

## **Student AIChE/CACHE Mobile Device APP Competition**

### **National Competition**

Undergraduate student teams will create an APP for a mobile device. This APP must be deemed to be useful for an AIChE member. Possible application areas include scientific, engineering, teaching and professional meeting organizers. Teaching apps could include a game designed to teach chemical engineering concepts. The APP that is developed must be able to run on a mobile device such as a smartphone (iPhone, Android, Blackberry etc.) Student teams can consist of any discipline, but at least half of the team must be members of AIChE.

The competition at the AIChE annual meeting will consist of a poster competition where finalists will be selected to give a short presentation to a general audience. There will be two prizes, with monetary awards given to the student team's AIChE chapter:

- 1) \$500 from CACHE for the first place winner of the best mobile device APP
- 2) \$500 from a corporate sponsor for the best mobile device APP that addresses safety.

**Intellectual Property** of the APP remains with the students who developed the APP.

### **Rules**

- Student teams must consist of fulltime students
- Student teams can consist of any discipline, but at least half of the team must be members of the AIChE
- Student developed APPs can be constructed using existing software templates and components.
- The final APP must be an original creation of the team.
- Submissions must comply with intellectual property rules (e.g. copyright etc.)
- The student team must have at least one team member presenting at Annual Meeting.
- The App must be able to run on a mobile device that uses one of these operating Systems: Android, BlackBerry, iPhone, Palm, Symbian, or Windows Mobile.

### **Timeline:**

- December 1, 2012 -- Intent to Submit (Link TBA)
- February 1, 2013 -- Preliminary APP and Technical Documentation Submission (Link TBA)
- October 1, 2013 -- Final APP and Technical Documentation Submission
- November 3, 2013 -- Poster Competition and Judging

### **Judging of the overall competition will be based on:**

- Creativity and uniqueness of the APP (15%)
- Usefulness of the APP (20%)
- Ease of use of the APP(15%)

- Professional and/or Societal Impact of APP (20%)
- Poster Presentation which includes demonstration of APP on a mobile device at AIChE Annual Meeting (30%)

### **Judging of Electronic Submission portion of the APP competition**

- Submission deadline 1 October 2013; submission instructions will be announced at a later date
- Technical documentation containing
  - Description of the APP and equations used including screen shots
  - Sources of technical information and physical properties
  - Sources of software components that were used in APP
  - Flow chart illustrating how the APP works
  - Sufficient worked-out examples to verifying the utility of the APP
  - Broad impacts of chemical engineering on society
- APP Code

**Poster and APP Demonstration Competition at AIChE National Meeting:** The date and time of this competition will be a session of the AIChE National Student Meeting. At this session a poster board must be displayed with the APP working on a mobile device. This poster should outline the unique features of the APP and the programs structure. Please note that between 1 February 2013 and the AIChE National Meeting the student team is allowed to further develop the software to improve its performance on the mobile device.

- APP description similar to that given in the iTunes store showing example screen shots of the APP and its features
- Outline of the programming structure of the APP
- Description of the unique software , drawings and testing results
- Letter from student team stating that the APP is their own work and they have abided by all the rules

### **AIChE/CACHE APP competition Committee:**

Chau-Chyun Chen, Scott Fogler, Robert Hesketh, Jason Keith, Concetta LaMarca

### **Questions about this competition can be directed to**

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