



## THE POLYTECHNIC

### *Malawi Journal of Applied Sciences and Innovation (MJASI)*

#### **Call for Papers**

The Malawi Journal of Applied Sciences and Innovation (MJASI) is calling for original research and review articles as detailed below. MJASI is a publication of University of Malawi, The Polytechnic, Faculty of Applied Sciences.

MJASI's policy is to disseminate, as widely as possible, well written, high quality articles on findings of applied scientific research, in such subject areas as Applied Biology, Applied Physics, Artificial Intelligence, Biochemistry, Built Environment, Information and Communication Technologies, Community Health, Computer Science, Ecology, Energy, Engineering, Entomology, Environment, Epidemiology, E-Services, Food Safety & Hygiene, Food Technology, Grid Computing, Infectious Diseases, Information Systems, Mathematics & Statistics, Microbiology, Nanotechnology, Nutrition, Occupational Health and Safety, Robotics, Telecommunications, Water Supply and Sanitation, Web Technology.

The journal is accredited by the University of Malawi. All submissions to **MJASI** are peer reviewed using the set criteria of relevance, quality, importance, originality, clarity and adherence to the journal's aims and scope.

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## MJASI Information for contributors

### **1.0 Introduction**

**MJASI** (the Malawi Journal of Applied Sciences and Innovation) is an international biannual peer review open access full publication of The Faculty of Applied Sciences at the Polytechnic - University of Malawi. MJASI publishes original research and review articles on various aspects of Applied Sciences. Authors should submit their contributions electronically through the Journal's email address [mjasi@poly.ac.mw](mailto:mjasi@poly.ac.mw).

### **2.0 Before you begin**

#### **2.1 *Ethical considerations***

All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work. The participants need to give consent, to the research being carried out and this has to be indicated in the study.

#### **2.2 *Submission declaration and verification***

Submission of an article implies that the work described has not been previously published (except in the form of an abstract or as part of a published lecture or academic thesis or unpublished conference proceedings), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder.

#### **2.3 *Copyright***

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement'. Acceptance of the agreement will ensure the widest possible dissemination of information. An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement. Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is

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All articles will be checked for plagiarised materials using Turnitin.com. Articles that breach the threshold of 20% shall be rejected immediately. As such, authors are encouraged to check that direct citations constitute no more than 20% of their articles.

#### **2.4 *Open access***

This is an open access journal making published articles freely available to all. Authors retain many rights, including the right to post a revised personal version of their article on their own website.

#### **2.5 *Language***

Please write your text in good English (preferably British) usage is accepted, but not a mixture of these).

#### **2.6 *Submission***

Submission to this journal proceeds totally online. Optionally, articles may also be submitted by using the journal email address if contributors are finding problems with our online submission system. All correspondence, including notification of the Editor's decision and requests for revision, will take place by e-mail.

### **3.0 *Manuscript preparation***

#### **3.1 *Article format***

Manuscripts must be submitted only in English and authors should check that correct grammar and proper terminology have been used. Manuscripts should be typed in Arial font 11pt. and in MS-word 1997 – 2003 format in one column with 2.54 cm margin at each side. Manuscript must be accompanied by a covering letter including title and author(s) name. The manuscript should be single spaced. The article should be structured as follows; title, names of authors and their affiliations, abstract, key words, introduction, materials and methods, results and discussion,

conclusions and recommendations, references and where applicable appendices. For maths papers, authors should not use extremely advanced software for the write-up. The maximum page numbers are as follows (Authors should strictly adhere to this);

- Original research papers (10 pages maximum including tables, figures and references)
- Review papers (15 pages maximum including tables, figures and references)

## **3.2 Article structure**

### **3.2.1 Subdivision - numbered sections**

Authors should divide their articles into clearly defined and numbered sections. Main headings (Heading 1) should be numbered 1.0 etc and should be Arial font size 14, the next hierarchy of headings (Heading 2) should be numbered 1.1 etc and should be Arial font size 12, the next level (Heading 3) should be numbered 1.1.1 etc and should be Arial font size 12 and in italics. If the headings go beyond level three, then the next level should not be numbered. Each heading should appear on its own separate line.

### **3.2.2 Paragraphs**

The line spacing between paragraphs should be 1.5. Paragraphs should not be indented.

### **3.2.3 Title**

The title should be concise and informative. Avoid abbreviations and formulae where possible. The title should be in upper case, with a maximum of 18 words and in Arial font size 14.

### **3.2.4 Author names and affiliations**

Where the family name may be ambiguous (e.g., a double name like van Persie), please indicate this clearly. Present the authors' affiliation addresses below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name (s) and in front of the appropriate address. In addition to this, all authors should provide an email address. The corresponding authors name should be marked by an asterisk. The author's names should appear in the way they have contributed to the work being submitted.

### **3.2.5 Abstract**

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. References should be avoided. Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself. The abstract should be 150 to 250 words.

### **3.2.6 Keywords**

Immediately after the abstract provide four to six keywords. Do not use abbreviations as key words. Keywords will be used for indexing purposes.

### **3.2.7 Introduction**

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

### **3.2.8 Materials and methods**

This section should provide clear information such that it should be possible for another individual to repeat the work. The section should provide information on sampling procedures used, research designs and the statistics used in data analysis.

### **3.2.9 Results and discussion**

Results should be clear and concise. The discussion should exhaustively explore the significance of the results of the work. Authors should avoid extensive citations and discussion of published literature.

### **3.2.10 Conclusions**

The main conclusions of the study may be presented in a short stand-alone conclusions section.

### **3.2.11 Acknowledgements**

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g. sponsors of the work, supervisors, language help providers, writing assistance or proof reading individuals, etc.).

### **3.2.12 Nomenclature and units**

Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI.

### 3.2.13 Math formulae

Present simple formulae in the line of normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms (e.g.,  $a/b$ ). In principle, variables are to be presented in italics. Powers of **e** are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

### 3.2.14 Figure captions

Ensure that each illustration has a caption. A caption should comprise a brief title and a description of the illustration. Provide a key to a figure if necessary. Place labels below the figures. Figures must appear in the text nearest to where they are first mentioned and in the order in which they are referred to in the text. The number of figures should not exceed 4.

### 3.2.15 Tables

Number tables consecutively in accordance with their appearance in the text and must appear in the text nearest to where they are first mentioned and in the order in which they are referred to in the text. Minimise the use of tables and ensure that the data presented in tables does not duplicate results described elsewhere in the article. Labels should be placed above the tables. The number of tables should not exceed five.

## 4.0 References

### 4.1 Citation in the text

Table 1 shows how citation of different sources should be done in the text

**Table 1: Citation in Text**

To cite a direct quotation	Write the text word for word and place quotation marks at the beginning and end of the quotation. The author, date and page number must be included.
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	"Australia is a settler society" (Hudson & Bolton, 1997, p. 9).
To cite a paraphrase or a short summary of an author's words or ideas	Restate the original words/ idea in your own words. The author, date and page number(s) must be included.  Wartime textile rationing was imposed through a coupon system, which meant garments now had two costs: their value in monetary units and in coupons (McKernan, 1995, p. 152).
To reference the overall content of a work	You do not need to include page numbers because it is the entire work you are referring to:  Larsen and Greene (1989) studied the effects of pollution in three major cities...
To cite a quotation or idea from an author who attributes it to another source	You must acknowledge both sources in your text:  Graham Gibbs, in his 1981 study into student learning wrote that "because students are aware of their tutor's mastery of the subject matter, it is quite common for them to assume that their reader has no needs at all" (Gibbs 1981, p. 39, cited in Bowden & Marton, 1998, p. 35).
To refer to more than one work	Separate the references either with a semicolon or the word "and"  (Entwistle, 1977; Haddon, 1969) <i>or</i> : Entwistle (1977) and Haddon (1969) both demonstrated ...
To cite more than one author	Include both names in the order in which they appear on the title page:  (Gerster & Basset, 1987) <i>or</i> : Gerster and Basset (1987) assert that ...
To cite more than three authors	Use the surname of the first author and et al. ('and others') in the text, et al should appear in italics:  Leeder et al. (1996, p. 78) argued ... <i>or</i> : (Leeder et al. 1996)

To cite more than one work by the same author	Arrange citations in chronological order:  (Smith, 1981, 1984, 1985)
To cite authors with the same family name who have published in the same year	Use their initials to indicate different people:  The theory was first developed early 20th century (Smith, A K 1979) but later many of its elements were refuted (Smith, J A 1979).
To cite an author who published more than one work in the same year	Attach an a, b, c, d etc. after the year:  Dawkins (1972a, 1972b) completed a number of studies on...
To cite a part of a publication contributed by someone other than the main author	For example, a preface, introduction or foreword contributed by someone other than the author of the publication:  Drabble (in Bronte 1978) suggests ....

## 4.2 Referencing

1. **Write the list in alphabetical order:** put the first author's last name first and then his/her initials. Include the names and initials of all authors. Arrange any references with the same author by the year of publication, beginning with the oldest.
2. **Titles should be italicised** for books, reports and conference proceedings. For journal articles, the title of the *journal* (not the title of the journal article) should be printed in italics.
3. **Capitalise the first letter** of each author's last name and each initial. Also capitalise the first letter of the publication title written in italics, the first letters of all main words in the title of a journal and all first letters of a place name and publisher.

Table 2 shows how reference list for different sources should be done.

**Table 2: Reference List Format**

Book	Author's Family Name, Initials. Year, <i>Title</i> , edition, Publisher, Place of publication.  Liebowitz, J., Agresti, W. & Djavanshir, G. R. 2006, <i>Communicating as IT</i>
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	<i>Professionals</i> , Pearson Prentice Hall, Upper Saddle River, USA.
Edited Book	Editor's Family Name, Initials. (ed.) Year, <i>Title</i> , edition, Publisher, Place of publication.  Haag, S. & Cummings, M. (eds) 2008, <i>Information Systems Essentials</i> , 2 edn, McGrawHill Irwin, New York.
Online Book	Author's Family Name, Initials. Year, <i>Title</i> , edition, Publisher, Place of publication, viewed date, <URL>  Adelstein, T. & Lubanovic, B. 2007, <i>Linux System Administration</i> , Safari Tech Books Online, Boston, USA, viewed 17/3/2009, < <a href="http://proquest.safaribooksonline.com.ezproxy.lib.uts.edu.au/9780596009526">http://proquest.safaribooksonline.com.ezproxy.lib.uts.edu.au/9780596009526</a> >.
Book chapter	Chapter Author's Family Name, Initials. Year, 'Chapter title', in Editors' Initials, Editors' Name (ed.), <i>Title</i> , edition, Publisher, Place of publication, pages of chapter.  Weber, I., Yow, K.C. & Soon, B.-H. 2005, 'Tuning in to students' mobile learning needs: a Singapore interactive initiative', in A. Kukulska-Hulme & J. Traxler (eds) <i>Mobile Learning: A Handbook for Educators and Trainers</i> , Routledge, London, pp. 150-156.
Journal article	Author's Family Name, Initials. Year, 'Article title', Journal Title, volume number, issue number, page number(s).  Ang, L. and Taylor, B. 2005. Managing customer profitability using portfolio matrices. <i>Journal of Database Marketing and Customer Strategy Management</i> 12(5), pp. 298-304.
Electronic journal article	Author's Family Name, Initials. Year, 'Article title', Journal Title, volume number, issue number, page number(s), viewed date, <URL>  Merchant, A.T. 2007. Diet, physical activity, and adiposity in children in poor and rich neighbourhoods: a cross-sectional comparison. <i>Nutrition Journal</i> [Online] 6, viewed 10 May 2007, < <a href="http://www.nutritionj.com/content/pdf/1475-2891-6-1.pdf">http://www.nutritionj.com/content/pdf/1475-2891-6-1.pdf</a> >
Conference	Author's Family Name, Initials. Year, 'Paper title', <i>Conference Name</i> ,

Paper (no information regarding editorship provided)	Conference Date, Conference Location, page number(s).  Landale, K., Nguyen, P., Hoque, R., Lee, S.K. & Shin, H.K. 2004, 'What UTS Does with Its Old Computers and What They Should Do', <i>Second Australian Undergraduate Students' Computing Conference</i> , 8-10 December 2004, Melbourne, pp. 113-119.
Conference Paper (with editor information)	Author's Family Name, Initials. Year, 'Paper title', <i>Conference Name</i> , ed. Editor's Initials, Editor's Family Name, Conference Date, Conference Location, page number(s).  Brady, F., Dyson, L.E. & Asela, T. 2008, 'Indigenous adoption of mobile phones and oral culture', <i>Cultural Attitudes towards Technology and Communication</i> , eds F. Sudweeks, H. Hrachovec & C. Ess, 24-27 June 2008, Nîmes, France, pp. 384-398.
Magazine or Newspaper Article (print version)	Author's Family Name, Initials. Year, 'Article title', <i>Name of Newspaper/Magazine (Section)</i> , Issue Day and Month, page number(s).  Peatling, S. & Malkin, B. 2004, 'Employers face ban on email spying', <i>Sydney Morning Herald</i> , 31 March, p. 17.
Magazine or Newspaper Article (no author given)	'Article title' Year, <i>Name of Newspaper/Magazine (Section)</i> , Issue Day and Month, page number(s).  'Cisco and IBM hear call of the wild via donation to improve animal care and educate public on endangered animals' 2007, <i>Wireless News</i> , 5 December, p. 1.
Online Magazine or Newspaper Article	Author's Family Name, Initials. Year, 'Article title', <i>Name of Newspaper/Magazine</i> , Issue Day and Month, viewed date, <URL>.  Moses, A. 2009, 'Banned hyperlinks could cost you \$11,000 a day', <i>Sydney Morning Herald</i> , 17 March, viewed 18 March 2009, < <a href="http://www.smh.com.au/articles/2009/03/17/1237054787635.html">http://www.smh.com.au/articles/2009/03/17/1237054787635.html</a> >.
Report	Author's Family Name, Initials. [or Name of Issuing Authority] Year, <i>Title</i> , Report Series and Number, Publisher, Place of publication.

	RTIRC (Regional Telecommunications Independent Review Committee) 2008, <i>Framework for the Future: Regional Telecommunications Review</i> , Commonwealth of Australia, Canberra.
Web page	Author's Family Name, Initials. Year, 'Article title', viewed date, <URL>  Thompson, B. 2006. <i>Why the net should stay neutral</i> [Online], viewed 1 May 2007, <Available at: <a href="http://news.bbc.co.uk/1/hi/technology/4594498">http://news.bbc.co.uk/1/hi/technology/4594498</a> >

## **5.0 After acceptance**

### **5.1 Proofs**

One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author or, a link will be provided in the e-mail so that authors can download the files themselves.

### **5.2 Publication process**

Accepted papers will appear online and in a hardcopy version of the journal.