



Volume (4) , № (3) December 2022

Academy Journal for Basic and Applied Sciences (AJBAS)

*Periodical Electronic Scientific Journal issued by Scientific Research Affairs of
Libya Academy*

General Supervisor President of Libyan Academy

Editor-in-Chief

Prof. Abdalla Idris Fadel

Editorial Board

Prof. Ramadan Elhadi Almadani

Dr. Salah R. Al-Hangary

Technical Board

Site and internet management

Prof. Fathi H. Assaleh

All copyrights reserved to Dar Alacademia Publisher, Tripoli, Libya. No part of this publication may be reproduced, stored in a retrieval form, or transmitted in any other form without prior permission of the copyright owner.

All correspondences should be addressed to:

Editor in chief of Journal of Academy for Basic and Applied Sciences.

Libyan Academy, P.O. Box 72331, Tripoli, Libya.

Tele: +218 928013352 and +218913750207

Email: ajbas@academy.edu.ly , abdalla.fadel@academy.edu.ly

ULR: <http://www.academy.edu.ly>

Aims of the Journal

This journal aims to provide a reliable source of information on current research and development in the fields of basic and applied sciences, on the national and international levels, as well as exchange of ideas and information for experts in these fields. Moreover, it will provide an opportunity for researchers to publish their works.

Editorial Board Looks forewords to develop the journal and to promote it to be at the level of international scientific journals, and expand their reach circle to allow the largest possible number of interested to follow it by publishing all its issues through the internet web site.

Call for Papers

The Editorial Committee invites teaching staff members, postgraduate students, engineers, researchers and all those concerned with basic and applied sciences, and technology fields to submit their research work to be published in the journal. The journal publishes scientific papers (basic and applied research, review papers) technical reports, technical notes and book reviews in the mentioned fields.

Terms of Publication in the Journal

1. The papers and reports should be an original work and not considered for publication elsewhere. Papers published in conferences may be considered for publication in the journal after they go through the evaluation process and if they do not conflict with the copyright of the conference proceedings.
2. All papers and reports are subject to evaluation and may not be published unless all the required corrections are met and the author's guide for publication is followed.
3. The accepted papers could be written in Arabic (with English abstract), or in English (with Arabic abstract).
4. After acceptance of the paper or report for publication in the journal, it should not be considered for publication in another journal and the author should sign a copyright agreement with the editorial board of the journal.
5. Authors should include the full title of the paper, the author's full name, Author's affiliation and address, e-mail address.
6. Papers not written according to the stated instructions will not be considered for refereeing.

Typing Instruction

In spite that an electronic paper template is available, Authors are kindly requested to abide by the following instructions:

1. Manuscripts should not exceed 15 (A4) pages including figures and tables, produced using Microsoft word, with Times New Roman font 12pt single space typewritten. The page setup left and right margins of 13.5 mm and top margin of 25.4 mm and bottom margin of 21.8 mm.
2. The original and two copies should be submitted, and on a CD disc. The file on the disc should exactly correspond to the hard copies.
3. Authors have to the following format:
 - a. *Title page*, headed by a concise but informative full title font size 14pt bold, name(s) font size 12pt bold, and address of the place where the work was carried out font size of 11pt normal all titles with font size of 12 pt bold.
 - b. *Abstract*, containing brief but informative details of the contents and conclusions of the paper and should not exceed 200words, size 12 pt.
 - c. *Introduction*, stating the reasons for carrying out the work, size of 12 pt.
 - d. *Materials and Methods*, containing sufficient experimental details so that methods can be reproduced by researchers (in experimental papers), size 12 pt.
 - e. *Results* should be described as concise as possible, size of 12 pt.
 - f. *Discussion* should not recapitulate results in detail or contain new information but should emphasize the relevance and significance of the findings reported, size of 12 pt.
 - g. *Conclusion*, size of 12pt.
 - h. *Acknowledgement*, size of 12pt.
 - i. *References* should be cited in the text a number in square brackets []. All references should be included at the end of the manuscript successively with size of 8pt. Correct references are the responsibility of the author.

Notes

- 1. the Journal has the right to publish these researches and makes use of them in scientific fields without referring to their owners, provided always referring to the owners of these studies/research according to generally accepted rules.**
- 2. Manuscripts submitted for publication does not respond to their owners, whether published or not, the applicant is not entitled to claim them.**
- 3. Editors of the journal reserve the right to make editorial changes in any manuscript accepted for publication for the sake of style or clarity. Authors will be consulted only if the changes are substantial.**
- 4. Author/s must pay all the expenses incurred in the review process if s/he decides to withdraw his/her research paper whilst it is undergoing review.**

Contents

English Part

Research Title	Authors
A comparative study of some numerical methods for solving first order differential equation	Salem.H. M. Omer, Ali Khalil Alshaikhly, Tahani Abdulhadi Ali Arjeeah, Salem Alnayhoum
Annular Shaped Patch for Lower Band Microwave Frequencies Application	Marai M. Abousetta, Hamza M. Hasek, Rafik M. Et-Trabelsi
Biotransformation of an environmental azaarene pollutant and vitamin A by human, rat and fish aldehyde oxidase	Omaro A. Aburas, Emhamed Boras, Juma Ahmad Ali
Comparative Analysis between Symmlets and Haar functions for the Study of De-noising with Application to Financial Time Series Data	Amel Abdoullah Ahmed Dghais
Design and Improvement of Microstrip Patch Antenna parameters Using DGS For Wifi Applications	Omran E. Moftah
Determiration of radiation dose for Chest During CT scan	Liala Taher Essa El essawi, Salem Tikala
Effect of Copper Addition Mechanical Properties of Aluminum pure	Khaled Salh ALwaer, Ibrahim Ahmed ALtuomi, Wanis Mustafa Edukali Shibani
The Effect of Hippotherapy Treatment on Children with Cerebral Palsy: a Literaure Review Study	Lutfia Ali Ellsahli
Effect of Methane Percentage in Natural Gas Fuels on Spark Ignition Engine Performance	Abulkasim A. Asgyer, Zuhaira M. Alhafi, Salem A. Farhat
Enhanced Array Patch Antenna Parameters for 5G Applications	Marai M. Abousetta, Rafik M. Et-Trabelsi, Abdulgader Elfasi, Walid T. Shanab

Enhancing Patch Antennas Performance Using Back Rectangular holes in substrate for 5G Applications	Marai M. Abousetta, Jamal A. ELjurni, Ali A. Ashour
Enhancing PHY Layer Security with Transmit and Receive Beamforming Diversity Schemes for MISO and SIMO System Models	Abeer A S Elhoula, Marai M. Abousetta Tarek Saleh M. Ghmati
Evaluation of some Libyan Barley <i>Hordeum vulgare</i> L Genotypes for Salinity Tolerance at Booting Stage	Amal Faraj Ehtaiwesh
First record of <i>Lernaeolophus sultanus</i> in <i>Trachurus trachurus</i> (L, 1758) from the western Libyan coast	Zahra S Kashlut
Fluoride distribution in drinking water and survey of dental Fluorosis among schoolchildren in the North West of Libya	Najeeb Shebani, Tarek Dokhan
Fuzzy Logic Based Image Edge Detection Algorithm in MATLAB	Musbah Ali Alhanis, Hesham Ahmed Almgarbj
Optimization of Yagi -Uda Antenna Gain for Wi-Fi &Wi-Max Applications	Abdulgader Elfasi, Marai M. Abousetta , Walid T. Shanab, Nezar G. Ayad
Quasi-crystals as catalyst for steam reforming of methanol	Nagia Ahmad Ali Arfa
Study of the different Heat Transfer Fluids effect for a Linear Fresnel Power Plant designed in Sebha City, Libya	Ibrahim Mohamed Ibrahim Eslayem, Mohamed Alamen Sharif
Studying the effect of Moringa inhibitor on the corrosion of mild steels in 0.5 M H ₂ SO ₄ at temperatures 40 °C and 50 °C	Masouda Farhat, Taha Abdullaha, Faraj Mansour, Rbeeah Alsadiq
SURVEY OF ELECTRIC ENERGY STORAGE SYSTEM AND TECHNOLOGIES	Ahmed Alseed

Synthesis,Characterization And Antibacterial Activity Of Som Metals(II) With L-Histidine Complexes	Omelhana O. Hamad, Sumayyah M.A. Othman, Farrhat F. Mohammed
The Tensile Test of Irradiated Skin	Sana Mohammed Baleb, karima Abdulla
Therapeutics Effect Of Losartan Potassium And Ramipril As Combination Drugs On Kidney Function Tests In Hypertensive Patient In Al-Bayda, Libya	Yahya Saber E. Mansour
A Review Paper on Trauma Scoring Systems including Artificial Intelligence Technique	Mohammed Saleh, Rajab Saeid, Nadir Nabous
Weighted Based Energy-Efficient Protocol for Wireless Sensor Networks	Amhmed Bhih