

IEEE Executive Director's Report

Stephen Welby

IEEE Region 8 Meeting

Valencia, Spain

12 October 2019



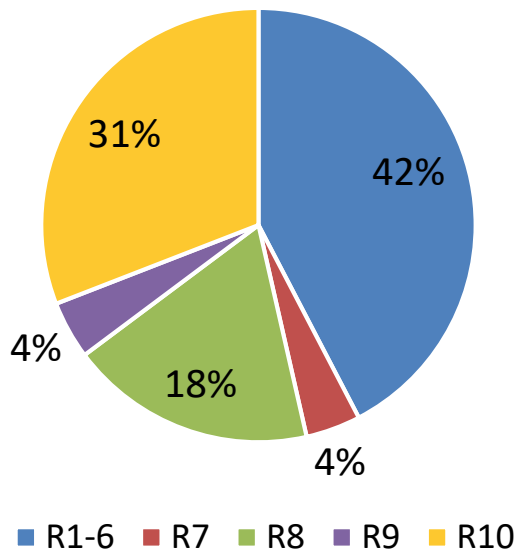
Membership

- ▶ Total Membership: 422,460 members
 - Change from December 2017: 1.2% increase
- ▶ Higher Grade Membership (without GS): 298,952 members
 - Change from December 2017: 0.5% increase
- ▶ Undergraduate Student Membership: 77,962 members
 - Change from December 2017: 0.7% increase
- ▶ Graduate Student Membership: 45,546 members
 - Change from December 2017: 6.7% increase



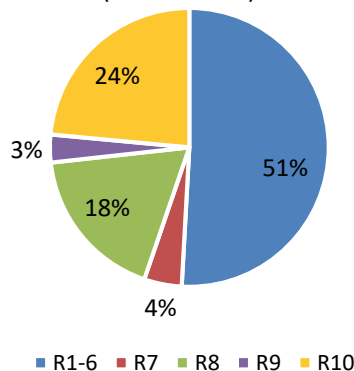
Membership Distribution

Total Membership

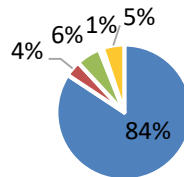


Higher Grade Members

(71% of total)

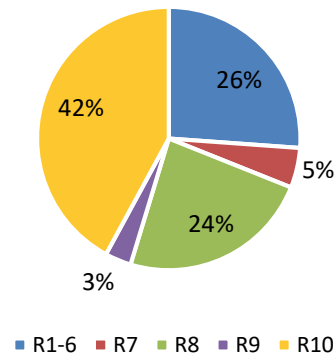


Life Members (8% of total)

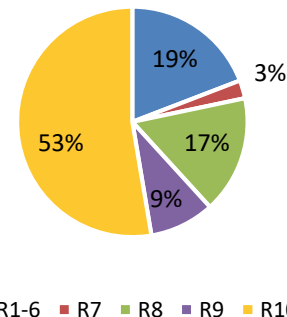


Graduate Students

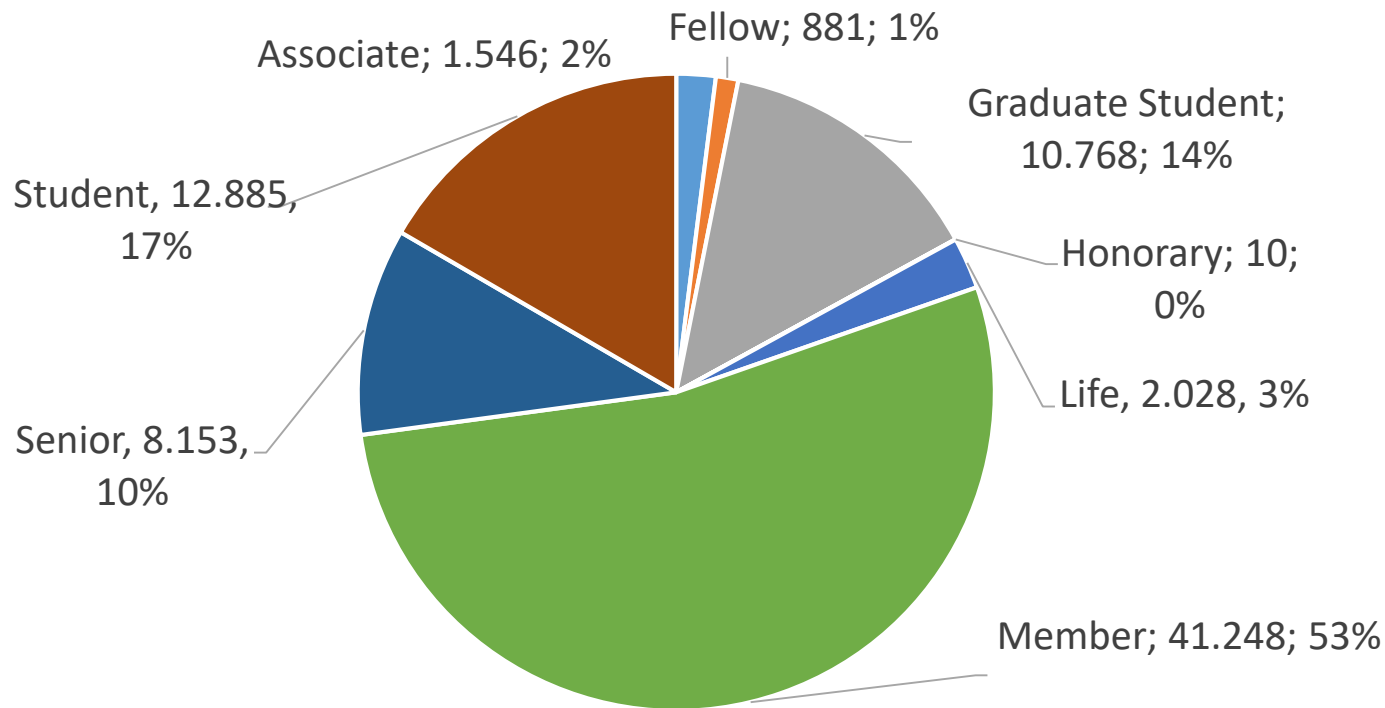
(11% of total)



Students (18% of total)



Region 8 Membership Distribution



■ Associate ■ Fellow ■ Graduate Student ■ Honorary ■ Life ■ Member ■ Senior

Top 10 Countries

2018 Rank	Country	2018 Membership	2008 Membership	% Change Since 2008
1	USA	178,937	209,857	-15%
2	India	51,905	27,866	86%
3	China	23,215	5,528	320%
4	Canada	17,253	16,259	6%
5	Japan	14,368	13,346	8%
6	United Kingdom & Ireland	10,415	10,956	-5%
7	Germany	8,079	7,000	15%
8	Australia	8,026	7,617	5%
9	Korea (South)	5,510	4,421	25%
10	Italy	5,239	4,295	22%





One platform for discovery of continuing education across IEEE



Shared learning management system for continuing education across IEEE



Increase member value in continuing education from IEEE

Welcome to the IEEE Learning Network

From on-demand courses to live virtual training,
what do you want to learn today?

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The IEEE Learning Network is your place to find IEEE continuing education.
Browse the full catalog to find the latest offerings in engineering, technology and more.
Want to know more? ***Watch this video.***

Societies and Technical Communities



IEEE STANDARDS ASSOCIATION

Information Technology

IEEE IT

Marketing, Sales, & Design

Publications

External Partner

Meridian

Internal OUs

Corporate Activities – BDRS

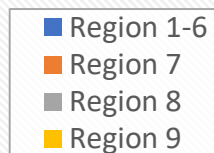
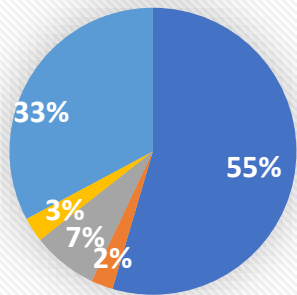
Educational Activities

Marketing, Sales, & Design

Member & Geographic Activities

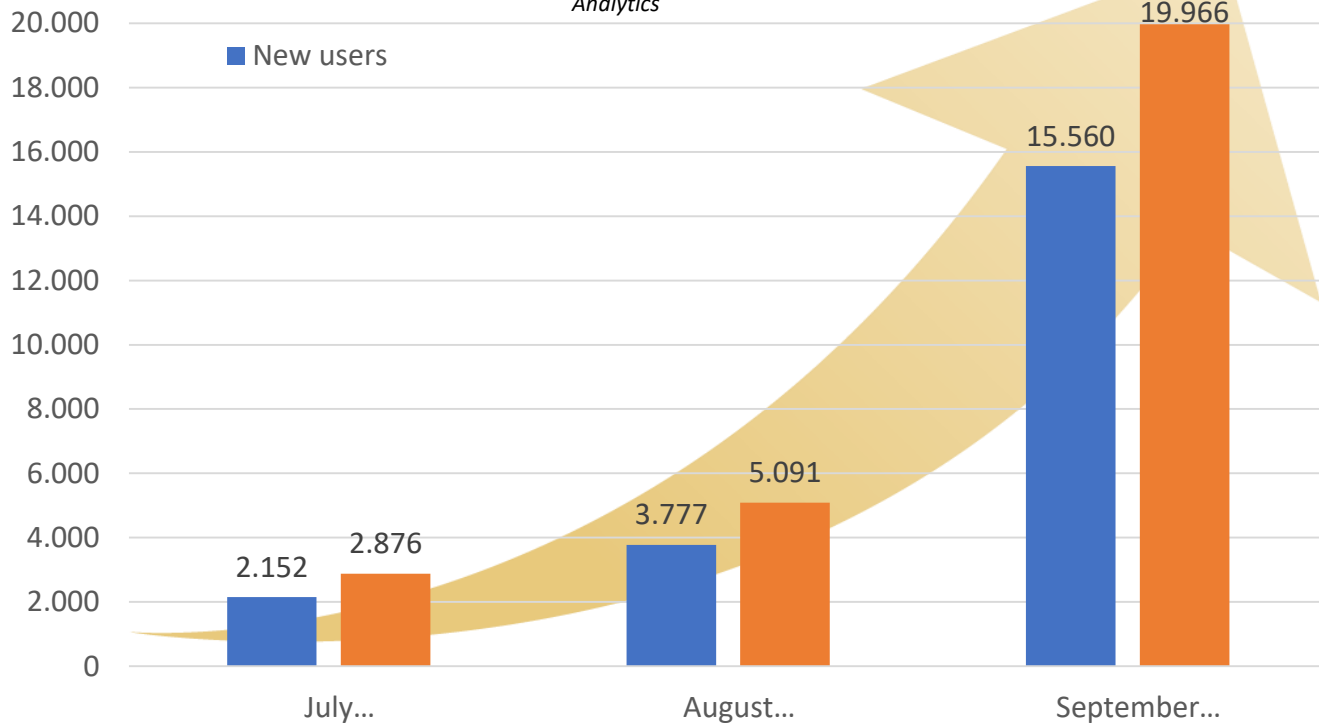
Technical Activities

Traffic by Region



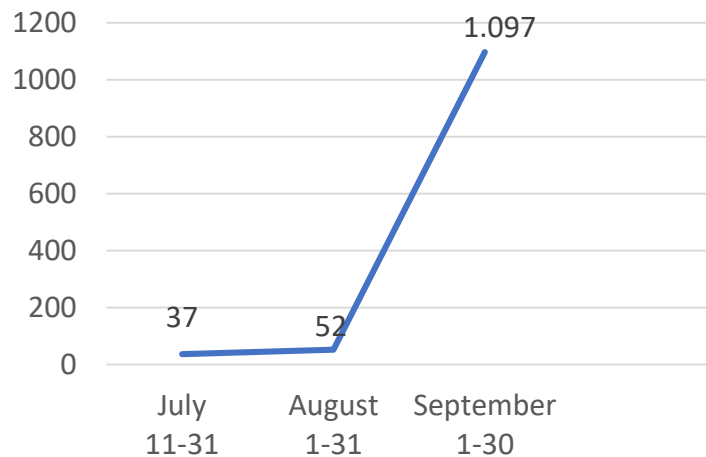
ILN Usage

Source: ILN Google Analytics

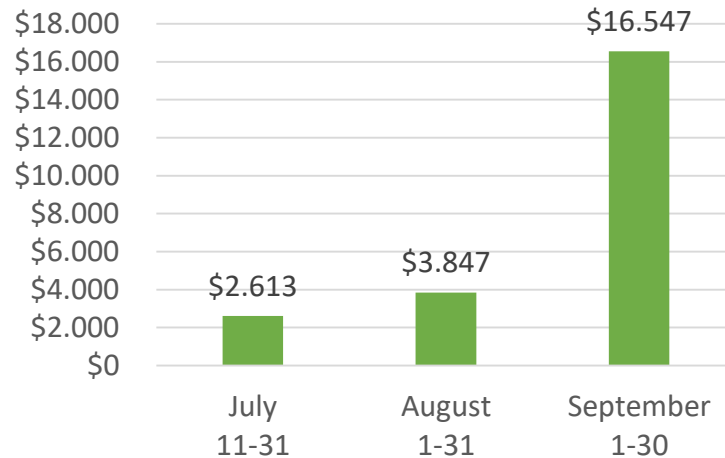




of Courses Sold



Revenue



Open Access Policies are Increasingly Expected

Driven by HORIZON 2020, Europe has been the most assertive in demanding OA compliance

- ▶ Particularly in Europe, OA mandates from funders are becoming increasingly expected
- ▶ Some funders (including Science Europe's Plan S) have banned hybrids as an OA option except as a transition
- ▶ Academic institutions in Europe are taking a stronger OA position and leveraging large volume subscription packages to get preferred OA treatment



The 10 Principles of Plan S

The key principle is as follows:

"After 1 January 2020 scientific publications on the results from research funded by public grants provided by national and European research councils and funding bodies, must be published in compliant Open Access journals or on compliant Open Access Platforms."

IN ADDITION:

2019-03-18 BY ANNIEKE WENTZEL
Sweden stands up for open access - cancels agreement with Elsevier

Large science publisher Elsevier does not meet the requirements of Swedish universities and research institutes.

Authors retain copyright of their publication with no restrictions. All publications must be published under an open license, preferably the Creative Commons Attribution Licence CC BY. In all cases, the license applied should fulfil the requirements defined by the Berlin Declaration.

- The Funders will ensure jointly the establishment of robust criteria and requirements for the services that compliant high quality Open Access journals and Open Access platforms must provide;

- In case such high quality Open Access journals or platforms do not yet exist, the Funders will, in a coordinated way, provide incentives to establish and support them when appropriate; support will also be provided for Open Access infrastructures where necessary;

- Where applicable, Open Access publication fees are covered by the Funders or universities, not by individual researchers; it is advised scientists should be able to publish even if their institutions

- When Open Access publication fees are applied, their funding is standardised and capped (across Europe);

- The Funders will ask universities, research organisations, and libraries to align their policies and strategies, notably to ensure transparency;

- The above principles shall apply to all types of scholarly publications, but it is understood that the timeline to achieve Open Access for monographs and books may be longer than 1 January 2020;

- The importance of open archives and repositories for hosting research outputs is acknowledged because of their long-term archiving function and their potential for editorial innovation;

- The 'hybrid' model of publishing is not compliant with the above principles;

New deal with Springer

VSNU and Springer have an agreement on a new deal on open access publishing by corresponding authors of Dutch universities. They are allowed to publish 2,080 articles in Springer journals with no extra costs per year for the duration of the deal (2018-2021).



couperin.org
Consortium of French Universities and Research Institutes
for Open Access Publishing

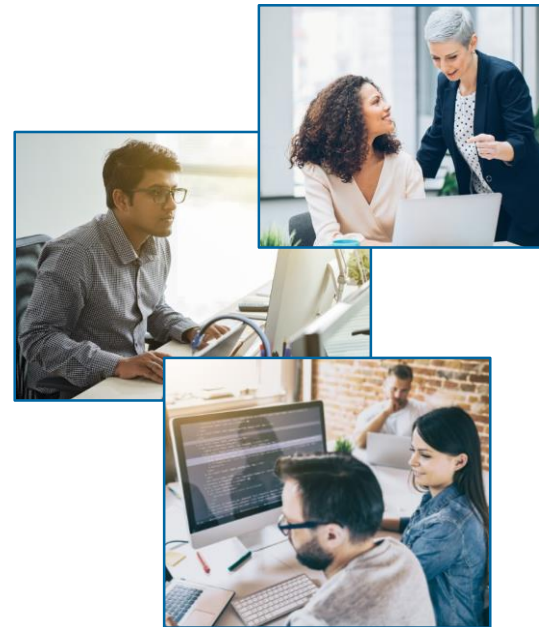
PRESS RELEASE

In 2019, French researchers will no longer have access to Springer Nature journals: the consortium Couperin.org is not renewing the previous national agreement with this publisher.



IEEE Publications Strategy and Goals

- ▶ IEEE strives to support all authors and readers globally. That means offering any author a publication venue that is compliant with their circumstances, regardless of their funding status, the publishing mandates they may have in place, or where in the world they may work.
- ▶ Open access is one part of the larger open science movement to make scientific research and data accessible to all. The research community is looking to speed up the process from lab discovery to an application of that research.
- ▶ IEEE is working to enable that change by creating better tools, services, and publication opportunities for authors and researchers.



IEEE Supports Open Science & Reproducible Research

- ▶ Users want access to data and research artifacts. IEEE introduced:
 - **Code Ocean** – Allows authors to publish code or algorithms associated with research articles in a computable environment and linked to IEEE *Xplore*. Authors can upload code free of charge and users can access code without a subscription.
 - **IEEE DataPort** – Enables authors to publish large data sets associated with their research. Limited time promo allows users to upload an Open Access Dataset at no cost.
 - **TechRxiv Beta** – IEEE will soon officially launch a Preprint Server for Engineering and Technology, a service that lets authors post early and fully open versions of their articles, prior to peer review and prior to being published.
- ▶ These enhancements improve facilitate communication and availability of their research findings online.



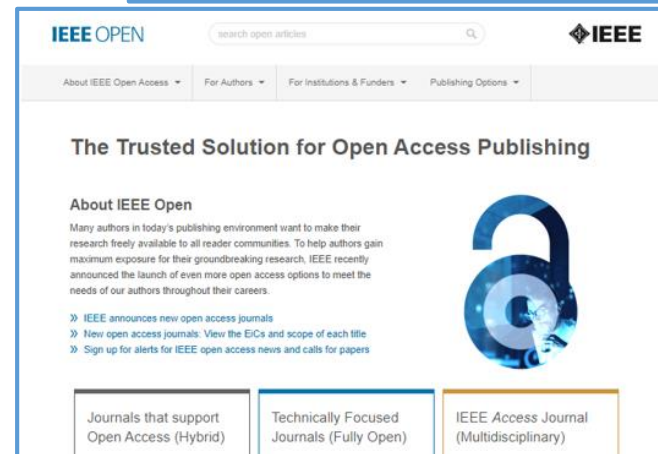
IEEE's Evolving Open Access Program

To help authors gain maximum exposure for their groundbreaking research and application-oriented articles, IEEE offers three options for open access (OA) publishing, all designed to meet the varying needs of our authors throughout their careers.

3 OA Publishing Options

1. Hybrid Journals - **100+ journals** spanning an array of technology fields.
2. Multidisciplinary OA journal - **IEEE Access®**
3. Fully Open Access Topical Journals
 - 6 journals available now (including Access)
 - Plus new journals coming soon

With these successful titles, IEEE has published thousands of open access articles in IEEE *Xplore*. And there are more options for authors coming soon...



IEEE Open Access Project Dashboard

Phase	Done Prior	Done Current	Status
Determine model and process, select 1 st cohort	100%	100%	●
Communications and Marketing	80%	100%	●
Editorial Board Formation	86%	92%	●
Operational Setup, begins late May 2019	43%	85%	●
Ready to Submit Articles, 1 Sept. 2019	0%	85%	●
Track and stimulate article submissions, begins 1 Sept. 2019	0%	5%	○
Publish Articles, Jan 2020	0%	0%	○

Key Accomplishments

- ▶ 11 new Gold OA Publications are setup and ready to accept submissions. 18 articles submitted as of 13 Sept.
- ▶ Six IEEE Access sections began accepting submissions on 1 Sept. 37 articles submitted as of 13 Sept.
- ▶ Positive reception of Marketing Toolkit.
- ▶ Journal promotions are underway: campaigns, newsletters, web pages, social, conferences, etc.

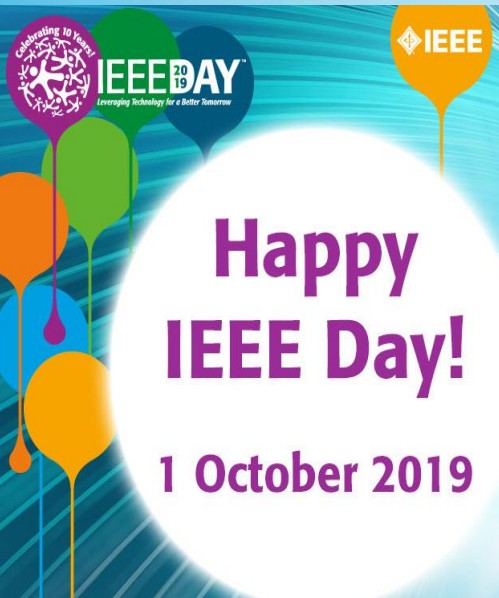


IEEE Volunteer Expense Reimbursement System

Communication material and training available online

- ▶ Replaces existing paper expense report submission process
- ▶ Communications and training materials available online at www.ieee.org:
 - FAQs
 - Video tutorials
 - Link to user support desk
- ▶ Rollout for IEEE OU Governance-related and Society expenses launched February
- ▶ Region, Section, Chapter, or Conference expenses launch 4Q 2019
- ▶ Questions? Contact concurfeedback@ieee.org





IEEE Day

Celebrating 10 years!





ABOUT IEEE DAY

- ▶ Celebrates first gathering of members in 1884
- ▶ Started 10 years ago, volunteer's winning idea from MGA Challenge
- ▶ Expanded last year to explore growth potential
- ▶ Over 400 ambassadors globally

IMPACT

- ▶ Increased interest in joining and coming back to IEEE
- ▶ Over 100K following IEEE Day activities on Facebook – doubled from last year
- ▶ 1,372,502 reached; 135,918 engagements on social
- ▶ Over 200K viewed promotional video; 140K total webinar views
- ▶ Increased interest in Member Benefits, Industry Activities, IEEE Foundation, Smart Grid, 5G, Pre-university Program, History Center Milestones
- ▶ Huge spike in ILN sales due to IEEE Day 10 for 10 campaign
- ▶ Highly engaged staff supporting IEEE Day



2019 IEEE Annual Election Results

- ▶ 2020 IEEE President-Elect: Susan K. “Kathy” Land
- ▶ IEEE Division Delegate-Elect/Director-Elect, 2020
 - IEEE Division II: Ruth A. Dyer
 - IEEE Division IV: Manfred “Fred” J. Schindler
 - IEEE Division VI: Paul M. Cunningham
 - IEEE Division VIII: Christina M. Schober
 - IEEE Division X: Dalma Novak
- ▶ IEEE Region Delegate-Elect/Director-Elect, 2020-2021
 - Region 1 (Northeastern USA): Greg T. Gdowski
 - Region 3 (Southern USA): Theresa A. Brunasso
 - Region 5 (Southwestern USA): Bob G. Becnel
 - Region 7 (Canada): Robert L. Anderson
 - Region 9 (Latin America): Enrique A. Tejera
- ▶ IEEE Standards Association President-Elect, 2020: James E. Matthews, III
- ▶ IEEE Standards Association Board of Governors Member-at-Large, 2020-2021: Andrew F. Myles
- ▶ IEEE Technical Activities Vice President-Elect, 2020: Roger U. Fujii
- ▶ IEEE-USA President-Elect, 2020: Katherine J. Duncan
- ▶ IEEE Division I Delegate, 2020-2021: Alfred E. Dunlop



IEEE Sections Congress 2020

Leading Our Global Technical Community

- ▶ 21-23 August 2020
- ▶ Ottawa, Ontario, Canada
- ▶ Three program tracks:
 - Training Volunteers
 - Building Communities
 - Advancing Technology for Humanity
- ▶ Costas Stasopoulos, Region 8 Coordinator



Questions: SC-information@ieee.org

200th Milestone Celebrated

History Center Highlights



- ▶ Conductive Polymer Self-Regulating Heat-Tracing Cable, 1972
 - Held 28 August at nVent (successor corporation to Raychem) in Redwood City, California, USA (Santa Clara Valley Section, Region 6)
 - Past President Jim Jefferies represented the Board
- ▶ Upcoming Region 8 milestone dedications:
 - Demonstration of a Radar Predecessor, 1904 in Cologne, Germany (Germany Section) (Attending 19 October)
 - WaveLAN, Precursor of Wi-Fi, 1987 in Nieuwegein, the Netherlands (Benelux Section) (President Moura will be attending 29 October)



IEEE 2019 Past President Jim Jefferies with volunteers from the IEEE Santa Clara Valley section



Cybersecurity Update

Increase in scams targeting IEEE volunteers and attacks on our systems

- ▶ Aggressive campaign of phishing targeting IEEE volunteers and members using fraudulent emails to request payments or money transfers
 - Using readily available information on the web
 - No IEEE data was compromised
- ▶ Awareness messages were sent to IEEE members and staff
- ▶ IT security is monitoring and investigating all fraudulent events and cyber attacks
 - On average per month, IEEE firewalls block 2B attempts coming from 3M IP addresses
 - On average per month, IEEE processes 28M emails of which 40% are spam and 1% contained malware
- ▶ Planning to enhance members password reset process and implement multi-factor authentication for IEEE members email accounts



Cyber Security Threats – Protect Yourself and IEEE

PHISHING EMAIL

How to recognize:

- Email contains misspellings
- Email is from an unknown sender
- Ambiguities in the email addresses
- Subject or content requests immediate action

What to do:

- Do not download or open any attachments
- Never click links in the message
- Do not reply to the sender
- Do not call phone numbers or email addresses provided in the message
- Forward message to security@ieee.org, then delete it

PAYMENT REQUESTS

How to recognize:

- Impersonates people in leadership or influential roles
- Request invoice payment or purchase of gift cards
- Threatens legal action or requests business or personal information
- Requests payment to avoid the exposure of compromising information about you

What to do:

- Confirm details with the parties involved – by calling them or using a known email
- Do not validate requests over email – Use secondary validation protocol
- Report it immediately to the IT Security team - security@ieee.org

Cyber Security Threats – Protect Yourself and IEEE

PHONE SCAMS

How to recognize:

- Claim to be from a known individual or institution
- Claim to be a tech support analyst, a job recruiter, from the government, from your bank, or a financial institution
- Offer that sounds too good to be true
- Requests information and threatening legal action

What to do:

- Do not provide any business or personal information unless verified the authenticity of the caller
- When unsure, call the individual or institution directly for confirmation
- Report suspicious calls to the IT Security team

Contact Information: IEEE IT Security Team at security@ieee.org



Cyber Security Threats – Protect Yourself and IEEE

How do we protect IEEE systems and services

- ▶ IEEE IT Security Team enforces security industry best practices on IEEE network, systems, applications, and databases to ensure systems are not compromised. IT security utilizes latest cyber security practices and technology including:
 - Practices: Defense-in-depth, Vulnerability scanning/penetration testing, Principle of least privilege, network segmentation, secure systems configuration and hardening, secure code development, and patch management.
 - Technologies: Next Generation Firewalls, Web Application Firewalls, Database Activity Monitoring & Protection, Advanced Anti-Malware, Secure Web Gateways, Cloud Access Security Broker, Advanced Email Security Gateways, and Security Information and Event Management.
 - The IEEE IT Security Team continually monitors security news and alerts to determine if IEEE is impacted by newly discovered threats or vulnerabilities.

How do we protect IEEE members data

- ▶ IEEE IT employs data protection technologies to automate the monitoring and protection of sensitive data sets, including Data Leakage Protection (DLP), Database Activity Monitoring, and encryption.
- ▶ IEEE is compliant with Payment Card Industry Data Security Standards (PCI/DSS). IEEE uses payment tokenization technology to securely store customer credit card information.
- ▶ IEEE is GDPR (General Data Protection Regulation) compliant.



My Key Focus Areas

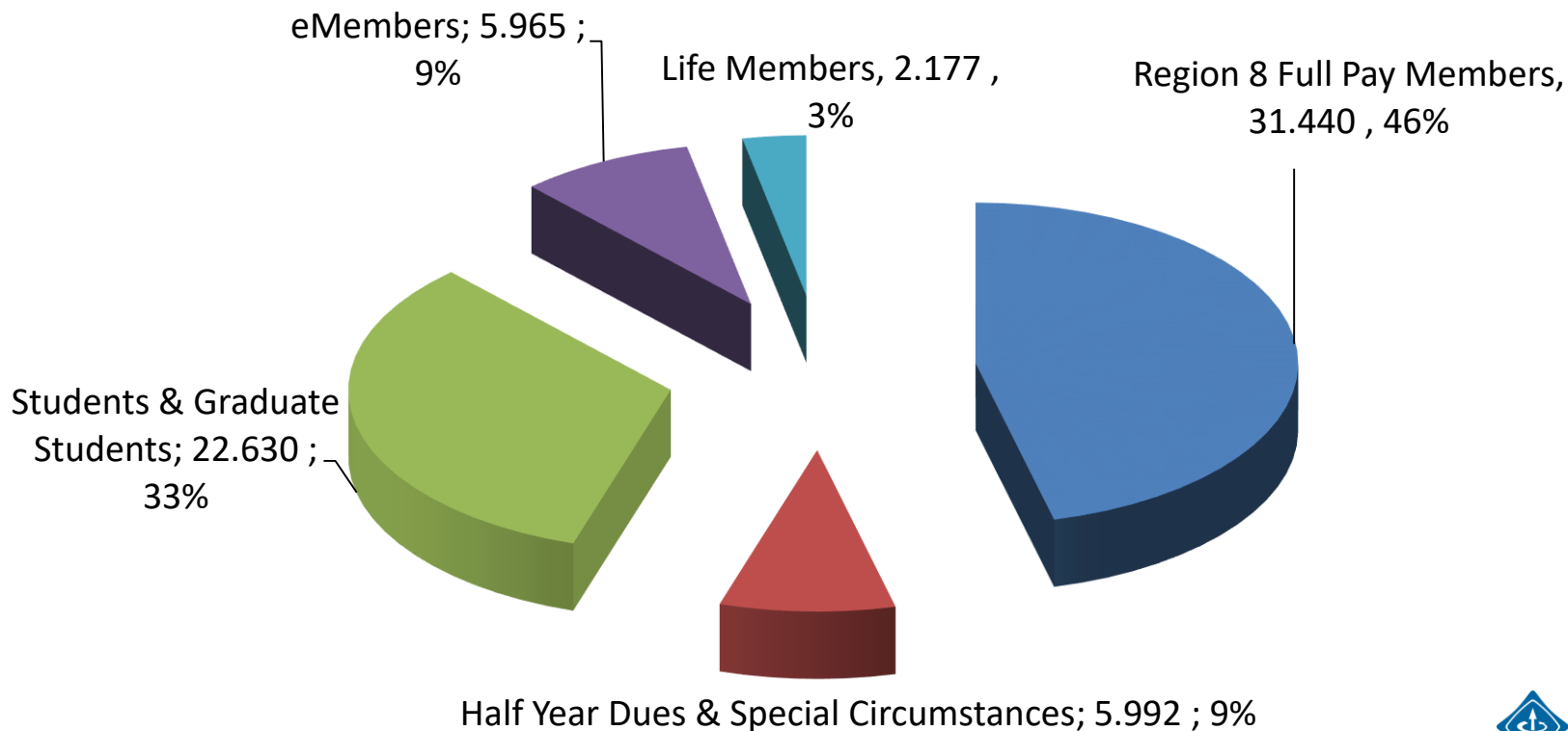
- ▶ Mission
- ▶ Our volunteers and members
- ▶ Cultures and attitudes: Getting the most impact from every dollar
- ▶ Strengthening and growing IEEE for the future





Backups

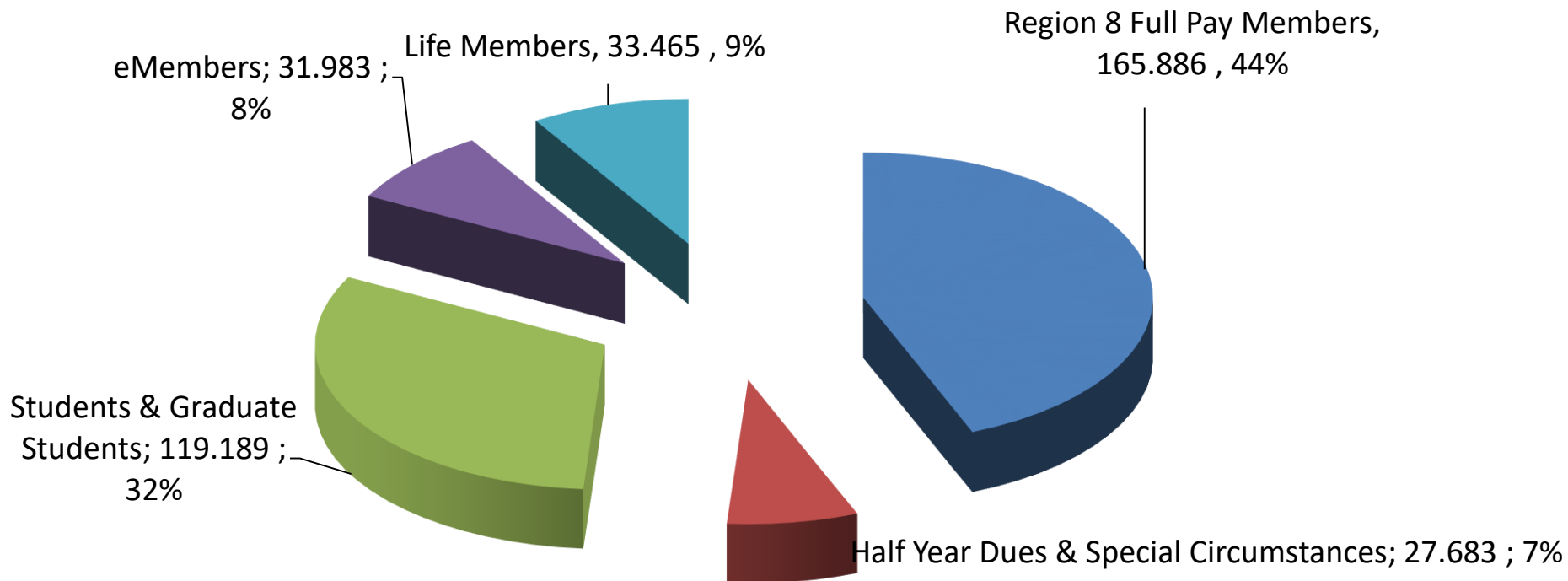
Region 8 Member Counts 2019



Data source Aug. 2019 Revenue by Region



IEEE Member Counts 2019

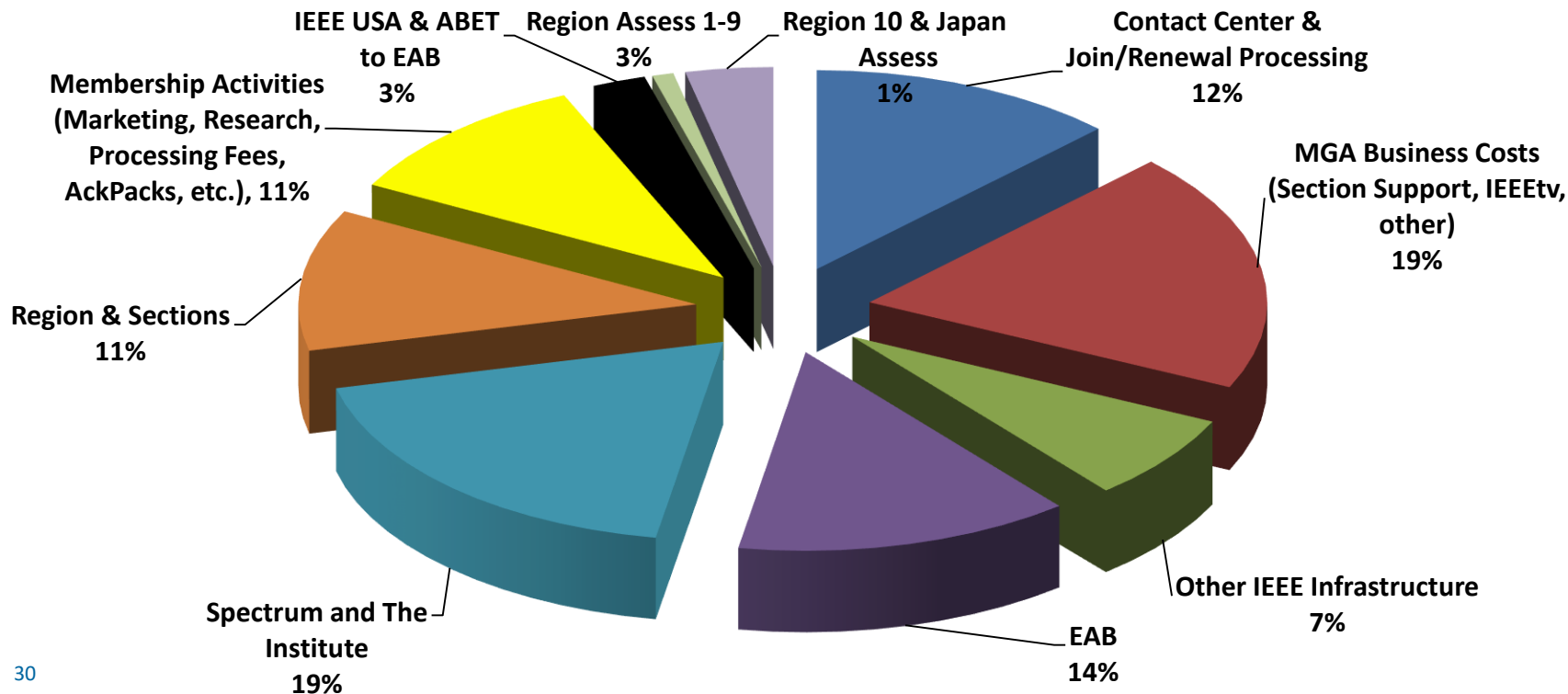


Data source Aug. 2019 Revenue by Region



Overall Distribution of Member Dues and Assessments Budget 2018 (static across all regions)

% by Category



IEEE Learning Network (ILN)

Launched July 2019

- ▶ Course sales are trending up 40% month-over-month since launch
- ▶ Marketing efforts are underway and traffic is growing
 - Visit the ILN booth at the November Board Series
- ▶ 15 IEEE partners have their educational content discoverable on ILN
 - To have your society or OU content discoverable on ILN, contact ilninfo@ieee.org

Help us get the word out!

Find promotional information on the Educational Activities Volunteer website

<https://ea.ieee.org/ea-programs>

Media tool kit
example collateral



Power Point Slides



Social Media Post/Signature Line
Image



Flyer

IEEE offers a LOT of Continuing Education... but it is found on MANY websites, and hard to find

- Continuing Education is a benefit that our members want from IEEE
- Our members need ONE place to find online continuing education from across IEEE

Introducing:



IEEE
LearningNetwork

iln.ieee.org



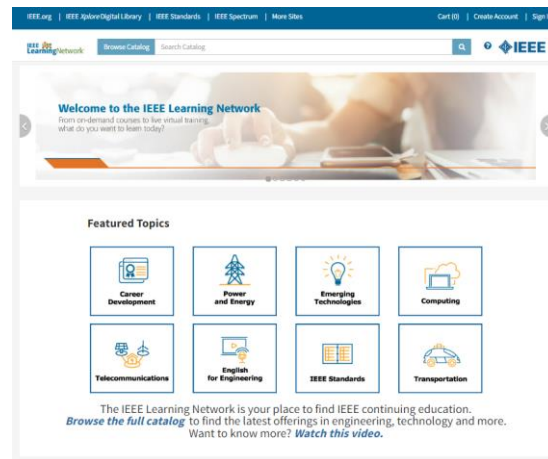
IEEE Learning Network (ILN)

- **Increases value of membership** by offering online education from across IEEE, **all in one place**
- Find **educational content** from these **current partners** and more joining every day!



IEEE STANDARDS ASSOCIATION

IEEE Educational Activities



- Most courses offer **Professional Development Hours (PDHs)** or **Continuing Education Units (CEUs)**
- **Discounts** offered to **IEEE Members**



IEEE LearningNetwork

iln.ieee.org



Stay up-to-date with the latest trends in engineering and technology

- Explore courses in hot topics such as Blockchain, 5G, Distributed Energy Resources, Autonomous Vehicles and many more!
- Find content from across IEEE's fields of interest
- Expand your skills for career development through courses such as English for Engineers

ILN provides the resources for you
obtain the skills you want and need to:

- Finish coursework in school
- Write and publish papers
- Present papers at conferences
- Maximize your potential
- Advance in your career

Help us get the word out!

Find promotional information on the Innovation at Work website

<https://innovationatwork.ieee.org/iln-resources>

Media tool kit
example collateral



Power Point Slides



**Social Media Post/Signature Line
Image**



Flyer



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