

## Paper Title for Int. J. of Thermal & Environmental Engineering

**First Author's Name<sup>a</sup>, Second Author's Name<sup>b\*</sup>**

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### Abstract

The paper should start with a short abstract stating clearly the objectives, scope and results of the work presented. This set of instructions follows the required format for all papers to be included in the journal or conference proceedings. It is compulsory to use the template for the preparation of your paper. The formatting is rather straightforward as you just need to copy and paste your text making sure to retain this sample font type, size, etc. The length of the completed paper should not exceed 8 pages.

**Keywords:** *Keyword One, Keyword Two, Keyword Three, etc. (minimum 3 keywords)*

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### 1. Introduction

The Journal Papers or Conference Proceedings will be prepared from electronic file documents supplied by the author(s). To ensure publication quality and uniformity, the following requirements have been prepared to assist authors in preparing papers for the Journal and the Conference. If these requirements are not followed, papers will be returned for revision and re-submittal. The resulting time delay could cause rejection of the paper because of publication deadlines for the Journal Publication or Conference Proceedings.

### 2. Content

All text must be in a two-column format. The total allowable width of the text area is 17.1 cm wide by 24.4 cm high. Columns are 8.1 wide, with a 0.9 cm space between them. The main text is in 9-point Times New Roman. Do not use double-spacing. All paragraphs should be indented and fully justified in the column. Please do not place any additional blank lines between paragraphs.

The section heading is centered within the column and the style is 10-point Times New Roman boldface. The format includes 18-point spacing before and a 3-point after. Note also the added blank line after. Specific information on other important items follows. All sections and 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> level sub-section headings should be copied on from the samples provided herein with numbering scrupulously observed.

#### 2.1. Text Heading 1

Note the blank line between the heading of this level 1 sub-section and this paragraph. The style is 9-point Times New Roman boldface, flush left and a 12-point spacing before.

##### 2.1.1. Text Heading 2

When needed, the level 2 sub-section heading follows this format; Leave one blank line between the heading and the text. This heading is 9-point Times New Roman boldface, italicized with 12-point spacing before, and flush at the left margin.

##### 2.1.1.1 Text Heading 3

If exceptionally needed, the level 3 sub-section heading should be 9-point Times New Roman, italicized and flush left with appropriate numbering. Please leave no blank line between the heading and the text.

#### 2.2. Equations, Formulas, Symbols, Units

Type all equations and formulas from the left margin (do not centre in the column) and number them consecutively. Equation numbers should be placed flush at the right margin in parentheses (ref. Eq.1). Refer to equations in the body of text by these numbers (e.g. "Eq.1" or "Equation 1 gives..."). Use SI units and Arabic numerals, but do not use italics.

$$v = \frac{\mu}{\rho} \quad (1)$$

Equation (1) offers an example of equation format.

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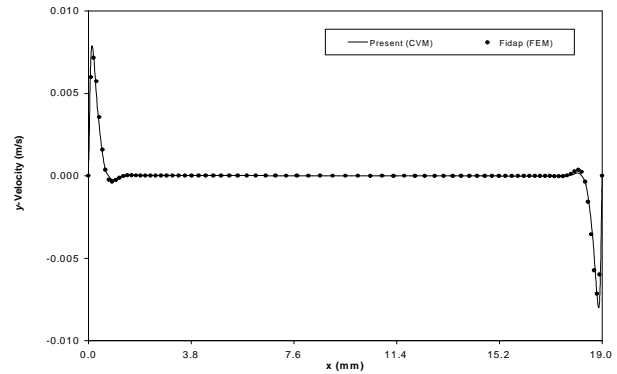
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DOI: 10.5383/ijtee.04.0x.00xx

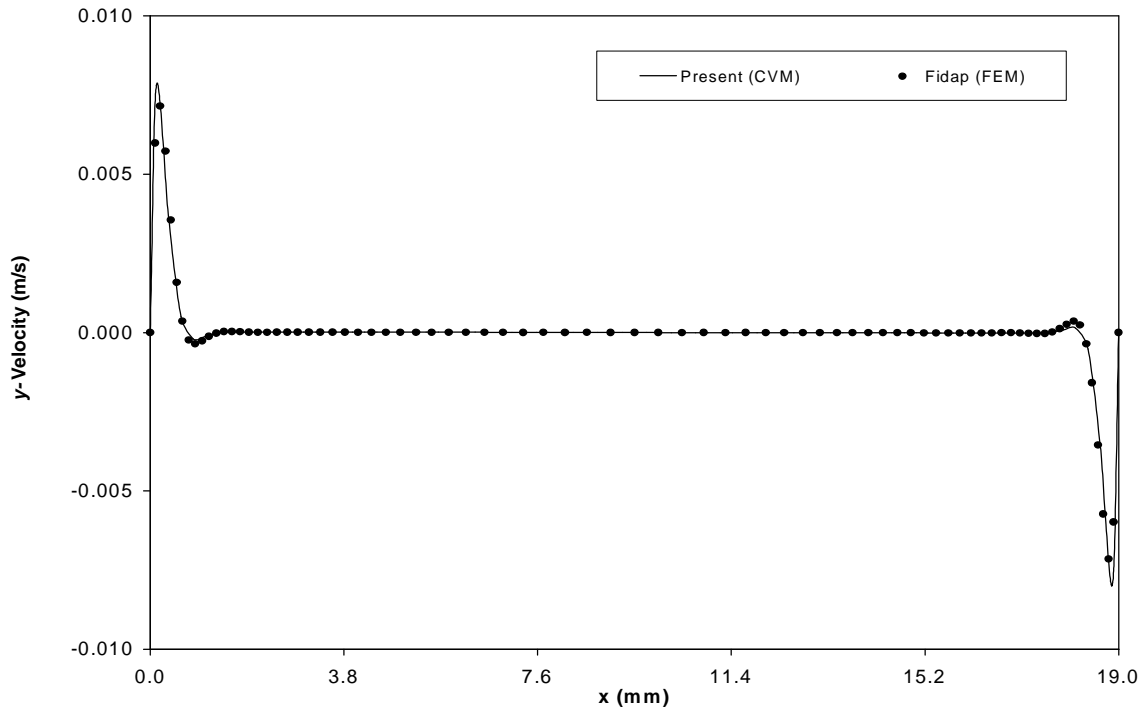
**2.3. Illustrations**

Number illustrations consecutively in the order of appearance and refer to them as Fig. 1, Figs 2 to 4, or Figure 1 represents, etc. Avoid sideways illustrations. Photographs should be of good quality contrast. Do not include colored illustrations. Figure lettering should be approximately the same size as the text with a minimum of 2 mm. Lines should preferably be 0.2 mm thick. Make sure that illustrations borrowed or adapted from another source are properly acknowledged. Figure captions should be 8-point Arial/Helvetica, boldface type as for Fig. 1.

Figure 1 gives a sample format for figures than can fit in one column. If your figure is not legible enough or is exceptionally big to be contained (legible) in a single column as Fig. 1, then you may use the double-column format as for Fig. 2. Please spare the use of double-column format for figures.



**Fig. 1. Single-column format figure**



**Fig. 2. 2-column format figure for the International Journal or Conference [1]**

**2.4. Tables**

Number tables consecutively in order of appearance and place them as close as possible to where they are first referenced in the text. Refer to tables as Table 1 or Tables 1 and 2, in the body of text. Avoid abbreviations in column headings (other than units). Indicate units. Type the caption above the table to the same width as the table, and do not leave a line space between the table caption and the table. Tables caption should be 8-point Times New Roman, boldface type. We advice a single-column format table (e.g. Table 1).

Depending on their size, you can switch between single-column and double-column formats (e.g. Tables 1 and 2, respectively).

**Table 1. Sample of single-column format table for IJTEE or ICEWE**

	Load (N)	Gauge length (mm)
Results	0	50.000
	50,000	50.0613
	100,000	50.1227
	150,000	50.1848
	175,000	51.50
	200,000	51.35
	225,000	52.90
	231,000	53.40

**Table 2. Sample of 2-column format table for the IJTEE or ICEWE**

Iteration	1	2	3	4	5	6	7
Error	1.7e+20	0.383	1.25e-3	3.42e-5	1.60e-5	1.29e-5	1.06e-5

Please spare the use of two-column format tables.

## 2.2. Reference Citations

References should be numbered consecutively throughout the paper using Arabic figures in brackets: [1], [2], etc. and collected together in a section headed "**References**" at the end of the paper. Reference to journal articles [1], textbooks [2], papers in conference proceedings [3], chapters in books [4], monographs [2], technical reports [5] and theses [6], should provide sufficient information as in the samples.

## 2.2. Page Numbering

Each paper will be assigned a number in the journal or conference proceedings. To facilitate printing and further referencing, local page numbering is used in each paper, starting from page 1. The page number should appear centered as footer; e.g. the number assigned for your paper.

## 3. Conclusion

This template is designed to assist you in the preparation of your manuscript for the IJTEE, ICEWE Conf or any other IASKS Publications. We are looking forward to seeing you in Amman, December, 12-15, 2010.

## Nomenclature

Please use standard notations. Should you choose to skip this section, all symbols must be clearly defined everywhere relevant in the text. Leave only one blank line between the title of this section and the first parameter description. Please do not forget to delete this paragraph or the entire section accordingly.

D Diameter of the jet , m  
T Temperature of the jet, K

### Greek Symbols

$\mu$  Dynamic viscosity, Pa.s  
 $\rho$  Mass density, kg/m<sup>3</sup>

### Subscripts

0 Reference value

### Exponents

K Iteration number

### Notations

D/Dt Total derivative

### Non-dimensional Numbers

Re Reynolds number

## Acknowledgments

The journal would like to thank all authors for their contribution and following up with this format. The journal is a member of CrossRef. Therefore, it is essential to provide the DOI of any paper that you cite (when applicable; we realize that some papers don't have DOIs). Please see references [1] and [3] as examples.

## References

- [1] I. Janajreh, S. Syed, R. Qudaih, I. Talab. Solar Assisted Gasification: Systematic Analysis and Numerical Simulation. Int. J. Thermal & Environmental Engineering 2010;1:81-90, DOI: [10.5383/ijtee.01.02.004](https://doi.org/10.5383/ijtee.01.02.004)
- [2] Haik, Y: Engineering Design Process. Pacific Grove: Brooks/Cole, 2003.
- [3] Toukourou NM, Gakwaya B, Yazdani JJ. An object-oriented finite element implementation of large deformation frictional contact problems and applications. Proceedings of the 1<sup>st</sup> MIT conference on CFMS. Cambridge, MA, 2001. DOI: [10.5383/mitcfsm.010005084](https://doi.org/10.5383/mitcfsm.010005084)
- [4] Occeelli V, Tadriect W, Raddev H. Disintegration of cylindrical liquid columns in liquid-fluid systems: direct numerical simulation. In: Schmitt A (Ed), Dynamics of Multiphase Flows. across Interfaces. Springer-Verlag, 2006, pp. 21-60.
- [5] Peki GK. X-Analysis Integration (XAI) Technology. Virginia Tech Report EL002-2000A, March 2010.
- [6] Kumar D. Modeling and Representation to Support Design-Analysis Integration. Master Thesis, Department of Civil Engineering, Indian Institute of Technology; 2009.

## **10<sup>th</sup> Arab Academy of Sciences International Conference**

**on**

### **Energy and Water Sustainability**

**November 30<sup>th</sup> -December 1<sup>st</sup>, 2012  
Beirut, Lebanon**

#### **Scope of the Conference**

After the success of the 9th Arab Academy of Sciences International Conference on Water and Energy in Sustainable Food Security, this year we will build on that success and call for the related but crucial theme of Energy and Water Sustainability. Conventional sources of energy are declining and to meet the global demand on energy, new but sustainable sources of cheap and abundant energy must be developed for a world heavily dependent for its stability on cheap energy. The importance and value of water is even more pronounced. The scarcity of renewable water resources make it necessary to look for means of obtaining fresh water through desalination, a process which is heavily dependent on the availability of energy.

The Arab Academy of Sciences (AAS), in its aim to increase scientific awareness and its role in the sustainable development of Arab society, is organizing a conference on “Energy and Water Sustainability.” This conference will address key scientific, engineering, and technological solutions relevant to the Arab Region and its people. This is a part of a series of conferences and meetings organized by AAS on topics crucial to the region that included Science Parks for the Developing World, Bridging the Digital Divide in Developing Countries, Drug Biotechnology & Medicinal Plants, and most recently, Alternative & Renewable Sources of Energy. It is a matter of policy to invite international experts who usually give freely their time to participate in these conferences.

#### **Important Dates:**

Extended Abstract: May 30<sup>th</sup> 2012

Notification of Acceptance of Abstract: June 5<sup>th</sup> 2012

Paper draft: August 31<sup>st</sup> 2012

Notification of Acceptance of Papers: October 15<sup>th</sup> 2012

Final Paper submission: December 15<sup>th</sup> 2012

Extended abstracts and papers will follow the posted conference format and will be subject to a peer-reviewed process. All accepted abstracts will appear on the conference proceedings, while accepted papers will be published in the International Journal of Thermal Energy with less than two months lead time following the conference. Last year, nearly 30% of the conference papers

were peer reviewed and published; this year we hope to increase the turnout of papers by relying on the highly experienced conference advisory committee.

### **List of Invited Speakers**

**Dr Bilal Aksh**, Dean of Engineering, Dhofar University, Oman

**Dr Muhammad Abu Zahra**, Chemical Engineering Professor, Masdrar Institute, Abu Dhabi, UAE

**Dr Darwish Al-Gobaisi**, Director, International Centre for Water and Energy Systems (ICWES), Abu Dhabi, United Arab Emirates

**Dr Fathi Allan**, Department of Mathematical Sciences, United Arab Emirates University, AL Ain, Abu Dhabi, United Arab Emirates

**Dr Ahmed Al-Salaymeh**, Director, Energy Center, University of Jordan, Amman, Jordan

**Dr Nadim Aziz**, Chair, Civil and Environmental Engineering, Clemson University, USA

**Dr Adnan Badran**, President, Arab Academy of Sciences and President, Petra University, Amman, Jordan

**Dr Riad Benelmir**, Director, LERMAB Laboratory, Henri Poincare University, Nancy, France

**Sherien Elagroudy**, Assistant Professor of Environmental Engineering, Ain Shams University, Cairo, Egypt

**Dr Nasir El-Bassam**, Director, International Research Centre for Renewable Energy, (IFEED), Germany

**Dr Mahmoud El-Solh**, Director General, International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo, Syria

**Dr Nadim Farajalla**, Department of Landscape Design and Ecosystem Management, American University of Beirut, Beirut, Lebanon

**Dr Chaouki Ghenai**, Ocean and Mechanical Engineering Department, Florida Atlantic University, USA

**Dr Muhammad Hajj**, Director of Graduate Studies, ESM Department, Virginia Tech, USA

**Dr John Hillman**, Consultant in R&D Development, Former CEO of the SCRI Group, United Kingdom

**Dr Isam Janajreh**, Mechanical Engineering Program, Masdar Institute of Science and Technology, United Arab Emirates

**Dr Marwan Khraisheh**, Dean of Masdar Institute of Science and Technology, Abu Dhabi, United Arab Emirates

**Dr Toufic Mezher**, ESM Program Coordinator, Engineering Systems and Management Masdar Institute of Science and Technology, Abu Dhabi, United Arab Emirates

**Dr El-Tayeb Mustafa**, President, The Future University, Khartoum, Sudan

**Dr Abdullah Nuhait**, Department of Mechanical Engineering, King Saud University, Riyadh, Saudi Arabia

**Dr Wajih Owais**, Minister of Higher Education and Scientific Research, Amman, Jordan

**Dr Ishwar Puri**, N. Waldo Harrison Professor and department Head, ESM Department, Virginia Tech, USA

**Dr Abdin Salih**, Director, Water Sciences Division, UNESCO, Paris, France

**Dr Imad Saoud**, Department of Biology, American University of Beirut, Beirut, Lebanon

### **Conference Venue**

The Conference will be held in a 5-star hotel in Beirut, Lebanon, November 30-December 1st, 2012. Precise details to be announced on Arab Academy of Sciences website [www.arabacs.org](http://www.arabacs.org). Beirut in Lebanon is a city that conveys a sense of life and energy that is immediately apparent, with its many historical and artistic sites that reflect a rich heritage that goes back over 5000 years.

### **Accommodation**

A special rate has been negotiated with the hotel (5 star) for all participants. The organizing committee will be pleased to make your reservation.

### **Registration**

The registration fee is \$200 and includes conference materials, lunches, and coffee breaks. This fee is waived for all invited speakers and graduate students.

### **Social Program**

The social program will include trips to world famous touristic places in Lebanon that will be organized by an on-site travel agency.

### **For further information please contact:**

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Dr. Isam Janajreh, Mechanical Engineering Program, Masdar Institute of Science and Tech. , Abu Dhabi, UAE, E-mail. [ijanajreh@masdar.ac.ae](mailto:ijanajreh@masdar.ac.ae).

Dr John Hillman, Consultant in R&D Development, Former CEO of the SCRI Group, United Kingdom; [jrhillman@tiscali.co.uk](mailto:jrhillman@tiscali.co.uk)

### **Scientific Committee:**

**Dr Muhammad Abu Zahra**, Chemical Engineering Professor, Masdar Institute, Abu Dhabi, UAE

**Dr Bilal Aksh**, Dean of Engineering, Dhofar University, Oman

**Dr Adnan Badran**, President, Petra University, Amman, Jordan & President, Arab Academy of Sciences

**Dr. Elisa Batarseh**, President, Summaya University, Amman, Jordan

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**Dr Muhammad Hajj**, Director of Graduate Studies, ESM Department, Virginia Tech, USA

**Dr Riad Benelmir**, Director, LERMAB Laboratory, Henri Poincare University, Nancy, France

**Dr. Emil Simiu**, Distinguished Civil Engineering Professor, Florida International University and NIST Fellow, Gaithersburg, MD, USA

**Dr Chaouki Ghenai**, Ocean and Mechanical Engineering Department, Florida Atlantic University, USA

Editorial:

## Special Issue Devoted to Selected Papers from the 9<sup>th</sup> Arab Academy of Sciences International Conference on “**Water and Energy in Sustainable Food Security**”

This was the 9<sup>th</sup> international conference organized by the Arab Academy of Sciences that was held in Beirut, Lebanon, December 1–4, 2011. A total of 40 papers were presented during this event dealing with various issues relating to the role of water and energy in food security. It was a stimulating gathering of scientists, researchers and experts from the international scientific community to exchange ideas and research findings, to pass their experiences on to others, network and establish collaborative research. In this special issue of Int. J. of Thermal & Environmental Engineering, nine papers are selected, extended beyond the versions presented at the conference, and published. In these papers, a great variety of theory, applications, and methodologies in various areas of water management, energy utilization and sustainability, and their profound link to food security are presented. The editor of this special issue would like to thank the authors for their efforts in providing an extended version of their papers. Also, he would like to express his deep appreciation for the hard work and diligence of the other reviewers that helped in the reviews for Int. J. of Thermal & Environmental Engineering. The published papers, the established networking, and collaborative work are amongst the fruitful goals of this conference. We would like personally to thank the Coordinating Editor and Editor-in Chief of the journal, Dr. Bilal Akash, for his willingness in giving us the opportunity to edit this special issue and for his continuous support during the submission process.

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