

# The Jordan Journal of Earth and Environmental Sciences (JJEEES)

JJEEES is an international peer-reviewed research journal, issued by the Deanship of Academic Research and Graduate Studies, the Hashemite University, in corporation with, the Jordanian Scientific Research Support Fund, the Ministry of Higher Education and Scientific Research.

## EDITORIAL BOARD

---

### Editor-in-Chief

**Professor Abdul Rahim A. Hamdan**  
The Hashemite University

### Editorial board

- **Professor Abdulkader M. Abed**  
University of Jordan
- **Professor Hani N. Khoury**  
University of Jordan
- **Professor Zuhair El-Isa**  
University of Jordan
- **Professor Sameh Gharaibeh**  
Yarmouk University
- **Professor Ahmad Abu Hilal**  
Yarmouk University
- **Professor Issa Makhoulouf**  
The Hashemite University

## THE INTERNATIONAL ADVISORY BOARD

---

- **Prof. Sayed Abdul Rahman,**  
Cairo University, Egypt.
- **Prof. Abdullah Al-Amri,**  
King Saud University, Saudi Arabia.
- **Prof. Waleed Al-Zubair,**  
Arabian Gulf University, Bahrain.
- **Prof. Ute Austermann-Haun,**  
Fachhochschule Lippe und Hoexter, Germany.
- **Prof. Ibrahim Banat,**  
University of Ulster, UK.
- **Prof. Matthias Barjenbruch,**  
Technisch Universitat Berlin, Germany.
- **Prof. Mohamed Boukhary,**  
Ain Shams University, Egypt.
- **Prof. Mohammad El-Sharkawy,**  
Cairo University, Egypt.
- **Prof. Venugopalan Ittekkot.**  
Center for Tropical Marine Ecology, Bremen,  
Germany.
- **Prof. Christopher Kendall,**  
University of North Carolina, U.S.A.
- **Prof. Elias Salameh,**  
University of Jordan, Jordan.
- **Prof. V. Subramanian,**  
Jawaharlal Nehru University, India.
- **Prof. Omar Rimawy,**  
University of Jordan, Jordan.
- **Prof. Hakam Mustafa,**  
Yarmouk University, Jordan.
- **Dr. Michael Crosby,**  
The National Science Board, National Science  
Foundation, Virginia, U.S.A.
- **Dr. Brian Turner,**  
Durham University, U.K..
- **Dr. Friedhelm Krupp,**  
Senckenberg Research Institute and Natural History  
Museum, Germany.
- **Dr. Richard Lim,**  
University of Technology, Australia.

## EDITORIAL BOARD SUPPORT TEAM

---

### Language Editor

Dr. Abdullah Jaradat

### Publishing Layout

MCPD. Osama AlShareet

## SUBMISSION ADDRESS:

---

Professor **Abdul Rahim A. Hamdan**  
Deanship of Academic Research and Higher Studies  
Hashemite University, P.O. Box 330127, Postal Code 13133, Zarqa, Jordan.

Phone: +962-5-3903333 ext. 4151  
E-Mail: [jjees@hu.edu.jo](mailto:jjees@hu.edu.jo) , [hamdan@hu.edu.jo](mailto:hamdan@hu.edu.jo)