

Tips for effective poster design

Scientific Posters

As an engineer, it is important to be able to communicate your work and ideas effectively using a variety of presentational methods. Posters can be a useful medium in scientific communication and are regularly used in presentations at meetings and conferences. They are static, visual displays that enable you to directly discuss your work and receive instantaneous feedback.

Although it is assumed that the poster will do most of the talking, it is the role of the presenter to answer questions and explain the work in further detail. A successful poster will not only attract a viewer's attention, but will also outline accurately and concisely the aims, workings, and conclusions of your scientific research. Below are some suggested guidelines to help you prepare a successful and effective poster.

Content

- Determine how large your poster will be and how much space you have been allocated. Once you know this, you can begin to work out how much information you can include. The purpose of a poster is not to simply stick every single bit of information you have on a board, but to be succinct and clear in what you are trying to present. Be clear as to the message that the poster is presenting so that relevant results are presented and discussed.
- Think about your audience and what you are trying to achieve with your poster, as this will help to determine your poster style. For example, posters that are conveying a simple message (e.g. billboards and poster campaigns) tend to be very visual with a non-technical content. By comparison, scientific posters will have a more detailed and complex content.
- Typically, a poster should contain: a title section, abstract or summary, short introduction, aims and objectives, methodology, results, discussion and conclusions. You may also want to include a section detailing suggestions for further work; you could recommend how your work could be developed, or suggest other tests that could be applied.
- Keep your title short and to the point so as to grab the attention of the viewer. The title section should also include the names of the people involved in the work.
- Be selective in the results you include in your poster, display only those representing the main findings of your work, you can always keep other results close to hand in case you are asked about them. Use figures to present data in a concise form e.g. showing trends, but refer to figures where they support the text.
- The conclusion of your poster should be the climax of your work, and needs to address the main aims and objectives of the project.

Layout and Format

- It is very important that the text and data included in your poster follow a logical and hierarchical order. When we approach new information we tend to read from top to bottom and from left to right. Therefore, it makes good sense to lay your work out in this order. You could, for example, place your abstract in the top left corner and the conclusions in the bottom right corner. Remember that the poster should be able to lead the reader through the work presented.
- An alternative layout to the one described above is to place the conclusions in the centre of the poster and have the supporting work radiating out from it.
- It may be helpful to provide arrows that direct attention to the sequence and order of the presentation. Excessive augmentation, however, can be distracting and confusing.
- Keep the column widths at a size that is easy to scan.
- Try not to present long and detailed sections of text. Bullet points can often be more effective and will maintain the reader's interest.

Images, Graphs and Photographs

- If used in the correct way, graphics and visual images can greatly enhance your poster, increasing both understanding and interest. However, ensure that all graphics are relevant to your work, and linked by references e.g. figures numbers in the text.
- Make sure that all diagrams are clearly captioned and easily seen. For example, a micrograph should be around 120 - 80 mm in size. Captions should be positioned below to the diagram/figure and the figure should be placed close to the relevant text.
- Whenever possible captions on graphs and diagrams should read horizontally (the exception to this is the vertical axis label on a graph).

Style

- Keep it simple, clear and concise. Obviously the poster needs to be eye-catching and attractive, but filling up your poster space with excess clutter can be distracting for the viewer.
- Ensure that your font size is large enough to be legible from at least a metre away (e.g. 16 - 18 for the text and 24 - 36 for titles). Individuals will soon tire of having to lean in or squint to read small text. .
- Try to use one or two font types at most. Too many font types can look messy and confusing, particularly if they are in the same sentence or paragraph. It is best to choose fonts that are easy on the eye, such as Times Roman or Arial.
- Use caps and lowercase instead of all caps for easier reading.
- Maintain a consistent style throughout.

Colour

- Using colours on your poster is a useful way of attracting attention and can give your work impact. However, be careful to use colour sparingly and with discretion, too many colours or borders can be distracting and look untidy.
- Try to avoid bright, noisy or clashing colours.
- A good tip is to use background and foreground colours that compliment each other and have high contrast. This will ensure that your text and images will stand out.
- If you are using coloured text, make sure that it contrasts with the background paper, as it can be frustrating for the viewer to search for text that appears camouflaged.