

Special Criteria for Student Research Papers Submitted for the HSE University NIRS Competition in Computer Science

Dear students,

So that the experts may effectively assess your paper, please make sure to format it in line with the following criteria. Please see the outline below along with a brief description of each section.

Title Page

The title page should feature the title of your paper and its keywords (please refer to [Regulation 1](#)).

Abstract

The second page of your paper should include an abstract.

Paper classification according to [ACM CCS](#)

Please include your paper classification details on the second page under the abstract.

Examples of classification details:

ACM CSS: •Software and its engineering~Software creation and management~Designing software~Software design engineering•Software and its engineering~Software organization and properties~Contextual software domains•Applied computing~Document management and text processing~Document management

Contents

Introduction (1-2 pages)

Please provide a short description of the subject area.

Relevance. Show that your work features a solution to a real problem.

Describe what is being researched in your paper (**object of research**) and which part of this object is being analyzed (**subject of research**).

What is the **key goal** of your paper?

What **objectives** should be met in order to achieve your goal?

Overview of Sources

1. Description of the current situation in the subject field;
2. Comparative analysis of current analogues;
3. Selection of relevant methods/models/algorithms.

(don't forget to provide correct links to your sources)

Main Part

Theoretical section: prove relevant theorems, describe newly designed / utilized models/methods/algorithms;

and/or

Practical section: describe implementation / experiments and analyze generated results.

If one of the key results of your research is a software product/IT solution, you must provide a link to a repository with its source code / execution file / information system. You may also include a link to a video demonstrating the operation of your software product / hardware and software package / information system.

Conclusion

1. Provide a list of **key results generated**.
2. Specify the **academic innovation / practical value of your solution** (*each aspect of innovation/practical value should be concisely formulated in one sentence. E.g., "... was developed..., and it differs in that it..."*);
3. Highlight **your individual contribution** (*e.g., "section XXX describes the author's ideas for modifying the algorithm"*);
4. Possible applications of the generated results;
5. Areas of further research.

Bibliography

For works **in English**, we recommend relying on international formatting rules, e.g., IEEE or Springer:

Examples: [ftp://ftp.springernature.com/cs-](ftp://ftp.springernature.com/cs-proceeding/svproc/guidelines/Springer_Guidelines_for_Authors_of_Proceedings.pdf)

proceeding/svproc/guidelines/Springer_Guidelines_for_Authors_of_Proceedings.pdf.

For works **in Russian**: put them in alphabetical order and in line with GOST standards.

Examples:

Bibliography

1. Aggarwal, C. Mining text data / Charu C. Aggarwal, Cheng X. Zha. – USA: Springer Publisher Company, 2012 – 522 с.

For books

2. Agrawal, S. Dbxplorer: a system for keyword-based search over relational databases / S. Agrawal, S. Chaudhuri, and G. Das // Proceeding of the 18th Intl. Conference on Data Engineering. – IEEE Computer Society – 2002 – С. 5-16.

For articles in conference collections

3. Banerjee, A. A generalized maximum entropy approach to Bregman co-clustering and matrix approximation / A. Banerjee, I. Dhillon, J. Ghosh, S. Merugu, D. Modha // Journal of Machine Learning Research – 2007 – vol. 8 – С. 1919-1986.

For journal publications

4. Brin, S. The pagerank citation ranking: Bringing order to the web / L. Page, S. Brin, R. Motwani, and T. Winograd // [Электронный ресурс]: Stanford InfoLab, Technical Report 1999-66. – Режим доступа: <http://ilpubs.stanford.edu:8090/422/>, свободный. (дата обращения: 05.04.15).

For articles published on the Internet

5. Dhillon, I. Co-clustering documents and words using bipartite spectral graph partitioning / I. Dhillon // Proceedings of the Seventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining – New York, NY, USA: ACM – 2001 – С. 269-274.

For articles in conference collections

6. Hadoop MapReduce [Электронный ресурс] / http://hadoop.apache.org/docs/r1.2.1/mapred_tutorial.html, свободный. (дата обращения: 25.05.15)

For Internet sources

7. Kramarenko, A. Approximate bicluster and tricluster boxes in the analysis of binary data / B. Mirkin, A. Kramarenko // Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, ser. Lecture Notes in Computer Science / S. Kuznetsov, D. Izak, D. Hepting, and B. Mirkin (редакторы). – Springer Berlin Heidelberg, 2011. – С. 248–256.

For book chapters / articles in collections

Manning, C. Introduction to Information Retrieval / C. Manning, P. Raghavan, and H. Schütze. – New York, NY, USA: Cambridge University Press, 2008 – 544 с.

For books

Ramos, J. Using TF-IDF to Determine Word Relevance in Document Queries [Электронный ресурс]: Technical Report, 2003 – Режим доступа: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.121.1424&rep=rep1&type=pdf>, свободный. (дата обращения: 15.04.15).

For articles published on the Internet

10. Дубов, М.С. Аннотированные суффиксные деревья: особенности построения // Доклады по компьютерным наукам и информационным технологиям / М.С. Дубов, Е.Л. Черняк // Доклады по компьютерным наукам и информационным технологиям – М.: Физматлит, 2008. – С. 10-15.

For articles in conference collections

технологиям – 2013 – №2 – Доклады всероссийской научной конференции «Анализ изображений, сетей и текстов» (АИСТ 2013). М: Национальный Открытый Университет ИНТУИТ, апрель 2013 – С. 49-57.

11. Маркин, А.К. Bianalyzer is a Python package for bicluster analysis over unstructured text data [Электронный ресурс] / GitHub. Режим доступа: <https://github.com/luntos/bianalyzer>, свободный. (дата обращения: 25.05.15)
12. Миркин, Б.Г. Использование мер релевантности строка-текст для рубрикации научных статей / Е.Л. Черняк, Б.Г. Миркин // Бизнес-информатика – 2014 – №2 (28) – С. 51–62.

For Internet sources

For journal publications