2023 NCSEF Project Presentation Instructions

The Project Presentation Slides are an excellent organizing tool for your project display. It will ask for information that should be displayed on your project board. You may prepare your Project Presentation Slides using any software tools that you desire (PowerPoint, Google Slides, Word, Page), but the final document submitted for display to the judges and the public must satisfy the following requirements.

Format Requirements

1. The Project Presentation must be uploaded NCSEF Registration as a PDF document.

2. The pages should be created following the templates provided below. The page should be created in Landscape mode so that the entire page is visible at the same time.

3. Your pages must be without animation or active hyperlinks.

4. The page background color must be a light color and should not affect readability.

5. Text color must be predominantly dark to support readability.

6. All text should be readable easily when viewing the entire page at once. The smallest allowable font size of body text is 14 pt. and an 18 pt. font is recommended. *Exception:* You may use a smaller font size, down to 10 pt., for figure captions or photo credits.

7. All Project Presentation elements must conform to all 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. (Please see the highlight of Display & Safety Rules below.)

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.

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 relation between body and heading styles.

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Display & Safety Rules Highlight for Project Presentation Materials

(please see <u>Display & Safety rules</u> for full text.)

1) **Photographs, visual images, charts, tables, graphs must be appropriate and credited.**
   a) Any photograph/visual image/chart/table and/or graph is allowed if:
      i) It is not deemed offensive or inappropriate (which includes images/photographs showing invertebrate or vertebrate animals/humans in surgical, necrotizing or dissection situations) by the Scientific Review Committee, the Display & Safety Committee, or Society for Science.
      ii) It has a credit line of origin ("Photograph taken by…" or "Image taken from…" or "Graph/Chart/Table taken from…"). If all images, etc. displayed were created by the finalist or are from the same source, one credit line prominently and vertically displayed on the backboard/poster or tabletop is sufficient. **All images MUST BE properly cited.** This includes background graphics, photographs and/or visual depictions of the finalist or photographs and/or visual depictions of others for which a signed photo/video release form is in a notebook or logbook at the project booth. These signed release forms must be available upon request during the set-up and inspection process but may not be displayed.
2) **NOT ALLOWED in your Presentation Materials**
   a) Any information on the project display or items that are acknowledgments, self-promotions or external endorsements are NOT allowed in the project booth.
   b) The use of logos including known commercial brands, institutional crests or trademarks, flags unless integral to the project and approved by the SRC via inclusion in the Official Abstract and Certification.
      i) Personalized graphic/logos that are developed to indicate a commercial purpose or viability of an established or proposed business associated with the project. The only exception is a **student-created logo may be displayed at the project once. This is interpreted in ProjectBoard to be allowable to be displayed only once in the Quad Chart and once in the Presentation.**
      ii) Any reference to an institution or mentor that supported the finalist's research except as provided in the official ISEF paperwork, most notably Form 1C.
      iii) Any reference to patent status of the project.
      iv) Any items intended for distribution such as disks, CDs, flash drives, brochures, booklets, endorsements, give-away items, business cards, printed materials or food items designed to be distributed to judges or the public. Once again, handouts to judges and to the public are limited to UNALTERED photocopies of the official abstract and certification.
   c) A presentation may not have postal addresses, web addresses, email and/or social media addresses, QR codes, telephone and/or fax numbers of a project or finalist.

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Project Presentation Templates

Choose one of the following templates to create your presentation. Do not include information not specified in this 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 would explain or illustrate your work and can be contained within the overall page limits.

Each of the required sections in each template must start on its own page and be in the order provided. Titles per section are provided as recommended titles, but alternate titles may be used. Each section may extend beyond one page as long as the total does not exceed 12 maximum pages.

TEMPLATE I: Science Projects
TEMPLATE II: Engineering Projects
TEMPLATEIII: Mathematics/Computer Science Projects

Project Presentation Template: **Science Project**

1. **Project ID and Title**
   - The following should be included:
     - Project ID. Provided at the State NCSEF
     - Project Title
     - Finalist Name (s)
     - School(s)
     - City, State, Province, Country

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 research is appropriate here. Be sure to distinguish your previous work from this year's project.
   - What were you trying to find out? Include a description of your purpose, your research question, and/or your hypothesis.

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

5. **DISCUSSION - 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. **CONCLUSIONS - 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).

Project Presentation Template: **Engineering Project**

1. **Project ID and Title**
   - The following should be included:
     - Project ID. Provided at the State NCSEF
     - Project Title
     - Finalist Name (s)
     - School(s)
     - City, State, Province, Country

2. **INTRODUCTION - 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 prior work is appropriate here. Be sure to distinguish your previous work from this year's project.

3. **METHODS - 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 pictures 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. **RESULTS - 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 data tables and figures that illustrate your results.
   - Include relevant statistical analysis of the data.

5. **DISCUSSION - 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. **CONCLUSIONS - 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).

Project Presentation Template: **Mathematics/Computer Science**

1. **Project ID and Title**
   - The following should be included:
     - Project ID. Provided at the State NCSEF
     - Project Title
     - Finalist Name (s)
     - School(s)
     - City, State, Province, Country

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).