

Guidelines to scientific presentation methods

The manuscript underneath, contains simple and summary of various types of scientific communication methods, universally accepted and used and also recommended by statutory bodies. It may serve as ready reference notes.

A Scientific Paper is of Two types :

- 1) A **Research Paper**, is one in which actual experimental work carried out in a Laboratory facility with observations and results obtained are presented in tabular form or in graphical mode and such results are discussed and concluded for the objectives being fulfilled.
- 2) A **Review paper**, is one in which literature pertaining to a specific subject is crisply written, which would be helpful researchers who would be carrying out actual experimental work and also to teachers while educating the students.

A paper is usually peer reviewed, (a peer is eminent senior fellow in the subject /discipline who has earlier contributed to research in the same or similar field).

A paper whether a research or review can be either,

- 1) **Published** in a Scientific Journal OR
- 2) is **presented** in a conference.

All types of papers carry the Names of the contributing persons involved with dedication for the purpose, who are called as Authors. There could 2 to 3 authors for each paper. More than 3 authors would dilute the weightage of paper and it becomes unacceptable by the scientific community.

A conference is sometimes called as Symposium depending upon congregation of People. The people attending a Conference or a Symposia are called as Delegates. The person who delivers a lecture on a specific topic can be called as a Speaker.

- 1) Publishing a paper in a journal carries academic weightage and earns fame from scientific community. A journal is usually published by a Publishing house similar to text books. There

are thousands of publishers worldwide and there are tens of thousands of Journals available from these publishers. The papers published from *eminent* houses like Elsevier, Bentham etc., carry Good weightage than publishing in less standard journals. Therefore, to understand the weightage or impact of a journal by the young researchers, world community has defined an *Index* called as **Impact factor**. The scheme or mathematical/ statistical model presented by a Publisher called as Thomssen Reuters has been accepted worldwide and hence it is referred to *Thomssen Reuters Impact Factor*. The journals worldwide have been classified as **Open access**, where in referring a journal and publishing an article is free of cost, and **paid up access**, which type would collect a fees for publishing or for referring. A journal could be printed in hardcopy or could be printed in electronic format. While publishing a paper in a journal, whether, Open access or paid access OR electronic or hard print, *it is essential that the Thomssen reuter impact factor of the journal is verified.*

- 2) A **research or review paper** can be presented in a scientific conference or symposia. The presentation of a paper is of **two** types :
 - a) **Oral Presentation** : One of the 3 authors usually called as Presenting author (one can see a ‘Asterisk*’ superscripted over the first person amongst the authors) would prepare a presentation using end user programmes like MS-Powerpoint (file type .ppt) and expresses the intention of the scientific work rendered in the particular paper by focusing the presentation onto a screen using a LCD projector.
 - b) **Poster presentation** : One of 3 authors usually called as Presenting author (one can see a ‘Asterisk*’ superscripted over the first person amongst the authors) would prepare a Poster of 1 x 1.2 meters and print the relevant and requisite information. Than the same paper pinned to a wall or a banner or any other suitable material, would be explained and deliberated with visiting scientific community or the delegates.

However for any of the above, standard guidelines and protocols (UGC, IEEE, AICTE, MCI etc., must be observed and strictly complied with, the order of the contents would be thus,

A) For a **Paper to be Published** :

- 1) Header (**Title, Authors, Affiliation**, etc.,) A ‘asterisk *’ above an author indicates ‘The corresponding author’ with correspondence address or email Id given underneath for communication. Title font must bigger and bold than the remaining section.
- 2) **Abstract**** , gist of the whole work is described
- 3) **Keywords** : 3- 6 words from the work, which would help in Referencing or in *Search*
- 4) **Aims/ Objectives** of the work #,
- 5) **Introduction** to the subject, # Sometimes aims and objectives of the work is mentioned within Introduction. Literature review is mentioned in this section (at least previous 10 years pertinent to the subject)
- 6) **Rationale** behind undertaking the problem,\$\$
- 7) **Statement of the problem**, \$\$ comprises of need for the study or what is being studied and its importance or outcome,
- 8) **Methodology** (including Materials) used during the work, (mentioning Materials used, methods opted or process used, tools/equipment used (with model and make), mathematical models used and treatment of raw data by statistical methods.
- 9) **Results and Discussions** (excluded in Review papers), the results are the observations recorded during a expt are called as raw data or the deliberations of a review papers. Discussion is, explanation of behavior of data or mechanisms of the results presented in tabular or graphical forms.
- 10) **Conclusions**, drawn from the results of the work,
- 11) **Acknowledgements**, expressing gratitude for the help received during the work,
- 12) **References/ Bibliography** (Vancouver style or any Std Style/ guidelines)

B) For a **Oral presentation** :

- 1) Header (**Title, Authors, Affiliation**, etc.,) (First page or Slide) (1 Slide)
- 2) **Introduction** to the subject, (1 Slide)
- 3) **Aims/ Objectives** of the work, (1 slide)

- 4) **Review of Literature**, pertaining to work or process (at least last 10 years) (may be excluded in Review papers) (1 to 2 slides)
- 5) **Rationale** behind undertaking the problem,^{\$\$}
- 6) **Statement of the problem**,^{\$\$} comprises of need for the study or what is being studied and its importance or outcome,
- 7) **Methodology** (including Materials) used during the work, (1 to 3 slides, mentioning Materials used, methods opted or process used, tools/equipment used (with model and make), mathematical models used and treatment of raw data by statistical methods.
- 8) **Results and Discussions** (excluded in Review papers), (3 to 8 Slides)
- 9) **Conclusions**, drawn from the work completed, (1 Slide)
- 10) **Acknowledgements**, expressing gratitude for the help received during the work, (1 Slide)
- 11) **References/ Bibliography** (Vancouver style or IEEE or any Std Style/ guidelines) (1 to 2 Slides)

The last slide must contain a Greeting like **Thank you**. The presenting author would generally explain all the contents within 15 to 20 min following which 8 to 10 min of deliberation including questions or doubts in the minds of delegates or the evaluators (Sometimes examiners as in University exams) would be clarified by the authors.

C) For a Poster to be Presented :

- 1) Header (**Title, Authors, Affiliation**, etc.,)
- 2) **Abstract**** , gist of the whole work is described
- 3) **Introduction** to the subject, including relevant literature Or their citations
- 4) **Aims/ Objectives** of the work
- 5) **Methodology** (including Materials) used during the work, (mentioning Materials used, methods opted or process used, tools/equipment used (with model and make), mathematical models used and treatment of raw data by statistical methods.
- 6) **Rationale of the study**^{\$\$}
- 7) **Statement of the problem**^{\$\$}
- 8) **Results and Discussions** (excluded in Review papers), the results are the observations recorded during a expt are called as raw data or the deliberations of a review papers. Discussion is, explanation of behavior of data or mechanisms of the results presented in tabular or graphical forms.

- 9) **Conclusions**, drawn from the results of the work,
- 10) **Acknowledgements**, expressing gratitude for the help received during the work,
- 11) **References/ Bibliography** (Vancouver style or any Std Style/ guidelines)
- 12) **Footer** (The Conference or the Place of Presentation)

The above poster contents must be divided diligently, aesthetically in columns (like in newspapers), usually prepared with end user softwares like pagemaker or corel draw. The image is printed over a **1.2 x 1 meters** (either in portrait or landscape). Usually the presenting author would stay with the Poster, the delegates (or sometimes the reviewer/evaluator) when they approach the author would explain the work and may deliberate.

Remarks:

** An abstract must be within a window of 250 to 300 words with 3 to 6 keywords. Abstract are of 2 types, Structured abstract and unstructured abstract. An abstract is the gist of the work that has been carried out and is being written down in the form of a paper. Structured abstract is the one in which the gist of each section (like objectives, methodology etc.,) are given. Whereas in the later gist of the whole paper or work is given.

\$\$ certain disciplines or manuscript style, would require these special sections, they may be omitted if not required or relevant.

Note : *Plagiarism in any form is not tolerated by scientific community. It is therefore recommended to read a paper/article/text book properly, meticulously and scrupulously, revise the same and re-write the sentence, so that, the Meaning would remain same.*

Title

Names of authors : xxx*, yyy and zzz

Affiliation: Designation and the place of working

Abstract :

Introduction

Results and Discussions

Conclusions

Aims and Objectives

Tables and Graphs
(tools like MS-excel, Origin are used)

Rationale \$\$

Acknowledgements

Statement of the problem \$\$

References

Methodology

(2-5 most relevant citations are mentioned)

Footer : The place of Presentation and awards received

Usually Times New Roman of appropriate font size is recommended. The font size may vary depending on legibility and readability of the subject