



Sirte University Scientific Journal (SUSJ)

Volume 13, Issue No. 1 June 2023

Bi annual Journal Published by Sirte University

Editor in Chief

Professor, Abdullah Ali Elamari

Editorial Board

Professor: Hamid M. Younis
Dr. Mohamed Elmahdi Shaglouf
Dr. Salima Mofth Elmgirhi
Dr. Algaddafi S. Alpotte
Mr. Hassin A. Makhlof

Scientific Advisory Committee

Professor: Hasan M. Asharif
Professor: Ahmed M. Ali Algali
Professor: Abdelsalam M. Akasha
Professor: Abdussalam Salhin M. Ali
Professor: Mohamed A. Elssaidi
Professor: Ramzy M. Moursy
Professor: Mohamed Sagheer M. Hassan

Professor: Mohamed M. Allafi
Professor: Emhemed Mousa.M. Abduelrhman
Professor: Salima A. Ben-Guzzi
Professor: Jamal S. Deriak
Professor: Adel I. Alajtal
Professor: Saad F. Mohamed Hussein

Sirte University Scientific Journal (SUSJ)

SUSJ is a scientific refereed journal issued on behalf of Sirte University in a number of issues throughout the year interested in publishing research and documented studies in the field of applied sciences for university faculty members and other universities from inside and outside Libya.

The views expressed in the publication are the individual opinion of the author(s) and they neither represents nor reflect the opinion of the editor and editorial board or Sirte University.

The University reserves all copyright and, no re-print or publication of the whole or parts of the journal is allowed without prior permission.

Sirte University Scientific Journal (SUSJ)

Paper Submission

- Sirte University Scientific Journal (SUSJ) is referred journal issued by the Sirte University in the fields of applied sciences in English.
- The submission file is in Microsoft Word file format and should be submitted electronically as e-mail attachments along with four hard copies to the editor of the SUSJ at susj@su.edu.ly.
- Papers should be approximately up to 20 pages long (including tables, figure, references and appendixes).
- Manuscripts submitted to SUSJ must contain original work which has been neither previously published, nor is it under consideration by another journal.
- All papers should have an abstract of about 300 words in length.
- Authors should include the full title of the paper, the author's full name, Author's affiliation and address, e-mail address.
- Each paper should be 1.5-spaced in 12 point font (Times New Roman) with 2.5 inch margins on all sides. The headlines and sub-headlines should be in 14 point font.
- Editors of SUSJ 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.
- Arabic numbers and the international unit's system should be used.
- Tables, figures and pictures should appear after the reference list.
- Mathematical equations should appear in a sequential order and should be numbered between brackets ().
- 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.
- Author/s will be provided with a copy of the journal.
- References should be cited as they appear in the text, enclose the citation number in square brackets, for example [1].and the full reference should be included in the reference list as follows:

Journals/periodicals:

Surname, initials of the first and second name, title, place of publication, volume and issue number and pages numbers.

Review Procedure

After the submission, manuscripts submitted to SUSJ will go through an internal review. If submitted papers meet the basic requirements of SUSJ they are sent out for double blind review from experts in the field. It is common for reviewers who recommend acceptance to also make this conditional on addressing possible errors or issues. If your reviewers make this recommendation then you will be given the opportunity to adequately respond to their feedback by a required date.

Authors are required must make all the changes suggested by reviewers and they should send a detailed report indicating the changes made in the paper to SUSJ.

Submission and Publication Acceptance Agreements

Papers submitted to SUSJ for review and possible publication will not have been submitted for review anywhere else and, if accepted for review, will not be submitted elsewhere whilst the paper is undergoing review. The authors of papers accepted for Review will be asked to fill out, sign and return a submission agreement to this effect. The authors of those papers accepted for publication will also be asked to confirm in an publication acceptance agreement that the paper has not been and will not be published elsewhere. Publication in SUSJ transfers the right to SUSJ to distribute papers, but authors do retain their copyright.

Authors should send their papers to:

Professor, Abdullah Ali Elamari.

Editor in Chief of Sirte University Scientific Journal

E-mail: susj@su.edu.ly

Editor in Chiefs comment.

Dear colleagues;

As we publish the Volume 13 of SUSJ, I want to acknowledge the dedicated efforts of our Editors, advisory committee and the contribution of all researchers.

Our editorial board is committed to provide to the scientific community by supporting our young researchers and guide them through the process to publish their research.

Again, we ask all of you to contribute and submit your research papers to SUSJ, you can find the Manuscript submission and publications process in our website.

My best wishes to all of you

Professor, Abdullah Ali Elamari
Editor in Chief, SUSJ
Sirte University

June, 2023

Table of Contents	Page
Experimental Works to Improve Power Quality of the Existing PV Solar Inverters <i>Ali Algaddafi, Abdelrahim N. Esgiar, Eljaroshi Diryak and I.M. Saleh</i>	1-10
Design, modeling and simulation of a square quartz resonant pressure sensor <i>Mohamed E. Ali</i>	11-15
Design M×N Adaptive Antenna Array for Personal - Satellite Communications Link <i>Mabrouka H. A. Ehtaiba, and Hend M. Elamari</i>	16-24
Modified Empirical Models for Predicting Liquid Film Thickness in Different-Sized Vertical Pipes <i>Almabrok A. Almabrok</i>	25-33
The Effect of Laminar and Turbulent Flow on Phase Change Materials for Energy Recovery <i>Mahmoud Elsharafi, Aryian Razavi, Ryani Ferguson; and Jibriel Abusaleem</i>	34-39
Water Injection Performance in the Abu-Attifel Oil Field Using the Hall Plot <i>Saleh J. Arwin*, Ahmed A. Ghoula, Abdraouf R. Atweer and Mohammed S. Yaqoub</i>	40-45
Comparative Study of Reinforced Concrete Design of Short Columns between BS 8110 and ACI 318-11 (Codes) <i>Imhemmed.H. Algott, Ghusen M. AL Kafri</i>	46-54
Subordination Results of Analytic Functions Defined by Convolution <i>A. A. Hussain, M. K. Aouf and A. O. Mostafa</i>	55-59
Boundedness Criteria for Solutions of Some Nonlinear Differential Equations of Second Order <i>Fatima N. Ahmed, M. J. Saad and Ambarka A. Salhin</i>	60-65
Estimation of annual gonadal dose equivalent and cancer risk for the barley samples in Libya markets <i>Asma M. AL-abr di</i>	66-70
Study Of Reactions Of 2,2-Dichloro-N-(Substituted Phenyl) Acetamide With 1H-Benzo[d]1,2,3-Triazole <i>Ghazala Hashim, Hanan Bashir and Nsreen A. Abdalfarg</i>	71-77

Estimation of Serum Vitamin D Level among Patients Attending some Polyclinic in Sirte Libya <i>Eshtawe M. Algadid</i>	78-82
Impacts of Used Cigarette Butts on Soil Properties and Local Plants Growth <i>Aishah R. Mohamed</i>	83-89
Influence of intraoperative factors on the outcome of root canal treatment (Part 2): A retrospective clinical study <i>Gazala Ehtiba, Ali Ahtiba</i>	90-96