

Research Articles

Objectives

- Get familiar with different types of research articles
- Introduce guidelines for each type
- Format of my term paper

Research article

- It is an article systematically prepared, peer reviewed and published in
 - Magazines, media and newspapers → media article
 - Scholarly journal
 - Trade publications

Media article

- Cover current news or ceremonial occasions and entertainments
- Authors: volunteers, paid employees
- Very mild review or no review.
- High impact on society
- Variable length and quality, normally short and focused
- No citations but may be quoting, interviewing, picture or video evidence, etc.
- May contain paid contents (advertisement, appraisal, promotion, degrading, etc.)
- Examples:
 - سبق، عكاظ، ...
 - الاخبارية
 - News webpages and social media

Trade publication

- Covers news and topics which are
 - Profession-specific
 - Industry-specific
 - Project-specific
- Authors are paid, and rewarded.
- No review
- One to a few pages, short movies, animations, etc.
- No citations
- Contains ads
- Examples:
 - Organizational web pages
 - Organizational newspapers
 - Field-specific journals

Scholarly Articles

- Original research/review on a specific scientific topic in a specific research area
- Authored by
 - Domain experts affiliated to a scientific organization
- Peer reviewed by other domain experts (two-three)
- Different types
 - Primary article
 - Review article
 - Systematic review
 - Meta Analysis
 - Conference papers
 - Original research
 - Case study
 - Method
- Contains no commercial ads or non-focused material.
- Example:
 - Nature
 - Journal of Computing
 - Future Generation Computer Systems
 - Neurocomputing
 - Ethics and information technology

How to write your term paper

- Which type of papers is it?
 - Systematic Review
- Steps:
- Narrow your topic and select papers from different sources
 - SDL (3)
 - ScienceDirect, WepofKnowledge, Pubmed, IEEE, ACM (3)
 - Googlescholar (3)
 - Other sources (3)
- Develop your research question/Hypothesis

How to develop a research question

- Define the topic
- Describe the problem
- Identify research gap
- Justify
- Write the research question
 - What, when, why, which, how, etc.
 - Ask many questions
 - Select the primary research question
 - Identify secondary research questions (needed information)

Writing your term paper

Preparing for publication

- Decide about the publication type
 - Review in our case
- Select a suitable journal
 - IEEE Access
- Read the journal scope
 - **Topical review:**
 - This is a review of an emerging area within the journal's scope
 - performs a technical and critical review of other articles.
 - Calculations are performed
 - conclusions are drawn on the strengths and weaknesses.
 - The conclusion can also discuss future challenges.
 - **Survey:**
 - **Analyzes, summarizes, systemizes, and**
 - **presents fresh conclusions** from a large number of recently published scholarly articles.

steps

- 1. Narrow your topic and select papers accordingly**
 - 2. Search for literature**
 - 3. Read the selected articles thoroughly and evaluate them**
 - 4. Organize the selected papers by looking for patterns and by developing subtopics**
 - 5. Develop a thesis or purpose statement**
 - 6. Write the paper**
 - 7. Review your work**
- Details available at:

<https://guides.lib.uoguelph.ca/c.php?g=130964&p=5000948>

Steps(2)

1. Select a template → IEEE interactive template selector?

<https://template-selector.ieee.org/secure/templateSelector/publicationType>

Transactions, Journals
and letters

Magazines

Conferences

Steps(3)

Title

- Select your title by merging of the selected papers and their keywords
- Evaluate the quality of your title and improve it
- Search the scientific databases to make sure that it was not published before.
- Add most relevant keywords

Abstract

- A summary of the main thesis, research focus, research gap, findings and future direction

Introduction

- Introduce your topic
- Paper outlines
- Framing your paper with the thesis
- Give rationale on the importance of your research (please review the lecture notes)

Mani body

- Break it into main sections, each section focuses on a topic or a method within your review
- Scan the literature hieratically, highlight advantages and shortcomings and introduce the next better one
- Summarize

Discussion

- Restate the thesis
- Wrap it up and homogenize
- Highlight research gap, consequences and possible solutions and future directions
- State the boundaries and limitations

References

- Use a unique reference style.
- Use software tools such as Endnote, Bibtex, etc
- Cite everything discussed within the paper.

Example:

IEEE Access Acceptance requirement

1. original writing that enhances the existing body of knowledge in the given subject area. Original review articles and surveys are acceptable, even if new data/concepts are not presented.
2. Results reported have not been submitted or published elsewhere
 - (although expanded versions of conference publications are eligible for submission).
3. Experiments, statistics, and other analyses are performed to a **high technical standard** and are **described in sufficient detail**.
4. **Conclusions** are presented in an appropriate fashion and are **supported by the data**.
5. The article is presented in an **intelligible fashion** and is written in **Standard English**.
6. Appropriate **references** to related prior published works must be included.
7. The article **falls within scope of IEEE Access**. To help you decide, you should consider if the article topic falls within the umbrella of IEEE topics of interest.
8. Avoid Plagiarism and duplicate publication
9. Proof read
10. Submit with supplementary materials

Example 2:

Ethics and Information Technology

- Scope:
 - advancing the dialogue between moral philosophy and the field of information and communication technology (ICT).
- Aims
 - To foster and promote reflection and analysis which is intended to
 - make a constructive contribution to answering the
 - ethical,
 - social and
 - Political
 - questions associated with the
 - adoption,
 - use, and
 - development of ICT.
- Includes
 - conceptual analysis
 - discussion of ethical ICT issues which arise in the context of technology assessment, cultural studies, public policy analysis and public administration, cognitive science, social and anthropological studies in technology, mass-communication, and legal studies.
 - Research on History of ideas and provides intellectual resources for moral and political reflection on ICT is also welcomed.

<https://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk>

Front matter 1,2

1. Select one of the templates and start overwriting on it.
2. title:, Authors, affiliation

Example:

The Role of computer ethics in the age of IoT: A systematic Review

A.M. Artoli*, A. Algahtani and M. Aldosary

Computer Science Department, College of Computer and Information Sciences, King Saud University,

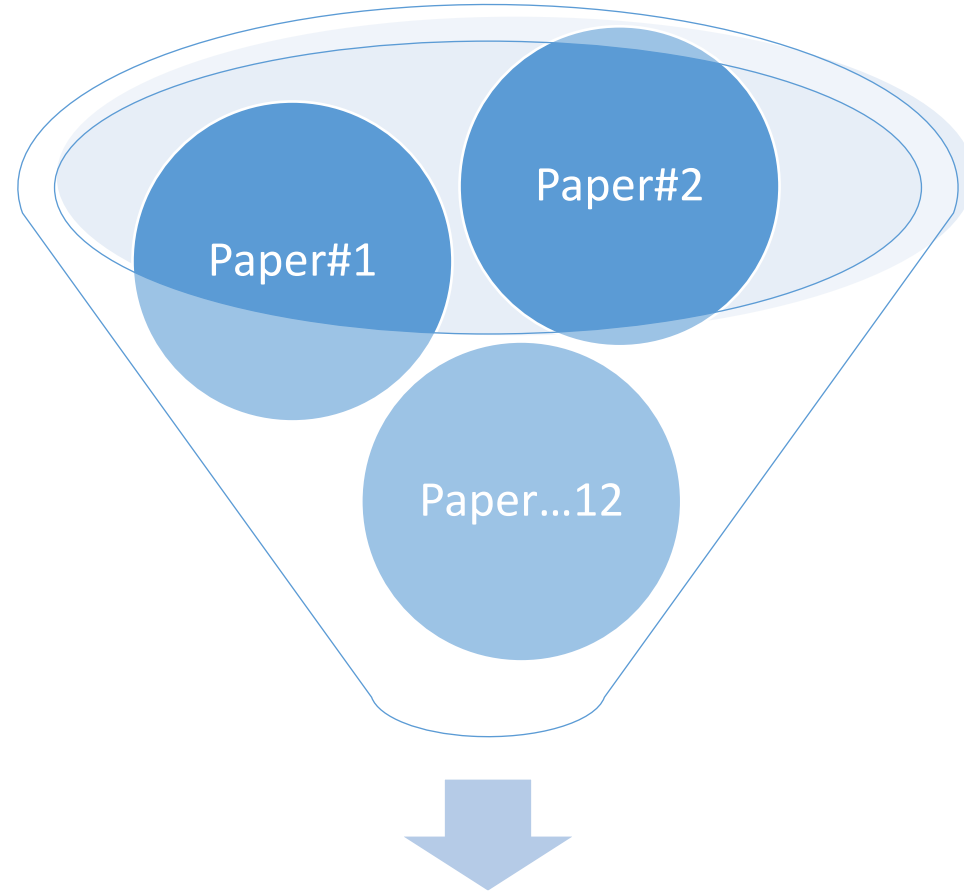
P.O.Box 51178, Riyadh 11543

Kingdom of Saudi Arabia

Emails:{aartoli;gahtani;dosary}@student.ksu.edu.sa

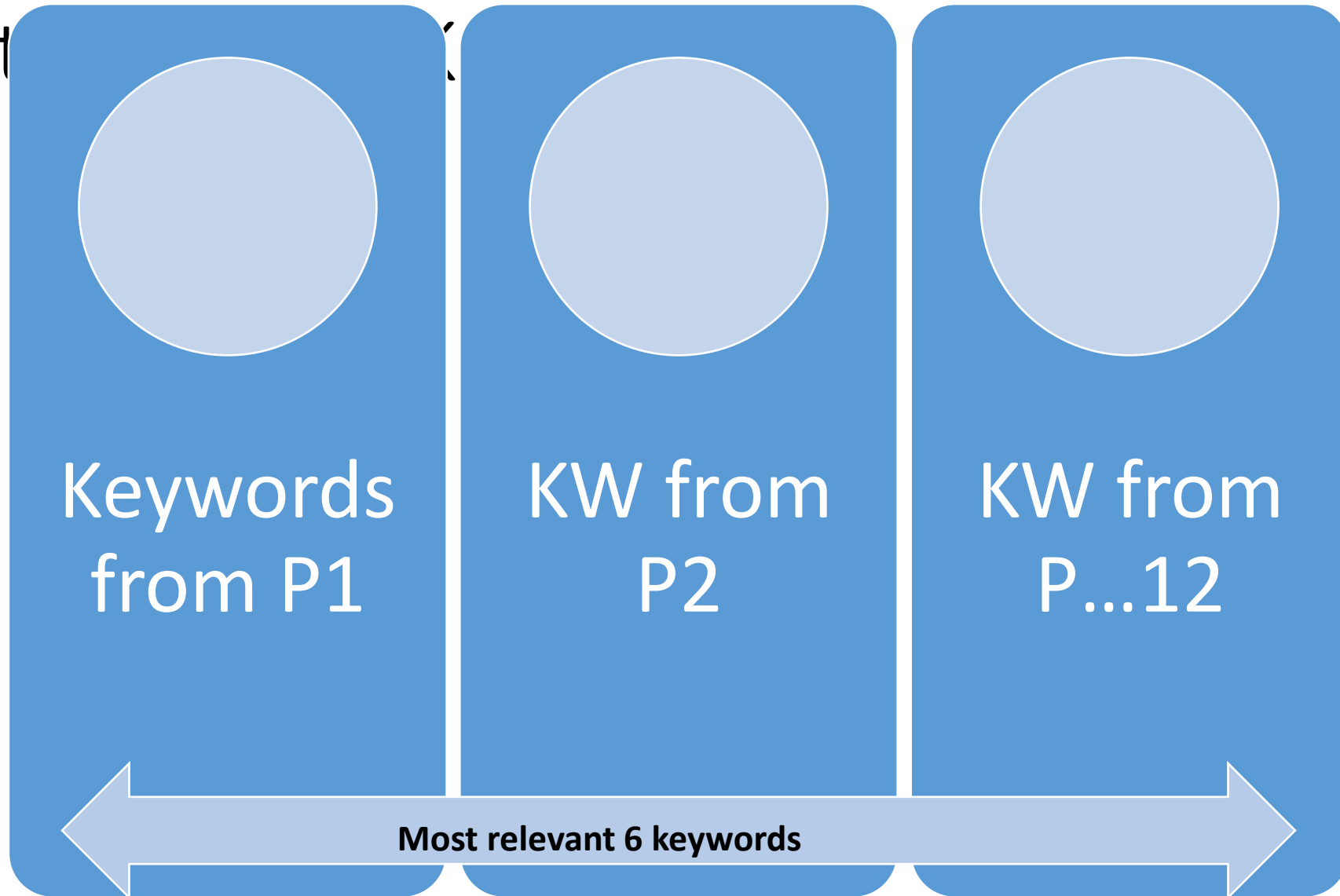
* Corresponding author

Front matter: 3: Abstract



Term paper Abstract

Front



Introduction

- Collect first few sentences into one table and summarize them to start your first paragraph. Be careful about Plagiarism and correctness.
- Remember that the first sentence is all about importance of the topic and shall bring the reader attention. The first paragraph introduces the topic to the reader
- The second paragraph may be a motivation ... Introducing the state of the art research approaches and research gap
- The third paragraph would be on the purpose and methodology of your paper, explaining why it is important for the research community
- Present the content of your paper: In section II we give a background,...

Background

- Give a background of your topic based on the 12 papers you have selected. You need to divide this part into subsection related to most of the papers. (may be a section from each, a paragraph from each, etc)
- Remember to **rewrite in your own words**
- Give relevant citations at the end of each sentence.

Related Works

- Classify your papers according to topics (most important to you ...least) and summarize what did they do
- Classify your papers in terms of time (most oldest to most recent and present what they did and how the topic was developed
- Critically explain the advantages and disadvantages of each contribution
- Summarize the section in a last paragraph and add your own opinion on future directions you logically expect.

Methods and other sections

- Summarize what is in your paper in your own words
- All the methods must be summarized in details with depth computing knowledge.
- Analysis of all methods and results obtained from the papers are expected
- Use proper citations

Mani body

- Break it into main sections, each section focuses on a topic or a method within your review
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- Summarize

Discussion

- Restate the thesis
- Wrap it up and homogenize
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References

- Use a unique reference style.
- Use software tools such as Endnote, Bibtex, etc
- Cite everything discussed within the paper.

Acknowledgement

- Funding institution
- Contributing colleagues –not authors

Pre-submission

- Similarity report
 - Plagscan
 - Turnitin
 - Blackboard-LMS
- Proof read
- Submit

Reviewing process

- Different types of review depending on the journal
 - Double blind
 - Peer review
 - Etc.
- You will be contacted from the journal editor through their online editorial system about the decision on your submission
 - Accept with mild modification
 - Accept with major revision
 - Mildly reject/accept
 - Reject

How to respond to the reviewers

- During lecture discussion