

IEEE Educational Activities

ILN Event Demonstration by Region 7 (Canada) Response to COVID-19 challenges

November 12, 2020





Please mute your microphone

Please turn your camera off

Please use the chat for questions (in lower right corner)

Answers to your questions will be provided at the end of the meeting





ILN Event Demonstration - Officer Training

Agenda

Welcome and Introduction IEEE Education Activities (EA) Overview Introduction to IEEE Learning Network (ILN) IEEE Innovation at Work - Free Webinar Series How to Set Up Meeting to Use EA Resource Demonstration of Selected Webinars/Courses Questions and Discussion





Rossitza Marinova R7 EAC Chair, 2021 R7 Training Coordinator



Deyasini Majumdar R7 EAC Vice Chair, 2021 R7 EAC Chair



Murray MacDonald R7 TISP Chair, R7 EAC Member



Purpose of Training

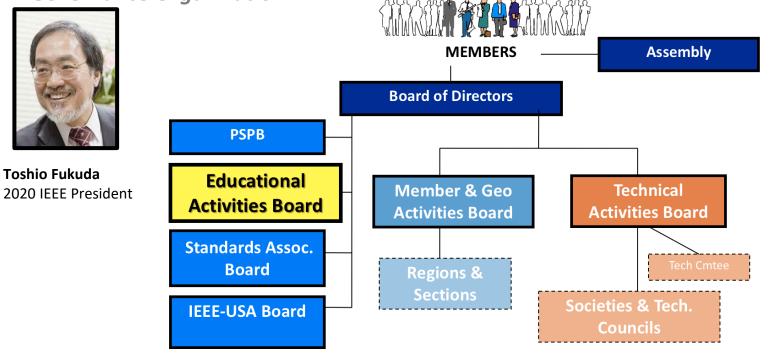
To present ideas for connecting with members and colleagues to learn and discuss topics of interest

- Covid-19 changed our way of life and work and the distancing will not end soon
- All non-essential gathering will remain virtual for many more months
- Social isolation affects individuals they need human to human interactions
- Social interactions help individuals learn and get answers in real time
- IEEE has great resources for virtual learning for individuals
- Continuing education provides true value added for working professionals



IEEE Education Activities Overview

IEEE Governance Organization





IEEE Education Activities Overview



Stephen M. Phillips, Ph.D., P.E.

2020 IEEE Vice President, Educational Activities Professor and Director of the School, School of Electrical, Computer and Energy Engineering Arizona State University



Supavadee Aramvith SEOC Chair (Region 10)

2020 Section Education Outreach Committee

10 regional EA Chairs, MGA Rep (R1-6), MGA Rep (R7-10)

Region 1 (Northeastern US) Region 3 (Southern US) Region 5 (Southwestern US) Region 7 (Canada) Region 9 (Latin America)

Region 2 (Eastern US) Region 4 (Central US) Region 6 (Western US) Region 8 (Africa, Region 10 (Asia and Pacific)

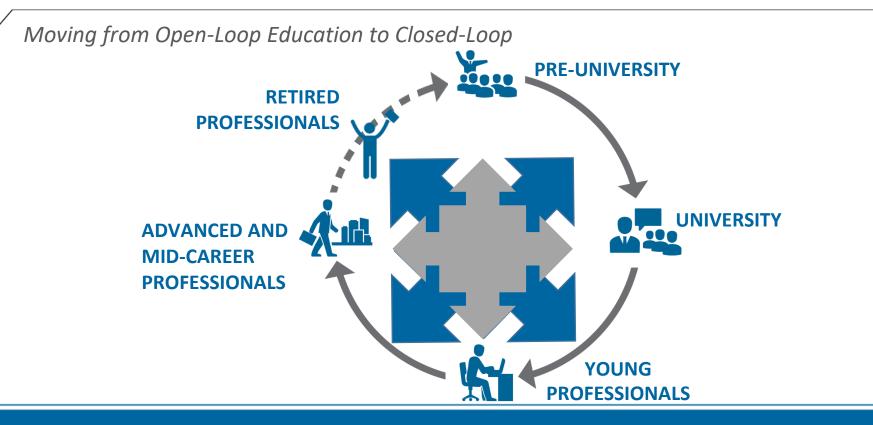




Region 7 Past EAB VP Witold Kinsner



Educational Programs Designed to Connect Throughout an Individual's Life





Impact on Member Value

Educational Activities is working to improve the value of membership



Enhanced Certificate Program offering CEUs and PDHs



Significant improvements to course program quality



IEEE Learning Network simplifying course discovery and consolidating their learning progress



Micro-volunteering opportunities through Volunteer STEM Portal in development



Educational Activities Priorities for 2020

1. LearningNetwork

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2. IEEEeLearning[®]



10. Awards Program



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EP

8.

IEEE Eta Kappa Nu President's Scholarship

NEW Pre-University Volunteer STEM Portal



IEEE Continuing Professional Education (CPE)

Providing professional education for working engineers and technologists

Who We Serve:

- IEEE Members and other working professional engineers with a bachelor's degree or higher
- Institutions with a need for workforce development training solutions

What We Offer:

- Continuing professional education online courses, virtual events, etc.
- Cost-effective training solutions for institutions on a broad range of engineering topics
- CEUs/PDHs to help maintain professional licenses





Credentials for Learning Achievement

IEEE Certificates Program

- Offered Today:
 - Certificates of Participation
 - Continuing Education Units (CEUs)
 - Professional Development Hours (PDHs)
- Potential Future Offerings:
 - Digital badges
 - Certificates in certain topic areas
 - Microcredentials
- https://innovationatwork.ieee.org/certificates/
- https://www.ieee.org/education/certificates/index.html

	IEEE
CERTIFI	CATE OF COMPLETION
	This is to certify
	John P. Smith
	has completed
Pro	ject Management Framework
	18 August, 2016 Piscataway, New Jersey
	3 Professional Development Hours
S. K. Ramal Area President, 1888 Educational Alteration	



Engineering Lesson Plan Toolkit (New)

Content focused on how to organize events and assist volunteers in delivering an effective teacher STEM training activity locally

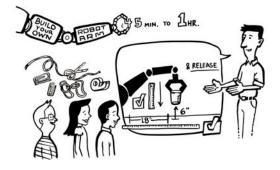
- "How-to" Slide Deck
- An overview video on how to implement a TryEngineering Lesson Plan
- Detailed instruction: on how to implement the lessons plans. Currently Available:
 - Ο Toxic Popcorn
 - Wind Energy Ο Tall Tower

 \cap

- Robot Arm
- Electric Dough
- Ten additional lesson plans in June
- Each lesson plan includes:
 - Video that focuses on the design challenge and possible solutions Ο
 - PowerPoint to use with students when implementing the lesson plan Ο

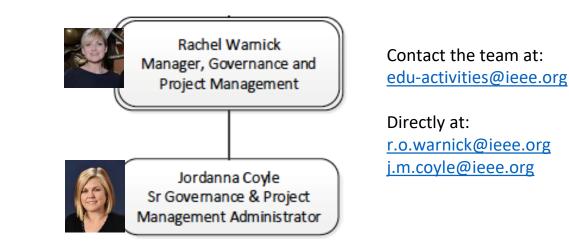
https://tryengineering.org/engineering-lesson-plan-toolkit/

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Engineering Lesson Plan	Toolkit:	PA
A Quick Start Guid	e for	1,
IEEE Volunteers an	d Mem	bers
> View Toolkit	Ð	00





Governance and Project Management: Staff Structure

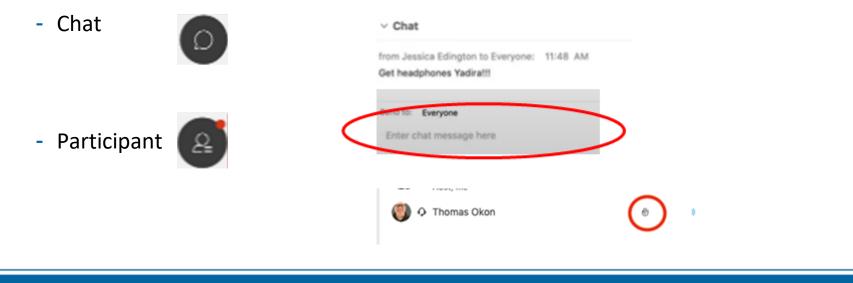








If you want to ask a question, type it into the Chat tab or raise your hand in the Participant tab and wait to be acknowledged







IEEE Educational Activities in Canada

IEEE Region 7 (Canada, 21 sections)









IEEE Region 7 Educational Activities





- Region 7 Educational Activities Committee members' meetings
 - Supporting sectional educational activities financially, sharing experiences, presentations, information
- CCECE Computing and Engineering Education Track at CCECE 2019 & 2020
 - Invited speaker sessions attracted papers on education
 - Panel on Education Inclusion discussed the future of education
 - Pre-university tutorial for IEEE volunteers
- R7 Students Congress Presentation (May 5, 2019)
 - To support student chapters for their EA



IEEE Region 7 Educational Activities





Industry-Student-YP-WIE-IEEE Networking/Mixer Oct 18, 2019, Halifax EAC R7 members gave three talks Witold Kinsner: Do we need a new model for education? Murray MacDonald: Educational Activities Outreach with IEEE Bob Gill: I am teaching! Are you learning?

Panel Discussion: Evolving Needs of the Tech Ecosystem

EAC R7 sponsored the event



IEEE R7 – TISP / STEM Outreach Committee

- STEM Outreach Committee of active section volunteers
- Monthly conference call to share updates/news
- Distribution list of other volunteers
- Courier newsletter editor Dirk Werle
 - moving to blog format on revised website
- TISP Canada website
 - needs maintenance (rebooting)



IEEE Canada Honours Long-time Volunteers Every year IEEE Canada recognizes the individual achievements of its members through a program of awards. The 2017 awards also acknowledged two TISP Canada champions.

SP

IEEE Canada is an organization that is 17,000 members trong. It has a long and rich history of achievement, much of it brought about by its manubers, volunteers, as well as community efforts and services. IEEE Canada offers seven achievement meards and four service awards annually. In 2017, we saw the crustion of a new

Content

December 15 201

IEEE Canada Honours Volunteer TISP Reports from the Regions

Water Filtration at Christie Lake

Train-the-Trainers, BC Super Conference

West Koolenaus - Site of Baba Games

Have you tried truengineering on uet?

letimen for Contributors Editor

Innue #15

Make-to-Difference Award. Two long-time TISP composites were among this year's award warmers recognized during coreances is a antional IEEE meeting Warmhore, Oranno, Dr. Rossing, Santa Marmore, a long-times member of the TISP Canada Marmore, a long-times member of the TISP Canada Marmore, M. Eller Warmer, Cachada Mart Amard, M. Davis Hophura, a champion of TISP Canada since its incus Warmers Cachada Mert Amard, M. Davis Hophura, a champion of TISP Canada since its incus Warmers and the first Mart-and Difference Award. We comparishee both texpionen on their well-deserved recognized. The following Majhdight the tract cares.

and upecial initiative, the IEEE Canada Presidents

Devid Hepburn, a Life Member of the IEEE, is a 1953 graduate of the University of Stafford in the U.K. Taus he has inity verso factive engineering in his field of Electric Power Systems. He served as chief electrical engineer and as a senior committee on many projects and has worked an 28 comments shurm his long and very active career. Devine of an area of the senior of the sen

The TISP Canada Courier #15 $\,\sim\,$ December 15, 2017 $\,\sim\,$ Page 1



STEM Outreach - Examples

- Class room visits in numerous sections
 - leading an activity
- Presentation and activity at colleges of ed.
- Judging and awards at local science fairs
- Exhibiting at Science Teachers' Association of Ontario (STAO)
- Design challenges and competitions
- Math Kangaroo (nationwide)











Examples of Education Activities: Toronto 🚸 IEEE Canada 🧃

- Short Professional Courses for engineering students and professionals
- Bridge Building Challenge on International Day of Women and Girls in Science at an elementary School
- Judges at Peel Skills Challenge (Peel District School Board)
- New Business "IEEE TryEngineering- Center of Applied Engineering & Technology-Malton"







Examples of Education Activities: Vancouver 🐼 IEEE Canada 🧃

- 5 Cyber-Security symposiums funded by NSERC and co-sponsored by IEEE Vancouver Section. Each event had ~100 attendees and last event has 115 attendees.
- Power System Analysis workshop Section made ~\$1500
- Linux Workshops Free Installation and creating a Multi-boot system.



- Poster competition during the networking time-slot at AGM. It's been a hit and some kids were interviewed by Industry during this event.
- TELUS CTO and VP Broadband with a flurry of activities coming soon.
- Schweitzer Engineering Lab workshop was free with ~60 attendees.



Examples of Other Education Activities

- Northern Canada
 - Providing scholarship for students completing their Capstone projects in IEEE areas in all universities and colleges in Northern Alberta. The section wants to support exceptional projects aligned with one or more of various fields of Electrical and Computer Engineering.
- Southern Alberta
 - The IAS/PES chapter hosted 3 evening technical seminars
 - The CAS/SSC chapter hosted 2 lunch and learn seminars
 - The computer chapter hosted its BIDMA conference in April
 - The Control and instrumentation chapter hosted 5 evening technical seminars during the year.
 - In addition, the computer chapter hosted its annual Google ignite workshop to introduce high school students to computer programming.



Examples of Other Education Activities

- Winnipeg
 - Amateur Radio Theory, Operations, and Practice for Basic Qualifications
 - Verna Kirkness Science and Engineering Program for Indigenous High-School Students
- London
 - Very active in pre-university education in co-operation with Professional Engineers Ontario (PEO) chapter
 - On-line Continuing Education event "Telecom Power 101" with 285 registered
- Ottawa
 - Engagement with Christie Lake Kids organization



2021 R7 EA Plan

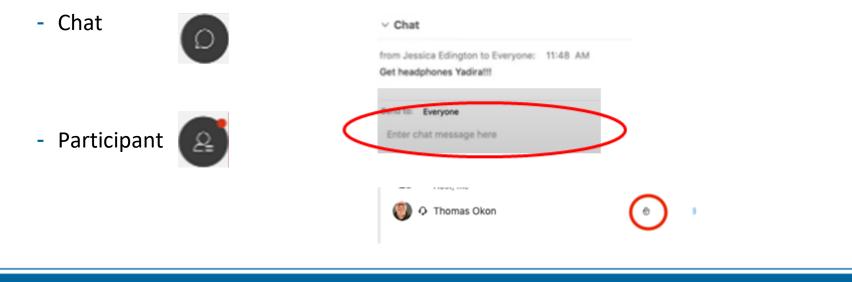
- Organize at least one major education-related session / workshop / panel at an IEEE Canada Flagship Conference
- Support up to 8 section-based educational activities
- Build relationships with existing local & national organizations to promote outreach of IEEE EAC activities
- Establish and nurture relationships at local level to promote Industry-Academia collaborations that can leverage IEEE EAC resources/initiatives (at least a couple of sections)







If you want to ask a question, type it into the Chat tab or raise your hand in the Participant tab and wait to be acknowledged







One platform for discovery of continuing education across IEEE



Shared learning management system for continuing education across IEEE

Built to improve learner experience with continuing education from IEEE

				1000
The most in-demand techn from industry experts.	nical skills		. No	
	-	-		
Resources	15	12	- And	- //.
		0000	000	
My Courses			Find More Courses	What's New
Title	Started/Begins	Due/Ends	Action	New on ILN: Introduction to IEEE Sto 1547-2018: Connecting Distributed
Enterprise Blockchain for the Internet of Things	Started	No Due Date		Energy Resources
Online	oct 29	NO DUE Date	Resume -	8/30/2019 - This 6-course program covers this ner standard that has a significant impact on the des
Basics of Radio-Frequency Power Amplifier Des	Started	No Due Date	Concession of the local division of the loca	and deployment of all DER systems, removes limitations from the original standard, and adds
ign Online	NOV 15	no soe sate	Resume -	requirements for
				Welcome to the IEEE Learning
An Introduction to Leadership: A Primer for the Practitioner	Started OCT	No Due Date	Resume -	Network!
Online	28			7/10/2019 - Log in to complete your training or browse the catalog to find your next course.
View All (3)				New on ILN: IEEE Fundamentals of
				Autonomous Vehicle Technology
				7/10/2019 - IEEE Fundamentals of Autonomous Vehicle Technology is a 6-course program that co
Included In My Institution's Subs	cription		Find More Courses	foundational and practical applications of autonomous, connected, and intelligent vehicle
Note: A bundle groups together multiple courses for your details.	easy access. Clic	k the bundle nam	te or 'View' for more	technologies.







IEEE

Recent Course Program Topics

Course Program: A collection of courses about a given topic.

IEEE Guide to the Internet of Things	Cybersecurity for Today's Environment	5G Networks	IEEE Standard 1547: Connecting Distributed Energy Resources
Introduction to Blockchain Technology	Finite Element Method for Photonics	IEEE Guide to Autonomous Vehicle Technology	Modernizing the Smart Grid
Artificial Intelligence and Ethics in Design: Part 1	Artificial Intelligence and Ethics in Design: Part 2, Responsible Innovation	IEEE Introduction to Edge Computing	Enterprise Blockchain for Healthcare, IoT, Energy and Supply Chain





The 2020 eLearning Front List

Cutting-edge learning courses coming from Educational Activities in 2020



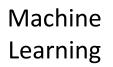




Digital Transformation

Partner: Future Directions





Partner: Computational Intelligence Society



Artificial Intelligence Standards

Partner: IEEE Standards Association



Free Webinars to Support Academic Faculty Transitioning to Distance Learning



Keep track of new events as they are added on the IEEE Innovation at Work site:

https://innovationatwork.ieee.org/events/virtual-events/



IEEE Tech Talk Virtual Event Series

A live virtual event series produced by Educational Activities in partnership with IEEE Societies and other OUs

- Free, 30-45 minute conversations with technical professionals from IEEE who are working on technologies that are impacting the pandemic response
- A different topic is offered each week (usually!)
- Live video of speakers and moderator
- Q&A at the end

https://innovationatwork.ieee.org/events/virtual-events/

PRESENTED BY

WATCH NOW



Recent and Upcoming IEEE EA Events...

11 November - Register to access the event recording

Engineering Education 2.0- Transformation in Practice: Approaches to Innovative Instructional Design

18 November | 1pm ET

IEEE Virtual Tech Talk: Ultraviolet Light vs. COVID-19

2 December | 12pm ET

IEEE Virtual Tech Talk: Global Health, Wellness and Technology in a Post-COVID World

Coming in 2021!

Bridging the 4G/5G Gap: Telecommunications Roadmap for Implementation



Introduction to IEEE Learning Network (ILN)

- Introduction to IEEE Learning Network (2 min): <u>https://innovationatwork.ieee.org/iln/</u>)
- ILN Demo Video (22 min):

https://ieee.webex.com/recordingservice/sites/ieee/recording/7C58538B34A7C104E05367A2F00A254 3

IEEE Innovation at Work – Free Webinar Series: <u>https://innovationatwork.ieee.org/</u>, https://innovationatwork.ieee.org/events/virtual-events/



How to Set Up Meeting to Use EA Resource

What is vTools?

- IEEE's suite of tools for volunteers
 - Events planning, registering, and reporting
 - ENotice mass emails to member groups
 - Officer Reporting record keeping
 - Voting conducting an on-line vote
 - Webex setting up an on-line meeting
 - Other tools

Accessing vTools

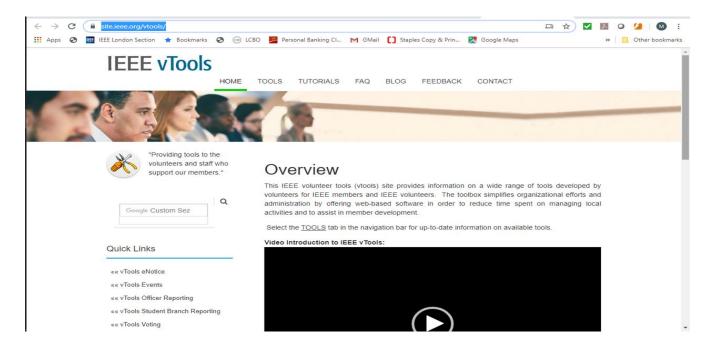
- <u>https://site.ieee.org/vtools/</u>
- Sign In using IEEE credentials



IEEE - Sign in to access the secure content



Accessing vTools





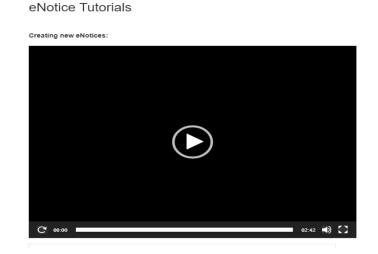
vTools Events and eNotice

https://site.ieee.org/vtools/vtools-events-tutorials/



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https://site.ieee.org/vtools/enotice-tutorials/





vTools Events and eNotice Exercise

https://events.vtools.ieee.org/m/205387

A IEEE.org | IEEE Xplore Digital Library | IEEE Standards | IEEE Spectrum | More Sites

Q. Sign Out



VTOOLS TRAINING

IEEE VTOOS EVENTS

Tweet Share in Share

I will provide training on vTools including creating an event, maintaining and reporting an event, creating an eNotice, using Voting, and requesting a Webex. Please bring your lattop or device as this is intended to be "hands on". If you have a specific task in mind, that would be perfect,

We will have coffee and water available.

↓ ♀ LOCATION	1	CONTACT	I	REGISTRATION
University of Western Ontario London, Ontario Canada Building: Amit Chakma Engineerin Building Room Number: ACEB 2450	9	Email event contact.		Starts 23 September 2019 09:29 PM Ends 10 October 2019 04:29 PM All times are America/Toronto No Admission Charge
	University of Western Ontario London, Ontario Canada Building: Amit Chakma Engineerin Building	University of Western Ontario London, Ortario Canada Building: Amit Chakma Engineering Building Room Number: ACEB 2450	University of Western Ontario London, Ontario Canada Building: Amit Chakma Engineering Building Room Number: ACEB 2450	University of Western Ontario Email event contact: London, Ontario Canada Building: Amit Chakma Engineering Building Room Number: ACEB 2450



VTOOLS ENOTICE

Automatic access is granted to Region Directors, Section Executive Committee Members, MD Chairs, SAMIEEE Recipients, Newsletter Editors, Webmasters: Chapter Executive Committee Members, Affinity Group Executive Committee Members, Student Branch Executive Committee Members and eNotice Coordinators.

Staff processed eNotices may take up to 5 business days due to the volume of requests received daily.

For critical eNotice requests (e.g., cancellations), that do not qualify for eNotice Express, please set the Priority to "Critical". Every attempt will be made to accommodate critical requests during normal business hours.

IEEE organizational units using this service are strongly encouraged to limit emailings to one per week.

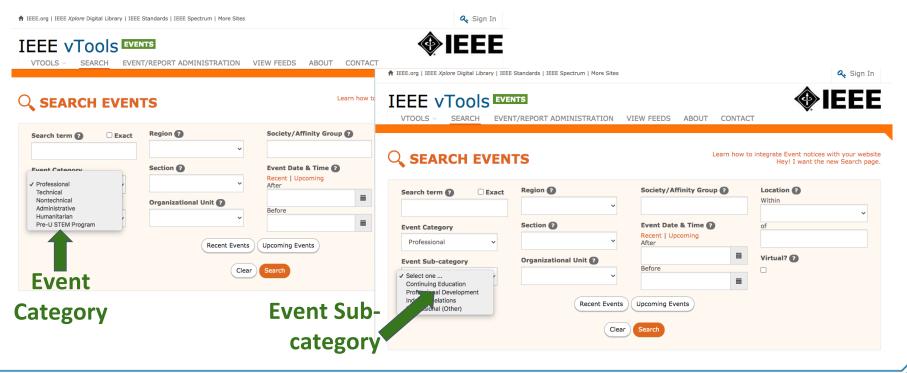
Express eNotice



- Available for standard geo unit eNotices
- Exceptions will be processed by staff Special requests Automatic reminders

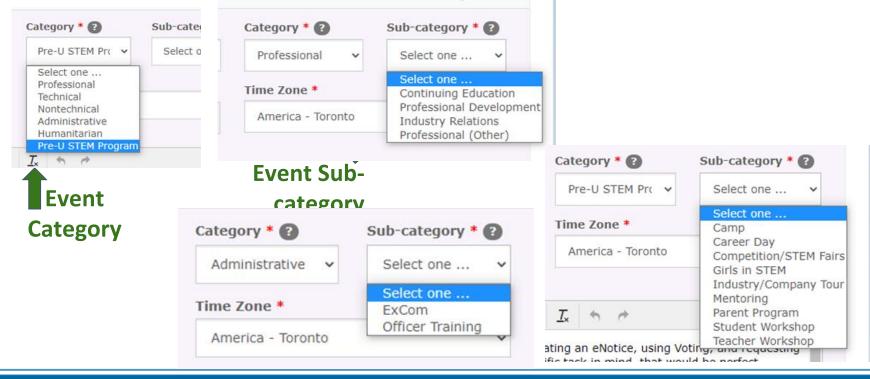


vTools Events - Include if Educational





vTools Events - Other Categories





Educational Events Options

From <u>https://innovationatwork.ieee.org/events/virtual-events/</u>

(free options)

- IEEE Guide to Autonomous Vehicle Technology
- From <u>https://iln.ieee.org/</u> (webinars)
 - Introduction to Sustainable Green Engineering System Analysis and Design
- From <u>https://tryengineering.org/</u> (pre-university)
 - Check out the Covid-1(





Education Volunteer Resources



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



EA Programs

IEEE Learning Network

The IEEE Learning Nerwork (ILN) offers a single online portal for continuing education products from all organizational units and societies across IEEE.

Educational content available on this portal includes areas like 50, Autonomous Vehicles, Al & Ethics in Design, to name a few, ILN offers the following features: Learners will have the ability to access opurses from any device, anytime, anywhere in the world; the ability to pick up oburses where they issue off, and track, manage and report on learner behavior over time.

IEEE Learning Network (ILN) website: https://in.eee.org

IEEE EAB Awards

IEEE Educational Activities Board (EAB) Awards recognize and honor major contributions to engineering and technical education. Award nominations and scholarship applications are accepted beginning 1 January each year. The annual deadline is the first Monday after 30 April.

Awards are given for mentorious activities in accreditation, continuing educations innovation, pre-university education, service to the IEEE EAB, employee professional development, informal education systems and related achievements that advance the practice of engineering and engineering education

Awards website: https://www.ieee.org/education/ewards/index.html

Awards nomination website https://eee.secure-platform.com/a/page/major_board_awards/Educational_Activities



TryEngineering org provides online information on engineering careers with interactive activities intended for parents, teachers, school counselors, pre-university students. These resources are free and available to the public. TryEngineering org also offers visitors addees to lesson plans, online games, accredited university programs in over 75 countries and information about



EA Insight

Newsletter from EAB containing

- News
- Updates on program, products and services
- Announcements
- Resources
- Produced thrice per year
- Sent to all Section EA Chairs, Section Chairs, Region Directors and any position title that indicates education





IEEE Educational Activities

- Educational Activities Volunteer Website
 - <u>https://ea.ieee.org/</u>
- 2020 Educational Activities Board Member List
 - <u>https://rosters.ieee.org/home.html</u>
- 2020 Educational Activities Committee Rosters
 - <u>https://rosters.ieee.org/home.html</u>
- 2020 Educational Activities Staff Listing
 - <u>https://ea.ieee.org/contacts/educational-activities-staff-contacts</u>



Questions and Discussion



If you are willing to receive support for your ILN event with members from your section / chapter / student branch, please send your request for details by email:

marinova@ieee.org

- IEEE Canada EA:

ieee.canada.ea@gmail.com

- Rossitza Marinova:
- Deyasini Majumdar: <u>deyasini.majumdar@ieee.org</u>
- Murray MacDonald: <u>murraymacdonald@ieee.org</u>
- IEEE Educational Activities: <u>edu-activities@ieee.org</u>

Thank you for your participation!



Questions and Discussion



If you want to ask a question, type it into the Chat tab or raise your hand in the Participant tab and wait to be acknowledged

