

IEEE Educational Activities

*An Overview of the IEEE Educational Activities
Department
Including the Programs, Products and Services Offered
to
our Members and Customers Worldwide*

June 2009

IEEE Educational Activities (EA) Strategic Focus

The IEEE Educational Activities Department continues to keep in focus IEEE's 3-5 year Goals when developing programs.

EA is aligned with the following IEEE goals:

- *IEEE will improve the professional competencies of students and professionals through education*
- *IEEE will increasingly be valued by the global community as a catalyst for a balanced dialogue on technology-related issues*

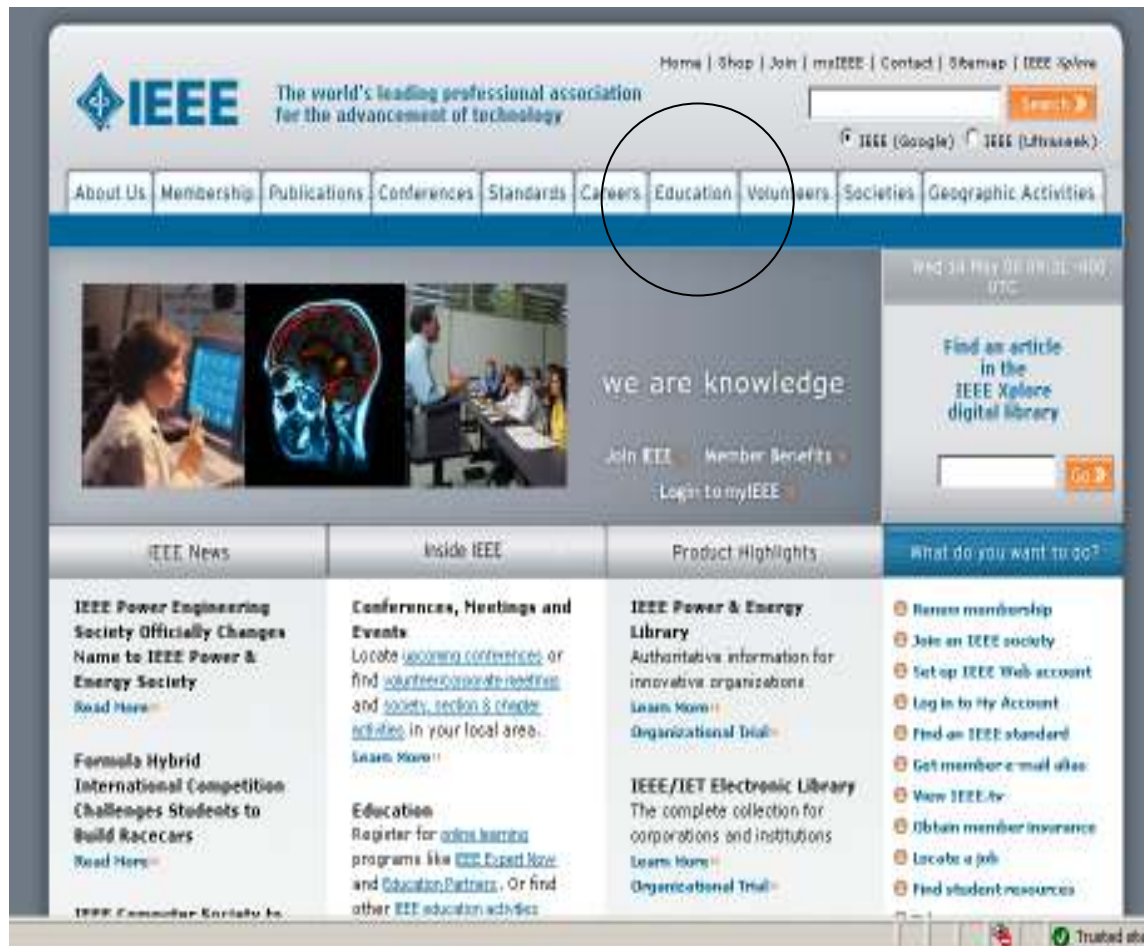
IEEE Educational Activities Board

- The IEEE Educational Activities Department has an oversight body known as the IEEE Educational Activities Board (EAB)
- The EAB is comprised of IEEE Volunteer members
 - 17 Voting members - representatives from the various organizational units within IEEE
 - 1 non-voting member - Staff Secretary
- There are 12 entities reporting into the EAB
 - 10 Committees
 - 2 Editorial Boards

EAB's Goals

- Provide members and all persons involved in IEEE's technical fields of interest with **high-quality opportunities for education** on these topics
- Provide young people and their teachers and parents with **opportunities to understand prospects and career paths** in engineering and technology
- Provide the profession's **perspective on all key aspects of higher education in IEEE's technical fields of interest**. Among these are: curriculum, accreditation, recruiting and retention, educational policies, and the research enterprise

Where to Find EA on the Web



From the main page of the IEEE, www.ieee.org,

Click on the tab
“Education”

OR

Use URL

www.ieee.org/education

All EA’s programs can be located on this page.

IEEE Educational Activities Programs

TryEngineering.org

Available to Members in R 1-10

- Website created by IEEE, IBM, and New York Hall of Science. Combines information on engineering careers with interactive activities to raise public awareness of the engineering profession
- Primary audience: students, parents, teachers, school counselors, and the general public
- Visitors to the portal can:
 - Prepare for an engineering career
 - Find student opportunities such as summer camps, internships, etc
 - Search for universities with accredited engineering programs
 - Ask experts engineering-related questions, and more...



Visit: www.TryEngineering.org

Teacher-In-Service Program

Available to Members in R 1-10

- Features IEEE Section volunteers developing and presenting technologically-oriented subject matter to local pre-university educators in an in-service or professional development setting
- TISP allows IEEE volunteers to share their technical expertise and to demonstrate the application of engineering concepts to support the teaching and learning of science, mathematics and technology disciplines.

To learn more visit



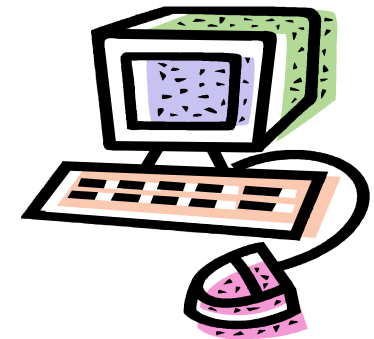
www.ieee.org/web/education/preuniversity/tispt/tispworkshops.html

IEEE Expert Now

For Individual Member Use

Available to Members in R 1- 10

- IEEE Expert Now program makes available 1-hr educational courses and tutorials delivered to your computer
- Courses are developed by Subject Matter Experts in a wide range of topics
- There are 90+ courses in the library. Additional modules added frequently
- Each module is priced at US \$99.95 for 30-day access



Visit: www.ieee.org/expertnowieee

IEEE Expert Now

Organizing a Section or Chapter Event

Available to Sections and Chapters in R1-10

Is your Section/Chapter interested in having a special event? Consider hosting an IEEE Expert Now evening.

It is easy to do... just follow these simple steps:

- Contact IEEE EA Staff about organizing a local event
- Choose 1-3 IEEE Expert Now courses to be offered
- Your courses are delivered online or on CD
- Interested attendees can receive IEEE CEUs

For more information on hosting an event, visit:

www.ieee.org/web/education/Expert_Now_IEEE/sc_program.html

IEEE Education Partners Program

Available in R1-10

- IEEE Education Partners provide access to more than 6,000 online courses, certificate programs and graduate degree programs to meet the diverse needs of members
- Program offers IEEE members a 10% discount on courses through partnerships with academia and industry
 - Courses are available in over 6 languages
 - On-site courses are available in 22 countries
 - Over 22 course topics are available



Visit: www.ieee.org/partners

Continuing Education Units

Available to Members in R1-6

- A Continuing Education Unit (CEU) is a nationally recognized method of quantifying the time spent learning during professional development and training activities.
- IEEE is an Authorized CEU Provider through the [International Association of Continuing Education and Training \(ANSI/IACET\)](#), and has adopted ANSI/IACET guidelines and criteria for all its continuing professional development programs.

Visit: www.ieee.org/ceus



CEU

One CEU equals ten contact hours of instruction in a continuing education activity. One CEU translates to Ten PDHs.

PDH (Professional Development Hour)

One contact hour of instruction or presentation



Educational Activities Board Awards Program

Available to Members in R1-10

EAB Awards honor individuals and companies for major contributions to engineering and technical education.

Awards Timeline

- ⑩ The EAB Awards website is operational December 1st
- ⑩ The call for EAB Awards nominations go out in January
- ⑩ Nominations close April 30
- ⑩ Award winners are decided at the June IEEE Board Series



Visit: www.ieee.org/eab-awards

EAB Awards Program Continued

Awards are given for:

- Meritorious Achievement in Accreditation
- Continuing Education
- Informal Education
- Educational Innovation
- Pre-university Education
- Service to the IEEE EAB
- Employee Professional Development
- And related achievements that advance the practice of engineering and of engineering education



IEEE Standards Education

Available to Members in R1-10

- Offering online learning modules and resources to enhance the understanding of technical standards
- Providing an IEEE Standards Education Web Portal that offers
 - Standards-related Tutorials and Case Studies
 - Student Application Papers based on Senior Design Projects
 - Expert Now courses for practicing professionals and students
 - And More...

Standards Education also has...

Available to Members in R1-10

- Call for Tutorials & Case Studies
 - In an effort to significantly increase the educational material available, we are actively seeking Subject Matter Experts in various technical areas to create tutorials and case studies demonstrating the application of standards.
 - IEEE Honorariums offered

- Call for Student Application Papers
 - Offering Grants to both students and faculty mentors to help with senior or capstone design projects
 - Final Student Application Papers are published by the IEEE



Visit: standardseducation.org

University Programs

What we know...

- ⑩ Higher Education is a primary source of basic and applied knowledge that advances the engineering profession.
- ⑩ Higher educational institutions train and produce the next generation of engineering leaders and practitioners.

What we are doing...

The IEEE is making a significant and sustained investment in higher education outreach and support .

- IEEE is currently expanding its investment in faculty and curriculum development activities to reach engineering educators worldwide

Current University Programs

Available to Members R1-10

2009 Projects

- Real World Engineering Project
 - Provides seed grant funds to faculty to develop applied learning materials for first-year courses. Information about the project and downloads of materials are online.

Visit: www.realworldengineering.org

- IEEE Entrepreneurship project with National Collegiate Inventors & Innovators Alliance (NCIIA)
 - Pilot programs are scheduled in 2009-10 and 2010-11 aimed at providing IEEE student chapter members with an opportunity to participate in co-curricular programming that provides an introduction to entrepreneurship.
- Technical English Program – piloted in St. Petersburg, Russia in 2008, looking to expand to other regions

Current University Programs Continued

- Dublin Conference 2010 – “Transforming Engineering Education: Creating Interdisciplinary Skills for Complex Global Environments”
- IEEE partnership with IBM was created to bring together select decision makers from industry, government, professional associations and educators, and practitioners from general areas of engineering, business and law to address the following:
 - Identifying what multi/interdisciplinary education do engineers need in certain fields?
 - What models work ?
 - Can multi/interdisciplinary education be provided within existing engineering curricula?
 - What alternatives exist for educating engineers in systems or holistic-oriented engineering?
 - What research, pilot program or experiments are needed to test hypothesis?

Current University Programs Continued

Available in R1-6, Limited Availability in R7-10

■ Accreditation

- Voluntary, peer-review process aimed at improving subject content and learning practices, aligning academic programs with industry needs and assuring external stakeholders of quality standards
- IEEE is the largest member society of ABET, which coordinates engineering accreditation in the U.S. IEEE is the “lead” agency in accrediting more than 700 engineering and technology programs at universities and colleges in the U.S.
- Interest in accreditation is growing in other nations and regions. IEEE is providing technical assistance to emerging engineering accreditation organizations in Peru, China and English-speaking countries in the Caribbean. Currently looking for additional global opportunities
- Accreditation.org website provides detailed information about the accreditation process and engineering programs worldwide

Accreditation.org

Available to Members in R 1- 10

- On-line resource for those who are interested in finding out more information on accreditation of engineering, engineering technology and computing programs worldwide.
- Primary audience: Working professionals in engineering, technology, and computing; students, teachers and administrators of education programs; decision makers in governmental, industrial and private organizations
- Visitors to the portal can:
 - Identify recognized accrediting agencies throughout the world
 - Access current summaries of accreditation agreements and agencies
 - Find accredited programs in their area



Visit: www.Accreditation.org

Women In Engineering

Available to Members in R1-10

- IEEE Women in Engineering (WIE) is the largest international professional organization dedicated to promoting women engineers and scientists
- Conducts successful outreach activities to encourage youth to experience engineering
- Men and women, professionals and students are eligible to join
 - Membership is \$25 for higher grade IEEE members and affiliates, free for IEEE student members.
- Benefits of joining the affinity group include:
 - access to the electronic WIE Membership Directory;
 - monthly WIE electronic newsletter which contains career information, reports on WIE and Affinity Group activities, IEEE news, and more;
 - opportunities to network, volunteer, and participate in local WIE activities.



Visit: www.ieee.org/women

Thank you