




NATIONAL SOCIETY OF BLACK ENGINEERS

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TECHNICAL RESEARCH EXHIBITION (TRE) TOOLKIT

VERSION #1.0

MAY 2011



The Technical Research Exhibition (TRE) is designed to showcase NSBE members' skills in technical writing, theoretical research, and oral presentation. The competition provides an opportunity for undergraduate students, graduate students, and technical professionals to present their research findings while encouraging undergraduate students to showcase their research and pursue graduate degrees. TRE is held during the Fall Regional Conferences (FRCs) and National Convention.

Why Participate?

The Fall Regional Conference and National Convention hosts students, technical professionals and educators in various stages of their careers. Participating in TRE will enable you to network with engineering professionals of color who develop and apply the nation's leading edge technology. Most of all, it will support your continued academic and professional development.

TRE at Fall Regional Conference (FRC)*

Applicants should submit research *abstracts* via IMPak by October 14th, 2011. The submission can be found by logging into your member account at www.nsbe.org and selecting *My Account > Submissions > 2011 Region XX Technical Research Exhibition*. Members will be selected per region to present their research at their respective FRC based on space and availability during the Technical Research Exhibition Poster and Oral competitions. *Applicants should specify whether they would like to participate in the poster session, oral presentation, or both.*

TRE at National Convention

Applicants should submit research *papers* via IMPak by Friday January 13th, 2012. The submission can be found by logging into your member account at www.nsbe.org and selecting *My Account > Submissions > 2012 Convention Technical Research Exhibition*. Members will be selected to present their research at the 38th Annual National Convention in Pittsburgh, PA, March 28th- April 1st, 2012 based on space and availability for the Poster and Oral competitions. *Applicants should specify whether they would like to participate in the poster session, oral presentation, or both*

In addition to presenting their research, members participating in TRE at Convention will have their papers published in the Annual *NSBE Technical Proceedings*. A select number of members will also be invited to present their research during the Graduate School Conference Tech Talks at Convention.

International members who are unable to attend convention but would like to participate are invited to email the National Academic Excellence Chair (nebaex@nsbe.org) to make arrangements.



At National Convention, the competition will be partitioned into the following 4 categories.

- Electrical Engineering, Computer Engineering, and Computer Science
- Mechanical Engineering, Materials Science Engineering, Aerospace Engineering Engineering Physics
- Bioengineering, Chemical Engineering,
- Civil Engineering, Environmental Engineering, Industrial Engineering,

Please note that these categories are not exhaustive. Judges will be recruited based on the topics submitted by applicants.

What Kinds of Submissions Will Be Accepted?

Members wishing to participate in TRE at Fall Regional Conference are asked to submit an abstract in accordance with the exhibition guidelines. All members wishing to participate in TRE at National Convention are asked to submit a complete paper manuscript in accordance with the exhibition guidelines. The actual paper will be included in the proceedings and authors will be notified of their acceptance. International Members participating via NSBEWorld are asked to submit an abstract and research poster (jpeg format) in accordance with the exhibition guidelines.

The following guidelines apply:

- Undergraduate Students are encouraged to submit results from hands-on project based research as well as theoretical research with an academic or project-based focus.
- Graduate Students are encouraged to submit topics demonstrating theoretical research with an academic focus.
- Technical Professionals are encouraged to submit topics that are practitioner driven by industry or government.

What is a poster presentation?

A poster presentation is a technical paper presented through a variety of visual, graphical wall displays (maps, charts, photographs, computer outputs, etc.) working models and/or material samples that are prepared by the authors who will be in attendance during the display period. The displays make the presentation of certain types of information more effective, in particular, complex analytical subjects, topics involving large amounts of data and projects having special display materials. This format allows the attendees to review the information at their own pace and to discuss the materials with the authors to present a technical paper, while affording the attendees an easier format for asking questions and receiving in-depth responses. Many presenters and attendees feel more comfortable in leisurely discussion than in a condensed, formal presentation.



Participants will be provided with the following:

- A 3ft. X 4ft. display board for mounting displays. Check with TRE Coordinator for on-site pickup time and location.
- Minimal Supplies: Push pins, tape, glue stick, etc. It is highly recommended that you bring all of the necessary supplies you will need to prepare your poster board in the comfort of your sleeping room.

Participants must furnish the following for the poster session and oral presentation:

- Title and Author Banner, Diagrams, Charts, Figures, Photos/Drawings should be sized and lettered so they are legible and readable by a group of attendees at a distance of 5 feet. They should be simple, colorful, well-labeled, and neat. The research display will include information such as objectives, procedures, data, results, and conclusions. You will receive a display board. Your title/author banner or placard can be mounted on your poster board at the top, centered. You can choose to make the project title and name a part of your poster board display as well.
- When considering the appearance of text, you can use colors and varying fonts to make information stand out.
- Presentation Time Limit – 20 mins. (10 minute presentation; 10 minutes question & answer/scoring period)
- Each competitor will be assigned a 20 minute time period during which a presentation will be given to a panel of three judges. Please keep to your time limit and be prepared to answer questions about your abstract and presentation.

Awards

All members participating in TRE at Fall Regional Conference and Annual Convention will receive participation recognition.

The top six competitors from each region (three from the poster presentation category; three from the oral presentation category) will automatically receive a \$25 convention registration discount. An additional 20 members who participate in TRE at FRC will receive a \$25 convention registration discount *on a first come first served basis*. Other regional awards are at the discretion of the individual region.

The first, second and third place winners participating in TRE at Annual Convention will receive the following monetary awards:

Oral Presentation:

First Place: \$2,000
Second Place: \$1,000
Third Place: \$500

Poster Session:

First Place: \$1,600
Second Place: \$800
Third Place: \$400



The 1st, 2nd, and 3rd place winners in both the poster session and oral presentation will also receive a travel reimbursement in the amount of \$350 for National Convention in Pittsburgh, PA. In order to receive the reimbursement, individuals must retain travel receipts* (for airfare, hotel, etc)

*note: travel receipts must show expenses that the participant incurred themselves.

Eligibility and Criteria:

- Participants must be paid, NSBE members.
- Participants are required to register for their respective Fall Regional Conferences and/or National Convention to be eligible to compete.
- International Members unable to attend the Annual Convention will be permitted to showcase their research via NSBEWorld.
- Technical Professionals who are not graduate students are eligible to participate, but will not be considered for Regional/National awards.
- Undergraduate research can be presented, but may NOT be used for graduate presentations. Hands-on project-based research will be given first priority.
- Graduate students should NOT submit papers from their undergraduate education and programs.
- All participants will be asked to provide the manuscript title, author's name, address, phone number, e-mail address, NSBE Membership Number, college major and degrees received or expected, chapter name, region and a brief autobiography. (Competition application may be used in publication materials).

Presentation Requirements

- Participants presenting at the National Convention MUST submit a complete softcopy of the paper manuscript with the application form via IMPak in pdf format.
- All manuscripts must be between 10 and 15 typewritten, double spaced pages and should follow a standard style for technical papers per standard preparation guidelines outlined by journals in their respective discipline.
- All manuscripts must include an abstract.
- Research topics should reflect practical applications of engineering and technology. A high degree of technical content is expected throughout the paper.

Exhibition Submission Deadlines

- To participate in TRE at FRC: Friday, October 14th , 2011
- To participate in TRE at National Convention: Friday, January 13th , 2012



Poster Presentation Guidelines

- Poster must be no larger than 3 x 4-ft.using a variety of graphical wall displays (maps, charts, photographs, computer outputs, etc.) and working models and/or material samples if applicable.
- Participants will be judged on the technical content of their displays, oral presentation skills, and a 10-minute question and answer session with judges.
- Research activities at the undergraduate level including senior projects, company sponsored research programs and independent study courses all qualify for the competition.
- All regional finalists are requested to submit the complete project report for the abstract being submitted to be included in the 2011 NSBE Technical Proceedings.
- 20 minutes (10 minute presentations followed by a 10 minute question & answer/scoring period)

Poster Presentation Guidelines (NSBEWorld)

- Participants will be judged on the creativity and technical content of their poster in addition to all other requirements.

Scoring of Manuscripts

Technical Content	40 points	Organization	10 points
Format	15 points	Clarity	10 points
Grammar	15 points	Use of Visual Aids	10 points
*Project-Based	10 points		

*Undergraduate Students Only

Participants will receive a copy of the grading rubric upon registration.



Important Contacts

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