Call for Competition
for 2022 Postdoctoral Job Positions
at the University of Hradec Králové

Postdoctoral job positions are offered to enhance existing and develop new research teams at the University of Hradec Králové.

Annexes:

1) Application Form for 2022 Postdoctoral Job Positions at the University of Hradec Králové
2) Activity Report – Monthly Progress Report Form for Postdoctoral Researcher Fellows Scheme

Final Provisions

This Decree becomes valid and effective on the day of its signature.

In Hradec Králové on 6 April 2022

Mgr. et Mgr. Pavlína Springerová, Ph.D.,
on behalf of Prof. Ing. Kamil Kuča, Ph.D.

Call for Competition
for 2022 Postdoctoral Job Positions
at the University of Hradec Králové

The Postdoctoral Job Positions are offered to enhance existing and develop new research teams at the University of Hradec Králové (hereinafter referred to as the UHK).

This call is announced **only for postdoctoral positions at the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management, especially for indoor localization/indoor positioning and for computer graphics.**

General conditions of the competition

The applicant must justify the necessity of the position and the relevance for the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management. He/she must, among other things, describe the planned research activities during his/her employment at the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management and the relation to the research performed by the researcher before.

The applicant must define specific and clear aims and benefits of his/her employment at the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management, e.g., establishment of new or expansion of the existing cooperation, development of networking, transfer of knowledge, or transfer of research methods. Benefit of his/her employment for the research of the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management will always be assessed.

The researcher is obliged to participate actively[1] in one conference/seminar/workshop organized by the UHK every 6 months of the employment. If the employment lasts 6 months, he/she must participate in

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[1] Active participation includes the researcher's contribution in the form of a presentation, poster presentation, or participation in a panel discussion. Researcher's active participation must be conclusively proved.

at least one such event. If the employment lasts for more than 6 months and a maximum of 12 months, he/she must participate in at least two such events. If the employment lasts for more than 12 months and a maximum of 18 months, he/she must participate in at least three such events.

The postdoctoral researcher will have a supervisor from the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management at disposal for consultations for the whole period of his/her employment. A faculty coordinator will be appointed to manage postdoctoral positions at the Faculty of Informatics and Management of the UHK.

The applicant will work according to the Schedule of his/her research work which he/she will submit together with the application form. It is necessary to specify precisely the verifiable research results that will be achieved (see Annex No. 1).

The completion of the Schedule of his/her research work will be checked regularly. The faculty coordinator and supervisor will review the activity report (see Annex No. 2) which will also be evaluated by the Evaluation Board every 3 months.

The applicant will have to submit to the faculty coordinator an activity report every month, on the basis of which his/her salary will be paid.

The position of a researcher may bear workload between **0.5** and **1.0**. Postdoctoral teams with a total workload of not more than 1.0 may also participate (e.g., three postdoctoral students with a workload of 0.4+0.3+0.3, or two postdoctoral students with a workload of 0.4+0.6).

The interest in the positions should be consulted at the Faculty of Informatics and Management of the UHK with the Vice-Dean for Science and Research (see the Contact data for those interested in the competition).

The applicant must meet all the following general criteria:

1) The applicant must be a postdoctoral researcher according to the following definition: *"A postdoctoral researcher is a researcher within 7 years after obtaining the Ph.D. degree title or its foreign equivalent"*[2]. If the applicant does not have the Ph.D. degree title, his/her title must correspond to ISCED Level 8 (International Standard Classification of Education).

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[2] The given period of time may be extended for the period of maternal and parental leave, long-term disease (lasting for more than 90 days), care for an ill family member (for more than 90 days), preparation for a specialist postgraduate examination, and military service.

2) The applicant has accomplished doctoral studies abroad or at any university in the Czech Republic except for the UHK. Inbreeding is not allowed.

3) The applicant must have very good knowledge of English.

4) The applicant must have a relevant publication activity – at least 3 publications within the last 3 years[3]. The relevant publications are publications registered in the Thomson Reuters Web of Science database of the JCR index (type "article", "letter" and "review"). In the fields of the SHV, SJR SCOPUS index is relevant (type "article", "book", "book chapter", "letter" and "review") or "book" or "book chapters" in selected TOP, SEMI TOP of the Foreign Publishing Houses and in the Czech Publishing Houses – see List of Prestigious Publishing Houses.

5) H-index – minimum 4, calculated according to the normalization table shown in How to Calculate the Normalized H-Index. Web of Science or Scopus are used as sources for H-index calculation. The calculation of the normalized H-index will be submitted together with other documents in accordance with the call conditions.

6) Compliance of the applicant's research activity with a prospective research area at the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management.

7) The employment must last between 6 and 18 months. The employment can start from **1 July 2022** and must end no later than on **31 December 2023**.

8) The researcher must be at least a half-time employee of the UHK and his/her place of employment must be in the Czech Republic.

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[3] The given period of time may be extended for the period of maternal and parental leave, long-term disease (lasting for more than 90 days), care for an ill family member (for more than 90 days), preparation for a specialist postgraduate examination, and military service.

The applicant for a postdoctoral position for indoor localization/indoor positioning must meet all the following specific criteria (as well as the general conditions for the applicant mentioned above):

1) Graduation in Doctoral Studies in the field of Computer Science;

2) Good knowledge of programming and machine learning algorithms (k-nearest neighbours, neural networks), knowledge of computer networks and wireless technologies (Bluetooth Low Energy, Ultra-Wideband);

3) Interest in indoor localization/indoor positioning, navigation, dead reckoning, sensor fusion;

4) Publications in the field of machine learning, regression methods, etc. the advantage of the publication in the field of radio localization.

The applicant for a postdoctoral position for computer graphics must meet all the following specific criteria (as well as the general conditions for the applicant mentioned above):

1) Graduation in Doctoral Studies in the field of Computer Science;

2) Good knowledge of programming, knowledge of graphics application programming, knowledge of GPU (shader technology) programming is an advantage;

3) Interest in computer graphics and visualization;

4) Publishing activities in the field of IT.

The Applicant shall submit the following documents:

1) Completed form – see Annex No. 1: Application form for 2022 Postdoctoral Job Positions at the University of Hradec Králové;

2) Diploma (and/or its recognition) – a simple copy;

3) Professional CV - **max. 2 pages**;

4) List of all achieved scientific results – **max. 2 pages**;

5) Project Proposal, including the Schedule of research work (a free form including a description of the plan of research activities and expected results; a Gantt diagram can be added) – **max. 2 pages**.

The estimated gross monthly wage with obligatory employer's and employee's deductions (taxes, social and health insurance) is 2, 350 EUR (full-time employment), the estimated gross monthly wage with obligatory employee's deductions is 1, 725 EUR (full-time employment) and the estimated net monthly wage is 1, 370 EUR (full-time employment).

Evaluation criteria of the quality and relevance

Two areas will be evaluated – the research purpose of the internship and the professional qualities of the candidate.

Research purpose of the internship

The relevance of the research plan, the obvious benefit for the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management in terms of promised outputs, as well as the potential of establishing long-term cooperation with the researcher and its parent workplace will be evaluated. Direct compliance with the research areas of the Department of Informatics and Quantitative Methods of the UHK Faculty of Informatics and Management and the promised preparation of joint research grants will be the advantage.

Professional qualities of the applicant:

– Number of articles indexed in JCR WoS, Articles in SJR SCOPUS, monographs from prestigious publishers will also be included in SHV;

– Number of articles in Q1 JCR WoS - Q1 in SJR SCOPUS, monographs from prestigious publishers will also be included in SHV;

– Solution of research projects;

– Solution of projects with an international participation;

– The value of the normalized h-index;

– Previous professional internships abroad.

Submission of applications

All the documents described above can be submitted by 30 April 2022. Please submit the application in an electronic form to Ing. Veronika Hrůzová (veronika.hruzova@uhk.cz).

Evaluation of applications

The Postdoctoral Selection Board members (at least 7 persons) are appointed by the Rector out of the representatives of the faculties and university management.

Contact data for those interested in the competition

Science and Knowledge Transfer Office of the UHK – Ing. Veronika Hrůzová, Coordinator for Science and Research Projects (veronika.hruzova@uhk.cz).

Faculty of Informatics and Management – prof. Ing. Hana Mohelská, Ph.D., Vice-Dean for Science and Research (hana.mohelska@uhk.cz).

List of Prestigious Publishing Houses

| LIST OF PRESTIGIOUS FOREIGN PUBLISHING HOUSES ||
CATEGORY TOP	CATEGORY SEMI-TOP
Academic Press	Allen and Unwin
Brepols	Australian National University Press
Blackwell	Ashgate/Avebury
Brill	Berg Publishers
California University Press	Bloomsbury
Cambridge University Press	Butterworth-Heinemann
Clarendon Press	Edward Elgar
Columbia University Press	Harper & Row Publishers
Cornell University Press	Heinemann
De Gruyter	Indiana University Press
Duke University Press	Karthala
Elsevier Science	Lexington Books
Harvard University Press	Lit Verlag
Hoover Institution Press	Multilingual Matters
John Benjamins	Pearson Education
John Wiley	Peter Lang
John´s Hopkins Unviersity Press	Pluto Press
Kluiwer Academic Publishers	Polity Press
Lynn Rienner Publishers	Rodopi
M. E. Sharpe Inc.	Rowman and Littlefield Publishers
MIT Press Cambridge Mass	Rutgers University Press
Nomos	Thomson – Sweet & Maxwell
Oxford University Press	University of North Carolina Press
Palgrave Macmillan	World Scientific
Pennsylvania University Press	Zed Bookd
Pergamon Press	CRC Press
Praeger	State University of New York Press
Princeton University	vdf, Hochsch. - Verl. an der ETH
Routledge	Berghan Books
Sage	Böhlau Verlag
Springer	C.H. Beck
Stanford University Press	ECPR Press
Suhrkamp Verlag	Edinburgh University Press
Taylor and Francis	Harrassowitz Verlag
University of Chicago Press	Minnesota University Press

University of Pennsylvania Press	Oxbow Books
Wiley	Vandenhoeck & Ruprecht
Wiley-Blackwell	
Yale University Press	

LIST OF PRESTIGIOUS CZECH PUBLISHING HOUSES

Academia, Akropolis, Argo, Grada, Host, Karolinum, Lidové Noviny, Pavel Mervart, Vyšehrad

Definition of Types of Outputs

J–a peer-reviewed article

A peer-reviewed article in a scientific periodical is an original article and/or a review article published in a scientific periodical (journal) notwithstanding the publisher´s country, presenting the original research outputs achieved by the author or a team that included the author. These are comprehensive texts featuring scientific works, organized as per the requirements of publisher(s) of the periodical in respect of the structure of scientific work (most frequently a summary, introduction, material and methods, outputs, discussion, conclusion, literature/sources overview) including the usual citation style, and an apparatus of footnotes, if any. These types of articles are usually placed in the group of original articles or the reviews in such scientific periodicals.

A scientific periodical means a peer-reviewed, periodically published scientific journal with a scientific editorial board, which is assigned only the ISSN or e-ISSN code, and is published in print-only, digital-only, or print-and-digital form, including an on-line release.

The articles in a scientific periodical are classified as follows:

- **Jimp – original**/review article in a scientific periodical which is included in the Web of Science database with the tag „Article", „Review", or „Letter";
- **Jsc** – original/review article in a scientific periodical which is included in the Scopus database with the tag „Article", „Review", or „Letter";
- **Jost** – original/review article in a scientific periodical which does not fit in any of the two foregoing groups, and which meets the general requirements for an article in a scientific periodical. The list of peer-reviewed non-impact scientific periodicals shall not be used.

The following are not considered to be scientific periodicals:

- Periodicals which do not have ISSN, nor e-ISSN assigned;
- Periodicals or extraordinary periodicals published under an ISSN and simultaneously under an ISBN in book form (this often occurs in case of conference papers which are registered in the WoS and Scopus databases. Outputs published in this type of source fall under outputs of type D);
- Periodicals for which the method of reviewing contributions is not published and/or established;
- Daily or newspaper press and the like, i.e. regular daily press, focused „popular–science" supplements to daily press, weekly newspapers, specialized newspapers;
- Non-fiction popular science periodicals intended for the general public, published by commercial publishers, public institutions, and others;
- Science-popularizing science periodicals intended for a broader professional public, e.g. published by professional societies, scientific institutions etc., in order to promote and popularize science;
- Periodicals of trade unions, political parties, associations etc.;
- Business and insurance periodicals;
- Standardised forms and newsletters;
- Special issues of journals in which texts of conference papers are published.

The following are not considered to be peer-reviewed articles:

- Reprints, abstracts, expanded abstracts (e.g. at conferences) etc., even if published in a specialised scientific periodical, articles of an informative or popularizing character on research outputs;
- Editorial materials, corrections, reviews, literature searches and summaries, even if published in a specialised scientific periodical;
- A preprint article, i.e. the version of the article published before the peer-review process;
- In case of articles under "Jost", those ones comprising fewer than 2 pages of text, exclusive of photographs, charts, map exhibits, images, tables, and/or.

B – Monograph

A monograph presents the outputs of research which was carried out by the author of the book or by a team of authors that included the author. A monograph is a non-periodical scientific publication comprising at least 50 printed pages of the author´s own text excluding exhibits such as photographs, graphics, maps etc., published in print or digitally, and reviewed by at least one broadly recognized expert in the respective field in the form of an expert review (such expert reviewer may not be from the author´s institution). Such monograph deals with a well-defined problem in a particular scientific field, includes the formulation of an identifiable and scientifically recognized methodology (explicitly formulated methodological bases and/or formulation of a new methodology based on previous theoretical research in the field). The formal attributes of a monograph are references to literature in the text, a list of citations, and possibly also an apparatus of footnotes, a bibliography of sources, and a summary in at least one world language.

A monograph has an ISBN or ISMN assigned. The whole book is developed by a unified team of authors (regardless of each team member's share in the content), even if the individual chapters of the book were written by different/separate authors. Scientific books include monographs, scholarly encyclopaedias and lexicons, critical editions of sources, critical editions of art (music, art etc.), materials accompanied by studies, critical commented translations of demanding philosophical, historical, or philological texts accompanied by studies, critical translations accompanied by commentary of demanding philosophical, historical or philological texts, scientifically designed dictionaries and Thesaurus- or encyclopaedia-type dictionaries in a given field, critical exhibition catalogues etc., as long as they meet the formal criteria set out above.

In case of a multi-volume scientific monograph, each volume may be recognized as an output if each volume alone meets the criteria and has been published as a separate publication with its own ISBN. If a monograph is recognized as type B output, its chapters may not be recognized as a type C output the same submitter.

The following are not considered to be monographs:

- Books that do not have an ISBN or ISMN assigned;
- Teaching texts (i.e. textbooks, coursebooks);
- Expert opinions and reports, studies, translations, manuals, information and promotional publications, yearbooks (except for those that meet the requirements of a monograph), annual or similar periodic reports;
- Common language dictionaries;
- Printed or digitally published research summaries, purpose-made summaries of specialist papers (e.g. within one institution);
- Printed or digitally published abstract summaries, or expanded abstracts, or oral communication from conferences;
- Methodological manuals, catalogues, and standards;
- Proceedings (individual contributions in the proceedings may be an output of type D);
- Fiction, non-fiction, travelogues, texts of theatre plays;
- Selective bibliographies, annual reports, speeches, reports, collections of students´ contest papers, tourist guides;
- Commercial translations from foreign languages;
- Memoirs, information materials, popularizing monographs, biographies, autobiographies, monographically issued final reports from grants or projects.

"Monograph" type of outputs are verified by a reference to a Digital Object Identifier (DOI) or Open Access (OA), traceability in an internationally recognized catalogue, or by a returnable borrowing from the reporting institution confirmed by the Provider.

C – Chapter in a monograph

A chapter in a monograph (if the book complies with the definition of type B output) may be acceptable if the entire book has only one editor, or in cases where the author is stated as a co-author (albeit with a minority share in the contents) of the entire book (on title page, on the back of title page), and is a member of the team of authors with clearly identified main authors. However, the chapter needs to have an individual author or team of authors.

If the monograph is classified as a type B output, its chapters cannot be included as a type C output for the same submitter.

D - Article in proceedings registered in the Scopus database or in the Web of Science Conference Proceedings Citation Index

An article in proceedings presents the original outputs of the research carried out by the author or the team that included the author. The article has the regular structure of scientific work including the citation style (it is not an abstract nor an extended abstract), and is published in proceedings.

The proceedings are reviewed non-periodical publications, published on the occasion of a conference, seminar, or symposium. They contain separate articles by various authors that usually have a mutual element or share a related topic, and have an ISBN and/or ISSN assigned.

An „article in proceedings" type of output is a paper with a total range of at least 2 pages, excluding photos, graphs, map exhibits, pictures, tables, and advertisements.

An "article in proceedings" type of output is an article which is registered:

- In the Scopus database in sources ("Sources") as a Book Series or Conference Proceedings, and has an ISBN and/or an ISSN assigned;
- In the Web of Science Conference Proceedings Citation Index database and has an ISBN and/or ISSN assigned;
- An article in a special issue of a journal registered in one of the above databases dedicated to the publication of conference papers.

The following texts are not considered to be articles in proceedings:

- Occasionally published summaries of scientific papers (e.g., within one institution, on the occasion of anniversaries, founding celebrations and/or annual conferences);
- Collected and/or published abstracts, or expanded abstracts;
- Articles assorted and published elsewhere etc.

How to Calculate the Normalized H-Index

The normalizing factor[1] f: $hN = f \times h$	
Discipline	**f**
Agricultural Sciences	1.27
Biology & Biochemistry	0.60
Chemistry	0.92
Clinical Medicine	0.76
Computer Science	1.75
Engineering	1.70
Environment/Ecology	0.88
Immunology	0.52
Materials Science	1.36
Mathematics	1.83
Microbiology	0.63
Molecular Biology & Genetics	0.44
Neuroscience & Behaviour	0.56
Pharmacology & Toxicology	0.84
Physics	1.00
Plant & Animal Science	1.08
Psychiatry	0.88
Space Science	0.74

[1]Source: Doing Hirsch proud; shaping H-index in engineering sciences.