Ministerul Educației

Universitatea POLITEHNICA din București

Formular de publicare a posturilor didactice și de cercetare în platforma *Euraxess*

Contact: euraxess@upb.ro

HR EXCELLENCE IN RESEARCH

Basic information*[1]

Title*	Profesor universitar, poziția 6
Offer description*	Departament description- Biotechnical systems Biotechnical systems are those technical systems that work with biological materials and process them in order to obtain food or to protect the environment, based on the imposition of technology as a tool to meet the world's food needs. They are also those agricultural systems in which plants grow without the presence of soil or the manipulation of living organisms by the application of science and engineering in order to believe useful products to humans. The Biotechnical Systems Department trains engineers through its programs of: - *Undergraduate studies*: Applied Informatics in Environmental Engineering (IAIM) Mechatronics of Biotechnical Systems (MSB) Food Engineering (IPA) Machines and Installations for Agriculture and Food Industry (MIAIA) - *Masters*: Research, Design, Testing of Biotechnical Systems (CPTSB) Biotechnical Systems Engineering and Management (IMSB) Environmental Protection Engineering and Management (IMPM) Advanced Technologies in the Food Industry (TAIA) The employment success rate of our graduates is very high, they are appreciated by important companies such as New Holland, CLASS, John Deere, IPSO or URBAN. Within the Department's Research Center, CCDSB, special emphasis is placed on scientific research conducted in modern laboratories. The collaboration with similar institutions on a national and international level aims at the joint organization of study programs, the development of research projects, mobility for teachers and students, as well as curriculum compatibility activities. The disciplines that are part of job structure are: - Geomorphology of the environment - Meteorology and climatology - The engineering of the ecological storage of solid waste - Monitoring and control of environmental factors
Research field*	Environmental Engineering Engineering

Type of contract*	Permanent	Job status	Full-time

[1] Câmpurile marcate cu * sunt obligatorii.

Is the job funded through a EU Research Framework Programme?*
Click pentru a selecta o opțiune.
No ☒

I. Hiring information and work location[2]

Faculty*	*Ingineria Sistemelor Biotehnice*		
Department*	Biotechnical system engineering		
No. of positions available			
Website	http://isb.pub.ro/	Contact person e-mail*	ghvoicu2005@yahoo.com
Phone		Mobile phone	0724715585

[2] Câmpurile marcate cu * sunt obligatorii.

II. Requirements

Required education level	Ph.D. or equivalent
Skills/Qualifications	- motivational skills, interpersonal skills and communication skills for the development of undergraduate, master's and doctoral students - skills for efficient systematization and teaching of technical information within the job disciplines -creation of a research laboratory in which to work with the latest equipment and on the latest research topics - competences of scientific research in the laboratory on the subject of the disciplines subjects -skills for continuous improvement (improvement) of knowledge of the disciplines in the field of the job put up for competition in accordance with the evolution of science - competence in the oral presentation of works at national and international conferences in the field of environmental engineering; - competence in the use and interpretation of techniques for monitoring and controlling environmental factors; -competence in the development of waste recovery and treatment technologies; -competence in evaluating the impact on the environment; --competence in the efficient use of renewable energy sources; -competence in conducting state-of-the-art research in the field of environmental engineering that can be published in journals with F.I. > 1; - the ability to coordinate doctoral students on various current research topics in the field of environmental engineering; - the competence to participate in carrying out scientific research activities, on the basis of a contract/grant, or in other research works, in the field of the position put out to competition, as a member of the research team or as responsible for the project
Required languages	Romanian and english

III. Additional information

Additional comments	The ability to coordinate doctoral students on various current research topics in the field of environmental engineering.

IV. ANEXA: Lista subdomeniilor de cercetare

Biology	☐	**Communication science**	☐
Biological sciences	☐	Graphic communication	☐
Biodiversity	☐	Science communication	☐
Biological engineering	☐		
		Computer science	☐
Agricultural sciences	☐	3D Modelling	☐
Soil science	☐	Automatic computing	☐
Agronomics	☐	Computer architecture	☐
Agricultural products	☐	Computer hardware	☐
		Computer systems	☐
Arts	☐	Cybernetics	☐
Visual arts	☐	Database management	☐
		Digital systems	☐
Astronomy	☐	Informatics	☐
Astrophysics	☐	Modelling tools	☐
Cosmology	☐	Programming	☐
		Systems design	☐
Chemistry	☐		
Analytical chemistry	☐	**Economics**	☐
Applied chemistry	☐	Applied economics	☐
Biological chemistry	☐	Business economics	☐
Catalysis chemistry	☐	Commercia economics	☐
Combinatorial chemistry	☐	Consumer economics	☐
Computational chemistry	☐	Econometrics	☐
Heterogenous chemistry	☐	Industrial economics	☐
Homogeneous chemistry	☐	Market economics	☐
Inorganic chemistry	☐	Marketing	☐
Instrumental analyses	☐	Management studies	☐
Instrumental techniques	☐	Production economics	☐
Molecular chemistry	☐	Transport economics	☐
Physical chemistry	☐	Other	☐
Other	☐		
Reaction mechanisms and dynamics	☐	**Engineering**	☐
Solar chemistry	☐	Airspace engineering	☐
Structural chemistry	☐	Agriculture engineering	☐
		Biomaterial engineering	☐
Education	☐	Biomedical engineering	☐
Learning studies	☐	Chemical engineering	☐
Research methodology	☐	Civil engineering	☐
Teaching methods	☐	Communication engineering	☐
		Computer engineering	☐
Information science	☐	Control engineering	☐
Information management	☐	Design engineering	☐
		Electrical engineering	☐
Management	☐	Electronical engineering	☐
		Industrial engineering	☐
Mathematics	☐	Knowledge engineering	☐

Combinatorial analysis	☐	Materials engineering	☐
Computation mathematics	☐	Mechanical engineering	☐
Discrete mathematics	☐	Microengineering	☐
Chaos theory	☐	Nuclear engineering	☐
Applied mathematics	☐	Precision engineering	☐
Algebra	☐	Process engineering	☐
Algorithms	☐	Projects engineering	☐
Geometrics	☐	Simulation engineering	☐
Mathematical analysis	☐	Sound engineering	☐
Probability	☐	Surveying engineering	☐
Statistics	☐	System engineering	☐
Mathematical logic	☐		
Number theory	☐	**Physics**	☐
		Quantum mechanics	☐
Technology	☐	Relativity	☐
Chemical technology	☐	Solid state physics	☐
Energy technology	☐	Neutron physics	☐
Environmental technology	☒	Electronic physics	☐
Future technology	☐	Mathematical physics	☐
Electrical technology	☐	Metrology	☐
Dating techniques	☐	Statics	☐
Communication technology	☐	Statistical physics	☐
Computer technology	☐	Surface physics	☐
Construction technology	☐	Thermodynamics	☐
Graphic techniques	☐	Electromagnetism	☐
High vacuum technology	☐	Optics	☐
Space technology	☐	Condensed matter properties	☐
Standardisation of technologies	☐	Acoustics	☐
Telecommunications technology	☐	Classical mechanics	☐
Sound technology	☐	Computational physics	☐
Safety technology	☐	Chemical physics	☐
Production technology	☐	Biophysics	☐
Quantum technology	☐	Applied physics	☐
Remote sensing	☐		
Transport technology	☐	**Medical sciences**	☐
Vacuum technology	☐		
Water technology	☐	**Political sciences**	☐
Knowledge technology	☐	Science and society	☐
Laboratory technology	☐	Policy studies	☐
Marine technology	☐	Public awareness of science	☐
Internet technology	☐	Public policy	☐
Interface technology	☐		
Industrial technology	☐	**Sociology**	☐
Information technology	☐	Sociology of enterprise	☐
Instrumentation technology	☐	Social shaping of technology	☐
Materials technology	☐		
Measurement technology	☐		
Nanotechnology	☐		

Nuclear technology	☐		
Optronics	☐		
Mining	☐		
Military technology	☐		
Medical technology	☐		
Micro-technology	☐		

Ministerul Educației

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Formular de publicare a posturilor didactice și de cercetare în platforma *Euraxess*

Contact: euraxess@upb.ro

HR EXCELLENCE IN RESEARCH

Basic information

Title	**Șef Lucrări, poziția 25**
Offer description	APPLICATION Before applying, all candidates are invited to read carefully the UPB's Methodology for occupying didactic and research positions: https://posturivacante.upb.ro/wp-content/uploads/2022/09/Methodology-for-occupyng-vacant-didactic-and-research-positions-2022.pdf The Department of Biotechnical Systems of the Faculty of Biotechnical Systems Engineering, Polytechnic University of Bucharest, announces a competition for a vacancy of Associate Professor in the field of Plant and Animal Resources Engineering. The courses that are part of the vacant position are: Technologies and Control in the Milk Industry; Agricultural Machinery III / Advanced Biotechnical Systems III; Modern Methods in Food Processing; Legislation and Consumer Protection; General Technologies in the Food Industry. Biotechnical systems are technical systems that work with biological materials and process them to obtain food or to protect the environment, based on the imposition of technology as a tool to meet the world's food needs. They are also those agricultural systems that allow plants to grow without the presence of soil, or systems for manipulating living organisms by applying science and engineering techniques, in order to provide useful products. Within the academic year 2022-2023, Biotechnical Systems Department has the following undergraduate programs: Applied Informatics in Environmental Engineering; Food Engineering; Machinery and Equipment for Agriculture and Food Industry; Mechatronics for Biotechnical Systems; for masters degree, the following programs are available: Research, Design, and Testing of Biotechnical Systems; Advanced Technologies in Food Industry; Engineering and Management of Biotechnical Systems; Engineering and Management in Environmental Protection; there are also available PhD studies in the fields of Mechanical Engineering and Environmental Engineering. In accordance with the mission and objectives of the University POLITEHNICA of Bucharest, the mission of the Faculty of Biotechnical Systems Engineering is to promote education and research to meet the demands of a society based on knowledge and continuing education, in the interest of society and respect for human dignity. The Faculty of Biotechnical Systems Engineering has undertaken a student-centered education mission, structured around the following objectives: training of specialists in the fields of environmental engineering, mechanical engineering, food engineering, mechatronics and robotics, with a solid professional training based on the thorough development of general engineering sciences and of related sciences, on the understanding of the spirit that incorporates as a whole the sciences that provide specialized training in the engineering area; continuous correlation of the theoretical training with the practical training, the formation of students' capacity to apply in practice the assimilated knowledge; combining the engineering training that is specific to each field of study, with the concern for achieving a healthy moral education, which is focused on promoting quality and efficiency in education and research, on making education and research compatible with European

	guidelines, on adapting the educational offer to the requirements of the market, on the continuous development of scientific research at the level of international standards, on the assertion of the scientific performance of members of the academic community, on the development of partnerships with business, national and international institutions and organizations, and on the modernization and development of teaching and research materials. The Faculty ensures the realization of an efficient education, developed and improved through scientific research activity, according to the requirements and demands, with appropriate means offered by the modern information society. Graduates of the Environmental Engineering study programmes will be able to use specific, technical and cultural-humanistic knowledge to contribute to the technological, economic and social-cultural progress of Romanian society and the contemporary world.
Research field	Engineering

Is the job funded through a EU Research Framework Programme?*
Click pentru a selecta o opțiune.
No ☒

Where to apply
floarea.dragomir@upb.ro

I. Hiring information and work location

Faculty	**Ingineria Sistemelor Biotehnice**
Department	*Biotechnical Systems*
Department/Centre website	http://bios.pub.ro/
Contact person e-mail	ghvoicu_2005@yahoo.com
Contact person phone number	+40214029633

II. Requirements

Această secțiune este opțională. Recomandăm includerea unor informații pentru a completa anunțul de angajare.

Required education level	**Engineering** **Ph.D. or equivalent**

Skills/Qualifications	- The candidate must have a Bachelor's and Master's degree in Mechanical Engineering and a PhD degree in Mechanical Engineering (with the topic of the PhD thesis close to or related to Plant and Animal Resources Engineering, according to the disciplines of the vacancy). - The candidate must have very good organization and communication skills, as well as availability for traveling to scientific events. - Publication in national and/or international publishing houses, as author or co-author, of specialized books with ISBN, whose subject matter is either in the field of the disciplines from the vacant position, or in similar fields, is an advantage. - The candidate must prove the activity of publishing the research results (author/co-author of books, book chapters, articles, and/or patents or patent applications) in the field of the vacant position or in related fields. These results also demonstrate the candidate's ability to coordinate students in scientific research activities, to complete the diploma/ dissertation assignments, or to participate in student communication sessions. - In addition to teaching and research activities, the candidate must be involved in all activities carried out in the department, including coordinating diploma and master's theses to complete university studies, tutoring, attracting candidates for undergraduate and master's studies, promotion of the faculty's study programs etc.
Specific requirements	- minimum 6 years of university teaching experience; - membership in at least 1 scientific research contract won through competition; - enrolled in a postdoctoral programme.
Required languages	Romanian (Native language)
Required research experience	**Engineering** **4-10**

III. Additional information

Această secțiune este opțională.

Additional comments	All academic staff at UPB enjoy several benefits, such as training and professional development opportunities, holiday leave, accommodation in UPB residences, banking facilities, access to research infrastructure, and software for remote working. - Technologies and Control in the Dairy Industry - is a subject studied in the fourth year of the Food Engineering specialization. The subject covers concepts related to the properties of milk of animal origin, such as fat, protein, casein, vitamins and minerals. It also covers concepts related to technological processes for preserving milk or processes and technologies for obtaining drinking milk, milk powder, butter and fresh and ripened cheeses. The

	subject also covers concepts related to the specific analysis of the dairy industry. - Agricultural Machinery III / Advanced Biotechnical Systems III - - is a subject studied in the fourth year of the Food Industry Machinery and Plant Engineering specialization. The subject deals with concepts related to the processes and technologies used to process feedstuffs, but also with the construction of machinery used to process feedstuffs or to distribute water and feed to animals. - Modern Methods in Food Processing - is a subject studied in the Fourth Year of the Food Engineering specialisation. The subject deals with concepts related to food preservation technologies. - Legislation and Consumer Protection - is a subject studied in the fourth year of the Food Products Engineering specialisation and deals with notions related to combating unfair practices of traders in relation to consumers and harmonising regulations with European consumer protection legislation, as well as notions related to the approval of rules on the marketing of food products. - General Technologies in the Food Industry - is a subject studied in the third year of the specialisation Food Control and Expertise in the Faculty of Chemical Engineering and Biotechnology. This subject deals with concepts related to technologies in the food industry, such as: milling, bakery, meat, milk, sugar, winemaking, distillation.

IV. ANEXA: Lista subdomeniilor de cercetare.

Recomandăm selectarea a cât mai multe subdomenii. Cel puțin unul este obligatoriu.

Biological sciences	☐	**Communication science**	☐
Biodiversity	☐	Graphic communication	☐
Biological engineering	☐	Science communication	☐
Biology	☐		
		Computer science	☐
Agricultural sciences	☐	3D Modelling	☐
Soil science	☐	Automatic computing	☐
Agronomics	☐	Computer architecture	☐
Agricultural products	☐	Computer hardware	☐
		Computer systems	☐
Arts	☐	Cybernetics	☐
Visual arts	☐	Database management	☐
		Digital systems	☐
Astronomy	☐	Informatics	☐
Astrophysics	☐	Modelling tools	☐
Cosmology	☐	Programming	☐
Other			
		Systems design	☐
Chemistry	☐		
Analytical chemistry	☐	**Economics**	☐

Applied chemistry	☐	Applied economics	☐
Biochemistry	☐	Business economics	☐
Combinatorial chemistry	☐	Commercia economics	☐
Computational chemistry	☐	Consumer economics	☐
Heterogenous chemistry	☐	Econometrics	☐
Homogeneous chemistry	☐	Industrial economics	☐
Inorganic chemistry	☐	Market economics	☐
Instrumental analyses	☐	Marketing	☐
Instrumental techniques	☐	Management studies	☐
Molecular chemistry	☐	Production economics	☐
Organic chemistry	☐	Transport economics	☐
Physical chemistry	☐		
Other	☐	Other	☐
Reaction mechanisms and dynamics	☐		
Solar chemistry	☐	**Engineering**	☒
Structural chemistry	☐	Airspace engineering	☐
		Agriculture engineering	☒
		Biomaterial engineering	☒
Education	☐	Biomedical engineering	☐
Learning studies	☐	Chemical engineering	☐
Research methodology	☐	Civil engineering	☐
Teaching methods	☐	Communication engineering	☐
		Computer engineering	☐
Information science	☐	Control engineering	☐
Information management	☐	Design engineering	☐
		Electrical engineering	☐
Management	☐	Electronic engineering	☐
		Industrial engineering	☐
Mathematics	☐	Knowledge engineering	☐
Combinatorial analysis	☐	Materials engineering	☐
Computation mathematics	☐	Mechanical engineering	☒
Discrete mathematics	☐	Microengineering	☐
Chaos theory	☐	Nuclear engineering	☐
Applied mathematics	☐	Precision engineering	☐
Algebra	☐	Process engineering	☒
Algorithms	☐	Projects engineering	☐
Geometrics	☐	Simulation engineering	☐
Mathematical analysis	☐	Sound engineering	☐
Probability	☐	Surveying engineering	☐
Statistics	☐	Systems engineering	☐
Mathematical logic	☐		
Number theory	☐	**Physics**	☐
		Quantum mechanics	☐
Technology	☐	Relativity	☐
Chemical technology	☐	Solid state physics	☐
Energy technology	☐	Neutron physics	☐
Environmental technology	☐	Electronic physics	☐
Future technology	☐	Mathematical physics	☐

Electrical technology	☐	Metrology	☐
Dating techniques	☐	Statics	☐
Communication technology	☐	Statistical physics	☐
Computer technology	☐	Surface physics	☐
Construction technology	☐	Thermodynamics	☐
Graphic techniques	☐	Electromagnetism	☐
High vacuum technology	☐	Optics	☐
Space technology	☐	Condensed matter properties	☐
Standardization of technologies	☐	Acoustics	☐
Telecommunications technology	☐	Classical mechanics	☐
Sound technology	☐	Computational physics	☐
Safety technology	☐	Chemical physics	☐
Production technology	☐	Biophysics	☐
Quantum technology	☐	Applied physics	☐
Remote sensing	☐		
Transport technology	☐	**Medical sciences**	☐
Vacuum technology	☐		
Water technology	☐	**Political sciences**	☐
Knowledge technology	☐	Science and society	☐
Laboratory technology	☐	Policy studies	☐
Marine technology	☐	Public awareness of science	☐
Internet technology	☐	Public policy	☐
Interface technology	☐		
Industrial technology	☐	**Sociology**	☐
Information technology	☐	Sociology of enterprise	☐
Instrumentation technology	☐	Social shaping of technology	☐
Materials technology	☐		
Measurement technology	☐		
Nanotechnology	☐		
Nuclear technology	☐		
Optronics	☐		
Mining	☐		
Military technology	☐		
Medical technology	☐		
Micro-technology	☐		

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Universitatea POLITEHNICA din București

Formular de publicare a posturilor didactice și de cercetare în platforma *Euraxess*

Contact: euraxess@upb.ro

HR EXCELLENCE IN RESEARCH

I. Basic information

Title	**Șef de lucrări, poziția 26**
Offer description	The Department of Biotechnical Systems within the Faculty of Biotechnical Systems Engineering, University POLITEHNICA of Bucharest, announces the competition for a vacant position of lecturer, in the field of Environmental Engineering. The courses that are part of the vacant position are: Ecology, Environmental factors investigation, Topography, Computer-assisted biotechnologies. Biotechnical systems are technical systems that work with biological materials and process them to obtain food or to protect the environment, based on the imposition of technology as a tool to meet the world's food needs. They are also those agricultural systems that allow plants to grow without the presence of soil, or systems for manipulating living organisms by applying science and engineering techniques, in order to provide useful products. Within the academic year 2022-2023, Biotechnical Systems Department has the following undergraduate programs: Applied Informatics in Environmental Engineering; Food Engineering; Machinery and Equipment for Agriculture and Food Industry; Mechatronics for Biotechnical Systems; for masters degree, the following programs are available: Research, Design, and Testing of Biotechnical Systems; Advanced Technologies in Food Industry; Engineering and Management of Biotechnical Systems; Engineering and Management in Environmental Protection; there are also available PhD studies in the fields of Mechanical Engineering and Environmental Engineering. In accordance with the mission and objectives of the University POLITEHNICA of Bucharest, the mission of the Faculty of Biotechnical Systems Engineering is to promote education and research to meet the demands of a society based on knowledge and continuing education, in the interest of society and respect for human dignity. The Faculty of Biotechnical Systems Engineering has undertaken a student-centered education mission, structured around the following objectives: ● training of specialists in the fields of environmental engineering, mechanical engineering, food engineering, mechatronics and robotics, with a solid professional training based on the thorough development of general engineering sciences and of related sciences, on the understanding of the spirit that incorporates as a whole the sciences that provide specialized training in the engineering area; ● continuous correlation of the theoretical training with the practical training, the formation of students' capacity to apply in practice the assimilated knowledge; ● combining the engineering training that is specific to each field of study, with the concern for achieving a healthy moral education, which is focused on promoting quality and efficiency in education and research, on making education and research compatible with European guidelines, on adapting the educational offer to the requirements of the market, on the continuous development of scientific research at the level of international standards, on the assertion of the scientific performance of members of the academic community, on the development of partnerships with business, national and international institutions and organizations, and on the modernization and development of teaching and research materials.

	Regarding the field of Environmental Engineering, according to the Chart of University POLITEHNICA of Bucharest, the Faculty of Biotechnical Systems Engineering, through the Department of Biotechnical Systems, also assumes the mission of training specialists through the following levels of studies: ✓ Undergraduate studies - specialization in Applied Informatics in Environmental Engineering. Graduates of this specialization will be able to: understand the mechanisms, processes and effects of anthropogenic or natural origin that determine and influence environmental pollution; analyse the technical solutions needed to prevent, mitigate and eliminate negative environmental phenomena; develop digital technologies and software applications for the realization of products, machinery, equipment for depollution and environmental protection and intelligent tools, integrated into computer systems; use legal regulations and information technologies to prevent and mitigate the impact of natural and man-made phenomena on the environment; identify and use the methods and instrumental techniques needed to monitor environmental factors; coordinate the processes and activities carried out in organisations and companies in the field of environmental protection using intelligent information applications. ✓ Master studies - specializations in Engineering and Management in Environmental Protection and Engineering and Management of Biotechnical Systems. Graduates of these programs will have the following competences: Completion of fundamental knowledge specific to environmental engineering; Elaboration of studies and reports publishable or professionally applicable in the field of environmental engineering and protection; Implementation of scientific principles, specific rules and regulations in environmental engineering and environmental management systems. ✓ Doctoral studies within the Biotechnical Systems Doctoral School. The faculty ensures the accomplishment of high-performance doctoral internships, developed and perfected by means of scientific research, in accordance to established high level requirements and exigencies, as well as with appropriate means that are offered by the modern information society. APPLICATION Before applying, all candidates are invited to read carefully the UPB's Methodology for occupying didactic and research positions: https://posturivacante.upb.ro/wp-content/uploads/2022/09/Methodology-for-occupyng-vacant-didactic-and-research-positions-2022.pdf
Research field	Engineering

Is the job funded through a EU Research Framework Programme?*
Click pentru a selecta o opțiune.
No ☒

Where to apply
floarea.dragomir@upb.ro

II. Hiring information and work location

Faculty	**Ingineria Sistemelor Biotehnice**
Department	Biotechnical Systems
Department/Centre website	http://bios.pub.ro/
Contact person e-mail	ghvoicu2005@yahoo.com
Contact person phone number	0040214029633

III. Requirements

Această secțiune este opțională. Recomandăm includerea unor informații pentru a completa anunțul de angajare.

Required education level	**Engineering** **Ph.D. or equivalent**
Skills/Qualifications	- The candidate must have bachelor's and master's degree in the field of Environmental Engineering or in the field of Mechanical Engineering (in the case of five-year university studies, only an engineering degree in one of the above mentioned fields), as well as a doctoral degree in the field of Mechanical Engineering. The subject of the doctoral thesis must be either specific to the specializations of the faculty and with a topic close to or related to the specific of the disciplines within the vacant position. - The candidate must have very good organization and communication skills, as well as availability for traveling to scientific events. - Publication in national and/or international publishing houses, as author or co-author, of specialized books with ISBN, whose subject matter is either in the field of the disciplines from the vacant position, or in similar fields, is an advantage. - The candidate must prove the activity of publishing the research results (author/co-author of books, book chapters, articles, and/or patents or patent applications) in the field of the vacant position or in related fields. These results also demonstrate the candidate's ability to coordinate students in scientific research activities, to complete the diploma/ dissertation assignments, or to participate in student communication sessions. - In addition to teaching and research activities, the candidate must be involved in all activities carried out in the department, including coordinating diploma and master's theses to complete university studies, tutoring, attracting candidates for undergraduate and master's studies, promotion of the faculty's study programs etc.

Specific requirements	- minimum 6 years of university teaching experience; - membership in at least 1 scientific research contract won through competition; - enrolled in a postdoctoral programme.
Required languages	Romanian (Native language)
Required research experience	**Engineering** **4-10**

IV. Additional information

Această secțiune este opțională.

Additional comments	-*Ecology* - is a subject studied in the third year of the Applied Informatics in Environmental Engineering specialization. It is a synthetic biological science that studies the interaction between organisms, plants and their environment (abiotic and biotic). It deals with concepts related to ecosystem functions, circulation of matter in ecosystems, elements of biodiversity conservation and environmental protection. - *Environmental factors investigation* – is a subject studied in the third year of the Applied Informatics in Environmental Engineering specialization. It covers concepts related to the impact of human activities on the environment, the general context of the emergence of the concept of sustainable development, monitoring of air, water and soil quality, etc.. - *Topography* – is a subject studied in the fourth year of the Applied Informatics in Environmental Engineering specialization. It covers notions related to the object and branches of terrestrial measurements, topographic elements of the terrain in the vertical and horizontal plane, determination of topographic quantities, direct and indirect measurement of distances. - *Computer-assisted biotechnologies* - is a subject studied in the fourth year of the Applied Informatics in Environmental Engineering specialization. It covers concepts related to the importance of environmental biotechnologies for society, the main groups of microorganisms used in environmental biotechnologies, biotechnologies for composting organic waste, wastewater treatment, energy production, etc. All academic staff at UPB enjoy several benefits, such as training and professional development opportunities, holiday leave, accommodation in UPB residences, banking facilities, access to research infrastructure, and software for remote working.

V. ANEXA: Lista subdomeniilor de cercetare.

Recomandăm selectarea a cât mai multe subdomenii. Cel puțin unul este obligatoriu.

Biological sciences	☐	**Communication science**	☐
Biodiversity	☐	Graphic communication	☐
Biological engineering	☐	Science communication	☐
Biology	☐		
		Computer science	☐
Agricultural sciences	☐	3D Modelling	☐
Soil science	☐	Automatic computing	☐
Agronomics	☐	Computer architecture	☐
Agricultural products	☐	Computer hardware	☐
		Computer systems	☐
Arts	☐	Cybernetics	☐
Visual arts	☐	Database management	☐
		Digital systems	☐
Astronomy	☐	Informatics	☐
Astrophysics	☐	Modelling tools	☐
Cosmology	☐	Programming	☐
Other			
		Systems design	☐
Chemistry	☐		
Analytical chemistry	☐	**Economics**	☐
Applied chemistry	☐	Applied economics	☐
Biochemistry	☐	Business economics	☐
Combinatorial chemistry	☐	Commercia economics	☐
Computational chemistry	☐	Consumer economics	☐
Heterogenous chemistry	☐	Econometrics	☐
Homogeneous chemistry	☐	Industrial economics	☐
Inorganic chemistry	☐	Market economics	☐
Instrumental analyses	☐	Marketing	☐
Instrumental techniques	☐	Management studies	☐
Molecular chemistry	☐	Production economics	☐
Organic chemistry	☐	Transport economics	☐
Physical chemistry	☐		
Other	☐	Other	☐
Reaction mechanisms and dynamics	☐		
Solar chemistry	☐	**Engineering**	☒
Structural chemistry	☐	Airspace engineering	☐
		Agriculture engineering	☒
		Biomaterial engineering	☐
Education	☐	Biomedical engineering	☐
Learning studies	☐	Chemical engineering	☐
Research methodology	☐	Civil engineering	☐
Teaching methods	☐	Communication engineering	☐
		Computer engineering	☐
Information science	☐	Control engineering	☐
Information management	☐	Design engineering	☐

		Electrical engineering	☐
Management	☐	Electronic engineering	☐
		Industrial engineering	☒
Mathematics	☐	Knowledge engineering	☐
Combinatorial analysis	☐	Materials engineering	☐
Computation mathematics	☐	Mechanical engineering	☒
Discrete mathematics	☐	Microengineering	☐
Chaos theory	☐	Nuclear engineering	☐
Applied mathematics	☐	Precision engineering	☐
Algebra	☐	Process engineering	☒
Algorithms	☐	Projects engineering	☐
Geometrics	☐	Simulation engineering	☐
Mathematical analysis	☐	Sound engineering	☐
Probability	☐	Surveying engineering	☐
Statistics	☐	Systems engineering	☐
Mathematical logic	☐		
Number theory	☐	**Physics**	☐
		Quantum mechanics	☐
Technology	☐	Relativity	☐
Chemical technology	☐	Solid state physics	☐
Energy technology	☐	Neutron physics	☐
Environmental technology	☐	Electronic physics	☐
Future technology	☐	Mathematical physics	☐
Electrical technology	☐	Metrology	☐
Dating techniques	☐	Statics	☐
Communication technology	☐	Statistical physics	☐
Computer technology	☐	Surface physics	☐
Construction technology	☐	Thermodynamics	☐
Graphic techniques	☐	Electromagnetism	☐
High vacuum technology	☐	Optics	☐
Space technology	☐	Condensed matter properties	☐
Standardization of technologies	☐	Acoustics	☐
Telecommunications technology	☐	Classical mechanics	☐
Sound technology	☐	Computational physics	☐
Safety technology	☐	Chemical physics	☐
Production technology	☐	Biophysics	☐
Quantum technology	☐	Applied physics	☐
Remote sensing	☐		
Transport technology	☐	**Medical sciences**	☐
Vacuum technology	☐		
Water technology	☐	**Political sciences**	☐
Knowledge technology	☐	Science and society	☐
Laboratory technology	☐	Policy studies	☐
Marine technology	☐	Public awareness of science	☐
Internet technology	☐	Public policy	☐
Interface technology	☐		
Industrial technology	☐	**Sociology**	☐
Information technology	☐	Sociology of enterprise	☐

Instrumentation technology	☐	Social shaping of technology	☐
Materials technology	☐		
Measurement technology	☐		
Nanotechnology	☐		
Nuclear technology	☐		
Optronics	☐		
Mining	☐		
Military technology	☐		
Medical technology	☐		
Micro-technology	☐		

Universitatea Politehnica din București
Facultatea de Ingineria Sistemelor Biotehnice
Departamentul Sisteme Biotehnice
Informații concurs post nr. 35 pe perioadă nedeterminata

Universitate/ **Facultate/** **Departament**	Universitatea Politehnica din Bucuresti Facultatea de Ingineria Sistemelor Biotehnice Departamentul Sisteme Biotehnice
Poziţia în statul de funcţii	35
Funcţie	**Asistent**
Disciplinele din planul de învăţământ	Metode numerice; Sisteme avansate pentru dozarea și ambalarea produselor; Proiectare asistată de calculator; Inteligență artificială; Proprietăți fizice ale materialelor agroalimentare; Management tehnic avansat în sisteme biotehnice; Modelarea și simularea sistemelor biomecatronice; Instalații automate în industria alimentară; Sisteme automate de conducere a proceselor din industria alimentară; Proiectare asistată în ingineria mediului 2; Ambalaje și design în industria alimentară; Mașini și instalații pentru prelucrarea legumelor și fructelor; Informatică aplicată; Sisteme de transport și depozitare a produselor agroalimentare.
Domeniu ştiinţific	*Inginerie mecanică*
Descriere post	**Activităţi specifice postului:** Asistentul universitar desfășoară seminarii, laboratoare sau lucrări practice cu studenții. Acesta are misiunea de a asista titularii de curs în toate activitățile de predare, de aplicare a cunoștințelor și de evaluare. De asemenea, are în obiectul său de activitate realizarea unei cercetări științifice de calitate și aducerea rezultatelor acesteia în comunitatea științifică, prin publicații sau comunicări. Asistentul este cel care realizează majoritatea activităților didactice cu studenții (aplicații).
Atributiile/activitatile aferente	**Atribuţiile/activităţile aferente postului scos la concurs:** - colaborare permanentă cu titularul de curs; - activități de seminar, proiecte de an, lucrări practice și de laborator; - îndrumare de proiecte, lucrări de licență, practică productivă și cercetare științifică; - executarea de cercetări științifice; - monitorizarea activității de informare bibliografică și de pregătire aplicativă a studenților; - conducerea activităților didactice; - activități de evaluare a performanțelor prin note sau calificative; - consultații, îndrumare a cercurilor științifice studențești.
Salariul minim de incadrare	- în conformitate cu prevederile din Legea-cadru nr. 153 din 28 iunie 2017privind salarizarea personalului plătit din fonduri publice
Înscrierea la concurs	Conform calendarului concursului https://posturivacante.upb.ro/didactice/
Data susţinerii probelor **Locul susţinerii**	
Comunicare a rezultatelor	Ziua desfășurării ultimei probe de concurs conform programării probelor
Perioadă de contestaţii	3 zile lucrătoare după comunicarea rezultatelor conform calendarului concursului (exclusiv pentru nerespectarea procedurilor legale de concurs)

Tematica probelor de concurs	DISCIPLINELE • Metode numerice • Informatică aplicată • Management tehnic avansat în sisteme biotehnice **Metode numerice** 1. Rezolvarea ecuațiilor neliniare 2. Derivarea numerică Bibliografie: 1. Maican Edmond, Metode numerice, suport de curs electronic, https://curs.upb.ro/2022/course/view.php?id=6111 2. Chapra, S.C., Canale, R.P., Numerical methods for engineers, McGraw-Hill, Inc., New York, 2015, ISBN 13: 9780073397924 3. Hutchinson I.H., A Student's Guide to Numerical Methods, Cambridge University Press, 2015, ISBN 13: 9781107095670 **Informatică aplicată** 1. Copierea liniară și circulară a șabloanelor 2. Asamblări complexe Bibliografie: 1. Constantin G. A. – Proiectare asistată de calculator, suport curs in fomat electronic, Editia 2022, https://curs.upb.ro/2022/course/view.php?id=463 2. E. Maican, SolidWorks – Modelare 3D pentru ingineri, Ed. Printech, Bucureşti, 2006. 3. Liviu Stoica– Desenul digital în arhitectură, Bucuresti 2011, ISBN 978-973-0-10574-2 4. Filip V., Marin C., Gruionu L., Negrea A., proiectarea, modelarea, simularea sistemelor mecanice utilizând SolidWorks, CosmosMotion și CosmosWorks, Valahia University Press, Târgoviște, 2010 **Management tehnic avansat în sisteme biotehnice** 1. Sisteme inteligente ale agriculturii de precizie 2. Sisteme de conectare și comunicare în ferme Bibliografie: 1. Biriș Sorin-Ștefan, Management tehnic avansat in sisteme biotehnice, suport de curs electronic, https://curs.upb.ro/2022/course/view.php?id=??? 2. Norbert Schlingmann, Communications Networking on Agricultural Machinery, University of Cologne, 2016. 3. Ancha Srinivasan, Handbook of Precision Agriculture. Principles and Applications, Food Products Press®, The Haworth Press, Inc. N.Y., 2006. 4. James E. Addicott. The Precision Farming Revolution. Global Drivers of Local Agricultural Methods. Springer Nature Singapore Pte Ltd. 2020. 5. Hermann J. Heege. Precision in Crop Farming. Site Specific Concepts and Sensing Methods: Applications and Results. Springer Dordrecht Heidelberg New York London, 2013,
Descrierea procedurii de concurs	Candidatul va fi evaluat de către comisia de concurs din perspectiva: a) relevanţei şi impactului rezultatelor ştiinţifice; b) capacitatii candidatului de a îndruma studenţi sau tineri cercetători; c) competenţei didactice; d) capacitatii de a transfera cunoştinţele sale către mediul economic sau social ori de a populariza propriile rezultate ştiinţifice; e) capacitatii de a lucra în echipă şi eficienţa colaborărilor ştiinţifice ale acestuia, în funcţie de specificul domeniului; f) capacitatii de a derula sau conduce proiecte de cercetare-dezvoltare; g) experienţei profesională în alte instituţii decât UPB
lista completa a documentelor pe care candidatii trebuie sa le includa în dosarul de concurs	Conform art. II.5 din Metodologia privind ocuparea posturilor didactice și de cercetare vacante în UPB https://posturivacante.upb.ro/wp-content/uploads/2022/02/Metodologie.Concurs.UPB_.Modificata-2022.pdf
adresa la care trebuie transmis dosarul de concurs.	Rectorat UPB, camera R207 (în zilele lucrătoare) floarea.dragomir@upb.ro