

## **National ETD/ETC Initiative: Providing Engineering Talent for the Future**

In February 2009, The Engineering Technology Division (ETD) and the Engineering Technology Council (ETC), in conjunction with the College Industry Partnership (CIP) Division of ASEE held a forum to launch a new strategic initiative to help engineering technology (ET) programs across the country to enhance their ability to provide applied engineering talent for the future. The three groups invited ASEE corporate partners to the table to strategize on what initiatives might be pursued to make the largest positive impact on the current and eminent pool of graduates being educated for future technical positions. Several opening presentations were given to set the stage for the dialog and then a brainstorming session was held to generate ideas. Forty-five distinct tasks were proposed by the group and recorded for future vetting and refinement.

During the Summer ASEE conference in Austin, TX, the ETD and ETC leadership groups held an additional session to formulate a strategy for moving the initiatives forward. It was determined that during the 2009 Engineering Technology Leadership Institute (ETLI), to be held at Pennsylvania State University in October 2009, four panels would be assembled to further flush out issues, trends, impediments, and opportunities that may affect the success of the national effort. The panels were assembled, they carried out their charge, and the meeting was a success. After considerable discussion and clarification, several of the tasks were combined and then a prioritization activity was used to reduce the list to a set of approximately 6-10 primary tasks that could be pursued by the national engineering technology community under the oversight of the Engineering Technology Council and its other stakeholders. These tasks have been organized into four categories representing stakeholder groups that ET can partner with to work on each task.

The plan going forward is to ask the Engineering Technology Council (ETC) to institutionalize this effort by the possible establishment of a standing committee to direct its continued efforts and collaborations with other entities such as ETD and ETLI. If ETC agrees to do this during its Executive Committee meeting on February 1<sup>st</sup>, then the forum group could meet later during the Conference for Industry and Education Collaborate (CIEC) to be held in Palm Springs, CA in February 2010. These initiatives could be further clarified and then assigned to specific entities as primary champions. Individuals would need to be recruited to lead and/or work on each charge. Volunteer task groups could be assembled and time lines proposed. The resulting groups will be asked to organize a work plan and time table for their effort. It is anticipated that interim progress reports will be made during future meetings of ETD, ETC and ETC and through this list serve.

The tasks as currently defined are:

**Partnership with professional societies:**

- Bring relevant professional societies and ABET into discussions on a national ET curriculum renewal project. Possibly start with a project to develop a *body of knowledge* (BOK) deemed necessary for the core ET curriculum. Ensure that entrepreneurial and business acumen student skills are included.

**Partnership with business and industry to help define how:**

- Industry can help ET and other applied engineering programs at universities focus on innovated classroom and laboratory pedagogy, not just applied research. ET should make positive contributions in applied research and graduate education, but should also be leading our universities in research on teaching and learning development for technical knowledge and skills and preparing ET faculty for the future. The national ET community should support the development of selected Ph.D. programs that can support this vision.

**National marketing/branding initiatives:**

- The national ET community needs to better define exactly what ET is and what ET graduates do in a language that young people can relate to. ET should demonstrate to young people how much of a difference they can make in the world as an engineering or ET graduate.
- Increase efforts to stimulate kids and get them excited about math and science early in their K-12 studies by using real world examples they can relate to.
- Focus the ET nomenclature, particularly in marketing literature, more on the career progressions of our graduates, including service as applied engineers, rather than just on the programs of study.

**Initiatives that ETD/ETC can undertake:**

- The national ET community should work with the US Department of Personnel Management on revising its classification of ET graduates. This might lead to a comprehensive effort for government agencies to evolve their recruiting and hiring practices for ET graduates.

**Action Required:** Determine which of these tasks you would be most suited to contributing to. You might help by further defining the work effort and the step-by-step methods used to address the issue. Or you may wish to serve on one of the task forces enlisted to carry out the tasks related to the issue. Please get involved and attend the next forum to be held during the CIEC conference in Palm Springs, CA on Monday February 1, 2010.