



“LEPE” - INTERNATIONAL JOURNAL LIGHTING ENGINEERING & POWER ENGINEERING

Introduction

International Journal «*Lighting Engineering & Power Engineering*» (LEPE)¹ is not a for profit organization. LEPE is a quarterly published, open source journal and operates an online submission with the peer review system allowing authors to submit articles online and track their progress via its web interface. LEPE seeks to promote and disseminate knowledge of the various topics and technologies of lighting engineering, energy resources and electrical engineering. The journal aims to present to the international community important results of work in the fields of renewable energy research, development, application or design. The journal also aims to help researchers, scientists, manufacturers, institutions, world agencies, societies, etc. to keep up with new developments in theory and applications and to provide alternative energy solutions to current issues such as the greenhouse effect, sustainable and clean energy issues.

The authors submit their articles to the editor through the web-interface of the site <https://lepe.kname.edu.ua>. Each paper submitted to the LEPE Journal is sent to an examination by three reviewers (the "blind review" policy). The review procedure takes up to 4 weeks. When reviewing, in addition to evaluating the work itself, papers are checked for the presence of plagiarism and relevance to the topics of the magazine.

The journal is published regularly, according to an established schedule, with a period 4 times per year. The journal editorial board aims for a publication period of 60 days from submission until final publication.

LEPE International Journal is published 4 times per a year.

- The coverage of LEPE includes the following areas, but not limited to:
- Creating of new light sources
- Studies of the light effect on humans

¹ The journal is included in the “List of specialized scientific publications of Ukraine in the field of technical sciences” (order of the Ministry of Education and Science of Ukraine dated May, 10, 2017 No. 693). Articles published in LEPE can be included in the list of references of PhD and post-doctoral theses.

- Energy-saving technologies in lighting and power engineering
- The use of computer-aided design in lighting and power engineering
- Artistic and architectural lighting
- Power quality
- Automation of lighting and power supply processes
- Standardization and certification in lighting and power industry
- Renewable Energy
- New technologies in power supply systems
- Power generation
- Power conversion systems
- The use of artificial intelligence in the field of renewable energy sources
- Electric generators
- Electrical apparatuses in power supply systems
- Power saving
- Smart grids in electric power industry
- Cybersecurity in the power industry
- Thermoelectric energy
- Environmental issues in lighting and power engineering
- Trends in the development of lighting and power engineering

LEPE International Journal accepts the materials of authors' own research that have not been previously published in English by the following categories:

- research work;
- technical developments;
- abstract surveys;
- comparative case studies;
- design and implementation;
- review of works that are at the research stage;
- Publication of invited scholars on special issues.



Editorial Board

Editor in Chief:



Professor, Dr.Sc.

Vladyslav Pliuhin

O.M. Beketov National University of Urban Economy in Kharkiv,
Kharkiv, Ukraine



Phone: +38 (099) 213-07-48

Fax: (0572) 706-15-54

E-mail: vladyslav.pliuhin@kname.edu.ua, lepe@kname.edu.ua

WEB: <http://kname.edu.ua/>

Skype for business: vladyslav.pliuhin@kname.edu.ua

ORCID: <http://orcid.org/0000-0003-4056-9771>

Scopus ID: 57189379637, h-index = 2

Web of Science ResearcherID: F-4627-2018

Research Gate: https://www.researchgate.net/profile/Vladyslav_Pliuhin

Google Scholar: https://scholar.google.com.ua/citations?user=aE_bPSAAAAAJ&hl=ru

LinkedIn: www.linkedin.com/in/vladyslavpliuhin-b96922141

Microsoft Academic: <https://academic.microsoft.com/#/profile>

SSRN: 3034546

Reviewer of the "International Journal of Renewable Energy" (<http://www.ijrer.org/>)

Journal Manager:



Master Student

Anastasiya Dashchenkova

Phone: +38(050) 597-79-33

E-mail: Anastasiya.Dashchenkova@kname.edu.ua

lepe@kname.edu.ua

Editorial Board Members:

Pos.	Information of the Editorial Board Member	Personal Picture
1 	<p>Valeriy Yagup Professor, Dr.Sc. O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: yagup.walery@gmail.com ORCID: 0000-0002-7019-3499 Scopus ID: 56545669700, h-index = 2 Web of Science ResearcherID: F-8575-2018 Google Scholar: https://scholar.google.com.ua/citations?user=ft081v4AAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/walery-yagup-07bb3284/</p>	

Pos.	Information of the Editorial Board Member	Personal Picture
2 	<p>Glib Petchenko Professor, Dr.Sc. O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: gdaeron@ukr.net Scopus ID: 6506147806, h-index = 4 Web of Science ResearcherID: D-2174-2018 Google Scholar: https://scholar.google.com.ua/citations?user=Crdz8h4AAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/petchenko-glib-8o81b6166/</p>	
3 	<p>Pavlo Nevezhnikov Professor, Dr.Sc. O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: pavlo.nevezhnikov@kname.edu.ua ORCID: 0000-0002-5727-6089 Scopus ID: 54400218600, h-index = 1 Web of Science ResearcherID: D-2270-2018 Research Gate: https://www.researchgate.net/profile/P_Nevezhnikov Google Scholar: https://scholar.google.com.ua/citations?user=B1zCNq4AAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/pavel-nevezhnikov-63b161a3/</p>	
4 	<p>Dmytro Tugay Professor, Dr.Sc. O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: tugaydmytro@gmail.com ORCID: 0000-0003-2617-0297 Scopus ID: 35115703700, h-index = 1 Web of Science ResearcherID: G-3702-2018 Google Scholar: https://scholar.google.com.ua/citations?user=dNYDD7AAAAJ&hl=ru</p>	
5 	<p>Anatoliy Soskov Professor, Dr.Sc. O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: anatoliy.soskov@kname.edu.ua ORCID: https://orcid.org/0000-0002-2088-1736 Scopus ID: 57189849046, h-index = 1 Google Scholar: https://scholar.google.ru/citations?user=N4ZzykAAAAJ&hl=ru</p>	
6 	<p>Vyacheslav Karas Professor, Dr.Sc. O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: vyacheslav.karas@kname.edu.ua Scopus ID: 35611231800, h-index = 5 Google Scholar: https://scholar.google.com.ua/citations?user=KXziDDsAAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/vyacheslav-karas-61129a38/</p>	
7 	<p>Dmytro Kalyuzhnyi Assistant Professor, PhD O.M. Beketov National University of Urban Economy in Kharkiv, Kharkiv, Ukraine E-mail: kalyuzhnyi@kname.edu.ua ORCID: 0000-0002-7374-0734 Scopus ID: 8729793200, h-index = 2 Research Gate: https://www.researchgate.net/profile/Dmitry_Kalyuzhnyi Google Scholar: https://scholar.google.com.ua/citations?user=Zo7KuUEAAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/dmitriy-kalyuzhnyi-67a24793/</p>	
8 	<p>Mykola Zablodskiy Professor, Dr.Sc. National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine E-mail: zablodskiy@kname.edu.ua ORCID: 0000-0001-8889-8158 Scopus ID: 55923967000, h-index = 2 Web of Science ResearcherID: O-8435-2018 Google Scholar: https://scholar.google.com.ua/citations?user=he73Jo4AAAAJ&hl=ru</p>	







Pos.	Information of the Editorial Board Member	Personal Picture
9 	Болух Володимир Федорович Professor, Dr.Sc. National Technical University "Kharkiv Polytechnic Institute", м. Харків, Україна E-mail: bolukh@kpi.kharkov.ua ORCID: 0000-0001-9115-7828 Scopus ID: 6602384476, h-index = 4 Web of Science ResearcherID: B-5869-2016 Research Gate: https://www.researchgate.net/profile/V_Bolyukh Google Scholar: https://scholar.google.com.ua/citations?user=xWTuCsAAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/bolyukh-new-novyj-g-mail-a54b4755/	
10 	Шведчикова Ірина Олексіївна Professor, Dr.Sc. Kyiv National University of Technologies and Design, Kyiv, Ukraine E-mail: ishved89@ukr.net ORCID: 0000-0003-3005-7385 Scopus ID: 6503887672, h-index = 3 Web of Science ResearcherID: O-2765-2018 Research Gate: https://www.researchgate.net/profile/Irina_Shvedchikova Google Scholar: https://scholar.google.com.ua/citations?user=RPo84yAAAAJ&hl=ru	
11 	Reserve	
12 	Reserve	
13 	Ilhami Colak Professor, Dr.Sc. Gazi University, Ankara, Turkey E-mail: icolak@gazi.edu.tr ORCID: 0000-0002-6405-5938 Scopus ID: 6602990030, h-index = 21 Research Gate: https://www.researchgate.net/profile/Ilhami_Colak Google Scholar: https://scholar.google.com.tr/citations?user=bpJQuyoAAAAJ&hl=en LinkedIn: https://www.linkedin.com/in/ilhami-colak-a9641719/ Editor in Chief of international journal "International Journal of Renewable Energy" (http://www.ijrer.org/)	
14 	Seref Sagiroglu Professor, Dr.Sc. Gazi University, Ankara, Turkey a E-mail: ss@gazi.edu.tr ORCID: 0000-0003-0805-5818 Scopus ID: 7003371572, h-index = 23 Research Gate: https://www.researchgate.net/profile/Seref_Sagiroglu Google Scholar: https://scholar.google.com.tr/citations?hl=tr&user=aQWCNn4AAAAJ&view_op LinkedIn: https://www.linkedin.com/in/seref-sagiroglu-03a6823/	
15 	Halil Ibrahim Bulbul Professor, Dr.Sc. Gazi University, Ankara, Turkey E-mail: bhalil@gazi.edu.tr ORCID: 0000-0002-6525-7232 Scopus ID: 15836807000, h-index = 5 Research Gate: https://www.researchgate.net/profile/Halil_Bulbul Google Scholar: https://scholar.google.com.ua/citations?user=PDT_IAsAAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/halil-ibrahim-b%C3%BCb%C3%BCl-17345719/	

LEPE Authors' Guidelines

Pos.	Information of the Editorial Board Member	Personal Picture
16 	<p>Jan Bauer Assistant Professor, PhD Czech Technical University in Prague, Prague, Czech Republic E-mail: bauerja2@fel.cvut.cz ORCID: 0000-0002-0657-1213 Scopus ID: 36682498900, h-index = 4 Web of Science ResearcherID: A-9812-2015 Research Gate: https://www.researchgate.net/profile/Jan_Bauer2 LinkedIn: https://www.linkedin.com/in/jan-bauer-a0213356/</p>	
17 	<p>Yochanan Shachmurove Professor, Dr.Sc. City College of the City University of New York New York, USA E-mail: yshachmurove@ccny.cuny.edu ORCID: 0000-0002-0236-6474 Scopus ID: 6603568176, h-index = 12 Research Gate: https://www.researchgate.net/profile/Yochanan_Shachmurove Google Scholar: https://scholar.google.com.ua/citations?user=_wYB1_4AAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/yochanan-shachmurove-539605116/</p>	
18 	<p>Liisa Halonen Professor, Dr.Sc. Aalto University, Espoo, Finland E-mail: liisa.halonen@aalto.fi ORCID: 0000-0002-6553-9459 Scopus ID: 8451864700, h-index = 15 LinkedIn: https://www.linkedin.com/in/liisa-halonen-668a665/</p>	
19 	<p>Pawel Sowa Professor, Dr.Sc. Silesian University of Technology, Gliwice, Poland E-mail: pawel.sowa@polsl.pl ORCID: 0000-0001-6179-2572 Scopus ID: 6603604783, h-index = 12 Research Gate: https://www.researchgate.net/profile/Pawel_Sowa Google Scholar: https://scholar.google.com.ua/citations?user=ERQe_rC5AAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/pawe%C5%82-sowa-ab141932/</p>	
20 	<p>Lukasz Kaczmarek Professor, Dr.Sc. Lodz University of Technology, Lodz, Poland E-mail: lukaszkaczmarek78@gmail.com Scopus ID: 35327155300, h-index = 8 Research Gate: https://www.researchgate.net/profile/Lukasz_Kaczmarek3 LinkedIn: https://www.linkedin.com/in/%C5%82lukasz-kaczmarek-a0163968/</p>	
21 	<p>Frangiskos V. Topalis Professor, Dr.Sc. National Technical University Of Athens, Athens, Greece E-mail: topalis@ieee.org ORCID: 0000-0002-4281-6054 Scopus ID: 6701686661, h-index = 12 Research Gate: https://www.researchgate.net/profile/Frangiskos_Topalis Google Scholar: https://scholar.google.com.ua/citations?user=qbQN4ygAAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/frangiskos-topalis-5486a341/</p>	



Pos.	Information of the Editorial Board Member	Personal Picture
22 	Georges Zissis Professor, Dr.Sc. Paul Sabatier University, Toulouse, France E-mail: georges.zissis@laplace.univ-tlse.fr ORCID: 0000-0002-7582-5686 Scopus ID: 57016428700, h-index = 16 Web of Science ResearcherID: J-1646-2015 Research Gate: https://www.researchgate.net/profile/Georges_Zissis Google Scholar: https://scholar.google.com.ua/citations?user=q5iujj8AAAAJ&hl=ru LinkedIn: https://www.linkedin.com/in/georges-zissis-9b88887/	
23 	Grega Bizjak Professor, Dr.Sc. University of Ljubljana, Ljubljana, Slovenia E-mail: grega.bizjak@fe.uni-lj.si ORCID: 0000-0002-3068-607X Scopus ID: 6602867969, h-index = 5 Research Gate: https://www.researchgate.net/profile/Grega_Bizjak	

Publishing Ethics

The publication of a paper in the peer-reviewed International Journal "Lighting Engineering & Power Engineering" is an important element in building a coherent and respected network of knowledge. This is a direct reflection of the quality of work. The reviewed papers process support and implement the scientific method. Therefore, it is important to agree on the standards of anticipated ethical behavior for all participants in the publication process: the author, editor of the journal, expert review, publisher and those journals that belong to the community or sponsored.

Editors Duties

- Making a decision on publication
- Honest game
- Confidentiality
- Compliance with the policy of disclosure and conflict of interest
- Refrain from publishing own papers or to be a co-author of papers that are published in the LEPE Journal.

Reviewers Responsibilities

- Contribution to the editorial decision
- Fast feedback
- Confidentiality
- Objectivity
- Understanding origin
- Compliance with the policy of disclosure and conflict of interest

Authors Responsibilities

- Compliance with standards
- Intime feedback with the journal editorial staff
- Data access and data storage
- Understanding the originality of research and plagiarism
- Prevent duplication



- Understanding origin
- Copyright
- Prevention of hazards and objects that harm humans or animals
- Compliance with the policy of disclosure and conflict of interest
- Prevent errors in published works

Publisher Responsibilities

We strive to ensure that advertising, reprinting or other commercial revenues do not affect the editorial decision to accept papers for publication. In addition, LEPE will help in communicating with other journals and / or publishers, if it is useful for editors. Finally, we work closely with other publishers and industry associations to set standards for best practices on ethical issues, errors and feedback, and prepared to provide specialized legal auditing and advice, if necessary. As a part of our commitment to protecting and enhancing the peer review process, LEPE is committed to providing assistance to the scientific community in all aspects of publication ethics, especially in cases of (suspicious) duplication of papers or plagiarism.

Rights and Responsibilities

In LEPE Journal, we require the transfer of copyrights or, in some cases, exclusive rights from the authors of our journal to ensure that we have the rights necessary for the proper management of electronic rights and the online distribution of journal papers. The authors and their employers retain (or receive / pass back) significant scientific rights in their work. We take serious responsibility for online preservation to ensure the integrity of scientific papers and the durability of journal business models.

Compliance with standards

The authors of the original research materials should provide an accurate description of the performed work, as well as an objective discussion of its significance. Basic data must be accurately reflected in the work. The document must contain enough details and links to allow others to reproduce such work. Fraudulent or deliberately inaccurate statements are unethical behavior and inappropriate. The review and publication of professional publications should be accurate and objective, and editorial "thoughts" should be clearly defined.

Access and Data Saving

The editorial board may ask the author to provide additional information on the results of the research for editorial review. Authors should be prepared to provide the public access with such data, wherever possible, and in any case be prepared to store such data within a reasonable time after publication.

Originality and plagiarism

The authors must make sure that they have written entirely original works. If the authors used this work and / or the statements of others, this was duly indicated. Plagiarism takes many forms, from the "submission" of another article as an author's own document, to copying or re-framing significant parts of another document (without attribution) to claim the results of research conducted by others. Separately, we must warn about self-plagiarism, when the previous studies of the authors are presented to him as new or without proper quotation. Plagiarism in all its forms is unethical publishing behavior and is unacceptable.

Duplicate and submit articles to several publishers

The author should not generally publish manuscripts that essentially describe the same study in several journals or primary editions. The submission of the same manuscript to several magazines simultaneously represents the unethical behavior of the publishing house and is unacceptable. In general, the author should not submit a previously published document in another journal. The publication of certain types of articles (for example, recommendations, translations) in several journals is sometimes justified, subject to certain conditions. The authors and editors of the relevant journals must agree to a secondary publication, which should reflect the same data and interpretation of the original document. The basic reference should be in another post.

Understanding origin

It is always necessary to give proper confirmation of the work of other persons. Authors should refer to publications that have influenced the nature of the work presented. Information received privately, such as in conversation, correspondence or discussion with third parties, should not be used or communicated without explicit, written permission from the source. Information obtained during the performance of confidential duties, such as the review of manuscripts or applications for grants, should not be used without the written permission of the author of such work.



Prevention of hazards and objects that harm humans or animals

If the work involves the use of chemicals, procedures or equipment that have unusual dangers inherent in their use, the author must clearly identify them in the manuscripts. If the work involves the use of animals or objects by a person, the author must ensure that the manuscript contains a statement that all procedures are carried out in accordance with the relevant laws and institutional rules, and that the relevant institutional committees have approved them. Authors should include in the manuscript the statement that an informed consent was obtained to achieve experimentation with humans. Human rights must always be respected.

Personal images and personal information

Patient studies or volunteers require the approval of the ethical commission and informed consent that needs to be documented. Required permissions, permissions and releases must be obtained if the author wants to include in the LEPE case information or other personal information or images of patients and others. Written consent must be kept by the author, and copies of permissions or evidence that such consent has been obtained should be provided by LEPE upon request. Particular attention should be given to obtaining consent if it concerns children (in particular, if the child has special needs or needs training), where the head or person appears, or if the name of the person or other personal data is indicated.

Conflict of interest

A conflict of interest may exist when the author or institution of the author has financial or other relationships with other people or organizations that may inappropriately influence the work of the author. The conflict may be real or potential, and full disclosure of the magazine is the safest course. All submissions should include the disclosure of all relationships that may be considered as representing a potential conflict of interest. The journal may use such information as the basis for making editorial decisions and may publish such information if it is considered important for readers when assessing the manuscript. The magazine may not make a decision to publish on the basis of a declared conflict. At the end of the text under the subtitle "Statement of Disclosure", all authors should disclose any actual or potential conflicts of interest, including any financial, personal or other relationship with other people or organizations within (3) three years from the commencement of work that could improperly influence (bias) on their work. Examples of potential conflicts of interest to be disclosed include employment, consultancy, joint stock companies, remuneration, expert evidence paid, patent

applications / registrations and grants or other funding. Potential conflicts of interest should be disclosed at the earliest stage. All sources of financial support for the project should be disclosed. This declaration (with the title "The role of the source of funding") should be made in a separate section of the text and placed before the links. The authors should describe the role of the sponsor of the study, if any, in the research project; in collecting, analyzing and interpreting data; in writing the report; and in the decision to file a document for publication.

Prevent errors in published works

When the author finds a significant error or inaccuracy in his own published work, the author must immediately notify the editor of the magazine or publisher and collaborate with the editor to recall or correct the article. If the editor or publisher learns from a third party that a published work contains a significant error, the author must promptly recall or correct the document or provide proof to the editor of the correctness of the original.

Copyright

The authorship should be limited to those who have made a significant contribution to the development, design, execution or interpretation of the reported research. Anyone who has made a significant contribution must be registered as a co-author. Where there are other persons who have participated in certain essential aspects of a research project, they must be recognized or indicated as participants. The appropriate author should make sure that all the rapporteurs and inappropriate collaborators are not included in this document and that all co-authors have seen and approved the final version of the article and agreed to its submission for publication. As the author of the magazine, you and your institution or company retain the rights to use their own publications in the LEPE journal. These rights are retained without the need to obtain a special permission from the LEPE. These include:

- The right to make copies (printed or electronic) of journal articles for personal use, including for use in the educational process;
- The right to copy and distribute copies (including by e-mail) of a journal article for research by colleagues for the personal use of such colleagues for scientific purposes;



- The right to publish a pre-release version of a journal article on web pages, including isolated servers, and to keep such a version on servers or sites for scientific purposes;
- The right to publish a revised personal version of the text of the final article of the magazine on your personal or institutional web site or server for scientific purposes;
- The right to use a magazine article or any part thereof in a collection of your works, for example, collected works or lecture notes.

Making changes to copyright

This policy concerns the addition, deletion or rearrangement of copyright names in the author's part of the accepted manuscripts.

A) Before publishing the accepted manuscript in the online release:

Requests to add or remove an author or repositioning author names must be sent to the logger by the responsible author of the adopted manuscript and must contain:

- The reason is that the name should be added or deleted, or the author's name should be changed
- Written confirmation (e-mail, fax, letter) from all authors that they agree with adding, removing or re-grouping. In the case of adding or deleting authors, this includes a confirmation from the author that is added or removed.
- Requests that are sent by a non-responsible author will be forwarded by the logger to the responsible author, who must complete the procedure described above.

Note that:

- Journal managers inform the editor of the magazine about any similar queries
- The publication of the adopted manuscript in the online release will be suspended until its authorship is agreed upon.

B) After the accepted manuscript was published in the online release:

Any requests for adding, deleting, or resharing author names in an article published online will comply with the same rules as above and can be corrected.

Процедура подання

We hope that these recommendations will be useful during the final review of the article before sending it to the STEE Editor for review. Please read this author's guide for more information. Make sure you have the following items:

Paper template was selected and correctly used:

- Paper was formatted in accordance with a file "Template-1_En.doc", downloaded from the "Submissions" Journal webpage.
- The paper is written in English

For the author responsible for correspondence, it is shown:

- E-mail address
- Full post address
- Phone number and (if exist) Fax number

The files on the submission website page were uploaded with the following requirements:

- Key Words: minimum 4
- All pictures and tables have a caption
- The paper was formatted according with *Template-1_En.doc*

Other demands:

- The manuscript was checked for grammatical and stylistic errors;
- References to literature sources are made in accordance with the requirements, specified in the *Appendix A*;
- All references mentioned in the list of sources are given in the text, and vice versa;
- Permission to use copyrighted materials has been obtained from other sources (including the Internet);
- The drawings are in black and white color.



Paper Formatting

Authors must comply with the requirements for the articles set out in this manual for authors and paper templates, otherwise their articles may be rejected even without prior review. The editors reserve the right to change the style of the article in accordance with certain unified international standards. Pay attention to writing the title, authors, affiliations, annotations, keywords, introduction, materials and research methods, theory / calculations, conclusions, thanksgiving, a list of references in the paper. Responsible author should be marked with a "star" and a signboard. Specify special messages to the editor in a separate section at the end of the article and do not include them on the title page, as a footnote to the title or otherwise.

Abstract and Key Words:

The abstract of the paper should contain up to 250 words. This is not only a conclusion, but a brief overview of the entire document, which allows one to get an idea of the work done without reference to the rest of the article. The abstract should not contain references to other published works. Identify up to 6 keywords that describe your article in order to further indexing.

Abbreviations and reductions

Specify all abbreviations and word reductions found in the text. Shortcuts such as IEEE, SI, MKS, CGS, AC, DC and rms do not need to be explained. Do not use abbreviations in the title of the paper, except where this cannot be avoided.

References:

Please make sure that each link in the text is also included in the list of literary sources (and vice versa). Any references in the annotation must be provided in full in its text. Reference numbering is performed sequentially in the order of mentioning in square brackets [1]. Signs of punctuation are putted outside of parentheses [2]. Use the reference designation as "Ref. [3] "in the text and" Reference [3] " at the beginning of the sentence. For papers published in translated journals, first show the English translation, and then transliteration in Latin of the original text. Examples of references formatting for various types of literary sources are given in *Appendix A*.

Text Formatting

Papers submitted for publication in the LEPE International Journal are prepared by the authors in accordance with the requirements shown in the short form below and in detail in a document template "Template-1_En.doc". Margins of A4 format pages: upper = 24 mm, lower = 24 mm, side = 15 mm. The main text should be placed in two columns. Column width is 87 mm (3.425 inches). The space between two columns is 6 mm (0.236 inches). The paragraph indent is 3.5 mm (0.137 inches). Used font sizes for the different text types are shown in a Table 1.

Table 1. Explanation of the properties of accepted manuscripts

Font size (pt.)	View		
	Normal	Bold	<i>Italic</i>
10	Co-authors, abstract, keywords, references, tables, table captions, figures captions, footnotes, lower and upper indices	Abstract	
12	Main text, equation, authors, chapter titles		<i>Chapter (1.1.)</i>
24	Paper Title		

Place pictures and tables in the top or bottom of the columns right after the first mention of them.

Avoid placing pictures and tables before their first mention in the text. Avoid placing drawings and tables in the middle of the columns.

Large figures and tables can hold both columns. Signatures to the image should be located below the image. Signatures for the table should be located at the top. Use the abbreviation "Fig. 1" even at the beginning of the sentence.



APPENDIX A

FORMATTING OF THE REFERENCES LIST TO THE INFORMATION SOURCES

Periodicals (journal papers)

Format:

[1] J. K. Author, "Name of paper," *Abbrev. Title of Periodical*, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year.

Examples:

- [1] R. E. Kalman, "New results in linear filtering and prediction theory," *J. Basic Eng.*, ser. D, vol. 83, pp. 95-108, Mar. 1961.
- [2] J. U. Buncombe, "Infrared navigation—Part I: Theory," *IEEE Trans. Aerosp. Electron. Syst.*, vol. AES-4, pp. 352-377, Sept. 1944.
- [3] _____, "Infrared navigation—Part II: An assessment of feasibility," *IEEE Trans. Aerosp. Electron. Syst.*, vol. AES-4, pp. 588-613, Nov. 1944.
- [4] H. Eriksson and P. E. Danielsson, "Two problems on Boolean memories," *IEEE Trans. Electron. Devices*, vol. ED-11, pp. 32-33, Jan. 1959.
- [5] F. Aronowitz, "Theory of traveling-wave optical maser," *Phys. Rev.*, vol. 134, pp. A635-A646, Dec. 8, 1965.
- [6] Ye. V. Lavrova, "Geographic distribution of ionospheric disturbances in the F2 layer," *Tr. IZMIRAN*, vol. 19, no. 29, pp. 31-43, 1961 (Transl.: E. R. Hope, Directorate of Scientific Information Services, Defence Research Board of Canada, Rep. T384R, Apr. 1963).
- [7] E. P. Wigner, "On a modification of the Rayleigh-Schrodinger perturbation theory," (in German), *Math. Naturwiss. Anz. Ungar. Akad. Wiss.*, vol. 53, p. 475, 1935.
- [8] E. H. Miller, "A note on reflector arrays," *IEEE Trans. Antennas Propag...*, to be published.***
*Always use this style when the article is accepted or scheduled for publication ****
- [9] C. K. Kim, "Effect of gamma rays on plasma," submitted for publication. *** *Always use this style when an article is submitted, but not yet accepted for publication ****
- [10] W. Rafferty, "Ground antennas in NASA's deep space telecommunications," *Proc. IEEE* vol. 82, pp. 636-640, May 1994.
- [11] J. S. Turner, "New directions in communications," *IEEE J. Select. Areas Commun.*, vol. 13, pp. 11-23, Jan. 1995.
- [12] L. T. Wu *et al.*, "Real-time analytic sensitivity method for transient security assessment and prevent control," *Proc. Inst. Elect. Eng.*, vol. 135, pt. C, pp. 107-117, Mar. 1988.
- [13] *Special Issue on Artificial Neural Network Applications*, *Proc. IEEE*, vol. 84, pp. 1353-1576, Oct. 1996.

Reference to an article in the same issue:

LEPE Authors' Guidelines

- [1] R. U. Aslip, "Surface and leaky wave antennas," *IEEE Trans. Circuits Syst. I*, vol. 30, pp. 545–546, Jan. 2000.

Books

Format:

- [1] J. K. Author, "Title of chapter in the book," in *Title of His Published Book*, xth ed. City of Publisher, Country if not USA: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx–xxx.

Examples:

- [1] B. Klaus and P. Horn, *Robot Vision*. Cambridge, MA: MIT Press, 1986.
- [2] L. Stein, "Random patterns," in *Computers and You*, J. S. Brake, Ed. New York: Wiley, 1994, pp. 55-70.
- [3] R. L. Myer, "Parametric oscillators and nonlinear materials," in *Nonlinear Optics*, vol. 4, P. G. Harper and B. S. Wherret, Eds. San Francisco, CA: Academic, 1977, pp. 47-160.
- [4] M. Abramowitz and I. A. Stegun, Eds., *Handbook of Mathematical Functions* (Applied Mathematics Series 55). Washington, DC: NBS, 1964, pp. 32-33.
- [5] E. F. Moore, "Gedanken-experiments on sequential machines," in *Automata Studies* (Ann. of Mathematical Studies, no. 1), C. E. Shannon and J. McCarthy, Eds. Princeton, NJ: Princeton Univ. Press, 1965, pp. 129-153.
- [6] Westinghouse Electric Corporation (Staff of Technology and Science, Aerospace Div.), *Integrated Electronic Systems*. Englewood Cliffs, NJ: Prentice-Hall, 1970.
- [7] M. Gorkii, "Optimal design," *Dokl. Akad. Nauk SSSR*, vol. 12, pp. 111-122, 1961 (Transl.: in L. Pontryagin, Ed., *The Mathematical Theory of Optimal Processes*. New York: Interscience, 1962, ch. 2, sec. 3, pp. 127-135).
- [8] G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, vol. 3, *Polymers of Hexadromicon*, J. Peters, Ed., 2nd ed. New York: McGraw-Hill, 1964, pp. 15-64.

Reports

The common form for citation of technical reports is to post the name and location of the company or institution name after the author, as well as the number and date of the report at the end of the reference.

Format:

- [1] J. K. Author, "Title of report," Abbrev. Name of Co., City of Co., Abbrev. State, Rep. xxx, year.

Example:

- [1] E. E. Reber, R. L. Michell, and C. J. Carter, "Oxygen absorption in the earth's atmosphere," Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1988.
- [2] J. H. Davis and J. R. Cogdell, "Calibration program for the 16-foot antenna," Elect. Eng. Res. Lab., Univ. Texas, Austin, Tech. Memo. NGL-006-69-3, Nov. 15, 1987.



- [3] R. E. Haskell and C. T. Case, “Transient signal propagation in lossless isotropic plasmas,” USAF Cambridge Res. Labs., Cambridge, MA, Rep. ARCRL-66-234 (II), 1994, vol. 2.
- [4] M. A. Brusberg and E. N. Clark, “Installation, operation, and data evaluation of an oblique-incidence ionosphere sounder system,” in “Radio Propagation Characteristics of the Washington-Honolulu Path,” Stanford Res. Inst., Stanford, CA, Contract NOBSR-87615, Final Rep., Feb. 1995, vol. 1.
- [5] P. Diament, S. L. Richert, and W. L. Lupatkin, “V-line surface-wave radiation and scanning,” Dept. Elect. Eng., Columbia Univ., New York, Sci. Rep. 85, Aug. 1991.

Tutorials, schoolbooks and manuals

Format:

- [1] *Name of Manual/Handbook*, x ed., Abbrev. Name of Co., City of Co., Abbrev. State, year, pp. xxx-xxx.

Examples:

- [1] *Transmission Systems for Communications*, 3rd ed., Western Electric Co., Winston-Salem, NC, 1985, pp. 44–60.
- [2] *Motorola Semiconductor Data Manual*, Motorola Semiconductor Products Inc., Phoenix, AZ, 1989.
- [3] *RCA Receiving Tube Manual*, Radio Corp. of America, Electronic Components and Devices, Harrison, NJ, Tech. Ser. RC-23, 1992.

Materials of the conference

The general form of the citation of the conference materials is to indicate the author and the title of the article, and then the name (and place, if exist) of the conference in italics using the following standard abbreviations:

Annals	Ann.	Proceedings	Proc.
Annual	Annu.	Record	Rec.
Colloquium	Colloq.	Symposium	Symp.
Conference	Conf.	Technical Digest	Tech. Dig.
Congress	Congr.	Technical Paper	Tech. Paper
Convention	Conv.	Workshop	Workshop
Digest	Dig.	First	1st
Exposition	Expo.	Second	2nd
International	Int.	Third	3rd
Meeting	Meeting	Fourth/nth...	4th/nth...
National	Nat.		

LEPE Authors' Guidelines

Avoid using phrases “of the” and “on” when making reference to conference materials. Instead, write down: *Proceedings of the 1996 Robotics and Automation Conference Proc. 1996 Robotics and Automation Conf.*

NOTE: All published conference materials should have page numbers.

Format:

[1] J. K. Author, “Title of paper,” in *Unabbreviated Name of Conf.*, City of Conf., Abbrev. State (if given), year, pp. xxx-xxx.

Examples:

[1] G. R. Faulhaber, “Design of service systems with priority reservation,” in *Conf. Rec. 1995 IEEE Int. Conf. Communications*, pp. 3–8. *** Якщо рік проведення конференції присутній у її назві, його треба видалити з кінця опису джерела.***

[2] S. P. Bingulac, “On the compatibility of adaptive controllers,” in *Proc. 4th Annu. Allerton Conf. Circuit and System Theory*, New York, 1994, pp. 8–16.

[3] W. D. Doyle, “Magnetization reversal in films with biaxial anisotropy,” in *1987 Proc. INTERMAG Conf.*, pp. 2.2-1–2.2-6.

[4] C. T. Meadow and D. W. Waugh, “Computer assisted interrogation,” in *1991 Fall Joint Computer Conf., Proc. AFIPS Conf.*, vol. 29. Washington, DC: Spartan, 1991, pp. 381–394. *** Зверніть увагу на відсутність <проміжку> між “vol. 29.” та “Washington.”***

[5] P. C. Parks, “Lyapunov redesign of model reference adaptive control systems,” in *1993 Joint Automatic Control Conf., Preprints*, pp. 485–491.

[6] C. Janow, “Guidance and control components for space applications,” in *Proc. Nat. Electronics Conf.*, 1994, vol. 24, pp. 30-35.

[7] T. S. Hsia, “System identification,” in *IEDM Tech. Dig.*, 1993, vol. 2, no. 8, pp. 6–13.

Articles presented at the conference

Format:

[1] J. K. Author, “Title of paper,” presented at the Unabbrev. Name of Conf., City of Conf., Abbrev. State, year.

Examples:

[1] M. Mayer, presented at the 4th Congr. Permanent Magnets, Grenoble, France, Mar. 1995.

[2] J. G. Kreifeldt, “An analysis of surface-detected EMG as an amplitude-modulated noise,” presented at the 1989 Int. Conf. Medicine and Biological Engineering, Chicago, IL.

[3] G. W. Juette and L. E. Zeffanella, “Radio noise currents on short sections on bundle conductors,” presented at the IEEE Summer Power Meeting, Dallas, TX, June 22-27, 1990, Paper 90 SM 690-0 PWR5.



- [4] J. Arrillaga and B. Giessner, "Limitation of short-circuit levels by means of HVDC links," presented at the IEEE Summer Power Meeting, Los Angeles, CA, July 12–17, 1990, Paper 70 CP 637.

Patents

Format:

- [1] J. K. Author, "Title of patent," U.S. Patent x xxx xxx, Abbrev. Month, day, year.

Example:

- [1] J. P. Wilkinson, "Nonlinear resonant circuit devices," U.S. Patent 3 624 125, July 16, 1990.

NOTE: Specify the "issued date" if several dates are given.

Master's thesis (M.S.) and dissertation (Ph.D.)

Format:

- [1] J. K. Author, "Title of thesis," M.S. thesis, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

- [2] J. K. Author, "Title of dissertation," Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

Examples:

- [1] J. O. Williams, "Narrow-band analyzer," Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, 1993.

- [2] N. Kawasaki, "Parametric study of thermal and chemical nonequilibrium nozzle flow," M.S. thesis, Dept. Electron. Eng., Osaka Univ., Osaka, Japan, 1993.

- [3] N. M. Amer, "The effects of homogeneous magnetic fields on developments of tribolium confusum," Ph.D. dissertation, Radiation Lab., Univ. California, Berkeley, Tech. Rep. 16854, 1995.

*** This abbreviation is used if the name of the institution is the name of the state, for example "Univ. California, Berkeley."***

- [4] C. Beclé, These de doctoral d'état, Univ. Grenoble, Grenoble, France, 1968.

Unpublished works

There are two common formats for writing unpublished works.

Format :

- [1] J. K. Author, private communication, Abbrev. Month, year.

- [2] J. K. Author, "Title of paper," unpublished.

Examples:

- [1] A. Harrison, private communication, May 1995.

- [2] B. Smith, "An approach to graphs of linear forms," unpublished.

- [3] A. Brahms, "Representation error for real numbers in binary computer arithmetic," IEEE Computer Group Repository, Paper R-67-85.

Standards

Format:

- [1] *Title of Standard*, Standard number, date.

Examples:

- [1] *IEEE Criteria for Class IE Electric Systems*, IEEE Standard 308, 1969.
[2] *Letter Symbols for Quantities*, ANSI Standard Y10.5-1968.

Electronic information sources

The guidelines for citing electronic information as offered here are in modified illustration of the adaptation by the International Standards Organization (ISO) documentation system and the American Psychological Association style.

Books and monographs

Format:

- [1] J. K. Author. (year, month day). *Title* (edition) [Type of medium]. volume(issue). Available: site/path/file

Examples:

- [1] S. Khutaina. (1995, Aug. 15). *EMBASE handbook* (3rd ed.) [Online]. 3(21). Available: Knowledge Index File: EMBASE Handbook (EMHB)

Format for FTP:

- [1] J. K. Author. (year). *Title* (edition) [Type of medium]. Available FTP: Directory: File:

Example:

- [1] R. J. Vidmar. (1994). *On the use of atmospheric plasmas as electromagnetic reflectors* [Online]. Available FTP: atmnext.usc.edu Directory: pub/etext/1994 File: atmosplasma.txt

Format for WWW:

- [1] J. K. Author. (year, month day). *Title* (edition) [Type of medium]. Available: http://www.(URL)

Example:

- [1] J. Jones. (1991, May 10). *Networks* (2nd ed.) [Online]. Available: http://www.atm.com

Format for E-Mail:

- [1] J. K. Author. (year, month day). *Title* (edition) [Type of medium]. Available e-mail: Message:

Example:

- [1] S. H. Gold. (1995, Oct. 10). *Inter-Network Talk* [Online]. Available e-mail: COMSERVE@RPIECS
Message: Get NETWORK TALK



Format for Telnet:

[1] J. K. Author. (year, month day). Title (edition) [Type of medium]. Available Telnet: Directory:

File:

Example:

[1] V. Meligna. (1993, June 11). *Periodic table of elements* [Online]. Available Telnet: Library.CMU.edu Directory: Libraries/Reference Works File: Periodic Table of Elements

Full-text databases-Periodicals

Professional editions

Format:

[1] J. K. Author. (year, month). Title. *Journal* [Type of medium]. *volume(issue)*, paging if given.
Available: site/path/file

Examples:

[1] J. Bourke. (1995, Mar.). A comparison of RF electrode models. *J. Phys.* [CD-ROM]. 32(4), RD2-RD3. Available: JPY File: Science Periodicals Ondisc Item: 95-76401 .

[2] R. J. Vidmar. (1992, Aug.) On the use of atmospheric plasmas as electromagnetic reflectors. *IEEE Trans. Plasma Sci.* [Online]. 21(3), pp. 876–880. Available: <http://www.halcyon.com/pub/journals/21ps03-vidmar>

Format for FTP:

[1] J. K. Author. (year, month). Title. *Journal* [Type of medium]. *volume(issue)*, paging if given.
Available FTP: Directory: File:

Example:

[1] R. P. Drew. (1996, Jan.). All-digital oversampled front-end sensors. *Science Online* [Online]. 3(1).
Available FTP: sci.mit.edu Directory: pub/journals/sci.online/issue12 File: 012bel5.txt

Format for WWW:

[1] J. K. Author. (year, month day). Title. *Journal* [Type of medium]. *volume(issue)*, paging if given.
Available: [http://www.\(URL\)](http://www.(URL))

Example:

[1] M. Semilof. (1996, July 15). Driving commerce to the Web—Corporate Intranets and the Internet: Lines blur. *Communications Week* [Online]. 6(19). Available: <http://www.techweb.com/se/directlink.cgi?CWK19960715S0005>

Format for E-Mail:

[1] J. K. Author. (year, month). Title. *Journal* [Type of medium]. *volume(issue)*, paging if given.
Available e-mail: Message:

Example:

[1] J. Frasene. (1992, July/Aug.). Least squares theory. *The Electronic Journal of Automation* [Online]. 6(8). Available e-mail: listserv@nasum.cc.edu Message: Get [frasene 992] eja-f@mail
Format for Telnet:

[1] J. K. Author. (year, month). Title. *Journal* [Type of medium]. volume(issue), paging if given.
Available Telnet: Directory: File:

Example:

[1] P. Darien. (1992, Jan.). Buying science. *Quantum* [Online]. 4(3). Available Telnet:
gopher.tp.umn.edu Directory: Libraries/Newspapers, Magazines, and Newsletters/Technical
Journals/Quantum/ASCII Issues/Volume V Issue 3 January 1992 File: "Buying Science" by
P. Darien.

Periodical popular science publications

Format:

[1] J. K. Author. (year, month day). Title. *Magazine* [Type of medium]. paging if given. Available:
site/path/file

Example:

[1] S. Fujii and Y. Mikami. (1991, Apr. 20). Construction aspects of intelligent buildings. *IEEE
Communications Mag.* [CD-ROM]. pp. 50-57. Available: UMI File: IPO (IEEE/IEE Publications
Ondisc) Item: 3939837

Format for FTP:

[1] J. K. Author. (year, month day). Title. *Magazine* [Type of medium]. paging if given. Available
FTP: Directory: File:

Example:

[1] R. Young. (1994, Dec. 2). Summary of meta fonts available. *TexMag* [Online]. Available FTP:
sum.soe.clarkson.edu Directory: pub/tex/texmag File: texmag.4.06

Format for WWW:

[1] J. K. Author. (year, month day). Title. *Magazine* [Type of medium]. paging if given. Available:
[http://www.\(URL\)](http://www.(URL))

Examples:

[1] A. Stuart, Ed. (1996, Dec. 3). Business in the wake of the Web. *WebMaster Mag.* [Online].
Available: <http://www.cio.com/cgi-bin/gate2?~>

[2] L. Brigman (1997, Feb.). The never-ending story. *WebMaster Mag.* [Online]. Available:
http://www.cio/WebMaster/020197_field_content.html



Format for E-Mail:

Basic Format:

[1] J. K. Author. (year, month day). Title. *Magazine* [Type of medium]. paging if given. Available e-mail:

Message:

[1] A. Harriman. (1993, June 28). Compendium of genealogical software. *Humanist* [Online]. 2(41). Available e-mail: HUMANIST@NYVM Message: Get GENEALOGY REPORT

Format for Telnet:

[1] J. K. Author. (year, month day). Title. *Magazine* [Type of medium]. Available Telnet: Directory: File:

Example:

[1] S. Bene. (1990, July 21). Queues at information desks. *Com* [Online]. Available Telnet: gopher.uet.edu Directory: Libraries/Newspapers, Magazines, Newsletters/EE/EECom File: V.21.3Jul90

Full-text database – Other sources

Articles presented at conferences

Format:

[1] J. K. Author. Title. presented at Conference title. [Type of Medium]. Available: site/path/file

Example:

[1] Process Software Corp., MA. Intranets: Internet technologies deployed behind the firewall for corporate productivity. presented at INET'96 Annu. Meeting [Online]. Available: <http://www.process.com/Intranets/wp2.htm>

Reports and Manuals

Format:

[1] J. K. Author. (year, month). Title. Company. City, State or Country. [Type of Medium]. Available: site/path/file

Examples:

[1] S. L. Talleen. (1996, Aug.). The IntraNet Architecture: Managing information in the new paradigm. Amdahl Corp, CA. [Online]. Available: <http://www.amdahl.com/doc/products/bsg/intra/intra/html>

[2] Netscape Communications Corp. (1997, Dec.). The new way to share workgroup information. [Online]. Available: <http://home.netscape.com/comprod/a>

State documents

Format:

[1] Legislative body. Number of Congress, Session. (year, month day). Number of bill or resolution, Title. [Type of medium]. Available: site/path/file

Example:

[1] U.S. House. 102nd Congress, 1st Session. (1991, Jan. 11). H. Con. Res. 1, Sense of the Congress on Approval of Military Action. [Online]. Available: LEXIS Library: GENFED File: BILLS

Patents

Format:

[1] Name of the invention, by inventor's name. (year, month day). Patent Number [Type of medium]. Available: site/path/file

Example:

[1] Musical toothbrush with adjustable neck and mirror, by L.M.R. Brooks. (1992, May 19). Patent D 326 189 [Online]. Available: NEXIS Library: LEXPAT File: DESIGN

References to sources published in Ukrainian or Russian

Use for transliteration in Ukrainian: <http://www.translit.kh.ua/> (standard BGN / PCGN (1965))

Use for transliteration in Russian: <http://translit.net/> (BSI)

Format:

[1] Автори. ***Транслітерація латиницею або англійською для англомовних джерел*** Назва статті, доповіді, конференції ***Транслітерація латиницею *** [Назва статті, доповіді, конференції] ***Переклад англійською*** Місто або країна ***Переклад англійською***, видання, рік, сторінки. (В дужках вказати мову оригіналу джерела in Russian / in Ukrainian).

Examples:

Books

[1] M.Ye. Ilchenko and S.O. Kravchuk. *Telekomunikatsiini sistemi shirokosmugovogo radiodostupu* [Telecommunication broadband radio systems]. Kyiv, Ukraine: Naukova dumka, 2009. (In Russian).

[2] Y.A. Hepko, V.F. Oleynyk, Yu.D. Chayka and A.V. Bondarenko. *Sovremennye besprovodnye seti: sostoyanie i perspektivy razvitiya* [Modern wireless networks: state and prospects]. Kyev, Ukraine: EKYO, 2009. (In Russian).

Reports at the conference

[3] T.N. Narytnik, E.A. Domracheva and V.Ya. Kazymyrenko. "Analiz effektivnosti ispol'zovaniya millimetrovogo diapazona elektromagnitnykh voln dlya peredachi dannykh [Analysis of efficiency of millimeter wave electromagnetic waves for data transmission]," in *Materialy Vos'moyi Mizhnarodnoyi*



naukovotekhnichnoyi konferentsiyi «Problemy telekomunikatsiy» [Proceeding of 8th International Scientific and Technical conference “Telecommunicational systems problems”], 2014, pp.134-136. (In Russian).

Papers

[4] M.Ye. Ilchenko, T.N. Narytnik, B.N. Shelkovnykov and V.Y. Khrystenko.

“Radiotelekomunikatsionnye sistemy teragertsovogo diapazona [Radio Telecommunication systems of terahertz range].” *Elektronika i svyaz'*, no.3, pp.205-210, 2011. (In Russian).

[5] M.Ye. Ilchenko, S.O. Kravchuk and T.M. Narytnik. “Bezprovodovi systemy zv'yazku subterahertsovoho ta terahertsovoho diapazoniv. [Wireless communication systems subterahertz and terahertz bands].” *Tsyfrovi tekhnolohiyi*, no. 16, pp.40-59, 2014. (In Ukrainian).

Electronic publications

[6] “RTI” vedet printsipial'no novye razrabotki v oblasti obrabotki informatsii [“RTI” is a fundamentally new developments in the field of processing informatsi].” *Interfax-AVN*. 2014. http://vpk.name/news/118789_rti_vedet_principalno_novye_razrabotki_v_oblasti_obrabotki_informatsii.html. (In Russian).

Papers in English in domestic editions

[7] M.Ye. Ilchenko, T.N. Narytnik, A.I. Fisun, and O.I. Belous. “Terahertz range telecommunication systems.” *Telecommunications and Radio Engineering*, vol.70, issue 16, pp.1477-1487, 2011. DOI: 10.1615/TelecomRadEng.v70.i16.60.

[8] M.Ye. Ilchenko, T.N. Narytnik, S.Ye. Kuzmin, A.I. Fisun, O.I. Belous and V.N. Radzikhovskiy. “Transceiver for 130-134 GHz band and digital radiorelay system.” *Telecommunications and Radio Engineering*, vol.72, issue 17, pp. 1623-1638, 2013.-. DOI: 10.1615/TelecomRadEng.v72.i17.70

Electronic publications in English on domestic resources

[9] Lou Frenzel. (2013, May). “Millimeter Waves Will Expand The Wireless Future. Part 1.” *Elektronnyi zhurnal "RadioLotsman"*. [On-line]. 05. Available:

<http://www.rlocman.ru/review/article.html?di=148430> [Sep. 28, 2016].

[10] Lou Frenzel. (2013, Jun). “Millimeter Waves Will Expand The Wireless Future. Part 2.” *Elektronnyi zhurnal "RadioLotsman"*. [On-line]. 06. Available:

<http://www.rlocman.ru/review/article.html?di=151504> [Sep. 28, 2016].

General text abbreviations used in writing information sources

Acoustics	Acoust.	Machine	Mach.
Administration	Admin.	Magazine	Mag.
Administrative	Administ.	Management	Manage.
American	Amer.	Managing	Manag.
Analysis	Anal.	Mathematic(s)	Math.
Annals	Ann.	Mathematical	Math.
Annual	Annu.	Mechanical	Mech.
Apparatus	App.	National	Nat.
Applications	Applicat.	Newsletter	Newslett.
Applied	Appl.	Nuclear	Nucl.
Association	Assoc.	Occupation	Occupat.
Automatic	Automat.	Philosophical	Philosph.
Broadcasting	Broadcast.	Proceedings	Proc.
Business	Bus.	Processing	Process.
Communications	Commun.	Production	Prod.
Computer(s)	Comput.	Productivity	Productiv.
Congress	Congr.	Quarterly	Quart.
Convention	Conv.	Record	Rec.
Correspondence	Corresp.	Reliability	Rel.
Cybernetics	Cybern.	Report	Rep.
Department	Dept.	Royal	Roy.
Development	Develop.	Science	Sci.
Digest	Dig.	Selected	Select.
Economic(s)	Econ.	Society	Soc.
Education	Educ.	Sociological	Sociol.
Electrical	Elect.	Statistics	Stat.
Electronic	Electron.	Studies	Stud.
Engineering	Eng.	Supplement	Suppl.
Industrial	Ind.	Symposium	Symp.
Industry	Ind.	Systems	Syst.
Information	Inform.	Technical	Tech.
Institute	Inst.	Telecommunication	Telecommun.
Intelligence	Intell.	Transactions	Trans.
International	Int.	Vehicular	Veh.
Journal	J.	Working	Work.
Letter(s)	Lett.	Workshop	Workshop