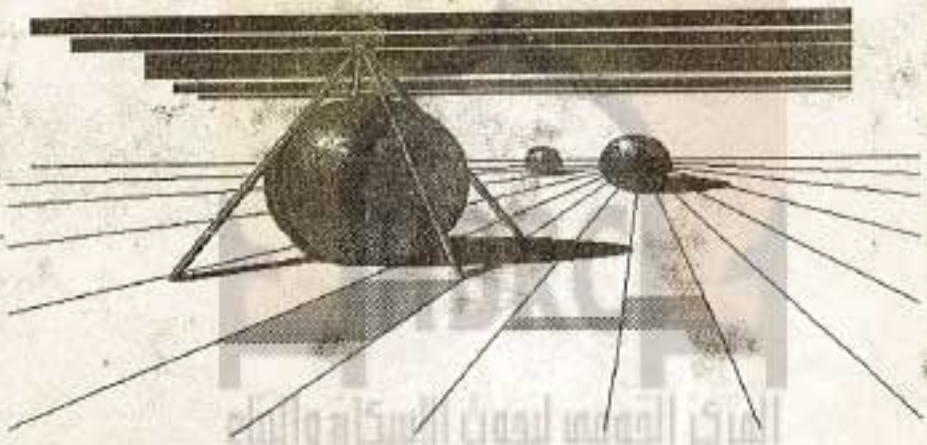
Sci. Bull. Fac. Eng. Ain Shams Univ.
ISSN 1110 - 1385

AIN SHAMS UNIVERSITY

FACULTY OF ENGINEERING



SCIENTIFIC BULLETIN

Vol. 31, No. 2, June 30, 1996
Part II : *Electrical and Mechanical Engineering*
Physics and Mathematics

Sci Bull Fac. Eng. Ain Shams Univ.
ISSN 1110-1385

AIN SHAMS UNIVERSITY

Scientific Bulletin
of
The Faculty of Engineering

HBRC
SINCE1954

31/7/1997

AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING

SCIENTIFIC BULLETIN

EDITORIAL BOARD

1- *Prof. Mohamed Abdel-Hamid Sheirah* *(Chief Editor)*
2- *Prof. Ali Mohamad Talaat* *(Co_Editor)*
3- *Prof. Mohamed El-Niazi Hamad*
4- *Prof. Salah El-Din Mohamed El-Mahdy*
5- *Prof. Saad Kamel Massoud*
6- *Prof. Ali Kamel El-Kharashi*
7- *Prof. Abdel-Hady Hosny Hassan*
8- *Prof. Mohamed Zaki Hawas*

Prices Per Volume excluding mail postage:

		Egypt	Overseas
Individuals:	Authors	20 LE	20 US $
	Non-Authors	35 LE	35 US $
Societies:		90 LE	90 US $

Faculty of Engineering
Post Office 11517, Abbassia
Cairo, Egypt

Tel : (202)2826636/7
Telex : 94070 USHAMS U
Fax : (202) 285-0617

GUIDE FOR THE PREPARATION OF MANUSCRIPTS TO PROSPECTIVE AUTHORS FOR THE SCIENTIFIC BULLETIN

A- OBJECTIVES

The Bulletin aims at the development of knowledge in the field of engineering, technology and related sciences. All innovative, valuable and useful articles as research or review papers or reports will be regarded. In order to guarantee the highest possible standard, the received articles are rigorously refereed. However, articles that have been published before or which were submitted for publication in another magazine will not be considered.

B- GUIDELINES

1. Language : English or Arabic

2. Typescript : The complete paper should be camera-ready, laser-typed, single-sided with double-line spacing, five-space paragraph indentation, on standard A4 size paper. The Times New Roman is the preferred font for use. 25 mm margin is to be left on the four sides of the page.

3. Number of copies : For the purposes of refereeing and editing, the original and three copies of the paper are required. The referees will receive unidentified copies.

4. Length : The fee will account for a maximum of 15 pages. Additional pages are charged as per page. All pages must be numbered.

C- CONTENTS

The first page of the article should include :

- A title consisting of a maximum of 10 words in bold capital letters (18 pt font) and centered.
- The authors names (14 pt font) followed by their affiliations and present addresses should be centered under the title.
- Indexing terms (12 pt font) containing a maximum of six key words indicating the area of the paper.

- An abstract of not more than 100 words (14 pt font) in the same language of the text to give the summary of the main contents of the paper. This should give a clear and concise view of the state-of-the-art and motivation of the subject, an outline of the paper and its contribution. The abstract should not include any references.
- A translation in the other language.

The following pages should include :

- A list of the used symbols, acronyms, etc.
- An introduction explaing the nature of the study, previous work, purpose and contribution of the paper.
- The text of the article suitably itemized.
- Conclusions indicating advantages, limitations and possible applications.
- Mathematical equations typewritten leaving double-spaces on either side and using the SI units.
- Drawing computer- designed made using India ink on transparent or white paper. Lettering must be typewritten or written by template.
- Tables should be typewritten in serial with clear headlines and should not be a repetition of any information that has appeared somewhere else in the article.

Table of Contents

PART I

Architecture and Civil Engineering

Page

1- Non-Linear Analysis Of Perforated Steel Plates
Ayman A. A. Embaby 1
2- Traffic Accidents Analysis In The Greater Cairo Urban Areas
Mona H. M. Abd Allah 16
3- Reduction Of Pollution Load From A Chloro Alkali Plant
Sohair I. Abou-Elela, Fayza A. Nasr And N. Abdelmoneam 33
4- Sediment Transport And Shoreline Changes
Abd El-Fattah El-Fiky, Abd El-Mohsen El-Mongy, Sonia Youssef El-Serafy And Mohamed Khairy El-Kamash 43
5- Structural Analysis Of Sluice Gates
Essam Aly Abdel-Hafiz 56
6- Managing A Gis Project: Designing Data Forms For Urban Planning Projects
Ali Faramawy 67
7- Towards A Comprehensive Strategy For Cad Education
Samir Sadek Hosny 80

PART II

Electrical and Mechanical Engineering, Physics and Mathematics

8- Applications Of The Hankel Transform Beam Propagation Method For Cylidrically Symmetric Structures
M. Shalaby 92
9- Analysis Of Finite Phased Arrays Of Arbitrary Shape Linear Microstrip Antennas
Ahmed M. Attyia, Essam A. El-Dhwaty And Fatma M. El-Hifnawi 103
10- Editing And Testing Power System Data Using Personal-Computer
Nagdy M. Nagdy 125
11- Performance Evaluation Of Computer Networks In A Noisy Environment
Gamal Abdel-Fadeel Mohammed Khalaf 137
12- Can End-Users Develop Their Own Information System: An Approach Towards Automating The Design Of Data Models
Shehab A. Gamalel-Din 149
13- Assigning Dependent Processes To Parallel Processors
H. Moharram, M. N. Elsayed And S. M. Nassar 168
14- An Unsupervised Texture Segmentation Algorithm Using Variance Analysis And Gauss Markov Random Field
Samir I. Shaheen, Fatma M. Bayoumi And Ayman A. M. Ibrahim 198
15- A New Hybrid Architecture For Network Management In A Combined OSI And IP Environment
Tarek Kamel 214
16- The Implementation Of A New IP Security Model
Waleed Hosny, Tarek Kamel And Samir Shaltin 228
17- Renewable Energy Control Using Expert System
Hisham El Khashab 243
18- Robust Variable Structure Control Scheme Applied To Power Systems
M. Said Abd El-Motaleb 254
19- Minimization Of The Active Power ..sses In Electric Power Systems
M. A. Tawfick, M. M. M. El-Shahat And A. F. El-Gharably 267