

Full Paper template for iCOMS2023

YOUR MANUSCRIPT TITLE

(Font size 12 Times New Roman bold font)

Author's Name (Font size 10-Point Times New Roman Font)

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Include institutional addresses for all authors. Place superscript number in front of author's affiliation corresponding to author's name.

Abstract (12-Point Times New Roman Font)

For abstract content, use font size 11, Times New Roman font, Italic. The abstract's length should be a minimum of 150 words and a maximum of 300 words. (Objectives: Why do we care about the problem? What practical, scientific, theoretical or artistic gap is your research filling? Methodology: What did you actually do to get your results? (e.g. analyzed 3 novels, completed a series of 5 oil paintings, interviewed 17 students) Result and Discussion: As a result of completing the above procedure, what did you learn/invent/create? Conclusions: What are the larger implications of your findings, especially for the problem/gap identified in step 1?)

Keywords: *parents, sharing, Instagram, privacy, self-efficacy, children*
List up to 6 keywords, font size 11, Times New Roman font, Italic

1. INTRODUCTION

Type text with Times New Roman, font size 12, single spacing. The word count for the article must be between 5,000 – 6,000 words (excluding abstract, acknowledgment, biodata, references and appendix). The introduction should put the focus of the manuscript into a broader context. As you compose the introduction, think of readers who are not experts in this field. Include a brief review of the key literature. If there are relevant controversies or disagreements in the field, they should be mentioned so that a non-expert reader can find out about these issues further. The introduction should conclude with a brief statement of the overall aim of the experiments.

To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the

accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

2. LITERATURE REVIEW OR RESEARCH BACKGROUND

Subheadings are italicized and left-aligned

3. METHODOLOGY

This section should provide enough detail to allow full replication of the study by suitably skilled investigators. Protocols for new methods should be included, but well-established protocols may simply be referenced.

4. RESULTS AND DISCUSSION

The results section should provide details of all of the experiments that are required to support the conclusions of the paper. There is no specific word limit for this section. The section may be divided into subsections, each with a concise subheading. The results section should be written in past tense.

Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font on 10-points line spacing. Type the caption above the table to the same width as the table.

Tables should be numbered consecutively. Footnotes to tables should be typed below the table and should be referred to by superscript numbers. Submit separate files of tables in their original file format and not as graphic files in addition to incorporating in the main text. Tables should not duplicate results presented elsewhere in the manuscript (e.g., in graphs).

Table 1 Table caption (no period “.”)

C1	C2	C3	C4
R1			
R2			
R3			
R4			
R5			

If figures are inserted into the main text, type figure captions below the figure. In addition, submit each figure individually as a separate file. Figures should be provided in a file format and resolution suitable for reproduction, e.g., EPS, JPEG or TIFF formats, without retouching. Photographs, charts and diagrams should be referred to as "Figure(s)" and should be numbered consecutively in the order to which they are referred

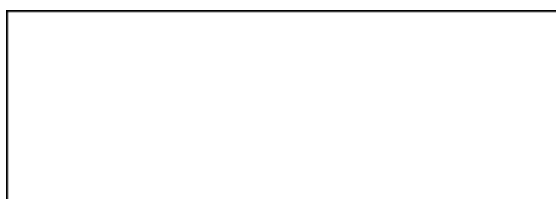


Figure 1 Figure caption (no period “.”)

Table 2 Table caption (no period “.”)

C1	C2	C3	C4	C5	C6	C7
R1						
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R4						
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R6						
R7						
R8						
R9						



Figure 2 Figure caption

The discussion should spell out the major conclusions of the work along with some explanation or speculation on the significance of these conclusions. How do the conclusions affect the existing assumptions and models in the field? How can future research build on these observations? What are the key experiments that must be done? The discussion should be concise and tightly argued. Conclusions firmly established by the presented data, hypotheses supported by the presented data, and speculations suggested by the presented data should be clearly identified as such. The results and discussion may be combined into one section, if desired.

5. CONCLUSION

The Conclusion section restates the major findings and suggests further research.

6. ACKNOWLEDGEMENTS (IF ANY)

People who contributed to the work but do not fit criteria for authorship should be listed in the Acknowledgments, along with their contributions. It is the authors' responsibility to ensure that anyone named in the acknowledgments agrees to being so named. The funding sources that have supported the work should be included in the acknowledgments.

7. BIODATA (not more than 50 words)

Ali bin Ali Baba is a senior lecturer at Universiti Teknologi Mara (UiTM), Malaysia.

Email : Ali@uitm.edu.my

8. REFERENCES

Please follow the American Psychological Association (APA) referencing style, details of which can be found at <http://www.apastyle.org/>. References are arranged alphabetically according to the last names of the authors and then chronologically. The first line of each reference is aligned left. Use hanging style of 0.5 inch after the first line of each reference.

The following are examples of the APA referencing style. See also Purdue OWL APA Formatting and Style Guide from https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/apa_changes_7th_edition.html

Abstracts

Author./ (Year of publication)./Title of Abstract (abstract)./Journal
Title,/Volume(Issue),/Page number.

Example:

Clark, D. V., Hausen, P. H., & Mammen, M. P. (2002). Impact of dengue in Thailand at the family and population levels (abstract). *American Journal of Tropical Medicine and Hygien*, 67(2), 239.

Books

Author./ (Year of publication)./Book Title./Edition (if any)./Place of publication:/Publisher.

Example:

Goodwin, C. J. (1995). *Research in psychology: Methods and design*. New York: John Wiley & Sons, Inc.

Book Articles

Author./ (Year of publication)./Article Title./Book Title (Page Numbers)./Edition (if any)./Place of publication:/Publisher.

Example:

Holland, J. L. (1973). Making vocational choice. *A theory of career* (pp. 43-49). New Jersey: Prentice-Hall.

Conference and Seminar Proceedings

To cite proceedings that are published regularly, use the same format as for a journal article. To cite proceedings that are published in book form, use the same format as for an article in a book.

Dissertation or Thesis

Author./ (Year of publication)./Title of dissertation or thesis./Type of Thesis./Awarding Institution.

Example:

Norasingha, A. (2009). *Expression and distribution of mucorinic receptors in hepatic composite of the cirrhotic rats*. A thesis for the degree of Master of Science in Biomedical Sciences. Rangsit University.

Editorials

Author./ (Year of publication)./Title of Editorial (editorial)./Journal Title./ Volume(Issue),/Page numbers.

Example:

Fisher, R. I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Seminars in Oncology*, 30(2Suppl 4), 1-2.

Journal Articles

Author./ (Year of publication)./Article Title./Journal Title,/ Volume(Issue),/Page numbers.

Example:

Leelawat, S., Leelawat, K., Narong, S., & Matangkasombut, O. (2010). The dual effects of delta 9-tetrahydrocannabinol on cholangiocarcinoma cells: Anti-invasion activity at low concentration and apoptosis induction at high concentration. *Cancer Investigation*, 28(4), 357-363.

Polk, A., Amsden, B., Scarrtt, D., Gonzal, A., Oknamefe, O., & Goosen, M. (1994). Oral delivery in aquaculture. *Aquacultural Engineering*, 13, 311-323.

Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 22, 52-58.

Srichandum, S. & Rujirayanyong, T. (2010). Production scheduling for dispatching ready mixed concrete trucks using bee colony optimization. *American Journal of Engineering and Applied Sciences*, 3(1), 823-830.

Letters

Author./ (Year of publication)./Title of Letter./*Journal Title*./ Volume(Issue),/Page number.

Example:

Enzensberger, W., & Fisher, P. A. (1996). Metronome in Parkinson's disease (letter). *The Lancet*, 347, 1337.

Notes

Author./ (Year of publication)./Title of Note./*Journal Title*./ Volume(Issue),/Page number.

Example:

Haier, R. J., Schroeder, D. H., Tang, C., Head, K., & Colom, R. (2010). Gray matter correlates of cognitive ability tests used for vocational guidance. *BioMed Central*, 3, 206.

Unpublished/In Press Articles

Author./ (In press Year)./Article Title./*Journal Title*./ (in press).

Example:

Veena, B. (2004). Economic pursuits and strategies of survival among Damor of Rajasthan. *Journal of Human Ecology*. (in press).

Internet periodicals

Author./ (Year of publication)./Article Title./*Journal Title*./Volume(issue),/ page numbers./Retrieved mm dd, year, from the full URL of the web page

Example:

Adams, P. J. (2000). Australian economic history. *Journal of Australian Economics*, 5(2), 117-132. Retrieved June 12, 2001, from <http://jae.org/articles.html>

Internet non-periodicals

Author./ (Year of publication)./Article Title./Retrieved mm dd, year, from the full URL of the web page

Example:

Lemire, D. (n.d.). Write good papers. Retrieved July 1, 2010, from
<http://www.daniel-lemire.com/blog/rules-to-write-a-good-research-paper>

Webpages (When multiple webpages are referenced, reference the homepage.)

Statistics New Zealand. (2007). *New Zealand in profile 2007*. Retrieved from
<http://www.stats.govt.nz>

If possible, insert “doi” at the last

Example:

Johns, E., & Mewhort, D. (2009). Test sequence priming in recognition memory. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 35, 1162-1174. doi:
10.1037/a0016372

A Simple Simulation of a Fish Tank Filtration System using Random Walk

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Trading Derivatives with Money Flow Index: Case Study SET50 Index Futures S50Z17

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Projecting the Prevalence and Distribution of Metabolic Syndrome in a Private University

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Computational Fluid Dynamics Simulation and Performance Improvement of Conventional Fluidized Bed Reactors Based on Fluidization in Rotating Fields

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Comparison of Bioactive Sulfur Containing Compounds in Fresh Garlic and Garlic Products

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12-point

Computational Fluid Dynamics Simulation and Performance Improvement of Conventional Fluidized Bed Reactors Based on Fluidization in Rotating Fields

10-point

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9-point

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12-point

Abstract

11-point

In this paper, the performance of the conventional fluidized bed reactor (FB) is improved by the fluidization in centrifugal fields referred to as the rotating fluidized bed reactor (RFB). The computational fluid dynamics (CFD) model for gas-phase ethylene polymerization has been developed to study the gas-solid flow behaviors in the RFB reactor. The inlet gas velocity is an important parameter for the bed characterizations. This work uses the CFD model to study the effects of different inlet gas velocities including 25 m/s, 30 m/s, 40 m/s, 50 m/s, and 60 m/s. Two sizes of particle diameter 0.15 and 1 mm are considered. The simulation results show that the bed behavior is more stable and uniform with the increase in the inlet gas velocity. The pressure drop of the bed also increases with an increase in the inlet gas velocity. As compared with the conventional fluidized bed reactor, the rotating fluidized bed reactor gives more uniform particle distribution and less amount of particle loss.

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Keywords: *Rotating fluidized bed, Centrifugal fields, Computational fluid dynamics, Gas-phase ethylene polymerization, Inlet gas velocity, Bed behavior*

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1. Introduction

Fluidized bed reactor is one of the important unit operations in the gas-phase polymerization process. The gas-phase process is popularly used for producing linear low-density polyethylene (LLDPE), and high-density polyethylene (HDPE) due to high

heat and mass transfer rate (Che et al., 2015). The ethylene in the gas phase is reacted with the catalyst particles inside the bed. The polymer particles grow continuously until the desired sizes have been reached (e.g. 1,000-3,000 μm) (Ahmadzadeh et al., 2008). In the case of the conventional fluidized bed reactors (FB) based on the gravitational field, the catalyst particles are lifted up by the influence of the drag and buoyancy forces against the gravitational force. Therefore, the catalyst particles can be entrained out of the reactor when operating at too high of a gas feed rate. At a high gas feed rate, the large bubbles also occur and this phenomena causes the decrease in the efficiency of the collisional interaction between the gas and solid phases (Nakamura & Watano, 2007).

The performance of the gas-phase ethylene polymerization reactor can be improved by the fluidization in the centrifugal fields referred to as the rotating fluidized bed reactor (RFB). The monomer is fed via the multiple tangential inlet gas slots along the outer wall of the fluidization chamber causing the centrifugal field in the chamber. In the rotating fluidized bed reactor, the catalyst particles can be retained in the fluidization chamber although it can be operated at high monomer feed rate. Moreover, the dispersion of catalyst particles and temperature in the reactor are uniform without the formation of large bubbles so higher heat and mass transfer rates can be achieved as compared to the conventional fluidized bed reactor (Broqueville & Wilde, 2009; Wilde, 2014). However, the rotating fluidized bed reactors have to be operated in a stable bed characterization to obtain high efficiency in manufacturing processes. Kovacevic, Pantzali, and Marin (2014) presented an experimental work in a pilot-scale rotating fluidized bed reactor. The bed behaviors can be classified as unstable, semi-stable and stable bed. The unstable bed can be observed at too low gas injection velocity with an intense fall-out of particles in the freeboard of the reactor. In the semi-stable bed, the fall-