



The Environmental Challenge International

...a student team competition

PROTOCOL

General Description:

The Environmental Challenge international (ECi) Program is a student team competition to prepare and present an optimal solution to a complex “true-to-life” environmental problem. The problem presented will be of current value, representative of the location of the event, and require multi-disciplinary approaches for success. The Challenge seeks not only technical and scientific analyses, but solutions that are presented in conjunction with the development of appropriate regulatory approaches and resolution of political and community issues.

The goals of the ECi are to

- Involve students in A&WMA's Annual Conference and Exhibition (ACE)
- Provide experience in solving complex environmental situations in a fun and supportive atmosphere
- Provide students an opportunity to display their talents
- Be a premier networking event for students to connect with internship and job opportunities

The ECi is designed to promote formation of student teams with the broadest feasible range of environmental disciplines including engineering, planning, policy, economics, and various other sciences. The problem will be relevant to the conference location and current events. Teams must research the problem background, as well as the technical, social, economic, and political aspects of the situation. Teams must stay apprised of ongoing events related to the problem adjusting their solutions appropriately leading up to and during the conference.

Although winning solutions to the proposed problem must have sound engineering and technical bases, the solution does not require a full engineering design presentation. Similarly, all problems pose economic and political issues that must be addressed. Solutions are expected to provide reasonable resolutions applying basic engineering and scientific knowledge to research scenarios and critical questions.

Student teams should start to form following posting of the problem. Just as corporations and other organizations pull together teams from their staff to most effectively address any given project, so too should each student team by identifying and recruiting representatives from appropriate disciplines as needed to address the problem holistically. Schools may wish to consider combining students to make balanced teams and are encouraged to do so. Student teams must register for the ECi by checking the appropriate box on the conference registration

form and by contacting Max Lee (mlee@kooglerassociates.com). Please note: Each team member must register for ACE in addition to register for the EC*i*.

Once teams reach the conference, preparation of broad background knowledge of the challenge topic will be the key to a successful competition. Role players in the EC*i* problem will be identified and available for students to approach with questions and to consult for opinions. The role players are A&WMA conference attendees and professionals in the environmental field. Students should approach conference attendees and exhibitors to identify additional individuals with expertise that is germane to the EC*i* problem. The conference is a premier networking opportunity and the EC*i* problem provides an excellent topic for discussion and networking. The role players provide a key interaction for the EC*i* participants as direct feedback on their solutions, asking questions to prepare the students for the project presentations, and enhancing the student networking experience at ACE. The role players are also critically involved in a “tweak” (added complication to the problem) that tests the students’ knowledge of the challenge topic.

EC*i* Competition Preparation:

Student teams should start to form immediately following posting of the problem, identifying and recruiting representatives from appropriate disciplines as needed to address the problem holistically. Just as corporations and other organizations pull together teams from their staff to most effectively address any given project, so too should each student team. Schools may wish to consider combining students to create balanced teams and are encouraged to do so.

Student teams may not contain more than 5 members and are generally comprised of 3 to 5 individuals.

A student is defined as an individual who is enrolled in an academic institution or a recent graduate and does not hold a full time job.

Eligibility:

The EC*i* competition is open to all students who are registered for the ACE and have not been out of school for more than one full year. The competition will be a combined event for graduate and undergraduate students competing equally.

Note: Students must register for AND attend the conference to participate in the competition.

Teams must register (i.e., check the appropriate box on the ACE Student Registration Form) prior to ACE *and* one member from each team must contact Max Lee (mlee@kooglerassociates.com). Each team member participating must register for and attend the annual conference during which the competition is judged.

Expectations for proposed problem solutions:

Solid technical analysis, logic train, process, conceptualizations, and creativity are all critically important to the proposal and presentation composition. Clear and concise presentation of your thoughts in a public forum is paramount to success. Your team will need to make reasonable assumptions as part of the solution. The assumptions must pass the “straight-face” test. This is (almost) the real world! The proposal must identify each team member by name and the role they will have in the presentation (e.g., “Sally Smith” is the lead project engineer and will address waste issues, “Jim Jones” is the city planner; include the disciplines that you think you need).

Written Proposal:

Each team must submit, via email to Max Lee (mlee@kooglerassociates.com), a written proposal in advance of ACE 2011 – May 28, 2011 - addressing the problem: The written proposal should provide an outline of the approach that your team is going to take, the issues that you will be discussing, include the names and roles of each team member, and *shall not* exceed 5 pages.

The written proposal will contain a **cover page** with the team name, name of academic institution representing, each team member's name. The title page is not included as part of the proposal's 5 page limit. Additionally, references and appendices are not included in the proposal's 5 page limit but please keep in mind the judges will only be scoring based on the 5 page proposal. The written proposal should be 1.5-spaced, 12 point Arial, with 1" margins.

Written proposals will be distributed to the EC*i* judges on June 1, 2011 with a scoring form.

The Tweak:

No matter how much you do and know, in real life unexpected events and expectations can and do occur in real life. To this end, you should expect (when you pick up your EC*i* registration packet at the Student Welcome Booth) some late breaking information that might alter your approach and/or require your problem to the solution to evolve. The problem and the tweak will require that you find and talk to "experts" and attend technical sessions, during the conference, for answers and important information.

An orientation meeting for the EC*i* participants will be held on Tuesday June 21, 2011 from 1:00 p.m. to 2:00 p.m.

Role players in the problem will be identified in the EC*i* packet picked up at the Student Welcome Booth upon registration and will also be introduced at the initial meeting.

Proposals will be judged by a panel identified prior to ACE – the panel will meet at ACE to determine top solutions.

Role Players:

During the conference you will be required to speak with role players involved with the problem. These role players will be project proponent(s), regulators, politicians, activists, and other expected or unexpected individuals critical to creating a solution to the problem. Role players will offer insight and clarify any additional questions each team may have in relation to the problem. During the EC*i* orientation, a sign-up sheet will be available for interviews with these individuals, but they may be approached at any time during the conference. Please use professionalism during all business meetings and technical and plenary sessions and have fun while remembering your environment. Interviews will occur at the Student Welcome Booth. While these role players are critical, so are the technical sessions and exhibitors that are related to the problem.

Poster Presentation:

Each team must prepare and bring a poster presentation of the proposal to ACE.

EC*i* POSTER GUIDELINES (based on A&WMA poster guidelines)

1. The *entire team* must be present for the poster presentation at the A&WMA Annual Conference.
2. Each EC*i* team will be assigned one side of a 4-foot-high-by-8-foot-wide poster easel in the Exhibit Hall. The poster number will be assigned at arrival and dictate each team's location.

The easel is composed of a soft material that allows easy mounting with pushpins. Each student team is responsible for bringing pins; pins will not be provided.

3. Place your poster materials on regular bond paper so you can attach them easily to the easel. Your poster materials should be prepared so that they may be arranged easily. There is no prescribed format for the body of the poster, but the poster **MUST** include the title and the full team listing.
4. Figures, graphs, and tables should be uncluttered and simple and arranged in the sequence in which you want them to be viewed. Text should be typed or prepared using a word-processing program printed on a laser printer or another type of quality printer. Text and figures should be large enough to be read from a distance of 6 feet. Color may be used for emphasis.
5. Team members should prepare a brief, to be given during the judging period. The presentation should summarize important assumptions and conclusions and clearly articulate proposed solutions to the challenge problem. A limited number of copies of the written proposal should be available for distribution to interested individuals. Additionally, creativity is critical; hand-outs and other exhibits may be used to further advertise your poster.
6. ECi teams are required to attend an **ECi orientation meeting on June 21 from 1:00 to 2:00 p.m.** This event will be held in the Convention Center to review the ECi problem and procedures introduce role players, sign-up to interview the role players, and answer general ECi presentation questions. Check in at the Student Welcome Booth for room information.
7. Poster setup is June 21 beginning at 8:00 a.m. and should be completed by 11:30 a.m., with the area clean and ready for viewing. Judging will take place **June 21 from 1:00 to 5:00 p.m.** ECi participants must be available to interact with the judges during the entire judging period.
8. Teams will have 10 minutes to present your proposal at the poster and a five-page limit for the proposal submittal.

Competition Finale: The Presentation*

For the final presentation, teams must demonstrate their understanding of the issues in the written proposal and poster presentations and address the tweak. Sustainable approaches for these and other site issues are of great interest to the owners.

The winning team presentation will be strong in approach, logic, clarity, application, and creativity.

Each of the teams will present their problem solution on June 22 from 1:00 p.m. to 5:00 p.m. during the technical session program that day. Presentation order will be chosen randomly. A computer and projector will be provided for the presentation (with Microsoft PowerPoint). Please bring your presentation on a data stick or disk to be transferred to the computer. Plan for no more than a 15-minute presentation followed by 5 minutes of questions and answers.

*Dependent on the number of teams entered into the ECi, only a limited number of teams may be chosen for the final presentation. The combined scores from the written proposal and poster will be tallied and the top scoring teams will progress to the final phase of the competition. The number of teams selected for final presentation will be dependent on the allotted time for presentations.

Judges' scores will be tallied immediately following the ECi poster session. The top teams for the final competition should then be prepared to put the finishing touches on their presentations.

Overall ECI winners will be announced at the Student Awards Ceremony and Reception on Friday, June 22, from 5 to 6 p.m.

ECi Timeline :**

DATE	TIME	EVENT
May 28, 2011		ECi Proposal Due to Max Lee
June 1, 2011		ECi Proposals Sent to Judges
June 21, 2011		A&WMA Annual Conference & Exhibition Commences ECi Tweak available for pick-up
	8:00 a.m. – 9:00 a.m.	ECi Poster Breakfast
	8:00 a.m. – 11:30 a.m.	ECi Poster Set-up
	1:00 p.m. – 2:00 p.m.	ECi Orientation
	1:00 p.m. – 5:00 p.m.	ECi Poster Presentation
June 21 & 22, 2011		ECi Role Player Interviews
June 22, 2011	1:00 p.m. – 5:00 p.m.	ECi Presentations
	5:00 p.m. – 6:00 p.m.	Student Awards Ceremony and Reception

**All ECI materials are available on A&WMA's website:

http://events.awma.org/ace2011/yp_students.php

Questions should be directed to:

Max Lee, PhD., P.E
 Koogler & Associates, Inc
mlee@kooglerassociates.com

Overall ECI Competition Prizes

Place	Prize
1	\$5,000
2	\$4,000
3	\$3,000
4	\$2,000
5	\$1,000