

Athens Journal of Technology & Engineering

Volume 1, Issue 4, December 2014

Table of Contents			
President's Message	237		
ARTICLES			
Non-Destructive Electrical Methods to Determine the Quality of Concrete Sreekanta Das, William Clements and Govinda Raju	241		
Improving Water Supply System Components Visualization into GPR Images David Ayala-Cabrera, Silvia J. Ocana-Levario, Joaquin Izquierdo and Rafael Perez-García	253		
Modeling Process of Traffic Safety Terminology with the iglos Software - <u>A Methodological and Terminological Approach</u> Ayşe Yurdakul and Eckehard Schnieder	263		
<u>Using On-line Testing for Civil Engineering Studies</u> Anita Meldrum	275		
Announcements	289		

Published by



The Engineering & Architecture Research Division of The Athens Institute for Education and Research

Athens Journal of Technology & Engineering: A journal of the Engineering & Architecture Research Division of the Athens Institute for Education and Research

ISSN NUMBER: 2241-8237

President of Editorial Board of ATINER's Publications

Dr. Gregory T. Papanikos, President, ATINER

Editor-in-Chief of ATINER's Publications

Dr. George Poulos, Vice President of Research, ATINER & Professor Emeritus, University of South Africa

Editor of this Journal (Acting)

Dr. Theodore Trafalis, Head, <u>Industrial Engineering Research Unit</u>, Athens Institute for Education and Research (ATINER) and Professor of Industrial and Systems Engineering & Director, Optimization & Intelligent Systems Laboratory, The University of Oklahoma, USA.

- Dr. Nicolas Abatzoglou, Professor and Head, Department of Chemical & Biotechnological Engineering, Université de Sherbrooke, Canada.
- Dr. Stavros Alifragkis Adjunct Lecturer, Hellenic Army Academy, Athens, Greece.
- Dr. Thomas Attard, Associate Research Professor, Arizona State University, USA.
- Dr. Prabir Kumar Bandyopadhyay, Professor, GOA Institute of Management, India.
- Dr. Ioannis Zisis, Assistant Professor, Department of Civil and Environmental Engineering, Florida International University, USA
- Dr. Tanuja Bandivadekar, Associate Professor, Structural Engineering Department, Sardar Patel College of Engineering, India.
- Dr. Arthur Pantelides, Director of Engineering, Sumitomo Machinery Corporation of America, USA.
- Dr. Nicholas Patricios, Director,

 Engineering & Architecture Research

 Division, ATINER and Professor &
 Dean Emeritus, School of Architecture,
 University of Miami, USA.
- Dr. Panagiotis Petratos, Vice President of ICT, Athens Institute for Education and Research (ATINER) & Associate Professor of Computer Information Systems, California State University, Stanislaus, USA.
- Dr. Christos Sakellariou, Vice President of Finance, Athens Institute for Education and Research (ATINER) & Associate Professor of Economics, Nanyang Technological University, Singapore.

- Dr. Yiannis Papadopoulos, Professor of Computer Science, Leader of Dependable Systems Research Group, University of Hull, UK.
- Dr. Irena Pevac, Professor, Department of Computer Science, Central Connecticut State University, USA.
- Dr. Neli P. Zlatareva, Professor of Computer Science, Department of Computer Science, Central Connecticut State University, USA.
- Dr. Roberto Gomez, Associate Professor, Institute of Engineering, National Autonomous University of Mexico, Mexico.
- Huseyin Ince, Associate Professor, School of Business Administration, Gebze Institute of Technology, Turkey.
- Dr. Ahmed Kadhim Hussein, Assistant Professor, Department of Mechanical Engineering, College of Engineering, University of Babylon, Republic of Iraq. Dr. Amanda Peart, Senior Lecturer,
- Dr. Amanda Peart, Senior Lecturer, School of Computing, University of Portsmouth, UK.
- Dr. Jose Luis Garzon Lama, Senior Researcher, Institute of Aeronautics and Space, Brazil.
- Dr. Lei Wang, Research Engineer, MODEC, USA.

Managing Editor
Ms. Afrodete Papanikou

Offices

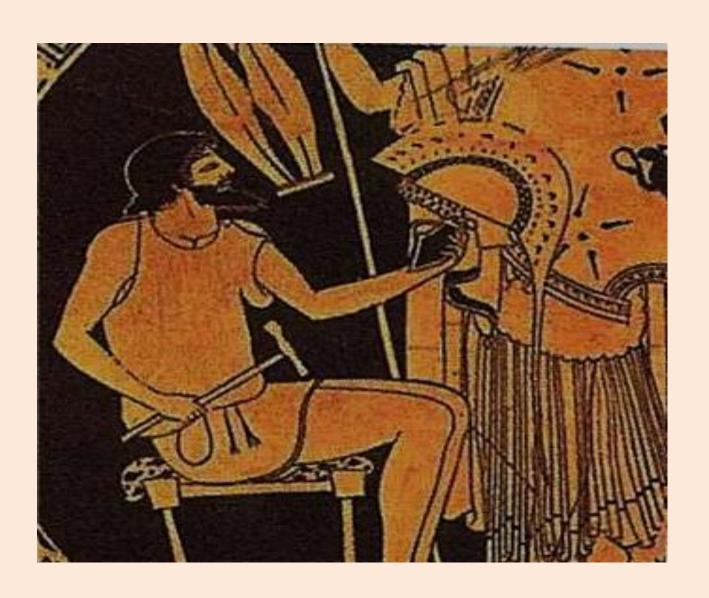
Athens Institute for Education and Research 8 Valaoritou Street, 10671 Athens, Greece Phone: + 30 210 3634210 Fax + 30 210 3634209 Email: technology-journal@atiner.gr

URL: http://www.atiner.gr/journals/technology.htm

Athens Journal of

Technology & Engineering Volume 1, Issue 4, December 2014

Table of Contents				
President's Message	237			
ARTICLES				
Non-Destructive Electrical Methods to Determine the Quality of Concrete Sreekanta Das, Govinda Raju and William Clements	241			
Improving Water Supply System Components Visualization into GPR Images David Ayala-Cabrera, Silvia J. Ocana-Levario, Joaquin Izquierdo and Rafael Perez-García	253			
Modeling Process of Traffic Safety Terminology with the iglos Software - <u>A Methodological and Terminological Approach</u> Ayşe Yurdakul and Eckehard Schnieder	263			
<u>Using On-line Testing for Civil Engineering Studies</u> Anita Meldrum	275			
Announcements	289			



President's Message

The Athens Institute for Education and Research (ATINER) is pleased to announce the publication of a number of peer reviewed, open access journals of original research work. Most of the articles will be selected from the numerous papers that have been presented at the various annual international academic conferences organized by the different research divisions and units of the Athens Institute for Education and Research. The plethora of papers presented every year will enable the editorial board of each journal to select the best, and in so doing produce a top quality academic journal. In addition to papers presented, ATINER will encourage the independent submission of papers to be evaluated for publication.

The current issue is the fourth of the *Athens Journal of Technology & Engineering* published by the <u>Engineering & Architecture Research Division</u> of the Athens Institute for Education and Research (ATINER). The Head of the <u>Engineering & Architecture Research Division</u> is member of the Editorial Advisory Board. The Academic Members of the research unit are members of the Editorial Board and will assist the editor and the Editorial Advisory Board with the peer reviewing of all submitted papers. Currently, the academic members of the five research units consist of over 100 international experts from about 50 countries.

Gregory T. Papanikos
President
Athens Institute for Education and Research