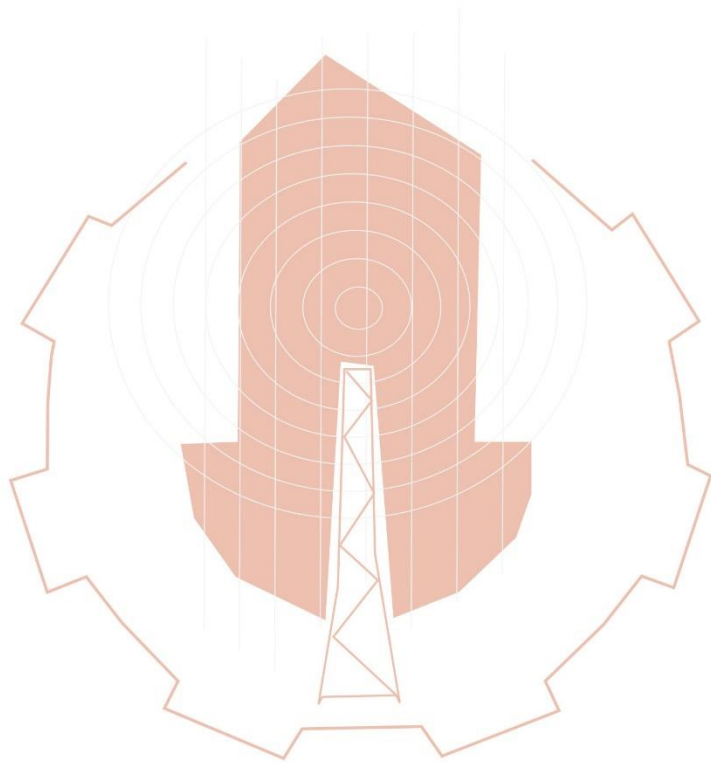




# JOURNAL OF ENGINEERING RESEARCH

Refereed and issued twice annually by the  
Faculty of Engineering - University of Tripoli



Issue 33 March 2022



Contents

المحتويات

Research Papers in English

- 1- Experimental Study on the Properties of Rubberized Concrete Incorporating Nano-Silica  
*Amal M.N. El-khoja, Abdurrahman A. T. Elgalhud, Manal F. Najjar and Enas A. Elmusrati* 1
- 2- Influence of Specimen Orientation on the Plastic Instability and Necking of Extruded HDPE Sheet  
*Rida B. ARIEBY, Osama A. Terfas, Rachid Rahouadj* 19
- 3- Thermoeconomic Approach for Evaluating the Performance of Multi-Effect-Mechanical Vapor Compression Desalination Unit  
*Aladdin Almoghrabi and Giuma Fellah* 37
- 4- Simulation of Sarir Crude Oil Refinery Using Aspen HYSYS  
*Hamza E. Omran Almansouri* 51

الأوراق البحثية باللغة العربية

- 1- أدوات وأساليب تنظيم بيئة العمل ومدى تأثيرها على مستويات الأداء (دراسة ميدانية في شركة الواحة للنفط)  
*رجب عبدالله حكومة والمعتصم بالله المبروك أحمد العكاري* 1



**Editorial Board:**

**Mohamed Saleh Oun, Ph.D**

*Professor, Department of Mechanical and Industrial Engineering,  
Faculty of Engineering, University of Tripoli*

E-mail: [jer.editorinchief@uot.edu.ly](mailto:jer.editorinchief@uot.edu.ly)

**Ayad Ali Abulwahed, Ph.D**

*Professor, Department of Materials and Metallurgical Engineering,  
Faculty of Engineering, University of Tripoli*

E-mail: [a.abdulwahed@uot.edu.ly](mailto:a.abdulwahed@uot.edu.ly)

**Abubaker Mohamed Abushofa, PhD**

*Professor, Department of Electrical and Electronic Engineering,  
Faculty of Engineering, University of Tripoli*

E-mail: [a.abushofa@uot.edu.ly](mailto:a.abushofa@uot.edu.ly)

**Wajdi Mohamed Ratemi, PhD**

*Professor, Department of Nuclear Engineering,  
Faculty of Engineering, University of Tripoli*

E-mail: [w.ratemi@uot.edu.ly](mailto:w.ratemi@uot.edu.ly)

**Ali Ahmed Elkebir, Ph.D**

*Associated Prof., Department of Civil Engineering,  
Faculty of Engineering, University of Tripoli*

E-mail: [ali.elkebir@yahoo.com](mailto:ali.elkebir@yahoo.com)

**Ahmad Abdussalam Al-Makhlufi, MSc**

*Assistant lecturer, Department of Aeronautical Engineering,  
Faculty of Engineering, University of Tripoli*

E-mail: [a.al-makhlufi@uot.edu.ly](mailto:a.al-makhlufi@uot.edu.ly)

**Hamida Milad Al-Tumi, MBA**

*Editorial Secretary, Faculty of Engineering, University of Tripoli*

E-mail: [h.tumi@uot.edu.ly](mailto:h.tumi@uot.edu.ly)

**Disclaimer:**

Papers published in this journal do not necessarily represent the views of the Editorial Committee or the Faculty of Engineering, University of Tripoli. All ethical and scientific responsibilities fall directly on the authors.

**Address:**

The Editorial Committee  
Journal of Engineering Research  
P.O. Box 13589,  
Faculty of Engineering  
University of Tripoli, Tripoli, Libya  
**E-Mail : [jer.editorinchief@uot.edu.ly](mailto:jer.editorinchief@uot.edu.ly)**  
**Web Site : [www.jer.ly](http://www.jer.ly)**