IEEE Educational Activities 2018

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The EAB shall recommend to the Board of Directors policies on educational matters and implement programs specifically intended to serve and benefit IEEE members in educational pursuits, the engineering and scientific community, and the general public.

These programs shall include:

- The broad planning of educational activities of the IEEE
- The development and delivery of continuing education products and activities
- The development of guidelines for the IEEE representatives to accreditation bodies
- The monitoring of accreditation activities
- The coordination of pre-university programs
- The representation of the IEEE in matters regarding engineering education

And, the EAB shall be the IEEE interface in education-related matters with external bodies. EAB shall be responsible for administration of the annual assessment paid to ABET (formerly the Accreditation Board for Engineering and Technology, Inc.)
Student and Academic Education Programs
Pre-University Resources
TryEngineering Brand

01 TryEngineering.org 2.0
A combined pre-university engineering education web site that enables visitors to explore various engineering disciplines; provides in-classroom resources for educators and assists students in preparing for a career in engineering

02 TryEngineering Together
A teacher-guided online learning platform that helps students in low-income neighborhoods improve their STEM and literacy skills through 1:1 support from eMentors

03 TryEngineering Summer Camps
Designed for rising 8-12th grade students, the TryEngineering Summer Camps introduce students to the exciting fields of engineering and technology
TryEngineering.org 2.0

TryEngineering.org 2.0 will be a new pre-university education web site that unifies TryEngineering.org, TryComputing.org, TryNano.org and Accreditation.org

Objectives:
- Leverage TryEngineering traffic/branding
- Create a unified user experience
- Establish a go-to site for resources for the pre-university education community
- Unify vendors, platforms, staff time, and hosting
- Streamline promotional and administration efforts
- Maximize impact to the pre-university audience
- Integrate Teacher In Service Program (TISP)
- Develop a revenue stream
Online learning platform that helps students in under-resourced neighborhoods improve their STEM & literacy skills through 1:1 support from eMentors

Corporations pay to sponsor classrooms and give their employees the opportunity to act as online mentors

Spring pilot completed successfully with 3 classrooms

9 Classrooms for Fall 2018

- 215 Students
- 175+ Industry Mentors

http://tryengineeringtogether.com/
Locations
- Vaughn College of Aeronautics & Technology (NY)
- Texas A & M
- University of California, Riverside

Theme: Introduction to Engineering

2018 Results:
- 5 Sessions, 85 Campers, and very high satisfaction from campers and parents

Same locations in 2019

Marketing campaign launches November 2018

“This camp was life changing as I made so many new friends and got to understand how to solder, 3D design, build drones, and most of all I got to meet and still keep in contact with all of the campers.” -TAMU Camper

https://tryengineeringcamps.ieee.org/
Teacher in Service Program (TISP)

Description
• Provides training to IEEE Members on how to facilitate STEM education professional development sessions to pre-university level educators in their local area

Objectives
• Assist IEEE members in collaborating with their local pre-university education community
• Promote applied inquiry-based learning
• Enhance the level of technological literacy of pre-university educators & students
• Encourage pre-university students to pursue STEM-related careers

Audience
• IEEE Members and Pre-University Educators
University Resources
University Programs

**IEEE Academic**

**Description**
- A student-driven and locally-based online educational resource to aid students in their academic learning and to help them achieve academic success
- Content is presented in an online library of 5-7 minute videos

**Objective**
- Enable students to take control of their own education by providing a resource to aid in their academic learning and to help them achieve academic success

**Audience**
- Undergraduate engineering, computing and technology students

**Early Career Faculty Development**

**Description**
- Virtual mini-conferences and workshops, featuring recognized experts, focused on providing skills and guidance that can be put into practice immediately

**Objective**
- Provide early career faculty with a portfolio of resources necessary to enhance their professional development and career choices

**Audience**
- **Primary**: Early Career Faculty (ECF) – 0 to 5 years in profession, Graduate Students; **Secondary**: Experienced Faculty 5+ years experience, department heads
Description

• A signature program of the IEEE Foundation and EA that organizes university and high-school students to work on engineering-related projects with local community organizations

Objectives

• Inspire the next generation of engineers
• Change the way engineering is taught in universities
• Encourage engineering students to solve problems in communities worldwide through service learning

2018 Plans

• 2.0 Implementation
• Advancing partnerships with Internal & External groups: India Universities partnership, K-12 STEM

Student Benefits

• Improve technical engineering + problem-solving skills
• Enhanced communication skills
• Develop + expand leadership skills
• Real life experience + measurable result

Community Benefits

• Obtain a solution to a problem or need
• An immediate impact on humanity
• A measurable result

How It Works
Objective
Dedicated to encouraging and recognizing individual excellence in education and meritorious work, in professional practice and IEEE’s designated fields

Audience
Primarily serving university students; secondarily serving alumni members

Portfolio Components
• Student Leadership Development
• Mentoring and Tutoring
• Community Service
• Chapter Development

THE BRIDGE
Published since 1910, THE BRIDGE is the flagship publication of IEEE-HKN. Published 3 times a year, this award winning magazine is the primary communication channel of IEEE-HKN.

STUDENT LEADERSHIP CONFERENCE (SLC)
This conference brings together IEEE-HKN students from around the world for training and networking in a leadership program designed to help them develop skills to become a “complete engineer”.

FOUNDER’S DAY
Each year on 28 October, the anniversary of the establishment of the first chapter, we celebrate Founders Day. Chapters around the world have activities, contests, competitions and fun to promote the mission of IEEE-HKN.
Continuing Professional Education Programs
• Hundreds of hours of online on-demand tutorials
• Introductory, Intermediate, & Advanced Courses
• Participants earn CEUs/PDHs
• [http://ieeexplore.ieee.org/courses/home](http://ieeexplore.ieee.org/courses/home)

• Comprehensive destination to learn about standards
• Built to address industry request to equip more graduates with an understanding of standards

Discover education content from across IEEE, all in one place.

Launching in 2019

• Over 45 hours of online learning content designed to improve listening, speaking, reading, and writing skills
IEEE Certificate Program

- EA provides Continuing Education Units (CEUs), Professional Development Hours (PDHs) and Certificates of Participation for all recognized IEEE courseware.

- Certificates can also be offered by IEEE Units and external organizations. This requires a submission and review process of course material.

https://www.ieee.org/education/certificates/index.html
IEEE Learning Network Launching in 2019

▸ What is the IEEE Learning Network?
  - One-stop platform for discovering all IEEE educational products

▸ Licensed a third-party Learning Management System (LMS)
  - Meridian Knowledge Solutions

▸ Fully integrated with IEEE systems
  - Single sign-on
  - Siebel catalog
  - IEEE shopping cart
  - Xplore authentication
  - Etc

▸ All societies & OUs welcome to
  - List their courses in ILN catalog for discovery (free)
  - Host their courses in ILN LMS for delivery
Continuing Professional Education courses in development

Launched in 2017

- Cybersecurity Tools for Today’s Environment
- Hacking Your Company: Ethical Solutions to Defeat Cyber Attacks
- IEEE Guide to Internet of Things (with IEEE Future Directions)

Developing in 2018

- AI & Ethics in Design (with Standards)
- Self-Driving Vehicles (with VTS)
- Smart Grid (with PES)
- Edge Computing (with Computer Society)
- And, more...

Working on courseware with IEEE Units
Impact on member value

Educational Activities is working to improve the value of membership

Enhanced Certificate Program offering CEUs and PDHs

IEEE Learning Network simplifying course discovery, and consolidating their learning progress

Significant improvements to course program quality

Micro-volunteering opportunities through programs like Teacher In Service (TISP)
IEEE Educational Activities
Contact Details
EAB Members 2018

- IEEE Vice President, Educational Activities and Chair, EAB - Witold Kinsner (Region 7)
- Immediate Past Vice President, Educational Activities - S.K. Ramesh (R6)
- EAB Treasurer - Edwin Chong (R6)
- Nominations and Appointments Chair - Saurabh Sinha (R8)
- MGA Representatives Tim Kurzweg (R2) (R1-6); Antonio Ferreira (R9) (R7-10)
- TAB Representatives - Liz Burd (R10) & Maciej Ogorzalek (R8)
- Standards Association Representative - Howard Wolfman (R4)
- Awards and Recognition Committee Chair - Lorena Garcia (R9)
- Continuing Education Committee Chair - Bruce Kraemer (R3)
- Pre-University Education Coordinating Committee Chair - Supavadee Aramvith (R10)
- University Resources Committee Chair - Steve Phillips (R6)
- Section Education Outreach Committee Chair - Sohaib Sheikh (R8)
- IEEE-HKN Board of Governors and President- Steve Watkins (R4)
IEEE.org Resources

2018 Educational Activities Board Member List

2018 Educational Activities Committee Rosters
https://www.ieee.org/about/volunteers/rosters/index.html

2018 Educational Activities Staff Listing
Following slide
Key IEEE Staff Contacts

General Educational Activities Items
Jamie Moesch
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Marketing and Communications
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Student and Academic Programs
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EA Governance
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Continuing & Professional Education
Jonathan Dahl
Lead Director, Continuing and Professional Education
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For More Information

- TryEngineering.org
- TryEngineering Together
- TryEngineering Summer Camps
- Teacher In Service Program
- IEEE-HKN
- Accreditation
- EPICS in IEEE
- IEEE Academic
- Early Career Faculty Development