Keeping IEEE Leaders Up to Date with Educational Activities

Stephen Phillips, Vice President Educational Activities
Jamie Moesch, Managing Director Educational Activities
IEEE Core Values

IEEE WILL:

- Drive global innovation through broad collaboration and the sharing of knowledge
- Enhance public understanding of engineering and technology and pursue standards for their practical application
- Be a trusted source of educational service and resources to support life-long learning
- Provide opportunities for career and professional development
- Inspire a worldwide audience by building communities that advance technical interest, inform public policy, and expand knowledge for the benefit of humanity
Expanding our collective impact in education through collaboration
IEEE Educational Activities

Areas of Focus

**Pre-University Activities**
- TryEngineering.org;
- Teacher/Volunteer Training;
- Summer Institutes;
- TryEngineeringTogether

**University Activities**
- Accreditation Coordination;
- EPICS in IEEE;
- IEEE-Eta Kappa Nu

**Continuing Education**
- eLearning;
- Certificates;
- IEEE Learning Network
Educational Activities Priorities for 2020

1. IEEE Learning Network
2. IEEE eLearning Library
3. TryEngineering.org
4. TryEngineering Summer Institute
5. ABET
6. TryEngineering Together
7. Eta Kappa Nu (HKN)
8. EPICS in IEEE
9. Awards Program
10. President’s Scholarship
11. NEW Pre-University Volunteer STEM Portal
Impact on Member Value

*Educational Activities is working to improve the value of membership*

- **IEEE Learning Network**: simplifying course discovery and consolidating their learning progress
- **Enhanced Certificate Program**: offering CEUs and PDHs
- **Significant improvements to course program quality**
- **Micro-volunteering opportunities through Volunteer STEM Portal in development**
IEEE Learning Network

Members can now find continuing education from across IEEE in one place!

Visit ILN and start learning today!

iln.ieee.org
2020 ILN Usage

Users by Region

- R 1-6: 55%
- R 7: 5%
- R 8: 20%
- R 9: 7%
- R 10: 13%

Users by Age

- 18-24: 25%
- 25-34: 31%
- 35-44: 17%
- 45-54: 11%
- 55-64: 9%
- 65+: 7%

Users by Gender

- Male: 70%
- Female: 30%
New Programs Responding to needs during the COVID-19 Pandemic

1. **IEEE Tech Talk Virtual Panel Series**
   - **12 Events**
   - 4,121 total registered
   - Partners: Future Directions, Standards Association, Photonics Society, IAPP

2. **IEEE Educational Activities Distance Learning Virtual Event Series**
   - **5 Events**
   - 9,617 total registered
   - Partner: IEEE MSD

3. **TryEngineering Live: Hands-on Design Challenges**
   - **8 Events**
   - 933 total registered
   - Partner: Oceanic Engineering Society, Strangeworks, Rowan University

4. **IEEE TryEngineering Tuesday**
   - **8 Events**
   - 2,035 total registered
   - Partners: Engineering Tomorrow, IEEE REACH, Spectrum (ROBOTS.org), Oceanic Engineering Society


**5 Events**
- 17,535 total registered
- Partners: IEEE Foundation, IEEE Education Society, Digikey
Recent Developments

- New full course programs in topics that are in demand
- Lowered standard pricing by up to 70%
  - Courses now US$29 for Members, US$19 for Students
- Numerous other discounts offered
  - E.G. IEEE Day, 10 Courses available for $10 each

Learn more about free courses and discounts from across IEEE here: https://innovationatwork.ieee.org/iln-promotions/
IEEE Certificates Program

Help your members earn IEEE Certificates to help accomplish their Continuing and Professional Education Goals

To learn more, visit ieee.org/education
14 hours of **online instruction**

Each lesson includes modules on **reading, writing, listening, and speaking** skills

Reoccurring characters bring the lessons to life as they interact with each other and the learner through **animated business scenarios**

Short **assessments** and **exercises** throughout each lesson to help improve skills, with **final test** at the end of each lesson

Provides non-native English speakers with a working knowledge of English techniques and vocabulary that are essential for working in today’s technical workplace.

Launched in June 2020
IEEE Teaching Excellence Hub for University Faculty

Under construction by IEEE Educational Activities and IEEE Education Society

- Designed to provide professional development resources to those teaching at the university level
- Content (blogs, articles, events) developed by experts from IEEE Education Society and EA Faculty Resources Committee
- Will include lead capture
- Sponsorship/advertising opportunity space

Launching Q1 2021

teaching.ieee.org
2020 IEEE Board of Directors Strategic Retreat

18-19 January 2020, Fukuoka, Japan

- Attendees: IEEE Board of Directors, Management Council, Japan Council Chair, IEEE WIE Committee Chair, and IEEE Young Professionals Chair
- Focused on the educational needs of our members, technical professionals, and engineers
- Explored expanding opportunities to provide continuing education as a unique value proposition
Observed consensus and a willingness for action towards a Continuing Education strategy.

1. **Consensus on the importance of Continuing Education for members:**
   At a high level, there was alignment on the value of education for expanding member value.
   “Continuing Education must be a pillar in IEEE’s mission—we have all the raw materials for it.” - Board Member

2. **Need for a shared organizational vision and plan:**
   Board members agreed that for IEEE to move ahead with Continuing Education, in addition to consensus, there is need for a strong organization-wide strategy and plan.
   “IEEE will need an orchestrated plan and strategy for Lifelong Learning.” - Board Member

3. **Importance of internal collaboration to deliver educational offerings:**
   With various organizational units already providing educational offerings to members, the need for better internal collaboration to build a cohesive plan of action was articulated.
   “Success [of Continuing Education] requires buy-in across OUs.” - Board Member
## 2020 IEEE Ad Hoc Committee on Lifelong Learning and Continuing Education

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<tr>
<th>Co-Chairs</th>
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<tr>
<td>Kazuhiro Kosuge</td>
<td>Stephen Phillips</td>
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<td>Rabab Ward</td>
<td>Thomas M. Coughlin</td>
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<td>David Durocher</td>
<td>Jill I. Gostin</td>
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<td>Bruce Kraemer</td>
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<td>Akinori Nishihara</td>
<td>Alberto Sanchez</td>
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<td>Miriam P. Sanders</td>
<td>Jamie Moesch</td>
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<td>Mary Ward-Callan</td>
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Steps for 2020

Select Target Area for Pilot

Curate and Assemble Content

Measure and Analyze

Build Learner Journey

Launch and Market Prototype

Selected: Artificial Intelligence (AI), Internet of Things (IoT), Smart Grid

Work with applicable society, council, technical communities

Curation & Learner Journey – Happen in Parallel

Measure usage and conduct member surveys

Audience segmentation and outreach activities

Engage applicable society, standards, future directions, instructional designers, etc.
Learner Journey

Existing Content:
- eLearning course
- Conference Tutorial Workshop
- Distinguished Lecturer recorded webinar
- Conference or Journal article

New Content:
- Introduction to academy (objectives)
- Video with background for workshop
- PPT summarizing workshop and leading to Distinguished Lecturer
- Build new content to fill technical gaps in existing courses
- Academy conclusion

Learning Objects:

IEEE Proprietary
IEEE Academy on Technology

Operation Team Structure

Steering Committee:
Ad Hoc Co-Chair, Committee Tech Lead

Inaugural Educator-in-Chief
Technical Domain

Technical Editor (sub-domain)
Technical Editor (sub-domain)
Technical Editor (sub-domain)

Editorial Board
Editorial Board
Editorial Board

Technical Experts
Technical Experts
Technical Experts

Production Experts

IEEE Staff Assistance
IEEE Staff Assistance
IEEE Staff Assistance

IEEE Proprietary
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<td><strong>Artificial Intelligence (AI)</strong></td>
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Coming in 2021 from the IEEE Ad Hoc Committee on Continuing Education and Lifelong Learning

IEEE Academy on Internet of Things

IEEE Academy on Artificial Intelligence

IEEE Academy on Smart Grid
TryEngineering Lesson Plan Toolkit

The toolkit is intended as a self-contained, how-to kit to enable IEEE operating units to conduct teacher and/or student STEM outreach. The toolkit includes:

➔ Quick Start Guide on how to deliver effective STEM outreach

➔ A lesson plan library including an overview video and sliddeck for 15 lesson plans
Coming Soon: Pre-University Volunteer STEM Portal

A centralized database of STEM programs on TryEngineering.org providing resources for volunteers to facilitate pre-university STEM programs.

- Leverages the reach of IEEE’s global communities and volunteers in order to engage as many students as possible in pre-university STEM outreach.

Features
- Searchable database of volunteer & partner programs
- Metrics and Impact dashboard
- Resources to support volunteers
- Development grants (phase 2)
- Ambassador program (phase 2)

Planning
- Pilot Launch – Q4 2020
- Launch – Jan 2021
TryEngineering.org Translations

- **Google Translate Button**
  All 108 languages are currently available

- **Lesson Translation: Launch January 2021**
  Lessons will be able to be translated and printed

- **Improving Translations Pilot**
  Using G-Translate, words and phrases that did not translate accurately can be edited. 3-5 volunteers are needed to pilot translation accuracy. For more information contact Dawna Schultz at d.j.schultz@ieee.org.
An opportunity for corporations to have their employees mentor students one to one safely online and inspire the next generation.

To learn more, visit TryEngineeringTogether.com
Thank You to Our Sponsors

To learn more, visit TryEngineeringTogether.com
Gives students a platform to experience a career in engineering, while developing devices and systems to aid communities around the world.

Globally, more than 250,000 people have been directly impacted by EPICS in IEEE projects.

To learn more, visit EPICS.ieee.org
Learn More About IEEE-Eta Kappa Nu

FIND
HKN Chapters and members in your Region through Tableau by marking the HKN box at the top of the landing pages.

CONNECT
With HKN Chapter Officers and Faculty Advisors by searching for the chapter name in IEEE Rosters.

For information, contact Nancy Ostin at n.ostin@ieee.org

1 SEPTEMBER 2020
Local Language Activities in Regions 9 & 10
The Reaching Locals Project led by President Toshio Fukuda

Region 9
- Launched first online education course in Spanish with 95 enrolled professors
- Region 9 YouTube Channel
  - Making INTERCON 2020 Conference Keynotes available in Spanish and Portuguese
  - Launching 10 video abstracts in Spanish and Portuguese from IEEE Latin American Transactions

Region 10
- Indonesia: 16 Webinars and 4 workshops were held in Indonesian language 200-2000 participants.
- India: IEEE Education Society Chapter of Hyderabad Section organized Webinars in Hindi and Telugu.
- Japan: YPs/WIEs organized 6 Webinars and plan to hold more monthly. Also, developing closed caption translations of ICRA Keynotes.
- China, Hongkong, etc.: Actively involved in local language efforts with best practices were shared at the R10 SYWL plenary session.
Congratulations...

(Left to Right) IEEE R5 Houston Section, Jim Bowen, Roy Cossé, Timothy Skvarenina, Anis Ben Arfi, Lori Nelson, Ming Hsieh, Jennifer Marley, Bruce A. Eisenstein, Anshuman Sharma, and Nathan Carnovale
Working together to expand our impact

The future success of Educational Activities relies on our ability to partner across IEEE.

- Partnering with numerous IEEE societies, Future Directions, Standards, MGA, Legal and Human Resources, IT and Publications on development.
- Partnering with Standards, Future Directions, IEEE Marketing & Sales and many IEEE societies on course development and marketing.
- Key partnership with the IEEE Foundation.
- Toolkit for volunteers to manage local events for pre-university students.
Join the Conversation

Facebook
@IEEEeducation
@IEEE.continuing.education

Twitter
@IEEEeducation
@IEEELearn

LinkedIn
@ieee-educational-activities
Questions?
Section Education Outreach Committee

Mission
To engage and support IEEE Sections and the Section Education Activities Chairs/Coordinators in their efforts to promote and implement EAB’s products and services based on local educational needs.

Scope
The SEOC will have the lead responsibility within EAB for building and maintaining strong working relationships with IEEE Regions, Sections, and Chapters in order to work with these organizational units as partners to promote EAB’s products and services.
EA.IEEE.ORG

- Information related to EA programs
  - Links to websites
  - Flyers/promotional brochure links
  - https://ea.ieee.org/ea-programs
- EAB news
- Volunteer Development resources
- Contact details
- ... and much more!
- Access using your IEEE account
Questions?