



Review of 2010-11 priorities

**A Presentation to the
IEEE Region 10 Committee**

**Moshe Kam, President-Elect
Pedro Ray, President**

27 February 2010



Note

- **This is a subset of the slides used during the 27 February presentation to the leadership in Region 10**
- **Some reductions were made to protect ongoing discussions and other business interests of IEEE**

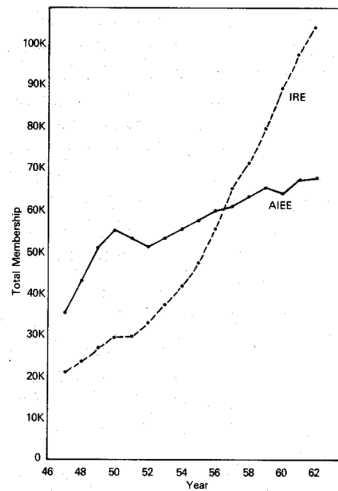
Outline

- **Expanding IEEE's Technical Reach**
 - Or: How to avoid obsolescence
- **Providing Value to Our Members**
 - Or: Let us listen to our members
- **Expanding IEEE's Geographical Reach**
 - A.k.a: globalization
- **Revisiting 1963**
 - Or: structural reform

Expanding IEEE Technical Reach

- **IEEE's relevance is rooted in its being *technically* pertinent**
 - **We are here because our fields of interest are important – economically and socially**
- **The ability to adopt, expand-into and lead new fields is critical to our future**

AIEE



IRE

Established 1884

An American Organization

Representing the establishment

Rooted in Power Engineering and communications

First computers working group

- Now the Computer Society

Established 1912

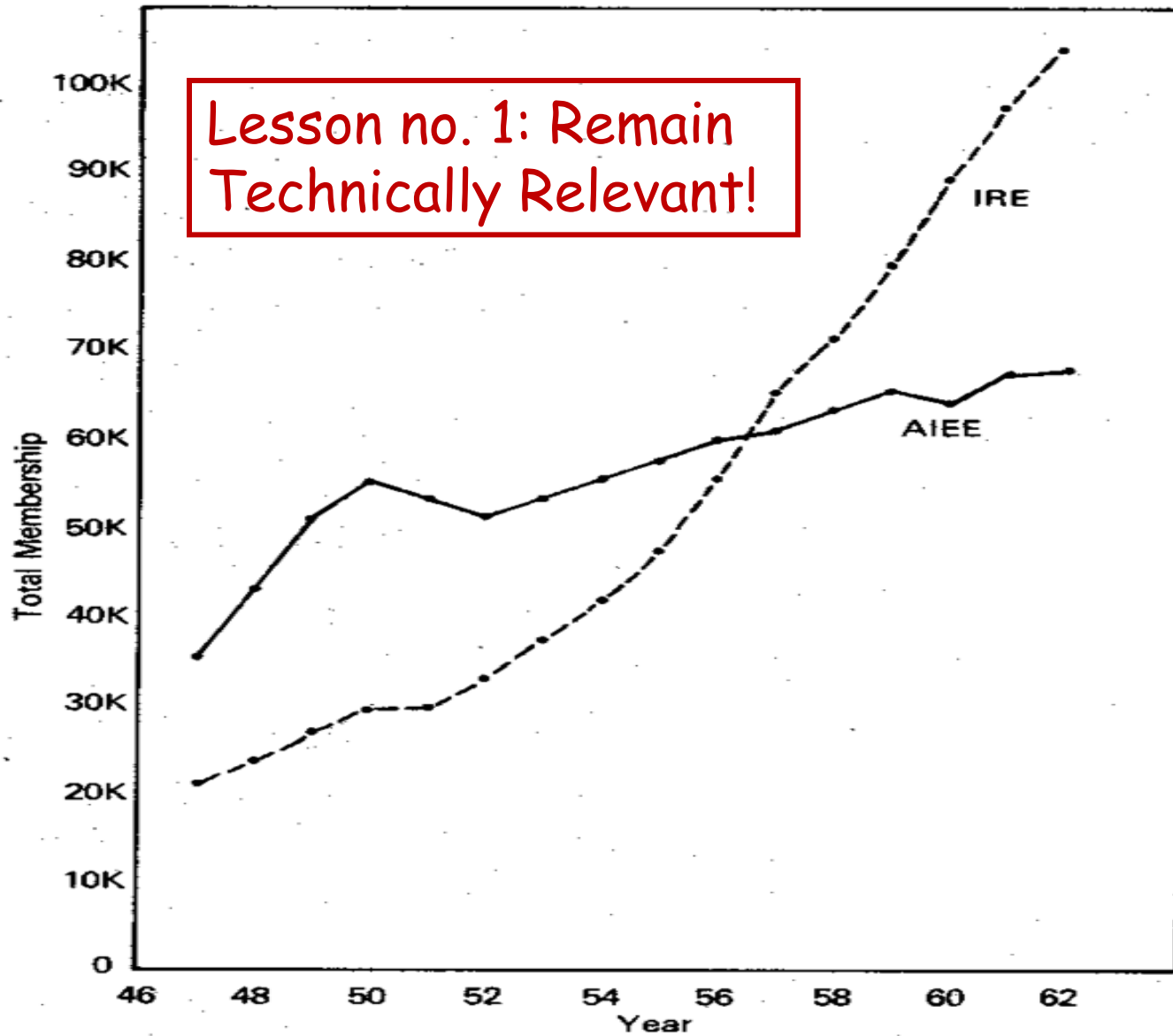
An international Organization

Open to students, young professionals

Quick to adopt advances in radar, radio, TV, electronics, computers

Proceedings of the Institute of Radio Engineers (Jan 1913)

1963: Merger of AIEE and IRE to create IEEE



A Major Challenge:

Expanding our Reach

*Or: how not to entrench
ourselves in our traditional fields
of interest*

Evidence... Top Journals...



IEEE publications among Top 20 Journals in...

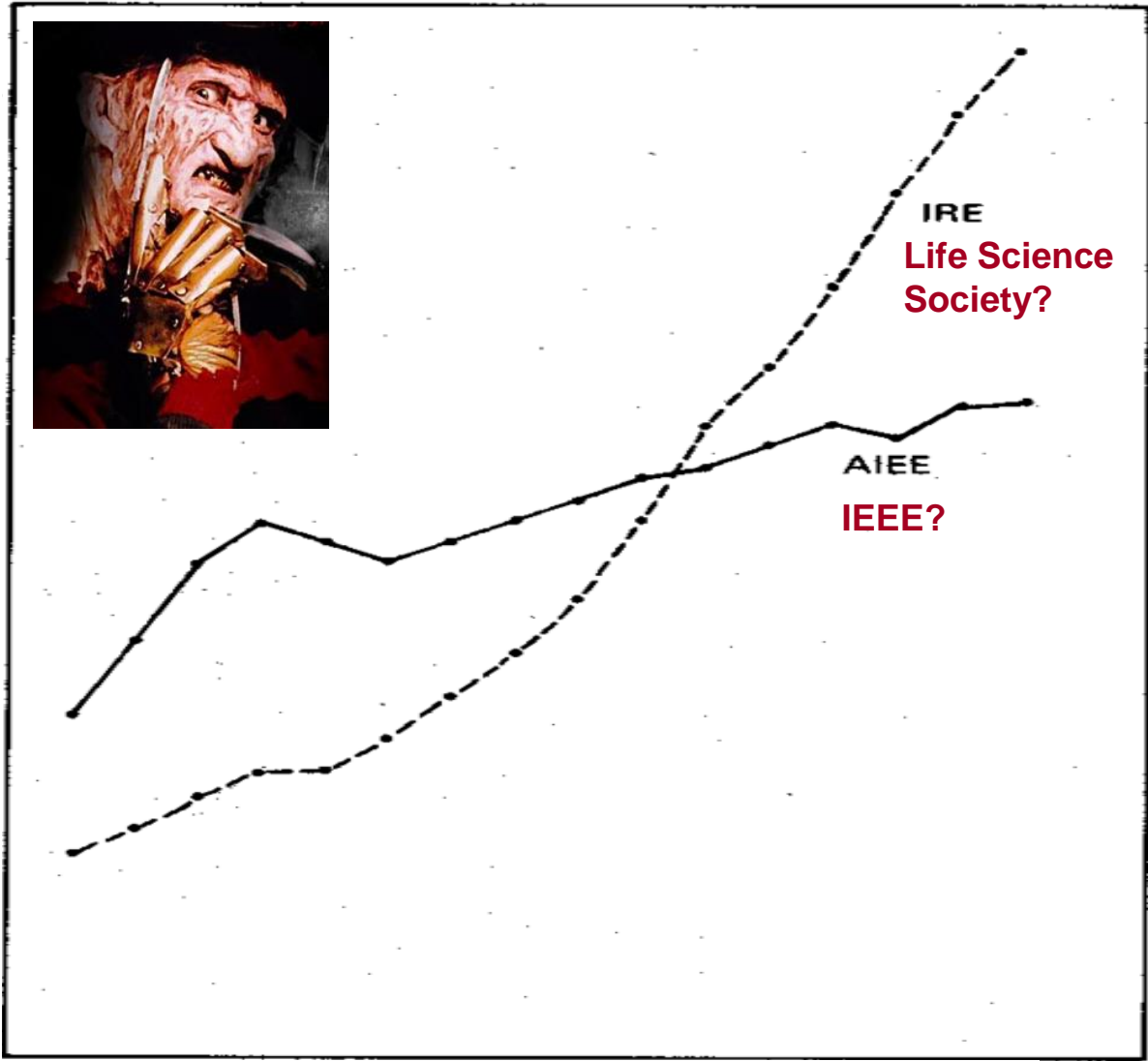


Area	IEEE Top Journals (out of 20)
Electrical and Electronics Engineering	16
Telecommunications	15
Computer Hardware and Architecture	12
Software Engineering	10
Automation and Control	9
Artificial Intelligence	6
Computer Science Theory and Methods	6
Medical Informatics	2
Mathematical and Computational Biology (Bioinformatics)	1
Nano-science and Nanotechnology	0
Healthcare Sciences	0

The Nightmare Scenario

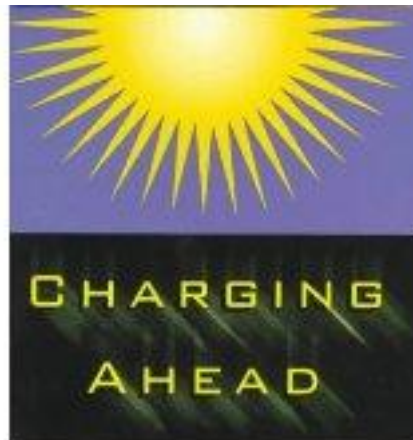


Total Membership



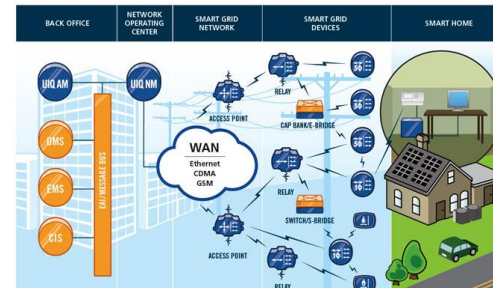
Year

What can be done about it?



Areas We Must Own

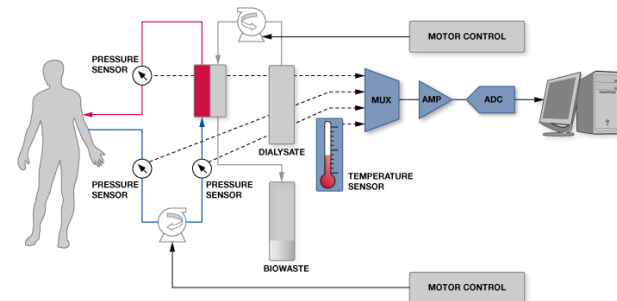
- The interface between **Electrical Engineering, Computer Engineering, Computer Science and the Life Sciences**



- **The Smart Grid**

- **Healthcare instrumentation**

- **Entertainment Engineering**



- ...we need to grow in **Medical Informatics and Computational Biology**

Targeted Expansion

Area	
<p data-bbox="50 268 465 325">Life Sciences</p> <div data-bbox="63 348 564 472" style="border: 1px solid red; padding: 5px; color: red;"> <p data-bbox="83 362 426 458">New Initiative in Development</p> </div>	<ul style="list-style-type: none"> <li data-bbox="710 268 1727 396">•Area needs to “come to its own” within IEEE <li data-bbox="807 425 1746 554">•consolidation, one-stop-shop, branding <li data-bbox="710 575 1727 704">•We need to attract professionals from non EE/CE background
<p data-bbox="50 743 388 801">Smart Grid</p> <div data-bbox="50 839 548 911" style="border: 1px solid red; padding: 5px; color: red;"> <p data-bbox="63 853 523 896">New Initiative in Place</p> </div>	<p data-bbox="710 743 1663 953">An across the board effort with strong input and collaboration with industry</p>
<p data-bbox="50 989 484 1132">Entertainment Engineering</p>	<p data-bbox="710 989 1711 1046">Clear needs for information on...</p>
<p data-bbox="50 1165 382 1293">Healthcare Sciences</p>	<ul style="list-style-type: none"> <li data-bbox="710 1150 1045 1208">•Standards <li data-bbox="710 1222 1219 1279">•Inter-operability <li data-bbox="710 1293 1445 1350">•Forecasting and trends

How Region 10 can participate?

- **Review these major activities and prepare information digests for the Sections**
- **Suggest participants and encourage participation in these emerging activities**
- **When appropriate, appoint regional ‘observers’ who would monitor these activities and manage Region participation**

Providing Value to the Member



A Value Statement

- **A recurring question for IEEE leaders:**
What do I tell students/colleagues/prospective members about reason to join IEEE?
- *Access to Knowledge?*
- *Becoming a Better Professional?*
- *Civic Duty?*
- *Support for Good Works?*
- *Better Job Prospects and Higher Income?*
- *Networking?*
- *Spectrum Magazine?*
- **This is much more than semantics**
- **It would be appropriate for MGA to try to make the first attempt to have a new value statement**

Increasing the Value of Membership

- **Over the last few years, several key requests were made for new products and services**
- **These include:**
 - **Affordable membership in developing countries**
 - **Increased access to the IEEE/IET electronic library**
 - **Publications with more practical content**
 - **Increased benefits for long-time members**
 - **Payment of dues in local currency**

Affordable Membership in Developing Countries: New E-membership Model

- **A new membership model with the following characteristics:**
 - **No paper publications (Spectrum, The Institute)**
 - **No paper membership card**
 - **Lower Price**
 - **\$50 (before Regional assessment)**
 - **No additional discounts on basic membership due to special circumstances**
- **Open to participants in countries where per-capita GDP is less than \$15K**
- **Will be offered starting with membership year 2011**

22 Region-10 Countries are included

- **Afghanistan**
- **Bangladesh**
- **Bhutan**
- **Cambodia**
- **China**
- **Fiji**
- **French Polynesia**
- **India**
- **Indonesia**
- **Laos**
- **Malaysia**
- **Maldives**
- **Mongolia**
- **Myanmar**
- **Nepal**
- **Pakistan**
- **Papua New Guinea**
- **Philippines**
- **Seychelles**
- **Sri Lanka**
- **Thailand**
- **Vietnam**

What will happen next?

- **Best scenario:**
 - A large number of new members in the new E-membership category
 - Moderate/small migration of existing members into the new category
- **Worst scenario:**
 - No increase in total membership
 - Existing members flock to the new category
 - We will gain no members but lose revenue

Ongoing requests from the membership

Issue	Where does it stand	Our “grade”
Affordable membership in developing countries	Will be available in 2011	
Payment of dues in local currency	Available now	
Increased benefits for long-time members	Ongoing work (MGA)	
Increased access to the IEEE/IET electronic library	No progress; needs work	
Publications with more practical content	No progress: needs work	

A hot button issue



Services to ‘Practitioners’ or “Practical Content”

Framing the issue: IEEE Strategic Goal

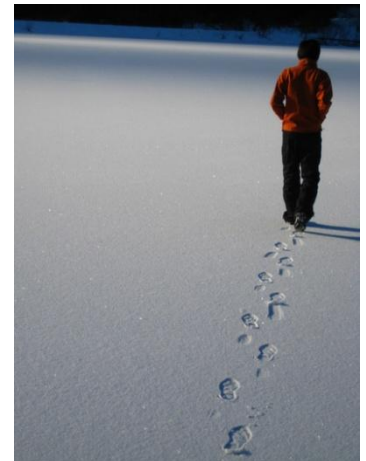
- **IEEE considers itself the professional home of engineers in all sectors (industry, academia, government)**
 - We have an ongoing focus on relationship with industry
- **From the IEEE “3-5 years goals”:**
 - “Industry professionals and their employers will value IEEE as a major resource to achieve success”

The message from the membership...

- **Several Section Congress resolutions emphasized the need to develop products and services for practicing engineers**
- **Studies of non-renewals have shown that departing members are typically...**
 - **Holders of B.Sc. as their highest degree**
 - **Work in industry**
- **A recurring theme in discussions with a large fraction of the membership: we are uninterested or unable to read IEEE's current publications**

The Member Profile

- **We are not interested in becoming “an association of the learned only” ...**
 - **...leaving behind the electrical, computer, power and telecommunication engineers and the computing professionals**



2009 Ad Hoc Committee on Products for Practitioners

Recommendations for Board Action

- **1. Affirming the high priority for creating and gathering practical products in all organizational units**
- **2. Support in principle the creation of publications devoted to practical material**
- **3. Encourage conferences to include practical material in their programs (tutorials, short courses)**

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Is this sufficient?

Additional Observations...

- **Attempts at practitioner-oriented publications within IEEE have been often unsuccessful**
 - **Several ‘practical’ publications were “taken over” by theory-oriented authors**
- **There exist many popular publications and news services that are used heavily by engineers**
 - **Content generation model is different**
 - **Many use paid authors, some let users create content**
 - **Delivery is almost exclusively on line**
 - **Delivery is continuous in time**
- **Should we leave alone / compete / buy or merge with the competition?**

The Road Ahead

- A group of volunteers was requested by the Strategic Planning Committee to address the matter **Call for Action**
- It will review the existing IEEE and non-IEEE research on “practical content”
- Develop a definition of the target audience based on studies of IEEE demographics
- Assess what non-IEEE sources engineers use in the information market-place
 - Compare to what we offer
 - Understand our ability and desire to compete
- Address branding of the effort

Expanding IEEE's Geographical Reach



Activities in India

- **IEEE is in the process of defining its goals in India**
 - **The second largest country of IEEE membership, after the US**

- **Top issues (possibly):**
 - **Access to IEEE intellectual property in India**
 - Do we need a new model?
 - **Increased use of Certification Programs and Standards**
 - **Faculty training (an education challenge)**
 - **Administrative improvements in IEEE's operation**
 - E.g., Payment of dues in local currency



Activities in China



- **“Taking stock” of our initiative to China**
 - **What worked and why?**
 - How can we improve the effort and expand it?
 - **Where are the gaps?**
 - **What is our next set of goals?**
- **Improving the functioning of IEEE’s structure in China**
 - **Understanding the level and type of activities suitable for our organizational units in China**



Activities in Brazil

- One of the fastest growing players in the global economy
- A bio-fuels pioneer on the fast track to energy self-sufficiency
- A booming haven for foreign investment
- We have members and OUs in Brazil
- We started working on a long-term Brazil strategy
 - Late 2010- Early 2011

IEEE in Sub Saharan Africa

- During the 2009 campaign, candidates were asked repeatedly on plans regarding Africa
- In 2010 there will be some activity concerning potential role of IEEE in rural electrification
- We will convene a study group to start the development of a strategy
 - In close cooperation with Region 8



Technical English

- Improving the ability to use and communicate in Technical English remains an important objective for many members
- A local program for university students was started and run in St. Petersburg, Russia
- A pilot program for members was tested in Uruguay
 - As an IEEE new initiative

Follow-up Activities in 2010

- **A conference in the Middle East to develop a TEP for students there**
- **Under consideration – a new initiative to develop an IEEE-wide TEP for members**
 - **A key constraint – self sustenance post initiative**
 - **We wish to hear from interested Sections**

Call for Action

1963 was a very good year for IEEE...

- We determined our basic governance structure
- We created major Boards
- Regions were defined and boundaries outlined
- The basic duties and responsibilities of our Regions and Sections have been defined



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- Regions were defined and boundaries outlined
- The basic duties and responsibilities of our Regions and Sections have been defined
- ...and it has all remained more or less the same since then



There are clear signs that the old structure deserves an overhaul



Currently under Discussion

- **Proposals to restructure the IEEE Board of Directors**
 - Remove the Board from day-to-day operations
 - Focus the Board on **strategy**
- **Redefine of the role of major Boards and IEEE Vice Presidents**
 - **More authority and responsibility to Boards**
 - Such as MGAB

What the IEEE Regions may want to do...

- **Use the opportunity for a discussion, internally and with MGA, on...**
 - **The role of the Regions and the Sections during the next 20 years**
 - **The structure, functions, portfolio of activities, and funding profile of Regions and Sections**
 - **Are there alternative models? What did IET and ASME do?**
 - **The size and boundaries of the Regions**
 - **The impact of changes in technology on the operation of IEEE Regions**
 - **Especially communication networks**
- **We may still conclude that the 1963 model is perfect**
 - **But this is a bit hard to believe**

Summary

- Focus on expanding IEEE into **new technical areas**
- Renewed efforts on **Membership Value**
 - Value proposition, IEL access, retention through increased benefits, E-membership, new products relevant “on the job”
- Important opportunities in Regions 8-10
 - **India** strategy and implementation
 - Strengthening our structure in **China**
 - Starting the development of **Brazil** strategy
 - Study group on **sub-Saharan Africa**
- **Structural Reform**

Other than that, not much else really to do in 2010-11...



Questions or Comments