



---

---

# Journal of Marine Sciences & Environmental Technologies

# JMSET



ISSN: 2413-5267

---

---

**Volume 1, issue 2 (December-2015)**

## **Editor-in-Chief**

*Assoc. Prof. Dr. Mustafa E. Elsharif (Alasmarya Islamic University, Libya)*

## **Managing Editor**

*Assist. Prof. Dr. Aly Y. Okasha (Alasmarya Islamic University, Libya)*

## **Editing General Supervisor**

*Assist. Prof. Dr. Hesham G. Ibrahim (Alasmarya Islamic University, Libya)*

## **Associate Editors**

*Assoc. Prof. Dr. Mohamed A. Elsaidi (Sebha University, Libya)*

*Assist. Prof. Dr. Mokhtar M. Shaglouf (Sirte University, Libya)*

## **Scientific Advisory Committee**

*Prof. Dr. Abdulsalam M. Methnani (Sebha University, Libya)*

*Prof. Dr. Salahoudeen M. Gashout (Marine Biology Research Center, Libya)*

*Prof. Dr. Mohamed A. Al-Meshragi (Al-Mergheb University, Libya)*

*Prof. Dr. Hassan A. Abuarabbia (Al-Mergheb University, Libya)*

*Assoc. Prof. Dr. Mohamed M. Baraka (University of Tripoli, Libya)*

*Assoc. Prof. Dr. Nasser K. Elkabeer (Azzawya University, Libya)*

*Assoc. Prof. Dr. Mohamed N. Esmeo (University of Tripoli, Libya)*

*Assoc. Prof. Dr. Saad K. El-Obaidi (University of Benghazi)*

**Journal of Marine Sciences and Environmental Technologies (JMSET)**  
is a biannually scientific referred periodical international journal.

**Published by;**

*Faculty of Marine Resources  
Alasmarya Islamic University  
Zliten City-Libya*

**ISSN: 2413-5267**

*© Copyright 2015 by Faculty of Marine Resources, Alasmarya Islamic University, Zliten City, Libya.*

*All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means electronic, photocopying or otherwise, without the prior written permission of the copyright holders.*

## Foreword

Journal of Marine Sciences and Environmental Technologies (JMSET) is a scientific refereed periodical international journal (ISSN: 2413-5267). It is issued by Faculty of Marine Resources at Alasmarya Islamic University, in accordance to the resolution of the Council of Alasmarya Islamic University (253/2015). JMSET endeavors to provide a notable and discern forum to publish research manuscripts of high quality relevant to wider area of marine science and environmental topics. JMSET is a multidisciplinary journal covering wide area subjects of marine science and environmental technologies. It promotes insight and understanding of the state of the art, and trends in environment, engineering, and marine sciences.

This volume 1 and issue 2 (December 2015) contains fifteen diversified scientific contributions (manuscripts) which are blindly peer reviewed by members of JMSET editorial, and reviewers panel to ensure optimum standards. We hope these papers will be helpful for imparting advanced knowledge to the researchers, academics, and technologist who are involved in research, teaching and practical fields. The issue covers a broad range of topics in the field marine science, engineering and techniques of environmental treatment.

We want to express our heartfelt thanks to Authors for submitting their work and also to the distinguished members of the editorial board, reviewers and the publication committee who have put their relentless effort to publish the issue successfully. We believe this issue reflects the topics focus of JMSET and provides resources to the research community. We believe our authors will be continuously supporting and relying on JMSET to publish quality research work.

***Dr. Mustafa E. Elsharif***

Editor-in-Chief, JMSET  
Dean of Faculty of Marine Resources  
Alasmarya Islamic University

# Call for Manuscripts

Journal of Marine Sciences and Environmental Technologies is a peer-reviewed journal, published by Faculty of Marine Resources, Al-Asmarya Islamic University. The journal publishes research papers in the fields of;

## Marine Science;

The journal draws from diverse topics within the major disciplines of coastal and blue water oceanography (biological, chemical, geological and physical) as well as subjects in ecology, conservation and technological developments with the marine environment as the unifying theme. Also all branches of engineering related to marine such as (offshore & marine explore, mechanical, naval architecture and corrosion,... etc.).

## Environmental Technologies;

JMSET covers all sorts of researches on the field of environmental technologies (management, assessment, monitoring and treatment) of atmospheric environment, aquatic environment and municipal solid waste,...etc.

We are seeking submissions for forthcoming issues. The paper should be written in professional English. The length of 3000-8000 words is preferred. All manuscripts should be prepared in MS-word format, and submitted to managing Editor e-mail.

## **Paper Selection and Publication Process**

- a) Upon receipt of paper submission, the editor sends an E-mail of conformation to the corresponding author within 1-3 working days. If you fail to receive this conformation, your submission/e-mail may be missed. Please contact the Editor in time for that.
- b) Peer review. We use double-blind system for peer-review, both reviews and authors' identities remain anonymous. The paper will be peer-reviewed by three experts, one is an editorial staff and the other two are external reviewers. The review process may take 2-3 weeks.
- c) Notification of the results of review by E-mail to into the authors to revise paper.
- d) After publication, the corresponding author will receive one copy of printed journal and one soft copy of journal, free of charge.

## **Requirements and Copyrights**

Submission of an article implies that the work described has not been published previously (except in the form of an abstractor as part of a published lecture or academic thesis), 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 languages, without the written content of the Publisher. The Editors reserve the right to edit or otherwise alter all contributions, but authors will receive proofs for approval before publication.

Copyrights for articles published in JMSET journal are retained by the authors, with first publication rights granted to the journal. The journal/publisher is not responsible for subsequent uses of the work. It is the author's responsibility to bring an infringement action if so desired by the author.

## **More Information**

*Contact with Managing Editor*

E-mail: [jmset.editor@gmail.com](mailto:jmset.editor@gmail.com)

## Preface

Issue 2 of volume 1, includes the contributions from the following categories:

(Wastewater Treatment, Applied Chemistry, Water Pollution Control and Monitoring, Application of Geology, Soil treatment, Fossils, Microbiology, Air Pollution, Environmental Geology, Ground-Water Pollution, Solid Wastes, Climate Changes, and Pesticide & toxicology).

The fifteen papers in this JMSET Journal (Volume 1, Issue No. 2) present an in-depth discussion on latest fields of Environmental & Marine Sciences.

In first paper is to applications of microbial fuel cell on sewage treatment by using electrogens. The second paper is a study of adsorption of Lead(II) ions by sorptive-flotation technique from synthetic solution using powdered palm fronds and oleic acid. Third paper is a study of a 24/24 smart stations for pollution monitoring sea coast or artificial river. The fourth paper analyzed a seawater intrusion in Tajoura area. The goal of fifth paper is using of the Al-Faidiyah formation oligocene-miocene in the drilling mud fluids (Bentonite) at Umm Ar Razam, north-east Libya. Sixth paper focuses on study the effects of biochar on soil biogenic gases activities. Seventh paper investigated the fossilized-brood chambers in *Nummulites vascus* from Libya. The eighth paper concerned of a physicochemical properties of selected varieties of Cowpea seeds and their relation to the infestation potential by the Cowpea bruchid, *Callosobruchus maculatus* (F.) (coleoptera: bruchidae). Ninth paper gave a bacteriological assessment for different water resources, Ka'am region, Libya. The tenth paper present an engineering overview on the current status of the negative effects resulting from the transportation facilities used within the university of Tripoli, Libya. Eleventh paper focus on fluorosis and groundwater: a preliminary environmental and health geology investigation in the northwestern region of Libya. The twelfth paper present an impacts of plastic wastes on environmental and human and modern ways to take advantage and disposal. Thirteenth paper is a study of climatic changes impact on agricultural productivity in Libya during the period (1980-2010). The fourteen paper study the effect of some pesticides on nitrogen fixing bacteria under Wadi Alshatti conditions, Libya. The last research work it conducted to assess chemical and physical properties of disposable water in dairy plants.

*JMSET Editorial Board*

# Contents

<b>Applications of Microbial Fuel Cell on Sewage Treatment by Using Electrogens</b>	<b>E1-9</b>
<hr/> Osama A. Lamma, Amna A. Alhadad, and Sumaya A. Lamma	
<b>Adsorption of Lead(II) Ions by Sorptive-Flotation Technique from Synthetic Solution Using Powdered Palm Fronds and Oleic Acid</b>	<b>E10-23</b>
<hr/> Salem M. El-Nakeib	
<b>24/24 Smart Stations for Pollution Monitoring Sea Coast or Artificial River</b>	<b>E24-34</b>
<hr/> Said M. Zamit	
<b>Study of Seawater Intrusion in Tajoura Area</b>	<b>E35-50</b>
<hr/> Abdel Hameed M. Salem	
<b>The Uses of The Al-Faidiyah Formation Oligocene-Miocene in The Drilling Mud Fluids (Bentonite) at Umm Ar Razam, North-East Libya</b>	<b>E51-67</b>
<hr/> Saad K. El Ebaidi	
<b>Effects of Biochar on Soil Biogenic Gases Activities</b>	<b>E68-87</b>
<hr/> Khaled Mohamed Mossa Bushnaf	
<b>Fossilized-Brood Chambers in <i>Nummulites vascus</i> from Libya</b>	<b>E88-93</b>
<hr/> Ahmed M. Muftah	
<b>Physicochemical Properties of Selected Varieties of Cowpea Seeds and Their Relation to The Infestation Potential by The Cowpea Bruchid, <i>Callosobruchus maculatus</i> (F.) (Coleoptera: Bruchidae)</b>	<b>E94-104</b>
<hr/> M.O. Abokersh, and E.M. Barakat	
<b>Bacteriological Assessment for Different Water Resources, Ka'am Region, Libya</b>	<b>E105-115</b>
<hr/> Mostafa M. Ali, Mustafa E. El Sharief, Ahmad Aborgabh, & Mohamed S. Shahub	

<b>An Engineering Overview on The Current Status of The Negative Effects Resulting From The Transportation Facilities Used Within The University of Tripoli, Libya (in Arabic)</b>	<b>A1-18</b>
<hr/>	
Seraj Alganoni, Mohamed Elgablawi, and Rajab Abdouallah Hokoma	
<b>Fluorosis and Groundwater: A Preliminary Environmental and Health Geology Investigation in the Northwestern Region of Libya (in Arabic)</b>	<b>A19-44</b>
<hr/>	
O.A.M. Abu-Libda, F.M.A. Muhamed, S.A.S. Amarah, and A.A. Salem	
<b>Impacts of Plastic Wastes on Environmental and Human and Modern Ways to Take Advantage and Disposal (in Arabic)</b>	<b>A45-57</b>
<hr/>	
M. Elaoud, S.M. Gashout, A.M. Salama, F.A. Masoud	
<b>The Impact of Climatic Changes on Agricultural Productivity in Libya during the Period (1980-2010) (in Arabic)</b>	<b>A58-69</b>
<hr/>	
Khaled R. Elbeydi, and Abdulbast M. Hamuda	
<b>Effect of Some Pesticides on Nitrogen Fixing Bacteria under Wadi Alshatti Conditions, Libya (in Arabic)</b>	<b>A70-85</b>
<hr/>	
Mohamed Ali Elssaidi, and Hala Youssef Mohamed	
<b>Assessment Chemical and Physical Properties of Disposable Water in Dairy Plants (in Arabic)</b>	<b>A86-96</b>
<hr/>	
Mohamed Gezeit	