8. a copy of the identity card or, if the candidate does not have an identity card, passport or other identity document drawn up for a purpose equivalent to the identity card or passport; 9. if the candidate has changed his name, copies of documents attesting to the change of name — marriage certificate or proof of name change - copy according to the original or notarized; 10. a list of up to 10 publications, patents or other works of the candidate, selected by him/her and considered to be the most relevant for his/her own professional achievements. The maximum 10 papers, in extenso, will be submitted to the file also in electronic format after their scanning in \*.pdf format. 11. birth certificate – certified copy; 12. the list with the names and contact addresses of at least 3 personalities in the field who have wrote letters of recommendation and the letters of recommendation, for the positions of associate professor and university professor, drawn up according to art. 17; 13. CD file competition (it will contain all the documents physically submitted to the file (those referred to in letters d-q) and those provided in electronic format). The documents contained in the file will be scanned in \*.pdf format.   **Note:** For the research positions, the following are also submitted: Certified copy of the work record book or copy extracted from REVISAL to prove the seniority  ***All the documents mentioned above as certified copies can be submitted to the file in simple copy if the confirmation with the original is made at the headquarters of our university by the designated person from the university secretariat***. |
| See also art. 11 of University’s Methodology | **"Aurel Vlaicu" University of Arad, Arad, Revolutiei Boulevard no. 77, Arad county, postal code 310130** |
| Address for submitting the exam file | According to the University’s methodology M.03 posted on the UAV website. |

Prepared,

Dean / Head of Department

Name and surname, Signature Name and surname, Signature

**Conf.univ.dr.ing. GLĂVAN Dan Conf.univ.dr.ing MULLER Valentin**