

# **Highway Engineering Exchange Program**

## **Educator and Student Participation (ESP) Program Manual**

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# Highway Engineering Exchange Program Educator and Student Participation Program Manual

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# Highway Engineering Exchange Program Educator and Student Participation Program Manual

## Introduction

The Highway Engineering Exchange Program Educator and Student Participation Program (ESP) began as the HEEP Scholarship Program. The Program is designed to build closer ties with educators and students interested in the field(s) of transportation engineering, and particularly, in the use of information technology in those fields. By having active educator and student participation, information flows in both directions: what are the practitioners doing, and what are the educators, researchers and students doing. The hope is that educators and students will participate in Area and International Meetings on a continuing basis. Any students either presenting at or attending the Area and International Meetings are encouraged to become Associate HEEP members.

As part of the ESP Program, a student presentation competition was begun in 1999 and is held yearly. Students make their presentations at the Area HEEP Meetings and are judged by a panel against criteria as defined in the ESP Evaluator Guidelines contained in Attachment #1 of this manual. The Area HEEP winners receive a scholarship to attend and present at the International HEEP Meeting. The presentations at the International HEEP meeting are also judged with the winners receiving cash scholarships. Further detailed information for the Area and International meeting follows.

## Area Meeting

### Competition Guidelines

A student competition is held at each Area HEEP meeting. The Area Director/Meeting host, in cooperation with the Area Officers, is responsible for organizing this part of the Area Meeting program. The Area Officers and the Area Meeting host are responsible for contacting appropriate educational institutions in a timely manner to ensure educator and student participation at the Area meeting. It is highly recommended that this search process begin in January or February to allow sufficient time to secure student presenters. Each institution contacted should be given information about HEEP, the ESP Program, and encouraged to appoint a HEEP ESP Educator Coordinator from their institution. This individual should also be encouraged to become a HEEP Associate member. The Coordinators should pre-screen potential student presentations for acceptability and compatibility with HEEP's purpose and work with the Area Meeting host and Area Officers to select the students to present at the Area Meeting. The number of student presenters should be between three and six, depending on the program scheduling for the Area Meeting. It is highly recommended that students be selected from universities that are near to the Area meeting location so that travel and lodging arrangements or needs are minimized.

Student presenters are registered at the Area HEEP Meetings at no charge, and are encouraged to attend as much of the Meeting as possible, including the vendor hall and social events. Students presenting at an Area HEEP Meeting may come from different educational institutions, are typically at the junior, senior or graduate level, and should be

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capable of accepting a commitment to attend the International HEEP meeting the following fall if selected as an Area HEEP winner. Each institution should have its student(s) accompanied by the institution's ESP Educator Coordinator. Students should be regarded as "regular" HEEP presenters; that is, abstracts, biographies and handouts are required. Educators and students should be encouraged to become Associate HEEP members.

Students are allowed to present at consecutive Area HEEP meetings provided their research topic and presentation are substantially different from previous years. In addition, a presentation may be given by one or more students. However, if two or more students are giving a presentation, they must share an equal amount of the presentation time. Student presentations are expected to be about 15-20 minutes in length and are made before the general Area Meeting audience and a judging panel. Judges will use the ESP Evaluation Guidelines contained in Attachment #1 of this manual and the ESP Evaluation Form contained in Attachment #2 of this manual to evaluate the presentations. The Area judging panel is selected by the Area Director and should consist of three to five members. HEEP members and Associate HEEP members may be selected for the judging panel. International Officers make good candidates.

Upon completion of the Area student presentations, the Area Director/Meeting host will arrange for the appropriate recognition of the presenters through an awards ceremony. A HEEP certificate of recognition or plaque will be given to each student presenting at the Area Meeting. In addition, cash awards will be given to the student presenters based upon the Area Judging Panel's decision of which student was 1<sup>st</sup> place, 2<sup>nd</sup> place and so on. The cash awards will be distributed in the amounts defined in Attachment #3 of this manual. Cash prizes will be made out of the Area HEEP account.

Each Area Director/Meeting host will notify the International HEEP President and the ESP Coordinator of the name, address, phone number, fax number and email address for the Area ESP winner immediately after the Area Meeting concludes. Each Area's student winner is assigned an Area HEEP Mentor that is usually the Area HEEP Director or Area Meeting Host. The Area HEEP Mentor duties are to assist with the student's preparations for the International HEEP Meeting by assisting with making travel arrangements, assisting in registering the student for the International Meeting and arranging an introduction to HEEP and its members at the International Meeting. The Area HEEP Mentor will be responsible for contacting the second, or subsequent place winner if the primary winner cannot attend the International Meeting and also for informing the HEEP ESP Coordinator with the replacement student's information. In the event that the Area HEEP Meeting ESP winner is a team of two or more students, both students are encouraged to attend the International HEEP meeting. However, the scholarship will pay for only one of them to attend and present at the International HEEP meeting.

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### Summary of Area Roles and Responsibilities:

#### Student Presenters

- Will submit an abstract of their presentation topic to the Educator Coordinator.
- Will develop a professional electronic presentation for use during their ESP competition presentation.
- Will work with Educator Coordinator to ensure registration, travel and lodging arrangements are completed.
- Will provide the necessary abstract, electronic copy of their presentation, speaker profile, etc. to the Area Director/meeting host for inclusion in the conference materials.
- Is responsible for submitting travel and meal receipts to the Area Director for consideration of reimbursement of travel, lodging or meal expenses.
- Will attend the following: a brief orientation session; the ESP presentations; the ESP awards ceremony; the ESP picture session; the Board of Directors dinner; and are highly encouraged to attend all other presentations during the Area meeting.
- Should the Area ESP winner be a team of two or more students, the students will notify the Area Director which individual from their team will be attending the International HEEP meeting to represent their team.

#### Educator Coordinator

- Will work in concert with the Area Director/Meeting host to pre-screen and select a slate of presenters from their Institution. If all of the presenters are to be from one institution, the presenter slate should number four to six. If several institutions are contacted, then each institution slate should number one to three.
- Should pre-screen the presentations based on the competition criteria defined in the ESP Evaluator section of this manual and based upon pertinence to HEEP members.
- Should escort the selected students to the Area Meeting and assure that registrations are completed for all educator and student attendees.
- Will work in concert with the Area Director/Meeting host and the student presenters to make travel and lodging arrangements for the student presenters.
- Will attend the following: a brief orientation session; the ESP presentations; the ESP awards ceremony; the ESP picture session; the Board of Directors dinner; and are highly encouraged to attend all other presentations during the Area meeting.

#### Area Mentor

- Will be assigned to assist the Area HEEP ESP Competition winner with making registration, travel and lodging arrangements to attend the International HEEP Meeting.

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- Will assist the Area HEEP ESP Competition winner in preparing for their presentation at the International HEEP Meeting, to include help with improving the student's presentation, if requested.
- The mentor will be responsible for contacting the second, or subsequent, place winner if the primary winner cannot attend the International Meeting.

### Area Meeting Host and/or Area Director

- Is responsible for organizing the ESP presentation and awards ceremony for the Area Meeting program. Is encouraged to work with the ESP Coordinator to ensure consistency in the ESP competition from Area to Area.
- Will contact educational institutions in the vicinity of the Area Meeting in a timely manner before the Area Meeting. It is suggested that these institutions be contacted at least 4 months before the Area Meeting. It is at the discretion of the Area Director and Area Meeting Host how many educational institutions are contacted for any given Area Meeting. The purposes of the ESP Program and competition should be explained to each institution contacted. Each institution should be given information about HEEP, the ESP Program and encouraged to appoint a HEEP Educator Coordinator. The number of student presentations should be three to six, depending on the program schedule for the Area Meeting.
- Is responsible for ensuring student presenters are informed of dates, times and locations for their presentation and all other events or meetings they must attend while at the Area meeting.

### Area Director

- Will have final approval for the number of student presenters at the Area Meeting, particularly if the number exceeds appropriate levels.
- Will arrange for the awarding of certificates to the ESP presenters (it is suggested that the certificates be framed).
- Will notify the International President and the ESP Coordinator of the name, address, phone number, fax number, e-mail address and educational institution of the Area ESP winner. This notification should be made immediately after the Area Meeting concludes. It is also recommended that a copy of the Area ESP winner's registration, biographical information, abstract and presentation be forwarded to both.
- Will select the judging panel that should consist of three to five members. Associate members, vendors, city/county representatives or other HEEP delegates) may be selected. If in attendance, HEEP International Officers should be considered for the panel.
- Will provide much of the same above information about the ESP mentor that has been assigned for their Area.
- Has the authority to grant student presenters' requests for reimbursement of travel, lodging or meal expenses incurred by the student presenter to attend the

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Area meeting. Such reimbursements, if approved, will come from the Area meeting fund.

- Is encouraged to contact associate members who may be interested in expanding the HEEP Educator and Student Participation Program by contributing to its financial longevity. The current ESP Coordinator serves as the point of contact for anyone interested.

## Area Judging Panel

- Will use the ESP Evaluation form in Attachment #3 to evaluate each of the student presenters based upon the criteria defined in the ESP Evaluation Guidelines in Attachment #2 of this manual.
- Will participate in a discussion and select the ESP Area competition 1<sup>st</sup> place and 2<sup>nd</sup> place winners.

## **International Meeting**

### **Competition Guidelines**

A student competition is held at the International HEEP meeting. The International HEEP President along with the HEEP ESP Coordinator is responsible for organizing this part of the International HEEP Meeting program. Students selected as Area winners are expected to attend the annual International HEEP Meeting and are required to make the same presentation they did at the Area Meeting. The presentation can be improved, but the topic and main substance cannot be changed. In the event that the Area HEEP Meeting ESP winner is a team of two or more students, both students are encouraged to attend the International HEEP meeting. However, the scholarship will pay for only one of the students to attend and present at the International HEEP meeting.

Student presenters are registered at the International HEEP Meetings at no charge, and are encouraged to attend as much of the Meeting as possible, including the vendor hall and social events. Students should be regarded as “regular” HEEP presenters; that is, abstracts, biographies and handouts are required. Educators and students should be encouraged to become Associate HEEP members.

Students are responsible for registering for the International Meeting, with all conference fees waived as part of the scholarship. It is expected that each student will arrive on the Saturday that is the commencement of the Meeting, and will stay for the duration of the Meeting. Students must communicate any different arrangement to the International President and the ESP Coordinator prior to the beginning of the Meeting.

Any transportation costs (air, commercial transfers, etc.) will be paid by HEEP through the ESP Scholarship fund. Students will be reimbursed at or after the Meeting by the ESP Coordinator upon presentation of invoices or receipts for actual expenses. Foreign

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students will be reimbursed in US funds, and should be prepared to present appropriate paperwork in US funds.

Students are responsible for all phone calls, room service charges extra from regular meals and other miscellaneous charges incurred at the Meeting. Standard meals, such as breakfast, lunch and dinner that are not provided by the HEEP conference will be reimbursed by the ESP Coordinator upon presentation of receipts for the actual expenses.

Student presentations are expected to be about 15-20 minutes in length and are made before the general International Meeting audience and a judging panel. Judges will use the ESP Evaluation Guidelines contained in Attachment #1 of this manual and the ESP Evaluation Form contained in Attachment #2 of this manual to evaluate the presentations. The International judging panel is selected by the International President with input from the ESP Coordinator and should consist of three to five members. HEEP members and Associate HEEP members may be selected for the judging panel. International Officers make good candidates.

Upon completion of the student presentations, the International President will arrange for the appropriate recognition of the presenters through an awards ceremony. A HEEP certificate of recognition or plaque will be given to each student presenting at the International Meeting. In addition, cash awards will be given to the student presenters based upon the International Judging Panel's decision on which student was 1<sup>st</sup> place, 2<sup>nd</sup> place and so on. The cash awards will be distributed in the amounts defined in Attachment #3. Cash prizes will be made out of the ESP Scholarship fund.

### **International Meeting Roles and Responsibilities**

#### **Area Student Winners**

- The Area student winners are responsible for registering for the International Meeting and for making all travel and lodging arrangements in conjunction with the HEEP Area Mentor, the ESP Coordinator, and the International HEEP President.
- As presenters at the International Meeting, students should work with the International HEEP Meeting program committee to provide the necessary information, abstract, handouts, biographies, etc. for the meeting.
- Will attend the following during the International Meeting: a brief orientation session; the ESP presentations; the ESP awards ceremony; the ESP picture session; the Board of Directors dinner; and are highly encouraged to attend all other presentations during the International meeting.
- Is responsible for submitting travel and meal receipts to the ESP Coordinator for reimbursement of approved expenses. All other miscellaneous expenses such as room service, telephone calls, etc. are at the expense of the student.



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## ESP Coordinator

- Is responsible to pay for all travel and approved meal costs for all Area student competition winners competing at the International HEEP Meeting.
- Is responsible for working with the International President to ensure the ESP competition is on the International Meeting program and that all arrangements are made for the competition, awards ceremony and picture taking.
- Is responsible for the awarding of certificates to the ESP presenters (it is suggested that the certificates be framed). Usually this is done in cooperation with the International President.
- Is responsible for the ESP cash awards to be given at the International HEEP Meeting. Usually this is done in cooperation with the International President.
- Has the authority to award a second all-expenses paid or partial scholarship to attend the International Meeting in the event of a tie for the Area ESP competition. May also award a partial scholarship to attend the International Meeting for the 2<sup>nd</sup> place winner at an Area meeting should the presentation and topic be of very high caliber and merit such an award. This will usually be done in cooperation with the International President.
- Will coordinate with the International President to arrange a “pre-conference” session for the students, their mentors (if in attendance), Area Officers and International Officers to get acquainted. Traditionally, this session is held either Sunday morning as a “late breakfast” or Sunday afternoon. This will provide an opportunity for the students to have any questions answered and to be better prepared for the week.
- Is responsible for ensuring student presenters are informed of dates, times and locations for all events or meetings they must attend while at the International meeting.
- Is responsible for ensuring the International Judging Panel understands their roles and responsibilities.
- Is responsible for ensuring the International Judging Panel has all of the necessary judging supplies required to fulfill their duties.
- Is responsible for ensuring the International Judging Panel meets to determine the ranking of the ESP presenters so that awards may be given accordingly.
- At the International HEEP Meeting, it is the duty of the ESP Coordinator to arrange a briefing with all students attending to ascertain the effectiveness of the ESP Program.

## International HEEP President

- Will arrange and cover the cost of hotel rooms for each student attending the International HEEP Meeting. The cost will be covered by the Meeting account for one student from each HEEP Area. The usual cost per student is for 6 nights (Saturday through Thursday) for up to 5 students.
- Will cover the cost of student registration fees for the conference for one student from each HEEP Area. The cost will be covered by the Meeting account.

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- Will select the panel of three to five people that will judge the ESP competition. This is usually done in cooperation with the ESP Coordinator.
- Will ensure that the student presentation competition is included in the International HEEP Meeting program.

### International Judging Panel

- Will use the ESP Evaluation form to evaluate each of the student presenters based upon the criteria defined in the ESP Evaluator section of this manual.
- Will participate in a discussion and select the ESP International competition 1<sup>st</sup> place winner, 2<sup>nd</sup> place winner and so on.

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## **ESP Evaluation Guidelines:**

The purpose of this section is to familiarize you, as an evaluator, with the qualities that are expected to be in a student's presentation. The following are items on which you will be asked to numerically rate the student presenters. A description of each item explains the scope in which rating the particular item is based:

### **Presentation Preparation**

Does the student seem organized? Are the student's notes in order? Does the subject matter seem to flow smoothly as if a constant train of thought?

### **Understanding of Subject**

As the student presents, is the presentation purely mechanical or does the student seem to have an intimate knowledge of the subject and materials?

### **Pertinence of Subject to HEEP Goals and Objectives**

Has the student chosen a subject that is pertinent to the Goals and Objectives of the HEEP organization? How well does the presentation address the importance of Information Technology in the engineering effort?

### **Oral Presentation**

How does the student presenter communicate with the audience? Is the student presenter reading from notes, screen or other aid with no perceived interaction with the audience or has the student presenter been able to initiate a link with the audience and is able to maintain a comfortable rapport?

### **Interaction with Audience**

As the student speaks, is there a connection with the audience? Eye contact? Does the student read from prepared notes, screen or other presentation aids without interacting with the audience? Do you get the feeling that the student is speaking directly to you?

### **Effective Use of Presentation Aids**

Most presenters at the present time rely on electronic aids to assist them in presenting their topic. The aids typically are comprised of a computer utilizing either presentation software or application specific software used in conjunction with a computer projector and screen. Some presenters may still use flip charts, overhead projectors, presentation boards and other physical graphic aids. As an evaluator, you are not asked to rate the students' presentation aids based on the type of technology chosen, but to rate the

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students' presentation aids on how well they help the student in conveying the subject of their presentation to the audience.

### **Professional Appearance and Demeanor**

Student presenters typically “dress for success” as they know that they are being showcased in front of potential future employers. They most likely will endeavor to look and act in a professional manner. As an evaluator in this category you are asked to rate how well they have done this. Based on your observation of the student, does the student earn your respect as an engineering or information technology professional?

### **Response to Questions from Audience**

Can the student respond to audience questions speaking “off the cuff” showing a complete and total knowledge of the subject, or does the student have to keep referring to notes or other presentation aids to assist in formulating answers to questions? While at some times questions from the audience may border on “fringe” topics of the main presentation, the student should be familiar enough with the subject matter to be able to quickly and logically formulate a response to the question or request the person asking the question to rephrase in terms more specific to the subject.

### **Overall Assessment of the Presentation**

Looking at the student presenter, presentation, aids and interaction as a total package, you are asked to numerically rate how well the entire package was presented.

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## Evaluator Rating Form

Student Name: \_\_\_\_\_

Educational Institution: \_\_\_\_\_

Presentation Name: \_\_\_\_\_

HEEP Area: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Level: So Jr Se Gr

<u>Category</u>	Excellent	Good	Fair	Poor	<u>Score</u>	
Presentation Preparation	5	4	3	2	1	_____
Understanding of Subject	5	4	3	2	1	_____
Pertinence of Subject to HEEP Goals	5	4	3	2	1	_____
Oral Presentation	5	4	3	2	1	_____
Effective Use of Presentation Aids	5	4	3	2	1	_____
Professional Appearance and Demeanor	5	4	3	2	1	_____
Interaction with Audience	5	4	3	2	1	_____
Response to Questions from Audience	5	4	3	2	1	_____
Overall Assessment of the Presentation	5	4	3	2	1	_____
						Total Score: _____

\_\_\_\_\_  
Evaluator Name (Please print)

\_\_\_\_\_  
Evaluator Signature

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## Meeting Awards

### Area Meeting Awards

Area HEEP ESP Awards will be made to the student presenters as follows:

- 1<sup>st</sup> place – a cash award of \$100.00 plus an all-expenses paid “scholarship” to attend and present in the ESP competition at the International HEEP meeting
- 2<sup>nd</sup> place – a cash award of \$75.00
- All other presenters will each receive an Honorable Mention certificate and a cash award of \$50.00

### International Meeting Awards

International HEEP ESP Awards will be made to the student presenters as follows:

- 1<sup>st</sup> place – a cash award of \$250.00
- 2<sup>nd</sup> place – a cash award of \$150.00
- 3<sup>rd</sup> place – a cash award of \$100.00
- All other presenters will each receive an Honorable Mention certificate and a cash award of \$50.00.