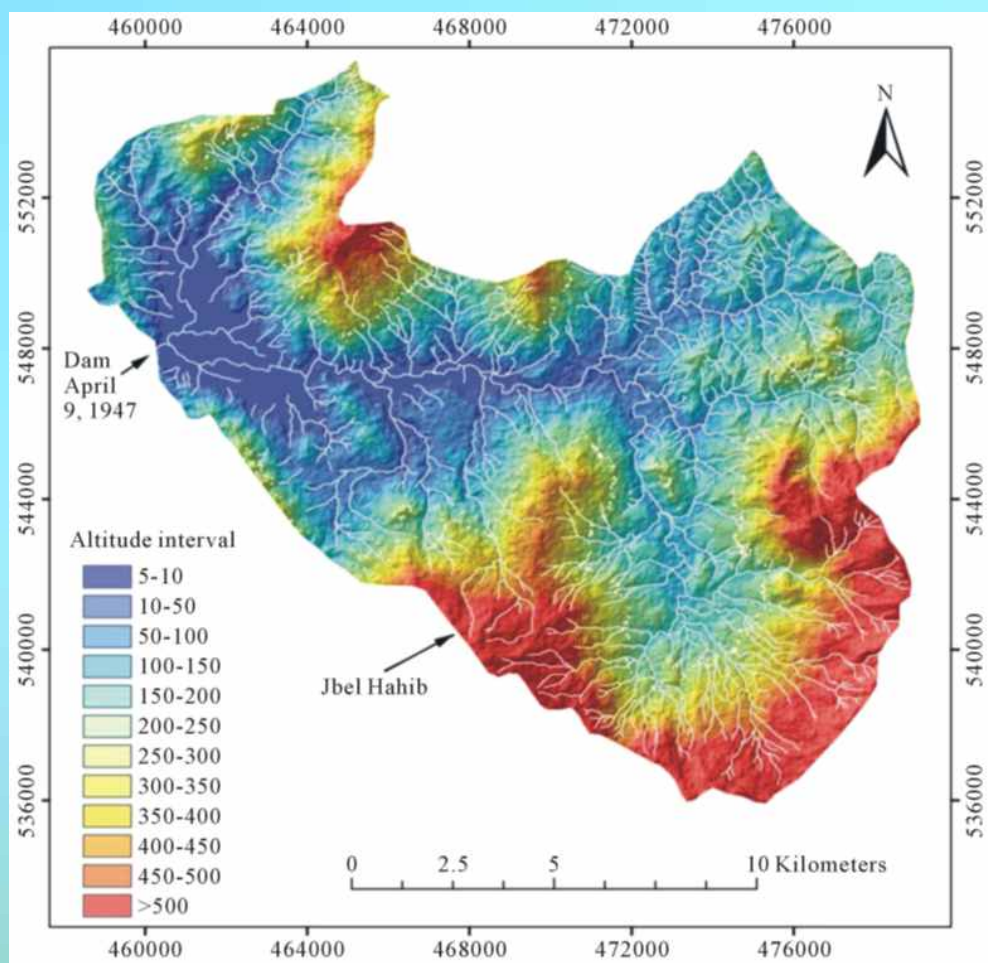


# Journal of Geoscience and Environment Protection



# Journal Editorial Board

ISSN 2327-4336 (Print) ISSN 2327-4344 (Online)

<http://www.scirp.org/journal/gep>

---

## Editor-in-Chief

**Prof. Valentine Udoh James**

Clarion University of Pennsylvania, USA

## Editorial Board

**Dr. Riccardo Buccolieri**

University of Salento, Italy

**Prof. Jianmin Chen**

Fudan University, China

**Prof. Peter G. Flood**

University of New England, Australia

**Prof. Yehia Hafez**

King Abdulaziz University, Saudi Arabia

**Prof. Benedict Ilozor**

Eastern Michigan University, USA

**Prof. Sabah A. Ismail**

University of Kirkuk, Iraq

**Prof. M. A. Khalifa**

Menoufia University, Egypt

**Dr. Juan Ma**

Fayetteville State University, USA

**Dr. Amirhomayoun Saffarzadeh**

Kyushu University, Japan

**Prof. V. I. Solomatin**

Russian Academy of Nature Science, Russia

**Dr. Mustafa Din Subari**

Universiti Teknologi Malaysia, Malaysia

**Prof. Leiming Yin**

Chinese Academy of Sciences, China

**Dr. Xiaochun Zhang**

Carnegie Institution for Science, USA

**Prof. Qixing Zhou**

Nankai University, China

# Table of Contents

**Volume 4    Number 1**

**January 2016**

<b>Simulation of Runoff and Sediment Yield for a Kaneri Watershed Using SWAT Model</b>	
V. A. Swami, S. S. Kulkarni.....	1
<b>Assessment of Physicochemical Characteristics of Sediment from Nwaja Creek, Niger Delta, Nigeria</b>	
A. A. Adesuyi, M. O. Ngwoke, M. O. Akinola, K. L. Njoku, A. O. Jolaoso.....	16
<b>Correlations between Geo-Chemical Speciation of Heavy Metals (Cu, Zn, Pb, Cd and Ni) in Surface Sediments and Their Concentrations in Giant Mudskipper (<i>Periophthalmodon schlosseri</i>) Collected from the West Coast of Peninsular Malaysia</b>	
T. R. Buhari, A. Ismail.....	28
<b>Kinetics of Sorption of Pendimethalin on Soil Samples Obtained from the Banks of Rivers Katsina-Ala and Benue, Central Nigeria</b>	
J. Kpagh, R. Sha'Ato, R. A. Wuana, T. A. Tor-Anyiin.....	37
<b>Irrigation Demand VS Supply-Remote Sensing and GIS Approach</b>	
C. R. Naidu, M. V. S. S. Giridhar.....	43
<b>Quantification of River Bank Erosion and Bar Deposition in Chowhali Upazila, Sirajganj District of Bangladesh: A Remote Sensing Study</b>	
M. S. Hassan, S. Mahmud-ul-islam.....	50
<b>Exploratory Analyses for Water Quality of the Gulf of Mexico Basin, Texas, 2005-2014</b>	
F. Anderson, N. N. J. Al-Thani.....	58
<b>Major and Trace Element Characterization of Shallow Groundwater in Coastal Alluvium of Chidambaram Town, Cuddalore District, South India</b>	
T. J. R. Kumar, C. Dushiyanthan, B. Thiruneelakandan, R. Suresh, S. V. Raja, M. Senthilkumar.....	64
<b>Hydrological Modelling of Sidi Jabeur Watershed (Morocco) Using Spatially Distributed Model ATHYS</b>	
M. Khattati, M. Serroukh, I. Rafik, H. Mesmoudi, B. Hassane, Y. Bouslihim.....	77
<b>Triangle Method for Estimating Soil Surface Wetness from Satellite Imagery in Allahabad District, Uttar Pradesh, India</b>	
A. A. Kasim, A. A. Usman.....	84

### **Microbial Community from MTBE-Contaminated Soil for Aerobic Biodegradation of MTBE**

B. Montazeri, M. H. Sarrafzadeh.....93

### **Analysis of Mountain Rangeland Changes, Using Remotely-Sensed Data, (Case Study: Dehdez Area, Iran)**

A. A. Torahi, E. Manuchehri.....100

### **Modelling Soil Erosion and Sedimentation in the Oued Haricha Sub-Basin (Tahaddart Watershed, Western Rif, Morocco): Risk Assessment**

M. Tahiri, H. Tabyaoui, A. Tahiri, H. El Hadi, F. El Hammichi, M. Achab.....107

### **Assessment of Calcimetric and Titrimetric Methods for Calcium Carbonate Estimation of Five Soil Types in Central Sudan**

J. T. Elfaki, M. O. Gafei, M. M. Sulieman, M. E. Ali.....120

### **Aeolian Dust Forecast in Arid and Semiarid Regions of Peru and Chile and Their Contribution over Particulate Matter Concentration**

A. Salvador, R. Arasa, B. Codina.....128

### **Optimization Study of Outburst Prevention Measures for Tuzhu Coal Mine Based on Fixed Weight Clustering Analysis**

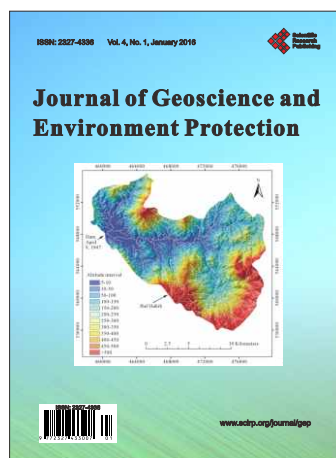
W. K. Luo, S. L. Shi, Yi Lu, S. H. Zou, Z. A. Chen, L. L. Chen.....153

### **Real Time Ambient Air Quality Status during Diwali Festival in Central, India**

S. Nigam, N. Kumar, N. K. Mandal, B. Padma, S. Rao.....162

### **Assessment of the Contribution of Road Runoffs to Surface Water Pollution in the New Juaben Municipality, Ghana**

L. K. Doamekpor, R. Darko, R. K. Blake, V. B. Samlafo, L. H. Bobobee, C. K. Akpabli, V. K. Nartey.....173



**Call for Papers**

## Journal of Geoscience and Environment Protection (GEP)

ISSN 2327-4336 (Print) ISSN 2327-4344 (Online)

<http://www.scirp.org/journal/gep>

**Journal of Geosciences and Environment Protection (GEP)** is an international journal dedicated to the latest advancement of Geoscience and Environment Protection. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of Geoscience and Environment Protection. All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process.

### Subject Coverage

This journal invites original research and review papers that address the following issues. Topics of interest include, but are not limited to:

#### Environmental Protection

- Air Pollution
- Chemical Pollution
- Climate Change
- Disasters Management
- Environmental Earth Sciences
- Environmental Geology and Rehabilitation
- Environmental Law and Policies
- Environmental Risk
- Global Environmental Protection Technology
- Global Warming
- Landfill Waste Management
- Mineral Processing, Waste Management and Recycling
- Nuclear Energy and Environmental Protection
- Pollution Control and Technologies
- Soil Environment and Soil Science in Other Disciplines
- Sustainability of Resources and Environment
- Waste Water Management and Aquaculture
- Water Engineering

- Water Resources Management and Water Quality

#### Geoscience

- BioGeomarkers and Their Significance for Astrogeology and Astrobiology
- Crystallography and Mineralogy
- Education and Capacity Building in Geosciences
- Endogenous, Exogenous Petrology and Geochemistry
- Energy and Mineral Deposits
- Geodynamics
- Geoethics
- Geographic Information Science
- Geological Collections and Museology
- Hydrology and Hydrogeology
- International Partnership in Geosciences
- Medical and Forensic Geology
- Meteorites and Planetary Geology
- Natural Hazards
- Paleontology
- Stratigraphy and Sedimentology

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the GEP.

### Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

### Website and E-Mail

<http://www.scirp.org/journal/gep>

E-mail: [gep@scirp.org](mailto:gep@scirp.org)



## What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Website: <http://www.scirp.org>**

**Subscription: [sub@scirp.org](mailto:sub@scirp.org)**

**Advertisement: [service@scirp.org](mailto:service@scirp.org)**