



2010 Technical Poster Competition Guidelines

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Great Minds in STEM™
2010 Technical Poster Competition Guidelines

OVERVIEW

Great Minds in STEM™ announces its inaugural Technical Poster Competition to be held on Friday October 8, 2010, at the 2010 HENAAC Conference, at the Disney's Coronado Springs Resort, in Lake Buena Vista, Florida. This competition is open to underrepresented undergraduate and graduate students pursuing full-time studies in a related science, technology, engineering or math field.

The intent of this competition is to give students the opportunity to display their research accomplishments and receive recognition for their scholarly investigation or scientific study. Students who have played a key role in a research project are invited to submit an abstract to the poster competition. Students are encouraged to submit their senior design projects, thesis, dissertations, internship projects and research lab projects.

Based on the abstracts, several students will be selected and invited to present their research posters at the HENAAC Conference. For each selected student, the registration, travel and lodging will be provided.

Cash awards ranging from \$400 to \$1200 will be awarded to the top undergraduate and graduate students. In addition, a "Best Overall" winner will be selected. Winning abstracts will be profiled in the TECHNICA Magazine and online at Great Minds in STEM™.

ELIGIBILITY

- Hispanic/Latino, African American, or Native American descent
- Undergraduate or graduate student enrolled full-time (12 hrs undergraduate/9 hours graduate) at an accredited college/university in the U.S. or Puerto Rico
 - *Exception: Doctoral students classified as doctoral candidates, but not working full-time and making satisfactory progress toward dissertation*
- Pursuing a technical degree in science, technology, engineering or math
- Only individual students may present; teams of two or more students are ineligible per poster presentation
- Projects must be unclassified
- Each student may submit only one poster

SUBMISSION INFORMATION

Students interested in participating in the Technical Poster Competition must submit the Technical Poster Competition Entry Form along with their abstract. No materials will be accepted by fax or mail. The form and abstract must be submitted electronically by **11:59 PM EST, Friday, September 3, 2010**, to gcruz@greatmindsinstem.org. Abstracts may be submitted as .doc or docx only. No Portable Document Format (PDF) will be accepted. Abstracts received in any format other than Microsoft Word will be automatically disqualified. ***Late submissions will not be accepted and automatically disqualified.***

The length of the extended abstract should be between 600 - 800 words. Graphics, drawings, or tables are not permitted in the abstract. The abstract should be a concise summary of the research project and meet criteria as outlined in the Judging Section. The abstract will be judged on both content and adherence to formatting guidelines.

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The format of the abstract must adhere to the following:

- Typed
- Single-spaced
- 1-inch margins
- Times New Roman
- 10 to 12-pt font (expect for header requirements)

The abstract must include the following header and format:

Title of Project (Bold, Centered, Times New Roman, 14 pt)

Author(s) (Centered, Times New Roman, 12 pt)

Institution (Centered, Times New Roman, 12 pt)

Institution City, State, Zip (Centered, Times New Roman, 12 pt)

Keywords: List five (5) keywords for indexing

The content of the abstract should include:

- Introduction
- Hypothesis or Intent
- Materials and Methods
- Predicted or Actual Results
 - If research results are not available at the time of the submission, authors are encouraged to submit predicted results. Students are encouraged to discuss differences between their hypothesized results and their actual results when presenting their research at the conference.
- Summary/Conclusion

Authors are strongly encouraged to review their abstract prior to submission and ensure that proper spelling and grammar have been utilized and that all italicization, math and scientific notations, etc. are correct. Abstracts with incomplete information will not be considered for the competition.

POSTER PRESENTATION

If selected to present, only the author may present his/her work the conference. No substitutions will be allowed under any condition.

Poster presenters will be provided solely with an 8 ft (wide) x 4 ft (tall) stand-alone corkboard. No other audiovisual equipment, lighting, tables, chairs, stands, etc. will be provided or allowed. Presenters are encouraged to bring additional copies of their abstracts, related handouts, and resumes. Push pins, Velcro and tape adhesives will be provided.

Set-Up, Judging and Removal Schedule

Posters must be set up by 12:00 PM on Friday, October 8.

Presenters must be at their posters from 1:00 PM – 3:30 PM on Friday, October 8. Each poster will be individually judged by two (2) STEM professionals from academia, industry, or federal government.

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On Saturday, the posters will be moved into the Career Fair for general viewing. Students may remove their posters after 4:00 PM on Saturday. Posters which are not removed will be discarded.

Poster Format

The format of the poster is at the discretion of the author. However, it should be sufficient to technically explain and illustrate the research project to the reviewers. The author should carefully critique the content and arrangement of their posters. The flow of information in the poster layout should be done in a way that easily reveals the research process and addresses salient points. Graphs, charts, tables and references must adhere to APA 5th Ed. formatting. Avoid the use of “whiz bang” pictures that are visually attractive, yet do not add much to the content. At minimum, it is recommended that the poster contain the following sections:

- Abstract
- Introduction
- Background
- Problem Statement
- Hypothesis
- Proposed or Actual Testing (Procedure)
- Results
- Conclusion
- References

Presenters are encouraged to cite the sponsorship of their work, such as corporations or government agencies. Relevant resources to the work should be recognized and cited.

REGISTRATION

Finalists will be provided with complementary registration, which includes hotel and most meals arriving Thursday, October 7 and departing Sunday, October 10, 2010. *(NOTE: Students who choose to stay beyond Sunday will be required to pay their own additional hotel nights and travel)*

TRAVEL

Finalists will be provided airfare to and from the conference, based on a 21-day reservation. Finalists, who choose to travel by vehicle will be reimbursed mileage to and from the conference. Further details will be provided upon acceptance.

Finalists, whose travel, lodging and registration have been arranged and fail to present will be billed the costs of any associated travel, pre-registration and lodging expenses. No exceptions will be made to this rule.

JUDGING

Each abstract and poster will be reviewed by a minimum of two STEM professionals based on the two principles outlined by the National Science Foundation. The baseline principles are Intellectual Merit and Broader Impact. According to the National Science Foundation *(NSF Strategic Plan for FY 2006-2011:*

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Investing in America's Future (NSF 06-48), successful projects are able to demonstrate Intellectual Merit and Broader Impact if the following questions can be succinctly addressed:

Intellectual Merit

- How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?
- How well qualified is the proposer (individual or team) to conduct the project?
- To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts?
- How well conceived and organized is the proposed activity?
- Is there sufficient access to resources?

Broader Impact

- How well does the activity advance discovery and understanding while promoting teaching, training and learning?
- How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)?
- To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks and partnerships?
- Will the results be disseminated broadly to enhance scientific and technological understanding?
- What may be the benefits of the proposed activity to society?

In addition, the abstracts and posters will be evaluated on the overall writing and content.

AWARDS

Winners will be announced on Saturday evening at the Student Leadership Dinner. Awards will be presented at the undergraduate and graduate level for engineering/technology, science and math categories. Up to three award places may be presented in each category.

	1st Place	2nd Place	3rd Place
Undergraduate			
Engineering/Technology	\$800	\$600	\$400
Science	\$800	\$600	\$400
Math	\$800	\$600	\$400
Graduate			
Engineering/Technology	\$1200	\$1000	\$800
Science	\$1200	\$1000	\$800
Math	\$1200	\$1000	\$800

INFORMATION RELEASE & DISCLAIMER

Posters presented at this conference must not be classified. It is the author's responsibility to obtain all requisite permissions to release the information presented in the research poster. By participating in the Great Minds in STEM™ Research Poster Competition, the author(s) grant permission to Great Minds in STEM™ to publish and release, in whole or in part, information about their concept, participant photographs, contact information, and institutional and/or employer affiliation, and other such

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information for audio, video and print media. Posters must be original in content and not identical to prior HENAAC Conference presentations.

CONTACT INFORMATION

All questions should be directed to Gary Cruz via email to gcruz@greatmindsinstem.org or phone at (323) 262-0997 x 775.

IMPORTANT DATES & DEADLINES

Friday, September 3, 2010 (11:59 PM EST)	The Research Poster Competition Submittal Form and abstract must be submitted electronically to gcruz@greatmindsinstem.org . Abstracts may be submitted as .doc or docx only. No pdf files. <i>Late submissions will not be accepted and automatically disqualified.</i>
Tuesday, September 7, 2010	Finalists will begin to be notified of their selection via email
Wednesday, September 15, 2010	Finalists must completed their travel arrangements with Great Minds in STEM to ensure 21-day advance travel and registration.
Friday, October 8, 2010	Presenters may set-up their posters between 8:00 AM – 12:00 PM.
Friday, October 8, 2010	Posters must be set-up by 12:00 PM. Presenters must be at their posters for judging from 1:00 PM – 3:30 PM.
Saturday, October 9, 2010	Posters will be moved into the career fair exhibit area. Posters may be removed after 9:00 PM, the conclusion of the Student Leadership Dinner. Winners will be announced at the Student Leadership Dinner.

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JUDGE'S SCORE CARD *

** Subject to Change*

Presenters Name _____

Judge's Initials _____

ABSTRACT

60 Possible Points	Points Possible	Points Earned
The extent, which the abstract approximates the required word count	5	
The extent, which the abstract conforms to the required formatting: typed, single-spaced, 1-inch margins, Times New Roman, 10-12 pt Font.	10	
The extent, which the abstract clearly summarizes the research project	15	
The extent, which the abstract clearly demonstrates Broader Impact	15	
The extent, which the abstract clearly demonstrates Intellectual Merit	15	
Total Score	60	

POSTER

130 Possible Points	Points Possible	Points Earned
Clear statement of Introduction	5	
Clear statement of Background	5	
Clear statement of Hypothesis/Intent	5	
Clear Statement of the Problem	5	
Clear statement of Materials/Methods	5	
Clear statement of Data and Results	5	
Tables, figures, graphs, and/or charts used are clear, relevant and assist in explaining the project	5	
Overall Innovation	10	
Demonstrates Broader Impact – The extent to which the findings may be utilized for society	15	
Demonstrates Intellectual Merit	15	
The extent to which the poster layout is readable and logical	10	
The extent to which the poster is presented in a professional manner	5	
Important phases of the research are presented in an orderly and concise manner	10	
Presenter communicates knowledge of research	15	
Presenter has an idea of what further research is warranted	10	
Presenter acknowledges questions thoroughly	5	
Total Score	130	

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TECHNICAL POSTER COMPETITION ENTRY FORM

First Name

Last Name

Mailing Address/City/State/Zip

Email Address

Phone Number

NOTE: All correspondence will be made to the above addresses and/or phone number.

Classification: Freshman Sophomore Junior Senior
 Masters Doctoral Doctoral Candidate

College/University _____

Major _____

Abstract Title _____

Primary Author _____

Co-Authors _____

Gender Male Female

Race/Ethnicity African American Asian American
 Central/South American Mexican American
 Native American White Other