



Society of Hispanic Professional Engineers
New Jersey Chapter
Case Study Competition
Saturday December 1st, 2018

The Society of Hispanic Professional Engineers (SHPE) was formed in Los Angeles, California in 1974 by a group of Hispanic engineers to promote the advancement of Hispanics in engineering and science. SHPE has the objective to serve as role models and to promote educational programs for minority youth. Currently, SHPE is composed of student and professional chapters with membership approaching ten thousand.

A crucial part of SHPE's agenda is our involvement with our community, especially with pre-college students for whom we plan on hosting a yearly Case Study Competition for. The program's objective is to provide high school students the opportunity to develop and deliver a technical response towards a real-life topic; whilst promoting the pursuit of higher education in the science, technology, engineering, and math fields.

This year, the Case Study Competition is taking place on Saturday, December 1st, 2018. Parents ~~will~~ may drop off the students at NJIT since their attendance is optional. **We will be allowing audience attendance for the delivery of the case study resolution from students to the panel.** Parents and students will be part of a brief meet and greet session before going to their respective workshops.

It is our greatest pleasure to invite you to take part in this year's program and have the opportunity to win a \$1250 scholarship. Please fill out the entrance registration and consent forms below completely. Submit it at your earliest convenience, but **no later than Friday November 9nd, 2018 at 11:59 pm**, our email is shpenj.precollege@gmail.com. You can either email your entrance registration to us or fill it out at the following link: <https://goo.gl/forms/6s0RxWDhq2zafUXK2>

If you have any questions, please feel free to contact Edgard Jimenez-Cucchi at (732) 374-5032, email: shpenj.precollege@gmail.com, or our Chapter President, Mike Chica at (516) 637-0482 email: shpenj.president@gmail.com.

Thank you very much for your time and cooperation, and we look forward to your participation in the 2018 Case Study Competition.

Sincerely,
Pre-College Committee

SHPE NJ Case Study Competition 2018

Guideline

NOTE: The Case Study Competition is an event organized by the undergraduate chapters at NJIT, Rutgers University, Stevens University, and the professional chapter of SHPE NJ. The competition is designed for students in high school.

TOPIC: Global Warming: our world is continuously affected by global warming, actions must be taken to prevent unwanted outcomes; how would you approach the prevention of Global Warming?

DESCRIPTION: Global Warming is a topic that affects us all whether we notice it or not. The change in climate is the main contributor for increase in weather severity and its frequency, high death rates, dirtier air, higher wildlife extinction rates, acidic oceans and higher sea levels. Human influences are the number one cause for global warming with day to day pollutants such as carbon dioxide, methane, soot and other pollutants; these act as a layer in our atmosphere trapping the sun's heat and causing the planet to warm. In addition to polluting the atmosphere, we are also the cause for deforestation (pollution-capturing forests) which aids the growth of global warming.

The UN has recently released an article on October 8th, 2018 depicting the consequences we should expect if the climate continues to increase. Our plan for this Case Study is to spread awareness within our community about this real-life issue that needs to be managed and have your take on how you would tackle the prevention of Global warming.

What are some innovations that could aid this cause? How could we spread awareness? How would you fund your innovation/awareness campaign?

Link to UN article: <https://news.un.org/en/story/2018/10/1022492>.

NOTE: You will have seven (7) minutes to present and three (3) minutes for a Q&A session.

PRIZE: Winning team will receive a \$1250 scholarship.

REQUIREMENTS:

- Team sizes should be between 1-5 people; one report needs to be submitted per team.
- Any document that will be used during the case study presentation (PPT, PDFs, XSLs, etc.) needs to be submitted to shpenj.precollege@gmail.com by 11:59 PM on Friday November 30th, 2018.
- Ensure that you are meeting the rubric guidelines (see Annex A).

CASE STUDY COMPETITION 2018 - REGISTRATION

APPLICANT INFORMATION

| | | | |
|---------------|------------------|------------|--------|
| Name: | | Email: | |
| Sex: | Male Female | Ethnicity: | Phone: |
| Team Name: | | | |
| Team Members: | | | |

SCHOOL INFORMATION

| | | | | | | |
|---|--|--------|---------|------|-----------|---------|
| Undergraduate SHPE Chapter (<i>Choose one</i>): | | | | NJIT | Rutgers | Stevens |
| High School Name: | | | | | Grade: | |
| Advisor's Name: | | | E-mail: | | Phone: | |
| City: | | State: | | | ZIP Code: | |

EMERGENCY CONTACT

| | | |
|---------------------|--|--------|
| Name of a relative: | | Phone: |
| Relationship: | | |

PARENT INFORMATION

| | | |
|-------------------|-----------------------|--------|
| Name: | | |
| Day Phone Number: | Evening Phone Number: | Email: |

SHPE NJ Case Study Competition 2018

Preliminary Agenda

Saturday, December 1st, 2018

| | | |
|-----------|----------|--|
| 9:00 AM | 9:30 AM | Students Arrive at NJIT (Location TBD) |
| 9:30 AM | 10:00 AM | Welcome presentation/Meet & Greet |
| 10:00 AM* | 3:00 PM* | Case Study Presentations* |
| 10:00 AM | 11:00 AM | Workshop 1/2/3/4 |
| 11:00 AM | 12:00 PM | Workshop 1/2/3/4 |
| 12:00 PM | 1:00 PM | Lunch Break |
| 1:00 PM | 2:00 PM | Workshop 1/2/3/4 |
| 2:00 PM | 3:00 PM | Workshop 1/2/3/4 |
| 3:00 PM | 3:30 PM | Winner Announcements/Closing Remarks |
| 3:30 PM | 3:45 PM | Student Pick Up |

*Case Study Presentations will run at the same time of workshops.

ANNEX A

SHPE NJ Case Study Competition 2018

Criteria Score Card

| Criteria | Description | Score |
|------------------------------------|--|-------|
| Technical Knowledge Depth | Clear understanding of topic of discussion. | |
| Research on the Topic | Full analysis of their topic is shown, supported by background information. | |
| Response to prompt | Presenter(s) provided a probable resolution to the prompt (how to prevent Global Warming) | |
| | Presenter(s) detailed how their project will be funded | |
| Organization Structure | Presentation slides were clear, organized and easy to follow. | |
| Presentation Style | The oral presentation was clear and concise. The speaker(s) were well prepared and showed confidence behind their reasoning. | |
| Team Work / Leadership Development | Everyone on the team had a role and communicated effectively with one another. | |
| Score Total | 35 points max | |
| Score Chart: | | |
| 1 - Unsatisfactory | | |
| 2 - Needs Improvement | | |
| 3 - Meets Expectations | | |
| 4 - Above Expectations | | |
| 5 - Exceeds Expectations | | |

ANNEX B



Society of Hispanic Professional Engineers
13181 Crossroads Parkway, North, Ste. 405 • City of Industry, CA 91746
Tel: 323.725.3970 • Web: www.shpe.org • Email: k12@shpe.org

Accident Waiver and Release of Liability

| | |
|----------------|--|
| Event Name | |
| Event Date | |
| Event Location | |

I HEREBY ASSUME ALL OF THE RISKS OF PARTICIPATING IN AND/OR VOLUNTEERING AT THIS ACTIVITY OR EVENT, including by way of example and not limitation, any risks that may arise from negligence or carelessness on the part of the persons or entities being released, from dangerous or defective equipment or property owned, maintained, or controlled by them or because of their possible liability without fault.

I certify that I am physically fit, have sufficiently prepared or trained for participation in the activity or event, and have not been advised to not participate by a qualified medical professional. I certify that there are no health-related reasons or problems which preclude my participation in this activity or event.

I acknowledge that this Accident Waiver and Release of Liability Form will be used by the event holders, sponsors, and organizers of the activity or event in which I may participate, and that it will govern my actions and responsibilities at said activity or event.

In consideration of my application and permitting me to participate in this event, I hereby take the actions noted below for myself, my executors, administrators, heirs, next of kin, successors, and assigns vis-à-vis the following ENTITIES OR PERSONS: Society of Hispanic Professional Engineers (SHPE), and/or their directors, officers, employees, volunteers, representatives, and agents, the activity or event holders, activity or event sponsors, and activity or event volunteers.

(A) I WAIVE, RELEASE, AND DISCHARGE the entities or persons mentioned in this paragraph from any and all liability, including but not limited to, liability arising from the negligence or fault of the entities or persons released, for my death, disability, personal injury, property damage, property theft, or actions of any kind which may hereafter occur to me including my traveling to and from this event;

(B) I INDEMNIFY, HOLD HARMLESS, AND PROMISE NOT TO SUE the entities or persons mentioned in this paragraph from any and all liabilities or claims made as a result of participation in this activity or event, whether caused by the negligence of release or otherwise.

I acknowledge SHPE and their directors, officers, volunteers, representatives, and agents are NOT responsible for the errors, omissions, acts, or failures to act of any party or entity conducting a specific event or activity on their behalf.



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I hereby consent to receive medical treatment which may be deemed advisable in the event of injury, accident, and/or illness during this activity or event.

I understand at this event or related activities, I may be photographed. I agree to allow my photo, video, or film likeness to be used for any legitimate purpose by the event holders, producers, sponsors, organizers, and assigns.

The Accident Waiver and Release of Liability shall be construed broadly to provide a release and waiver to the maximum extent permissible under applicable law.

I CERTIFY THAT I HAVE READ THIS DOCUMENT; AND I FULLY UNDERSTAND ITS CONTENT. I AM AWARE THAT THIS IS A RELEASE OF LIABILITY AND A CONTRACT AND I SIGN IT OF MY OWN FREE WILL.

Print Participant's Name

Age

Signature (if under 18 years old, Parent
or Guardian must also sign)

Date

PARENT / GUARDIAN WAIVER FOR MINORS (Under 18 years old)

The undersigned parent or natural guardian does hereby represent that he/she is, in fact, acting in such capacity, has consented to his/her child or ward's participation in the activity or event, and has agreed individually and on behalf of the child or ward, to the terms of the Accident Waiver and Release of Liability set forth above. The undersigned parent or guardian further agrees to save and hold harmless and indemnify each and all of the parties referred to above from all liability, loss, cost, claim, or damage whatsoever which may be imposed upon said parties because of any defect in or lack of such capacity to so act and release said parties on behalf of the minor and the parents or legal guardian.

Print Participant's Name

Age

Signature of Parent or Guardian

Date