Paper’s title should be the fewest possible words that accurately describe the content of the paper (Center, Bold, 16pt)

**Laith Mohammad Abualigah1,2, Arnold Adimabua Ojugo3, Deepika Koundal4 (10 pt)**

1Department of Software Engineering, Faculty of Computer Sciences and Informatics, Amman Arab University, Amman, Jordan (8 pt)

2School of Computer Sciences, Universiti Sains Malaysia (USM), Gelugor, Malaysia

3Department of Mathematics/Computer Science, Federal University of Petroleum Resources Effurun, Warri, Nigeria

4Department of Computer Science and Engineering, Institute of Engineering and Technology, Chitkara University, Rajpura, India

|  |  |  |
| --- | --- | --- |
| **Article Info** |  | **ABSTRACT** (10 PT) |
| ***Article history:***  Received month dd, yyyy  Revised month dd, yyyy  Accepted month dd, yyyy |  | An abstract is often presented separate from the article, so it must be able to stand alone. A well-prepared abstract enables the reader to identify the basic content of a document quickly and accurately, to determine its relevance to their interests, and thus to decide whether to read the document in its entirety. The abstract should be informative and completely self-explanatory, provide a clear statement of the problem, the proposed approach or solution, and point out major findings and conclusions. **The Abstract should be 100 to 200 words in length.** References should be avoided, but if essential, then cite the author(s) and year(s). Standard nomenclature should be used, and non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself. No literature should be cited. The keyword list provides the opportunity to add 5 to 7 keywords, used by the indexing and abstracting services, in addition to those already present in the title (9 pt). |
| ***Keywords:***  First keyword  Second keyword  Third keyword  Fourth keyword  Fifth keyword |
| *This is an open access article under the* [*CC BY-SA*](https://creativecommons.org/licenses/by-sa/4.0/) *license.* |
| ***Corresponding Author:***  Laith Mohammad Abualigah  Department of Software Engineering, Faculty of Computer Sciences and Informatics Amman Arab University  Jordan street, Amman, Jordan  Email: ojugo.arnold@fupre.edu.ng | | |

1. **INTRODUCTION (10 PT)**

The main text format consists of a flat left-right columns on A4 paper (quarto). The margin text from the left and top are 2.5 cm, right and bottom are 2 cm. The manuscript is written in Microsoft Word, single space, Time New Roman 10 pt, and maximum 12 pages for original research article, or maximum 16 pages for review/survey paper, which can be downloaded at the website: http://ijict.iaescore.com.

A title of article should be the fewest possible words that accurately describe the content of the paper. The title should be succinct and informative and no more than about 12 words in length. Do not use acronyms or abbreviations in your title and do not mention the method you used, unless your paper reports on the development of a new method. Titles are often used in information-retrieval systems. Avoid writing long formulas with subscripts in the title. Omit all waste words such as "*A study of ...*", "*Investigations of ...*", "*Implementation of ...*”, "*Observations on ...*", "*Effect of.....*", “*Analysis of …*”, “Design of…”, etc.

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself. Immediately after the abstract, provide a maximum of 7 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Indexing and abstracting services depend on the accuracy of the title, extracting from it keywords useful in cross-referencing and computer searching. An improperly titled paper may never reach the audience for which it was intended, so be specific.

The Introduction section should provide: i) a clear background, ii) a clear statement of the problem, iii) the relevant literature on the subject, iv) the proposed approach or solution, and v) the new value of research which it is innovation (within 3-6 paragraphs). It should be understandable to colleagues from a broad range of scientific disciplines. Organization and citation of the bibliography are made in Institute of Electrical and Electronics Engineers (IEEE) style in sign [1], [2] and so on. The terms in foreign languages are written italic (*italic*). The text should be divided into sections, each with a separate heading and numbered consecutively [3]. The section or subsection headings should be typed on a separate line, e.g., 1. INTRODUCTION. A full article usually follows a standard structure: **1.** **Introduction, 2. The Comprehensive Theoretical Basis and/or the Proposed Method/Algorithm (Optional), 3. Method,   
4. Results and Discussion, and 5. Conclusion.** The structure is well-known as **IMRaD** style.

Literature review that has been done author used in the section "INTRODUCTION" to explain   
the difference of the manuscript with other papers, that it is innovative, it are used in the section "RESEARCH METHOD" to describe the step of research and used in the section "RESULTS AND DISCUSSION" to support the analysis of the results [2]. If the manuscript was written really have high originality, which proposed a new method or algorithm, the additional section after the "INTRODUCTION" section and before the "RESEARCH METHOD" section can be added to explain briefly the theory and/or the proposed method/algorithm [4].

1. **RESEARCH METHOD (10 PT)**

Explaining research chronological, including research design, research procedure (in the form of algorithms, Pseudocode or other), how to test and data acquisition [5]–[7]. The description of the course of research should be supported references, so the explanation can be accepted scientifically [2], [4]. Figures 1-2 and Table 1 are presented center, as shown below and cited in the manuscript [5], [8]–[13]. The variation of average repeater spacing RR, km against number of links as shown in Figure 1(a) and initial Raman pump wavelength shown in Figure 1(b).

|  |  |
| --- | --- |
|  |  |
| (a) | (b) |
| Figure 1. Variation of average repeater spacing RR, km against (a) number of links and  (b) initial Raman pump wavelength | |

Table 1. The performance of ...

|  |  |  |
| --- | --- | --- |
| Variable | Speed (rpm) | Power (kW) |
| x | 10 | 8.6 |
| y | 15 | 12.4 |
| z | 20 | 15.3 |

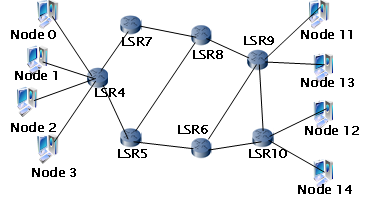


Figure 2. The architecture of MPLS network

1. **RESULTS AND DISCUSSION (10 PT)**

In this section, it is explained the results of research and at the same time is given   
the comprehensive discussion. Results can be presented in figures, graphs, tables and others that make   
the reader understand easily [14], [15]. The discussion can be made in several sub-sections.

**3.1. Sub section 1**

Equations should be placed at the center of the line and provided consecutively with equation numbers in parentheses flushed to the right margin, as in (1). The use of Microsoft Equation Editor or MathType is preferred.

) (1)

All symbols that have been used in the equations should be defined in the following text.

**3.2. Sub section 2**

Proper citation of other works should be made to avoid plagiarism. When referring to a reference item, please use the reference number as in [16] or [17] for multiple references. The use of ”Ref [18]...” should be employed for any reference citation at the beginning of sentence. For any reference with more than 3 or more authors, only the first author is to be written followed by *et al.* (e.g. in [19]). Examples of reference items of different categories shown in the References section. Each item in the references section should be typed using 8 pt font size [20]–[25].

3.2.1. Subsub section 1

yy

3.2.2. Subsub section 2

zz

1. **CONCLUSION (10 PT)**

Provide a statement that what is expected, as stated in the "INTRODUCTION" section can ultimately result in "RESULTS AND DISCUSSION" section, so there is compatibility. Moreover, it can also be added the prospect of the development of research results and application prospects of further studies into the next (based on result and discussion).

**ACKNOWLEDGEMENTS (10 PT)**

Author thanks ... . In most cases, sponsor and financial support acknowledgments.

**REFERENCES (10 PT)**

The main references are international journals and proceedings. All references should be to the most pertinent, up-to-date sources **and the minimum of references** are **25 entries** (for original research paper)and **50 entries** (for review/survey paper). References are written in **IEEE style**. For more complete guide can be accessed at (http://ipmuonline.com/guide/refstyle.pdf). Use of a tool such as **EndNote**, **Mendeley**, or **Zotero** for reference management and formatting, and choose **IEEE style**. Please use a consistent format for references-see examples (8 pt):

1. **Journal/Periodicals**

*Basic Format:*

J. K. Author, “Title of paper,” *Abbrev. Title of Journal/Periodical*, vol. *x,* no. *x,* pp*. xxx-xxx,* Abbrev. Month, year, doi: *xxx*.

*Examples:*

* M. M. Chiampi and L. L. Zilberti, “Induction of electric field in human bodies moving near MRI: An efficient BEM computational procedure,” *IEEE Trans. Biomed. Eng.*, vol. 58, pp. 2787–2793, Oct. 2011, doi: 10.1109/TBME.2011.2158315.
* R. Fardel, M. Nagel, F. Nuesch, T. Lippert, and A. Wokaun, “Fabrication of organic light emitting diode pixels by laser-assisted forward transfer,” *Appl. Phys. Lett.*, vol. 91, no. 6, Aug. 2007, Art. no. 061103, doi: 10.1063/1.2759475.

1. **Conference Proceedings**

*Basic Format:*

J. K. Author, “Title of paper,” in *Abbreviated Name of Conf.*, (location of conference is optional), year, pp. *xxx–xxx*, doi: *xxx.*

*Examples:*

* G. Veruggio, “The EURON roboethics roadmap,” in *Proc. Humanoids ’06: 6th IEEE-RAS Int. Conf. Humanoid Robots*, 2006, pp. 612–617, doi: 10.1109/ICHR.2006.321337.
* J. Zhao, G. Sun, G. H. Loh, and Y. Xie, “Energy-efficient GPU design with reconfigurable in-package graphics memory,” in *Proc. ACM/IEEE Int. Symp. Low Power Electron. Design (ISLPED)*, Jul. 2012, pp. 403–408, doi: 10.1145/2333660.2333752.

1. **Book**

*Basic Format:*

J. K. Author, “Title of chapter in the book,” in *Title of His Published Book*, X. Editor, Ed., *x*th ed. City of Publisher, State (only U.S.), Country: Abbrev. of Publisher, year, ch. *x*, sec. *x*, pp. *xxx–xxx.*

*Examples:*

* A. Taflove, *Computational Electrodynamics: The Finite-Difference Time-Domain Method* in Computational Electrodynamics II, vol. 3, 2nd ed. Norwood, MA, USA: Artech House, 1996.
* R. L. Myer, “Parametric oscillators and nonlinear materials,” in *Nonlinear Optics*, vol. 4, P. G. Harper and B. S. Wherret, Eds., San Francisco, CA, USA: Academic, 1977, pp. 47–160.

1. **M. Theses (B.S., M.S.) and Dissertations (Ph.D.)**

*Basic Format:*

J. K. Author, “Title of thesis,” M.S. thesis, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

J. K. Author, “Title of dissertation,” Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

*Examples:*

* J. O. Williams, “Narrow-band analyzer,” Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, USA, 1993.
* N. Kawasaki, “Parametric study of thermal and chemical nonequilibrium nozzle flow,” M.S. thesis, Dept. Electron. Eng., Osaka Univ., Osaka, Japan, 1993.

\*In the reference list, however, list all the authors for up to six authors. Use *et al.* only if: 1) The names are not given and 2) List of authors more than 6. *Example*: J. D. Bellamy *et al.*, Computer Telephony Integration, New York: Wiley, 2010.

*See the examples:*

**REFERENCES**

[1] A. Chakraborty and A. K. Kar, “Swarm Intelligence: A Review of Algorithms,” in *Nature-Inspired Computing and Optimization. Modeling and Optimization in Science and Technologies*, Springer, 2017, pp. 475–494.

[2] Q. Li *et al.*, “An Enhanced Grey Wolf Optimization Based Feature Selection Wrapped Kernel Extreme Learning Machine for Medical Diagnosis,” *Comput. Math. Methods Med.*, vol. 2017, pp. 1–15, 2017, doi: 10.1155/2017/9512741.

[3] N. M. Arzeno, Z.-D. Deng, and C.-S. Poon, “Analysis of First-Derivative Based QRS Detection Algorithms,” *IEEE Trans. Biomed. Eng.*, vol. 55, no. 2, pp. 478–484, Feb. 2008, doi: 10.1109/TBME.2007.912658.

[4] W. Pieters, “Acceptance of Voting Technology: Between Confidence and Trust,” in *International Conference on Trust Management*, 2006, pp. 283–297, doi: 10.1007/11755593\_21.

[5] G. M. Friesen, T. C. Jannett, M. A. Jadallah, S. L. Yates, S. R. Quint, and H. T. Nagle, “A comparison of the noise sensitivity of nine QRS detection algorithms,” *IEEE Trans. Biomed. Eng.*, vol. 37, no. 1, pp. 85–98, 1990, doi: 10.1109/10.43620.

[6] P. S. Hamilton and W. J. Tompkins, “Compression of the ambulatory ECG by average beat subtraction and residual differencing,” *IEEE Trans. Biomed. Eng.*, vol. 38, no. 3, pp. 253–259, Mar. 1991, doi: 10.1109/10.133206.

[7] M. Achieng and E. Ruhode, “The Adoption and Challenges of Electronic Voting Technologies Within the South African Context,” *Int. J. Manag. Inf. Technol.*, vol. 5, no. 4, pp. 1–12, Nov. 2013, doi: 10.5121/ijmit.2013.5401.

[8] D. Cansell, J. P. Gibson, and D. Méry, “Refinement: A Constructive Approach to Formal Software Design for a Secure e-voting Interface,” *Electron. Notes Theor. Comput. Sci.*, vol. 183, pp. 39–55, Jul. 2007, doi: 10.1016/j.entcs.2007.01.060.

[9] M. Hapsara, A. Imran, and T. Turner, “Beyond Organizational Motives of e-Government Adoption: The Case of e-Voting Initiative in Indonesian Villages,” *Procedia Comput. Sci.*, vol. 124, pp. 362–369, 2017, doi: 10.1016/j.procs.2017.12.166.

[10] M. F.M.Mursi, G. M. R. Assassa, A. Abdelhafez, and K. M. Abo Samra, “On the Development of Electronic Voting: A Survey,” *Int. J. Comput. Appl.*, vol. 61, no. 16, pp. 1–11, Jan. 2013, doi: 10.5120/10009-4872.

[11] K. Vassil, M. Solvak, P. Vinkel, A. H. Trechsel, and R. M. Alvarez, “The diffusion of internet voting. Usage patterns of internet voting in Estonia between 2005 and 2015,” *Gov. Inf. Q.*, vol. 33, no. 3, pp. 453–459, Jul. 2016, doi: 10.1016/j.giq.2016.06.007.

[12] F. Zhang and Y. Lian, “QRS Detection Based on Multiscale Mathematical Morphology for Wearable ECG Devices in Body Area Networks,” *IEEE Trans. Biomed. Circuits Syst.*, vol. 3, no. 4, pp. 220–228, Aug. 2009, doi: 10.1109/TBCAS.2009.2020093.

[13] N. Valaei, S. R. Nikhashemi, H. Ha Jin, and M. M. Dent, “Task Technology Fit in Online Transaction Through Apps,” in *Optimizing E-Participation Initiatives Through Social Media*, IGI Global, 2018, pp. 236–251.

[14] M. Merri, D. C. Farden, J. G. Mottley, and E. L. Titlebaum, “Sampling frequency of the electrocardiogram for spectral analysis of the heart rate variability,” *IEEE Trans. Biomed. Eng.*, vol. 37, no. 1, pp. 99–106, 1990, doi: 10.1109/10.43621.

[15] T. J. McGill and J. E. Klobas, “A task–technology fit view of learning management system impact,” *Comput. Educ.*, vol. 52, no. 2, pp. 496–508, Feb. 2009, doi: 10.1016/j.compedu.2008.10.002.

[16] B. Furneaux, “Task-Technology Fit Theory: A Survey and Synopsis of the Literature,” in *Information Systems Theory*, Springer, 2012, pp. 87–106.

[17] E. M. H. Saeed and H. A. Saleh, “Pectoral Muscles Removal in Mammogram Image by Hybrid Bounding Box and Region Growing Algorithm,” in *2020 International Conference on Computer Science and Software Engineering (CSASE)*, Apr. 2020, pp. 146–151, doi: 10.1109/CSASE48920.2020.9142055.

[18] D. L. Goodhue and R. L. Thompson, “Task-Technology Fit and Individual Performance,” *MIS Q.*, vol. 19, no. 2, pp. 213–233, Jun. 1995, doi: 10.2307/249689.

[19] S. Mostafa, R. Mubarak, M. El-Adawy, A. F. Ibrahim, M. M. Gomaa, and R. M. Kamal, “Breast Cancer Detection Using Polynomial Fitting Applied on Contrast Enhanced Spectral Mammography,” in *2019 International Conference on Innovative Trends in Computer Engineering (ITCE)*, Feb. 2019, pp. 11–16, doi: 10.1109/ITCE.2019.8646379.

[20] A. Tharwat, “Classification assessment methods,” *Appl. Comput. Informatics*, vol. 17, no. 1, pp. 168–192, Jan. 2021, doi: 10.1016/j.aci.2018.08.003.

[21] A. Sahu and S. Pattnaik, “Feature Selection Using Evolutionary Functional Link Neural Network for Classification,” *Int. J. Adv. Appl. Sci.*, vol. 6, no. 4, pp. 359–367, Dec. 2017, doi: 10.11591/ijaas.v6.i4.pp359-367.

[22] W. Zikmund, B. J. Babin, J. C. Carr, and M. Griffin, *Business Research Methods Eight Edition*. Canada: Nelson Education, 2010.

[23] S. Soegijoko, I. M. Puspitasari, A. Aridarma, and I. D. Jani, “e-health for improving community healthcare: Encouraging clinical experience of simple e-prescription system and m-health system development for mother and childcare,” in *2011 IEEE 13th International Conference on e-Health Networking, Applications and Services*, Jun. 2011, pp. 102–105, doi: 10.1109/HEALTH.2011.6026722.

[24] M. Mishra, V. K. Mishra, and H. R. Sharma, “Leveraging knowledge based question answer technology to address user-interactive short domain question in natural language,” in *2012 2nd National Conference on Computational Intelligence and Signal Processing (CISP)*, Mar. 2012, pp. 86–90, doi: 10.1109/NCCISP.2012.6189683.

[25] Z. Denan, Z. A. Munir, R. A. Razak, K. Kamaruddin, and V. Pandiyan Kaliani Sundram, “Adoption of technology on E-learning effectiveness,” *Bull. Electr. Eng. Informatics*, vol. 9, no. 3, pp. 1121–1126, Jun. 2020, doi: 10.11591/eei.v9i3.1717.

**BIOGRAPHIES OF AUTHORS (10 PT)**

**The recommended number of authors is at least 2. One of them as a corresponding author.**

*Please attach clear photo (3x4 cm) and vita. Example of biographies of authors:*

|  |  |
| --- | --- |
|  | **Laith Mohammad Abualigah**     received his first degree from Al-Albayt University, Computer Information System, Jordan, in 2011. He has also Master degree from Al-Albayt University, Computer Science, Jordan, in 2014. The Ph.D. degree from the School of Computer Science in Universiti Sains Malaysia (USM), Malaysia in 2018. He is currently a computer science researcher. His main research interests focus on Bio-inspired Computing, Artificial Intelligence, Metaheuristic Modeling and Optimization, Evolutionary Computations, Optimization algorithms, Information Retrieval, Feature Selection, Combinatorial Problems, Data Mining, and Text Mining. He can be contacted at email: lx.89@yahoo.com. |
|  |  |
|  | **Arnold Adimabua Ojugo**     was born 28-February-1980 to Williams and Mrs. Queen Ojugo. He hails from Ibusa, in Oshimili North LGA of Delta State. He received his BSc in Computer Science from Imo State University Owerri in 2000, MSc in Computer Science from Nnamdi Azikiwe University Awka in 2005, and PhD in Computer Science from the Ebonyi State University Abakiliki in 2013. He currently lectures with the Department of Computer Science, Federal University of Petroleum Resources Effurun, Delta State, Nigeria. His research interests: Intelligent Systems/Machine Learning, CyberSecurity/IoT, and Graphs. He is a member of: The Nigerian Computer Society (NCS), Computer Professionals of Nigeria (CPN) and The International Association of Engineers (IAENG). He is happily married to Dr. Prisca Ojugo with five children: Gregory Ojugo, Easterbell Ojugo, Eric Ojugo, Elena Ojugo, and Elizabeth Ojugo. He can be contacted at email: ojugo.arnold@fupre.edu.ng. |
|  |  |
|  | **Deepika Koundal**     received her Ph.D. and M.E. Degrees in Computer Science and Engineering from UIET, Panjab University, Chandigarh, India and B.Tech. Degree in Computer Science & Engineering from Kurukshetra University, Kurukshetra, Haryana, India. She is currently working as an Assistant Professor in the Department of Computer Science and Engineering at Chitkara University Institute of Engineering & Technology (CUIET), Chitkara University, INDIA since March, 2016. She is having 10 years of teaching and research experience at various reputed Universities of India. She was previously associated with NIT Hamirpur as an Assistant Professor. Prior to that she worked as a Research Associate at UIET, Panjab University, Chandigarh. Her Ph.D. thesis focused on Automated delineation of thyroid nodules in Ultrasound Images. She is actively pursuing research in Medical Image Processing. She is the awardee of TEQIP-II fellowship during Ph.D. Her areas of expertise are Computer Vision, Image & Video Processing, Pattern Recognition, Machine Learning, Soft Computing, Artificial Intelligence, Information Retrieval and related fields. from Neutrosophic Science Association from University of Mexico for her outstanding publication in the Applied Soft Computing Journal (SCI Journal). She has published 22 research articles in reputed SCI and scopus indexed journals and conferences. She can be contacted at email: koundal@gmail.com. |