

# *International Water Technology Journal*

[www.iwtj.info](http://www.iwtj.info)

**ISSN: 2090/5432**

## **Publisher:**

International Water Technology Association (IWTA)

[www.iwta.info](http://www.iwta.info)

Address: 446 Gamal Abdel Naser St., Alexandria, Egypt

P.O.B. 415 Ibrahimia, Alexandria, 21321

## **Contacts:**

Tel. /Fax: +20 (0)35920641

E-mail: [Contact@iwtj.info](mailto:Contact@iwtj.info),



IWTA is a nonprofit scientific organization registered in Egypt (Reg. No. 1623)

## **Editors-in-chief:**

- **Magdy M. Abou Rayan** *Mansoura University, Egypt – President IWTA*
- **Andrea Scozzari** *National Research Council (CNR-ISTI), Italy*

## **The Editorial Board**

- **Abdin Mohamed Ali Salih** *University of Khartoum, Khartoum, Sudan*
- **Andrey G. Kostianoy** *P.P. Shirshov Institute of Oceanology, Moscow, Russia*
- **Elissavet Dotsika** *NCSR “Demokritos”, Athens, Greece*
- **Ibrahim Gar Al-Alm Rashed** *Mansoura University, Egypt*
- **Kiran Tota-Maharaj** *University of Salford Manchester, United Kingdom*
- **Mohamed Azaroual** *BRGM, France*
- **S. H. Tabatabaei** *University of Shahrekord, Iran*
- **Tamim Younos** *The Cabell Brand Center, Virginia, USA*
- **Thomas Ammerl** *BayFOR, Munich, Germany*
- **Vincenzo Lapenna** *CNR IMAA, Potenza, Italy*

## INDEX

### **HIGH RESOLUTION ELECTROMAGNETIC HYDROGEOPHYSICAL IMAGING**

*J. van der Kruk, A. Klotzsche, A. Mester, S. Busch, G.A. Meles, J. Bikowski, and H. Vereecken*

*Page 261*

### **EFFECT OF BREAKWATERS ON WAVE ENERGY DISSIPATION (CASE STUDY: RAS EL-BAR BEACH, EGYPT)**

*A. R. Zidan, O. S. Rageh, Th. E. Sarhan, and M. Esmail*

*Page 268*

### **VARIABILITY OF STREAMFLOW AND SEDIMENT YIELDS IN TARIA STREAM (NORTHWEST ALGERIA)**

*H. Madani Cherif, A. Terfous, A. Bouanani and A. Ghenaim*

*Page 284*

### **THE USE OF AN AEROBIC BIOLOGICAL FILTER FOR IMPROVING THE EFFLUENT QUALITY OF A TWO-STAGE ANAEROBIC SYSTEM**

*A. S. El-Gendy, T. I. Sabry, and F. A. El-Gohary*

*Page 298*

### **NON – INVASIVE INSTRUMENTAL SOIL MOISTURE MONITORING ON A TYPICAL BEAN CROP FOR AN IRRIGATION SUSTAINABLE MANAGEMENT**

*A. Satriani, A. Loperte, M. Catalano*

*Page 309*