# 2023 NCSEF Project Presentation Slides Format

**The Project Presentation Slides have the same information that should be included in a poster or backboard and provides an organizing tool to make a poster/backboard. If necessary, the slides could be attached to a board for the competition.** Different disciplines will have different section headings. Please look at the listings that follow. Students can use Google Slides, Microsoft PowerPoint, or another software in the LANDSCAPE orientation to make the slides and then convert to a PDF document.

## Format Requirements

1. The Project Presentation must be a single PDF document limited to **no more than 12 pages** in the **LANDSCAPE** format. **IT IS NOT THE RESEARCH PAPER**.
2. You must use a page size no larger than American standard 8½"X11".
3. The PDF document must open with default magnification "Fit Page" so that the entire page is visible at the same time. Recognizing that almost all judges will view your Project Presentation on screens that are wider than they are tall, you should create all pages in **Landscape mode**.
4. **Do not include page transitions and embedded videos or animations in your Presentation**. (There is a provision elsewhere in your submission for an optional video if you need something to move in order to illustrate your project.)
5. The page background color must be white.
6. Text color must be predominantly black, but limited color for emphasis is acceptable.
7. All text should be readable easily when viewing the entire page at once. The **smallest allowable font size of body text is 14 pt**. Exception: You may use a smaller font size, down to 10 pt., for figure captions or photo credits. This is for ease of reading!
8. All Project Presentation elements must conform to Display & Safety rules as if placed on a physical poster for display to judges and the public. Passing a Display & Safety inspection will be required to compete.

## Format Recommendations:

1. Do not use non-standard fonts or colors to "stand out from the crowd" or to be entertaining. It is recommended that you use a font such as Arial, Calibri, Helvetica or Century Gothic.
2. Page titles should all be the same size. That size should be larger than headings within each page. In turn, headings should be larger than body text. **For readability, we recommend body text be no smaller than 18 pt.**
3. **Avoid long expository paragraphs**. State your points succinctly.
4. **Use bullets** to set out individual points of interest. **Use numbered lists when the ordering of points** of interest is important (*e.g.*, instructions to be followed in order, or items needing a reference anchor for citation elsewhere in your Presentation).
5. All body text should adopt a common font style and size. Similarly, all heading text should adopt a common font style and size. There is no recommendation for the style and size relation between body and heading text.

## Project Presentation Slides Content:

Do not include information not specified in the content specific template. If you are submitting a continuation project, include only information related to this year's research unless otherwise directed in the instructions below. You may include graphical elements as they explain and/or illustrate your work as long as they are included in the 12 page limit. Each of the required sections must start on its own page. Each section can take as many pages as desired as long as it is within the total 12 page limit.

## Science Project Presentation Section Format
## (a section should begin a slide but may use more than 1 slide if necessary):

1. **Project ID and Title, the following should be included:**
   - Project ID. **If the Project ID has been given to the student**
   - Project Title
   - Student Name(s)
   - School(s)
   - City, County, State

2. **What is your research question?**
   - Explain what is known or has already been done in your research area. Include a brief review of relevant literature. If this is a continuation project, a brief summary of your prior research is appropriate here. Be sure to distinguish your previous work from this year's project.
   - What were you trying to find out? Include description of your purpose, your research question, and/or your hypothesis.

3. **Explain your methodology and procedures for carrying out your project in detail.**
   - What did you do? What data did you collect and how did you collect that data? Discuss your control group and the variables you tested.
   - DO NOT include a list of materials.

4. **What were the result(s) of your project?**
   - Include tables and figures which illustrate your data.
   - Include relevant statistical analysis of the data.

5. **What is your interpretation of these results?**
   - What do these results mean? Compare your results with theories, published data, commonly held beliefs, and expected results.
   - Discuss possible errors. Did any questions or problems arise that you were not expecting? How did the data vary between repeated observations of similar events? How were results affected by uncontrolled events?

6. **What conclusions did you reach?**
   - What do these results mean in the context of the literature review and other work being done in your research area? How do the results address your research question? Do your results support your hypothesis?
   - What application(s) do you see for your work?

7. **References**
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles, webpages).

## Engineering Project Presentation Slide Format:
## (a section should begin a slide but may use more than 1 slide if necessary):

1. **Project ID (if provided) andTitle**
   - ProjectID. **If the Project ID has been given to the student**
   - Project Title
   - Student Name(s)
   - School(s)
   - City, County, State

2. **What is your engineering problem and goal?**
   - What problem were you trying to solve? Include a description of your engineering goal.
   - Explain what is known or has already been done to solve this problem, including work on which you may build. You may include a brief review of relevant literature.
   - If this is a continuation project, a brief summary of your priorwork is appropriate here. Be sure to distinguish your previous work from this year's project.

3. **Explain your methods and procedures for building your design.**
   - What did you do? How did you design and produce your prototype? If there is a physical prototype, you may want to include picture or designs of the prototype.
   - If you tested the prototype,what were your testing procedures? What data did you collect and how did you collect that data?
   - DO NOT include a separate list of materials.

4. **What were the result(s) of your project?**
   - How did your prototype meet your engineering goal?
   - If you tested the prototype, provide a summary of testing datatables and figures that illustrate your results.
   - Include relevant statistical analysis of the data.

5. **What is your interpretation of these results?**
   - What do these results mean? You may compare your results with theories, published data, commonly held beliefs, and/or expected results.
   - Did any questions or problems arise that you were not expecting? Were these problems caused by uncontrolled events? How did you address these?
   - How is your prototype an improvement or advancement over what is currently available?

6. **What conclusions did you reach?**
   - Did your project turn out as you expected?
   - What application(s) do you see for your work?

7. **References**
   - This section should not exceed one page. Limit your list to the most important references.
   - List the references/documentation used which were not of your own creation (i.e., books, journal articles, webpages).

## Mathematics/Computer Science Project Presentation Format:
## (a section should begin a slide but may use more than 1 slide if necessary):

**1. Project ID (if provided) and Title**

- Project ID. **If the Project ID has been given to the student**
- Project Title
- Student Name (s)
- School(s)
- City, County, State

**2. Introduction - What is your research question?**

- Explain what is known or has already been done in your research area. Include a brief review of relevant literature.
- If this is a continuation project, a brief summary of your prior work is appropriate here. Be sure to distinguish your previous work from this year's project.

**3. Framework - Notation and framework.**

- Introduce the concepts and notation needed to specify your research question, methods, and results precisely.
- Define relevant terms, and explain prior/background results. (Novel concepts developed as part of your project can be presented here or in Section 4, as appropriate.)

**4. Findings - Present your findings and supporting arguments.**

- What did you discover and/or prove? Describe your result(s) in detail. If possible, provide both formal and intuitive/verbal explanations of each major finding.
- Describe your methods in general terms. Then:
  - Present rigorous proofs of the theory results–or, if the arguments are long, give sketches of the proofs that explain the main ideas.
  - For numerical/statistical results, include tables and figures that illustrate your data. Include relevant statistical analysis.Were any of your results statistically significant? How do you know this?

**5. Conclusions - What is your assessment of your findings?**

- How do the results address your research question? And how have you advanced our understanding relative to what was already known?
- Discuss possible limitations. Did any questions or problems arise that you were not expecting? What challenges do you foresee in extending your results further?
- What application(s), if any, do you see for your work?

**6. References**

- This section should not exceed one page. Limit your list to the most important references.
- List the references/documentation used which were not of your own creation (i.e., books, journal articles, webpages).