

# FYP Technical Paper

How to write a good technical paper from FYP Dissertation

# General guidelines for the technical paper preparation are as follows:

- (a) Abstract: less than 300 words
- (b) Keywords: 6 words
- (c) Format:
  - Times New Roman 11 / Arial 10
  - 1 ½ spacing.
- (d) Margin text
  - Top: 1 in (2.5 cm)
  - Bottom: 1 inch (2.5cm)
  - Right: 1 inch (2.5cm)
  - Top: 1 in (2.5 cm)
  - Left: 1 inch (2.5 cm)
- (e) One-column page writing
- (f) Formula and Equation: MathType format
- (g) Figures and tables: Labelled and embedded in the text.
- (h) If authors are using databases, tables, diagrams, etc., from the internet and print materials, permission must be sought first from the rights holder. Please attach the permission(s) with the manuscript.
- (i) Diagrams, tables, figures, and source file in jpeg or eps format must be attached separately.
- (j) Reference style should be in IEEE Formatting Style.
- (k) All references mentioned in the Reference List are cited in the text, and vice versa.

**Table 2.2: Grading Structure for FYP 2**

| <b>Assessment<br/>(FoE &amp; FSIT)</b>           | <b>Assessment Contribution (%)</b> |                                 |                                 |
|--|------------------------------------|---------------------------------|---------------------------------|
|  | <b>Supervisor</b>                  | <b>Internal<br/>Examiner(s)</b> | <b>External<br/>Examiner(s)</b> |
| Progress Assessment 1<br>(Professional & Ethics) | 5                                  | -                               | -                               |
| Progress Assessment 2<br>(Project Mngt)          | 5                                  | -                               | -                               |
| Technical Paper                                  | 10                                 | 10                              | -                               |
| Project Presentation                             | 5                                  | 10                              | 15                              |
| Dissertation                                     | 15                                 | 15                              | 10                              |
| Total  | 40                                 | 35                              | 25                              |
| <b>Overall Total</b>                             | <b>40</b>                          |                                 | <b>60</b>                       |

*(To be completed by Supervisor and Internal Examiner)*

Student's Name : \_\_\_\_\_ Student's ID: \_\_\_\_\_ Programme: \_\_\_\_\_

Project Title : \_\_\_\_\_

| <b>Criteria for Judging Quality</b>  | <b>Unsatisfactory (&lt;4)</b>  | <b>Satisfactory (4 to &lt;6.5)</b>  | <b>Good (6.5 to &lt;8)</b>  | <b>Excellent (8 to 10)</b>  | <b>Multiplier</b> | <b>Marks</b> |
|--|--|---|---|---|-------------------|--------------|
| Abstract   | No or poor abstract; insufficient introduction, objective, problem statement, methodology and result       | Sufficient abstract, sufficient introduction, objective, problem statement, methodology with result mentioned | Substantial abstract, substantial introduction, objective, problem statement, methodology with result mentioned | Comprehensive abstract, comprehensive introduction, objective, problem statement, methodology with result mentioned | x 1               |              |
| Background of study, problem statement, objective, scope of study, relevancy and feasibility | Insufficient background of study, objectives, problem statement, scope of study, relevancy and feasibility | Sufficient background of study, objectives, problem statement, scope of study, relevancy and feasibility      | Substantial background of study, objectives, problem statement, scope of study, relevancy and feasibility       | Comprehensive background of study, objectives, problem statement, scope of study, relevancy and feasibility         | x 1               |              |
| Critical literature analysis, relevancy, recentness of literature                            | Insufficient literature review and inadequate analysis   | Sufficient literature review and adequate analysis  | In-depth and up-to-date literature review and has done substantial analysis                                     | Comprehensive and up-to-date literature review and has done critical analysis                                       | x 1               |              |
| Quality of references, citation and cross referencing  | Insufficient quality references with inadequate citation and cross referencing                             | Sufficient quality references with adequate citation and cross referencing                                    | Substantial quality references with substantial citation and cross referencing                                  | Comprehensive and recent quality references with comprehensive citation and cross referencing                       | x 1               |              |
| Methodology  | Project methodology and activities are insufficient, unachievable with inadequate methods                  | Project methodology and activities are sufficient, moderately achievable with adequate methods                | Project methodology and activities are comprehensive, achievable with suitable methods                          | Project methodology and activities are comprehensive, highly achievable with extremely adequate methods             | x 1               |              |
| Result and discussion  | Major problem with presentation of results, data is  | Results presented are not sufficient to meet objectives,  | Results presented are sufficient and meet the   | In-depth results presented and met the objectives.  | x 2               |              |

|                                 |   |   |  |  |     |      |
|---------------------------------|---|---|--|--|-----|------|
|                                 | poorly organized, limited discussion of theory or relevancy of results with respect to engineering knowledge                      | low quality data presentation, results not critically analyzed with respect to engineering knowledge                        | objectives, good data presentation, results substantially critically analyzed with respect to engineering knowledge                | comprehensive data presentation, results are critically analyzed with respect to engineering knowledge                     |     |      |
| Conclusions                     | Conclusions are not logical and completely unrelated to the objectives, limited evaluation of significance and quality of results | Conclusions are logical but are not related to the objectives, sufficient evaluation of significance and quality of results | Conclusions are logical and substantially related to the objectives, substantial evaluation of significance and quality of results | All conclusions are logical and related to the objectives, comprehensive evaluation of significance and quality of results | x 1 |      |
| Standard guidelines and format  | Manuscript has major formatting error   | Manuscript has minor formatting error   | Manuscript has a few formatting error  | Manuscript complies with the given format  | x 1 |      |
| English usage and writing skill | Poor English grammar rules and writing skills   | Average English grammar rules and writing skills  | Good English grammar rules and writing skills  | Excellent English grammar rules and writing skills   | x 1 |      |
| <b>TOTAL SCORE</b>              |   |   |  |  |     | /100 |

All table has to be numbered, and the title has to be written above the table. The table font size is 11 points and in a single-spacing format as the sample in Table 1.

## SAMPLE OF TECHNICAL PAPER

### Title (The length is less than 15 words)

Writer<sup>1</sup>, co-writer<sup>2</sup> (s)<sup>3</sup>

Affiliation<sup>1</sup>...<sup>2</sup>...<sup>3</sup>...

Corresponding email:

### Abstract

Writing format for this abstract is using font type, Times New Roman, size 11 points and written in a single-spacing format. Your abstract must consist summary of this article, brief of research, finding and impact of the article must include in this abstract. The uniqueness of this article also can be written in this abstract to attract the readers' interest. Citation is not allowed in the abstract. The length of this abstract is not more than 300 words.

**Keywords** Maximum of 6 (six). Please do not repeat the word in the title.

### INTRODUCTION

Article journal must follow the journal house style. Article length must not be more than 5000 words, must be submitted in MS Word and formatted to A4 size. The text must be written in Times New Roman, 1.5 spacing, justified. All the citations must follow the IEEE style [1].

Every new paragraph must be flush left with one blank line between each paragraph. Articles should consist of introduction, methodology, sampling, result, and discussion. The discussion has to be succinct. Writers are advised to write the article clearly and incoherence. Data should correctly be presented. All those citations should be cited ethically.

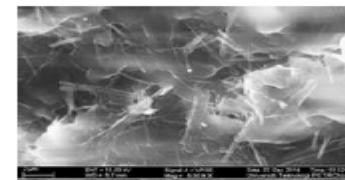
### Subheading

Organize your writing into heading and subheading. Only up to three levels of subheading is allowed in your writing.

**Table 1 Title of the table**

| Functional Group | Wavenumbers (cm <sup>-1</sup> ) |
|------------------|---------------------------------|
| O-H              | 3423.56                         |
| C-H              | 2925.58                         |
| C-O              | 1635.57                         |
| C-O              | 1048.38                         |
| C-OOO            | 608.83                          |

All figures, charts, photos have to be in JPEG or EPS format with 300 dpi. The legend font size is 10 points and the font type is New Times Roman. The figure's source file should be written accordingly, as shown in Figure 1.



**Figure 1** Figure title

### Subheading

All equation has to be in Mathtype or Math Equation format. Kindly use the symbol for degree ° and not using o with superscript °.

### CONCLUSION

To conclude the overall discussion of the paper. Future research may put in.

### ACKNOWLEDGMENT

The acknowledgment to the funder, stakeholder, co-researchers, or any other parties contribute directly or indirectly in producing the article and research.

### REFERENCES (in IEEE style)

- [1] Author Name, "Article title", Journal/Publication title, issue, vol, no, pages, year. Doi(if any)
- [2] D.W.O' Connell, C. Biekinshaw & T.F. Dwyer, "Heavy Metal adsorbent prepared from the modification of cellulose: A review", *Biosource Technology*, 45, 2, pp. 6709-724, 2008.

# Title of Technical Paper

- Should be *specific* enough to describe the contents, not so technical that only specialists will understand.
- Should be *appropriate* for the intended audience.
- The title usually *describes the subject matter* of the article.
- Sometimes a title that *summarizes the results* is more effective.
- Should be *eye catching*.

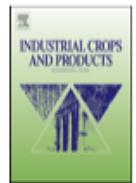
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Industrial Crops and Products

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Optimization of high pressure homogenization parameters for the isolation of cellulosic nanofibers using response surface methodology

Yalda Davoudpour<sup>a</sup>, Sohrab Hossain (Md.)<sup>a</sup>, H.P.S. Abdul Khalil<sup>a,b,\*</sup>, M.K. Mohamad Haafiz<sup>a</sup>, Z.A. Mohd Ishak<sup>b</sup>, Azman Hassan<sup>c</sup>, Zaidul Islam Sarker (Md.)<sup>d</sup>

<sup>a</sup> School of Industrial Technology, Universiti Sains Malaysia, 11800 Penang, Malaysia



# Author (s) of the Technical Paper

- The person who did the work and wrote the paper is generally listed as the first author of a research paper.
- For published articles, other people who made substantial contributions to the work are also listed as co-authors.



- An abstract, or summary, is published together with a research article, giving the reader a "preview" of what's to come.
- It allows other scientists to quickly scan the large scientific literature and decide which articles they want to read in depth.
- The abstract should be a little less technical than the article itself.
- It should be one paragraph, of 100-250 words, which summarizes the purpose, methods, results and conclusions of the paper.
- There should be no abbreviations or citations in the abstract.
- It should be able to stand alone without any footnotes.

A good introduction usually follows a **funnel shape**: start broad (background) → narrow down (problem, gap, rationale) → end specific (objectives and contribution).

## Paragraph 1: Background

- Begin with a broad overview of the research area.
- Provide key facts, definitions, or statistics to establish importance.

## Paragraph 2: Literature Review (Concise)

- Summarize what is already known: relevant studies, methods, or findings.
- Identify limitations, gaps, or controversies.

## Paragraph 3: Problem Statement & Research Gaps

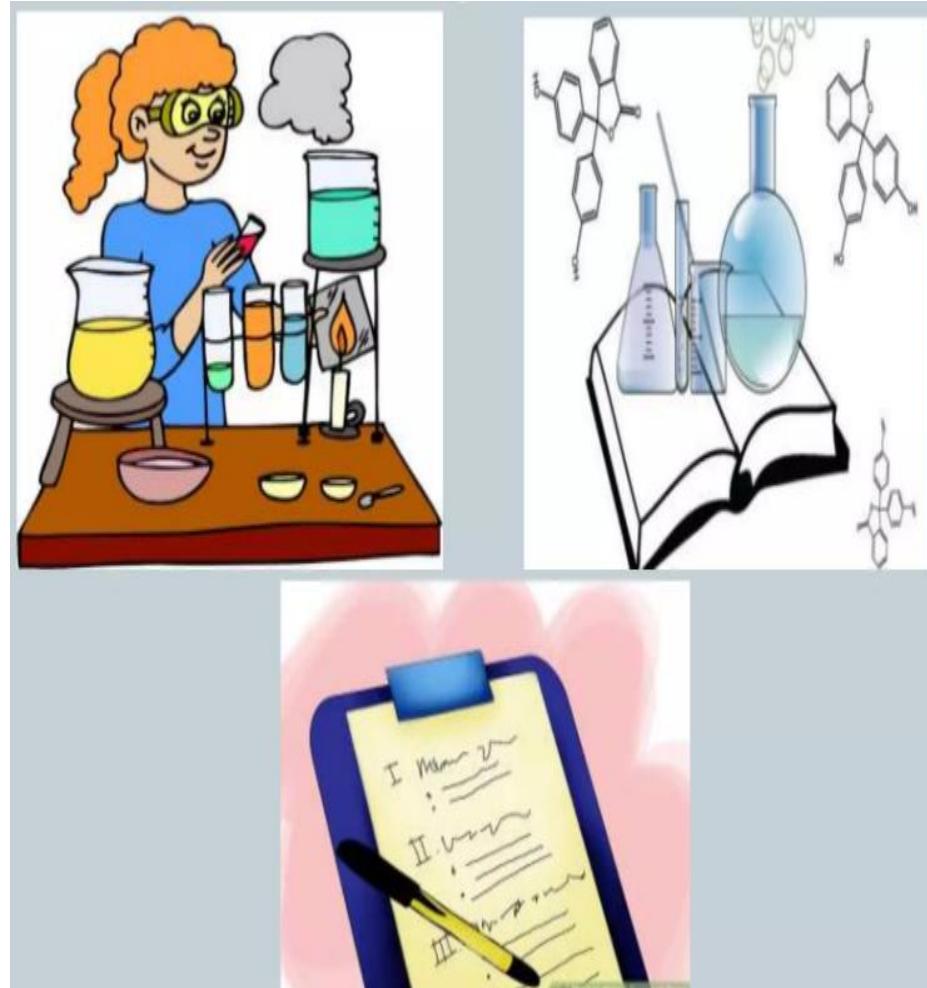
- Clearly state the problem or research gap and Explain why it is critical to address.

## Paragraph 4: Aim & Objectives

List specific objectives, questions, or hypotheses.

# Materials and Method

- The methods section should provide enough information to allow another scientist to repeat the experiment.
- It is helpful to look at other papers published in the field to understand what to include.
- A diagram, table, or flowchart can be used to explain the methods.
- This section should also include preliminary results that were used to design the main experiment being reported.
- Relevant ethical considerations must be mentioned.



# Results

- The results section should use graphs and tables if appropriate, but the main findings must also be summarized in the text.
  
- This section should not discuss the results or speculate on why something happened, as that belongs in the Discussion.
  
- Appropriate methods of showing data should be used, and there is no need to manipulate the data.
  
- If data is presented in a table or graph, include a title describing its contents.
  
- For graphs, the x and y axes must also be labeled. There is no need to use a table or graph merely to be "fancy."



- The discussion section should highlight the most significant results without simply repeating the Results section.
- It should address how these results relate to the original question, whether the data support the hypothesis, and if the findings are consistent with other reported studies.
- If the results were unexpected, offer an explanation and consider alternative interpretations.
- Suggest any further research needed to address questions raised by the results and discuss how the findings fit into the broader context.
- End with a one-sentence summary of the conclusion, emphasizing its relevance.

# Acknowledgement

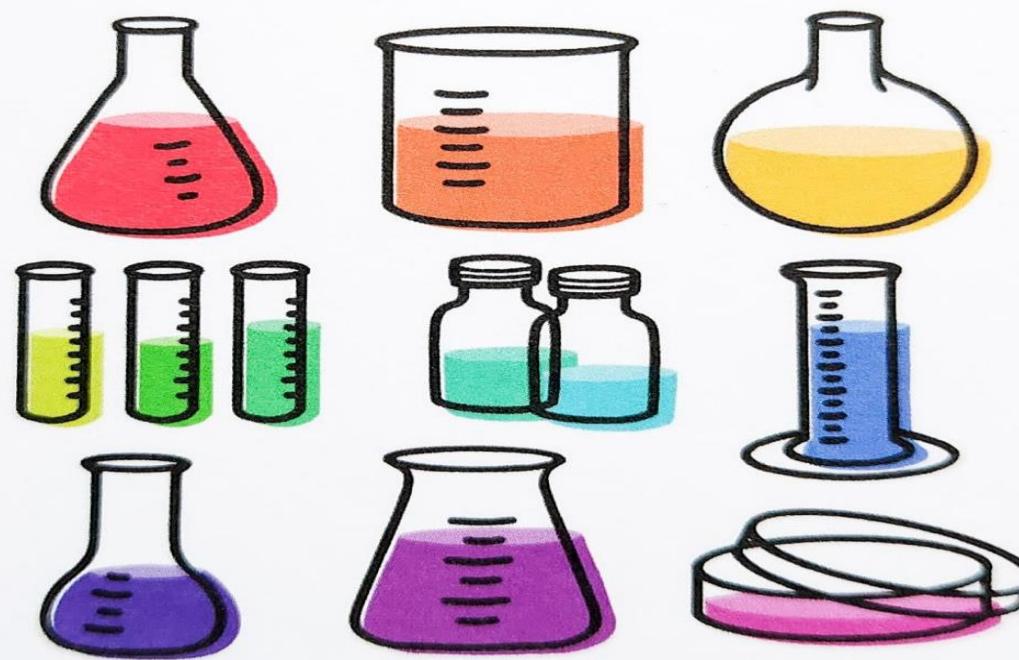
This section is optional to thank those who either helped with the experiments or made other important contributions, such as discussing the protocol, commenting on the manuscript, **or buying pizza**.



- Must list the reference cite in the manuscript.
- Based on the Journal's author guideline.



You always  
have great  
solutions!



Thank you!