

Why join IEEE ?



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About IEEE



IEEE

- What is IEEE ?
 - IEEE stands for “**Institute of Electrical and Electronics Engineers**”



Roots of IEEE

- When did IEEE start ?
 - IEEE's roots go back to **1884** when **electricity was just beginning** to become a major force in society
 - In Spring of 1884, a small group of electrical engineers met in New York to form **American Institute of Electrical Engineers (AIEE)**



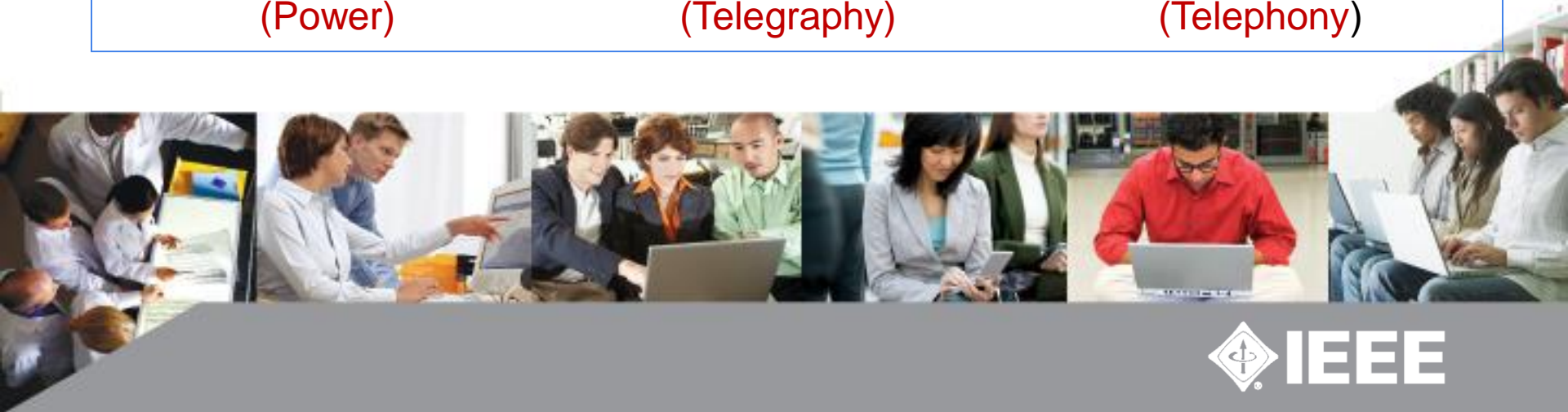
Thomas Edison
(Power)



Norvin Green
(Telegraphy)

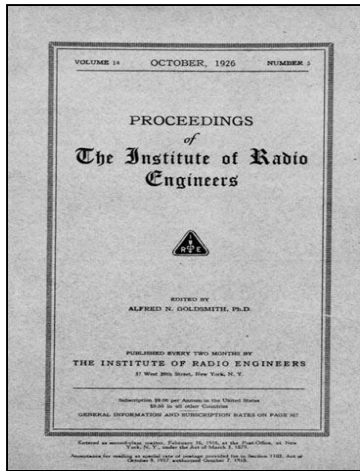


Alexander Graham Bell
(Telephony)

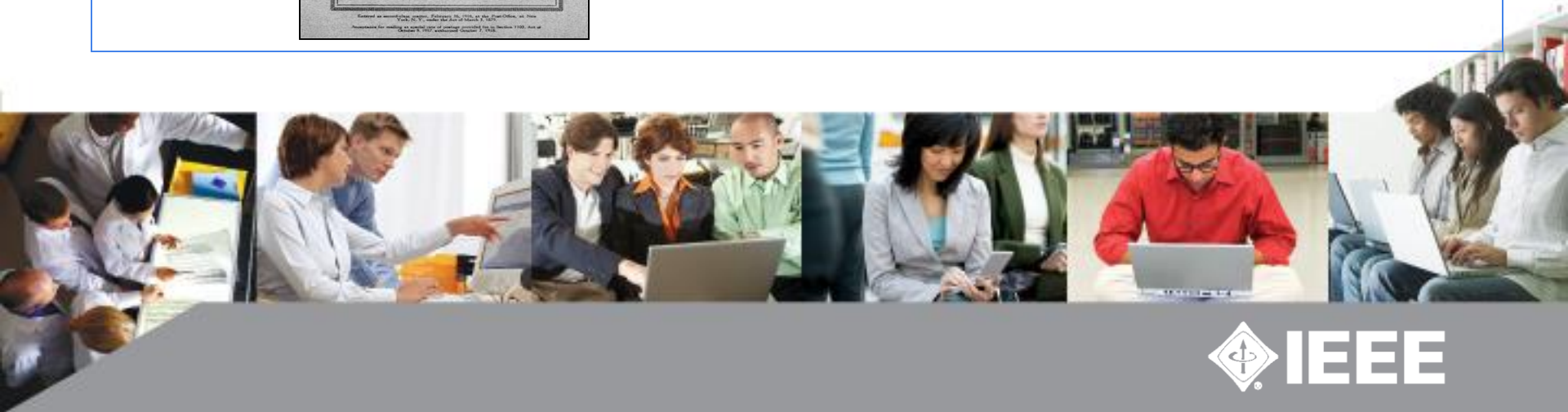


AIEE and IRE

- What was originally known as wireless telegraphy (called “wireless”) became **radio** with developments in vacuum tubes (diode, triode etc)
- **Institute of Radio Engineers (IRE)** was formed in 1912 devoted to radio, and then increasingly to **electronics**;



First Proceedings of the IRE (Volume 1) was published in Jan 1913.



Growth of IRE

- During World War-II time, interest in Radio Engineering increased and the IRE became the dominant group



William Shockley, inventor of Transistor
with his colleagues as part of IRE in 1947

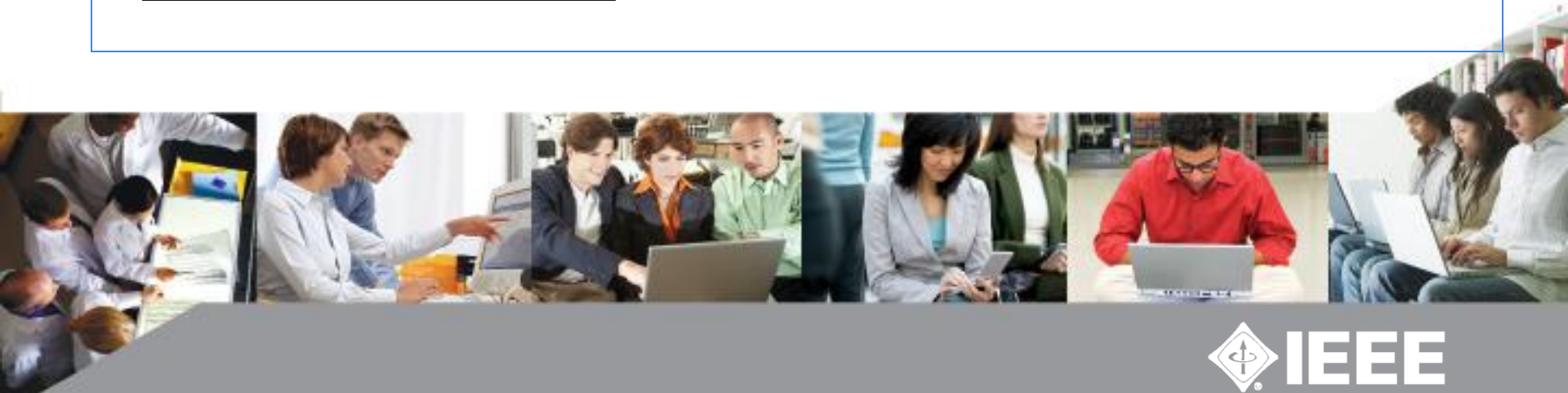


Formation of IEEE

- On 1 January 1963, AIEE and IRE merged to form the IEEE. At its formation, the IEEE had 150,000 members(140,000 from USA)

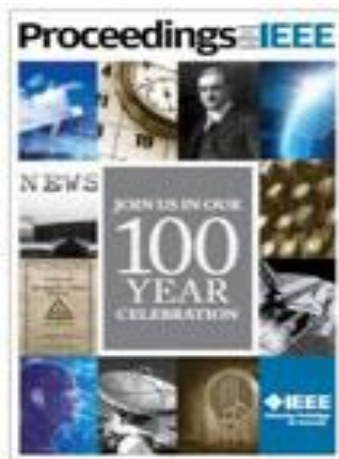


May 1962 issue of Proc IRE (Special 1000 page issue) announcing formation of IEEE; also 50th year of IRE



50th year of IEEE

- IEEE celebrated its 50th year in 2012. By that time, IEEE had over **395,000 members**;
- Also 38 societies, 130 journals, transactions and magazines, more 300 conferences annually, and 900 active standards.



In October 2012 a special of Proceedings of IEEE was published



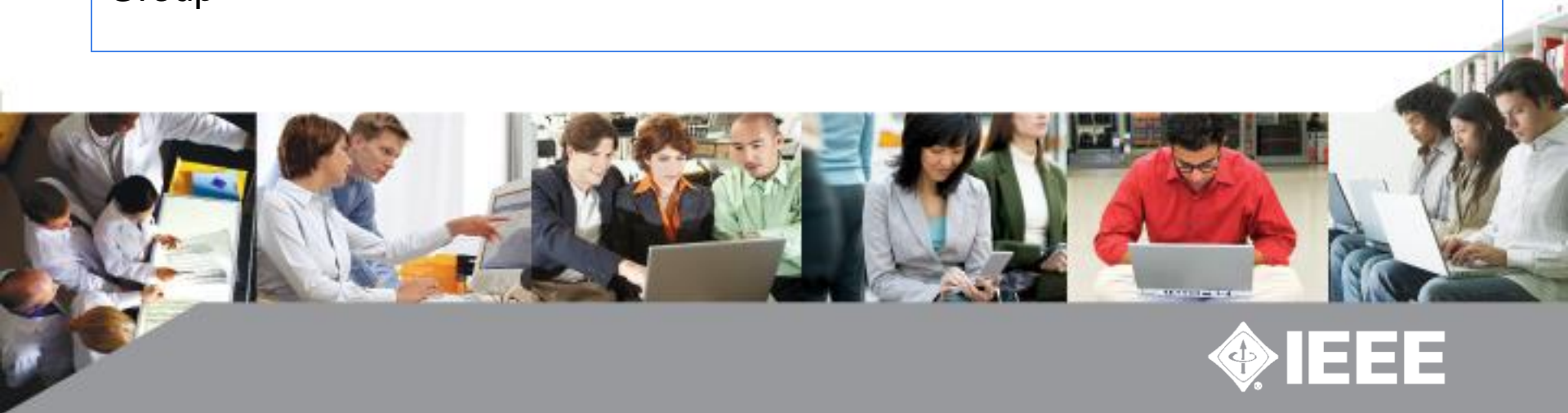
Statistics of IEEE – 31, Dec 2015

- > 4,21,000 members in more than 160 countries(> 50 % from outside USA)
- > 1,14,000 Student members
- 334 Sections in ten geographic Regions worldwide
- 2,116 Chapters that unite local members with similar technical interests
- 2,806 student branches at colleges and universities in over 100 countries
- 1,159 student branch chapters of IEEE technical societies
- 459 affinity groups (Non-technical sub-units like YP, WIE etc.)



IEEE Pune Section

- Formation Date: June, 26, 2010
- Pune Section has 1,400 members
 - 484 Professional and 709 Student members as on Dec,31,2015
- Pune Section has 6 Society chapters
 - Communications; Computer; PES/IES; Signal Processing; Instrumentation & Control; Education
- There are 19 IEEE Student Branches in different Engineering Colleges
- Pune Section has an active WIE Affinity Group and a Young Professionals Group



Statistics of IEEE literature

- 39 Societies & 7 technical councils representing the wide range of subjects
- Nearly 4 million documents in the IEEE *Xplore*[®] Digital Library, with more than 8 million downloads each month
- 1,100 active standards and more than 500 standards under development
- Publishes approximately 180 transactions, journals, and magazines
- Sponsors more than 1,600 conferences annually in 95 countries attracting more than 485,000 attendees
- Publishing more than 1,400 conference proceedings via IEEE *Xplore*



In a nutshell

- IEEE is the World's Largest Technical Professional Organization, dedicated to advancing technology for the benefit of humanity.



Why Join IEEE ?



Benefits of joining IEEE

Benefits
of
Joining
IEEE

- Professional Networking around the Globe



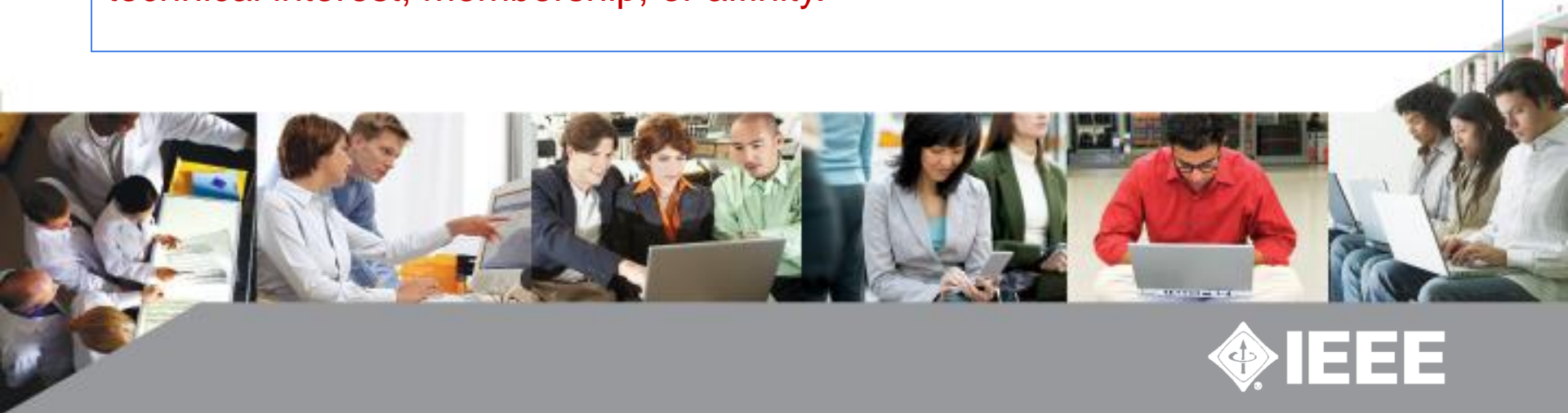
Professional Networking around the Globe

- IEEE is the world's largest professional association with more than 4,20,000 members across the globe.
- In Asia-Pacific Region (R-10) 1,13,573 members (27%) professional members including 35,095 students are reaping the benefits of IEEE.



Professional Networking around the Globe

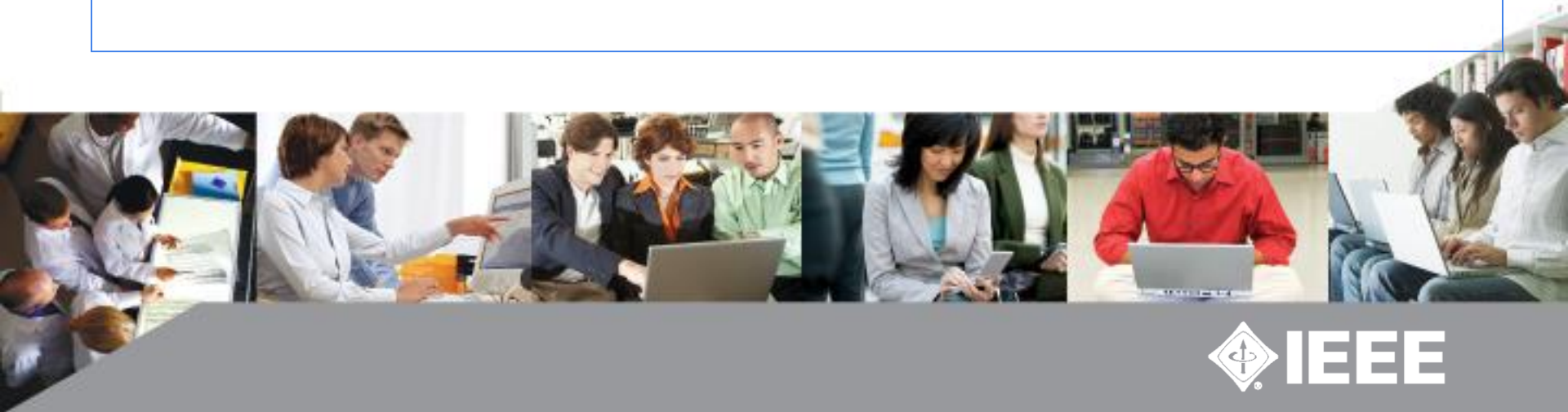
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- ❖ IEEE member Net
 - Online search and networking tool that allows members to connect with technical and engineering experts worldwide.
 - This tool can be utilized by members seeking peers who share a common technical interest, membership, or affinity.



Professional Networking around the Globe

❖ Global Student Web Site and Social Media Competition

--- variety of competitions, locally, regionally, and globally, to IEEE Student members



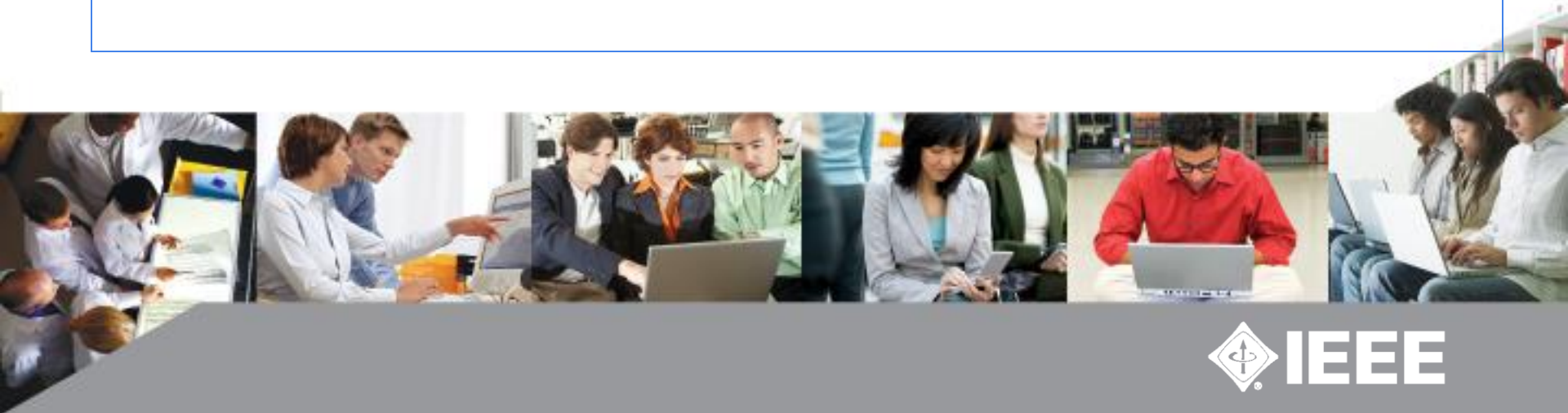
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❖ Online Communities

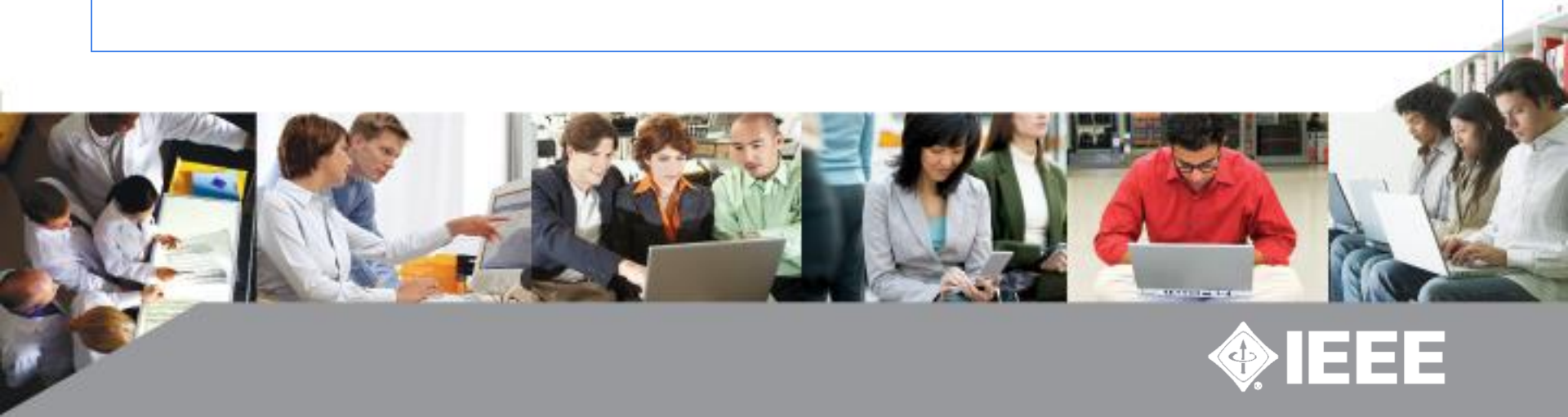
--- Over 162 in operation with more than 27,000 users; Communities/Forums include IEEE EMC-PSTC, PES Surge Protective Devices, Embedded System, PCIC, Product Safety, Ethernet Passive Optical Networks Employment & Career Strategies



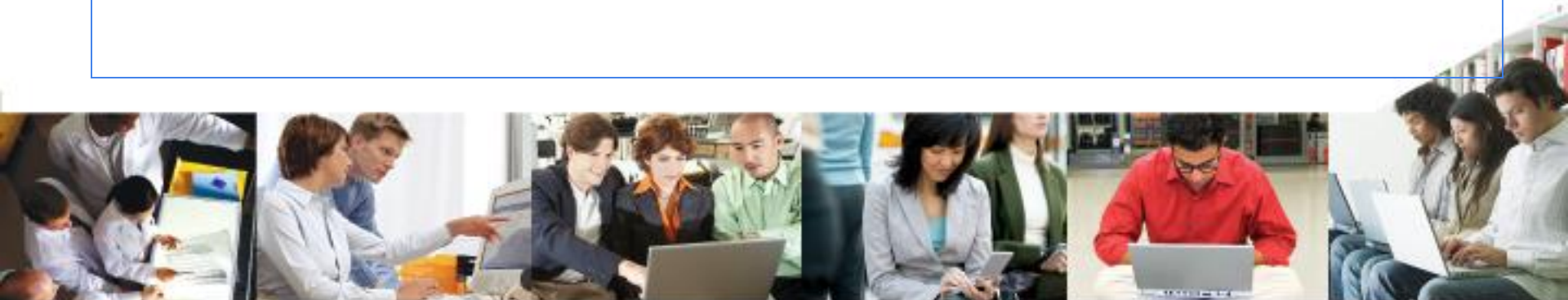
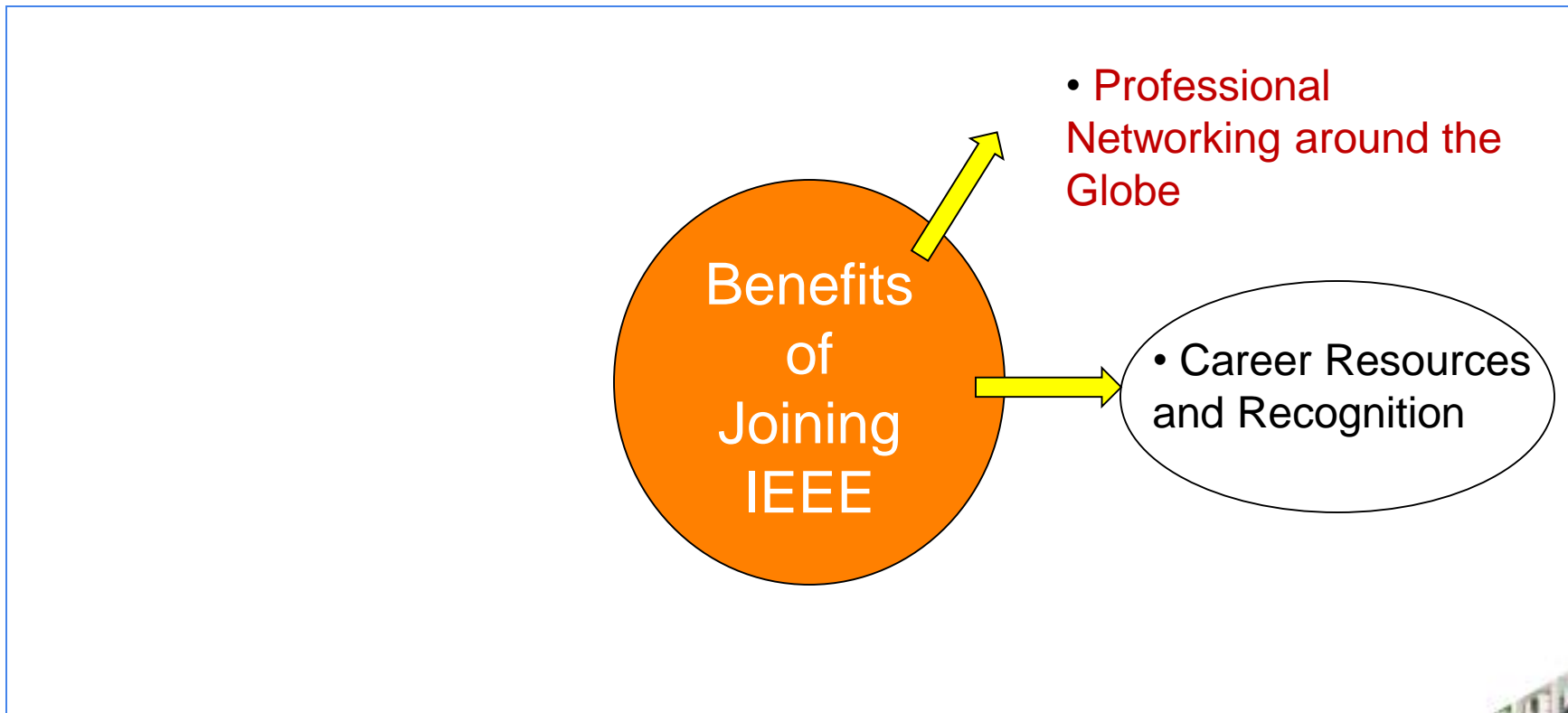
Professional Networking around the Globe

❖ GoogleApps@IEEE

--- robust messaging capability with access to e-mail, calendar, contact services, Google Drive, Google+, and Picasa



Benefits of joining IEEE



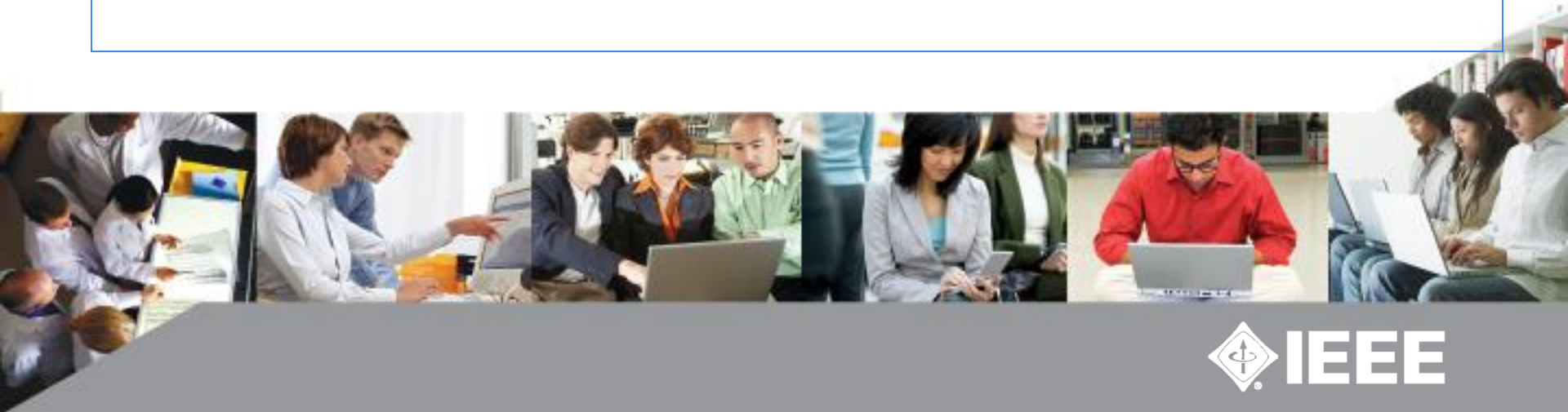
Career Resources and Recognition

❖ Since next phase of professional career is right around the corner for many of you, it is time to discover valuable resources



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- ❖ **IEEE eLearning Library (individual courses)**
 - Series of engaging and highly interactive online learning tutorials based on IEEE conferences around the world ;
 - Some recent topics are : VLSI Interconnect Issues, Analog Front ends, Reliability in VLSI Circuit functionality etc



Career Resources and Recognition

❖ IEEE Professional Certification

--- IEEE is an authorized provider of continuing education units through the **International Association of Continuing Education and Training**;

--- It helps its members meet their continuing education requirements for **career development**, and develops products and services in support of these efforts;

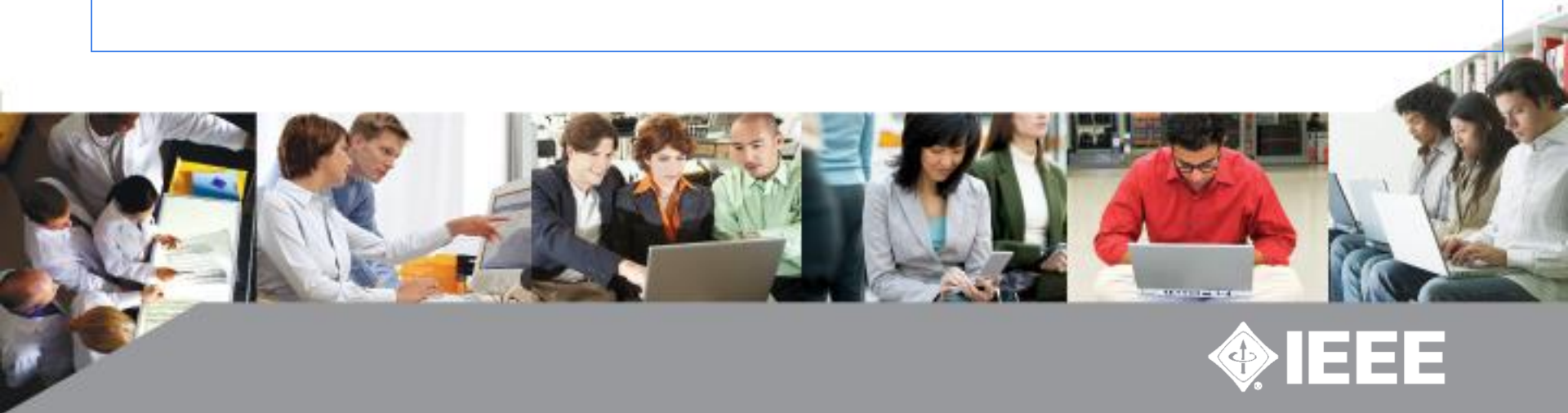
--- It also awards continuing education units and **professional development hours**



Career Resources and Recognition

❖ Credentialing and Certification

- IEEE Computer Society Certified Software Developer Program(CSDx)
- **Wireless Communications Engineering Technology Certification Program**
- Other certification opportunities in the areas of systems, biometrics, electronic design automation, innovation and power etc



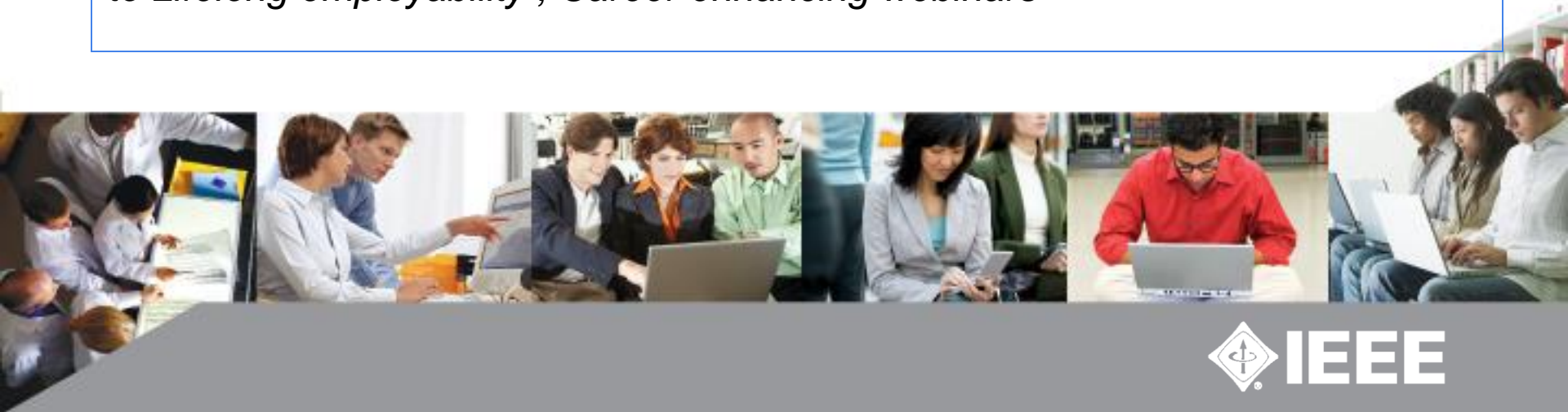
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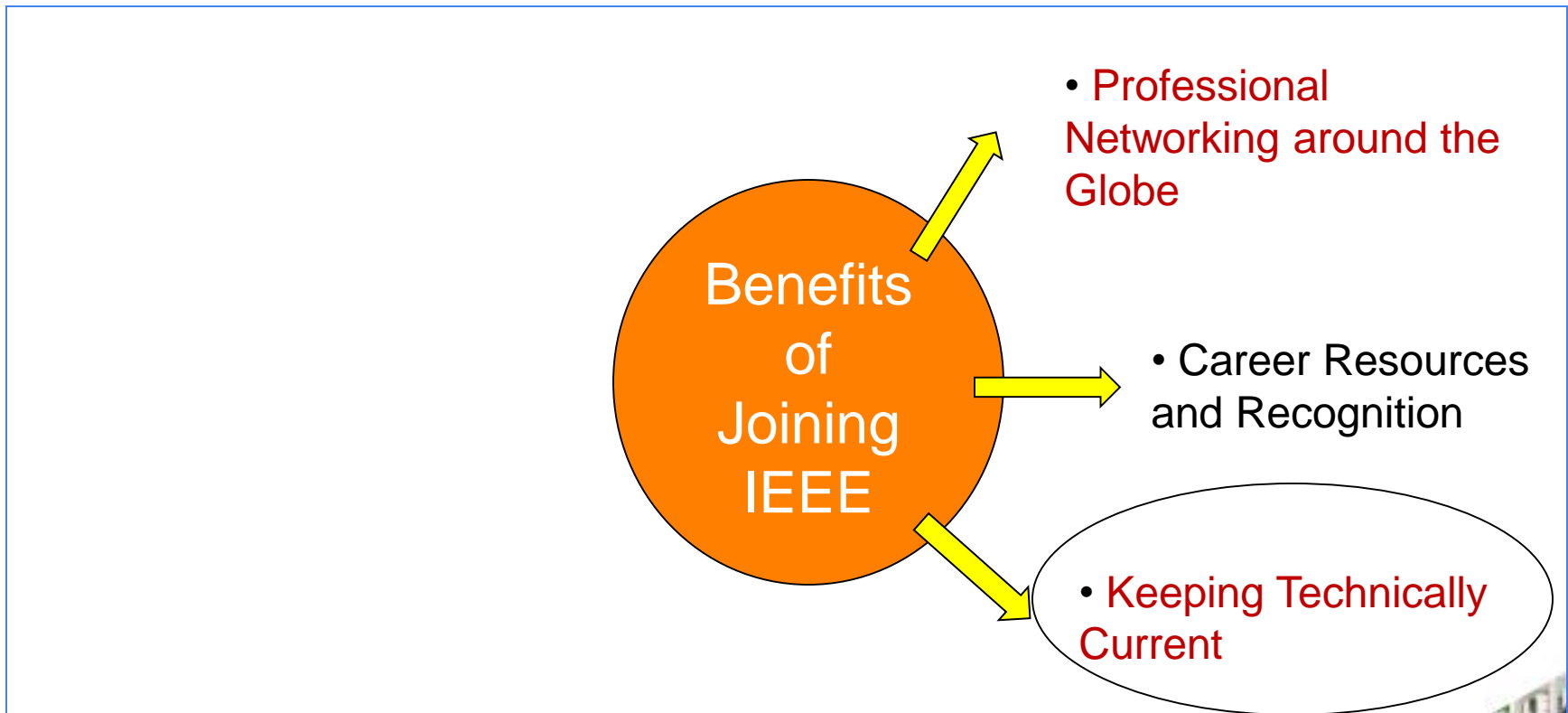
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❖ Finding employment

- IEEE can help find employment and career strategies, including education, networking, and job resources
- Some of the professional Development/ Career Resources are
- *IEEE-USA Today's Engineer – ezine; IEEE job site; The Engineers guide to Lifelong employability ; Career enhancing webinars*



Benefits of joining IEEE



Keeping technically current

- In today's changing technological environment, it is essential to keep abreast of new and changing technologies
- IEEE publishes **nearly a third of the world's technical literature** in electrical engineering, computer science and electronics
- ❖ IEEE Produces
 - 144 magazines, journals and transactions
 - 17of the 20 top-cited publications in electrical and electronics engineering



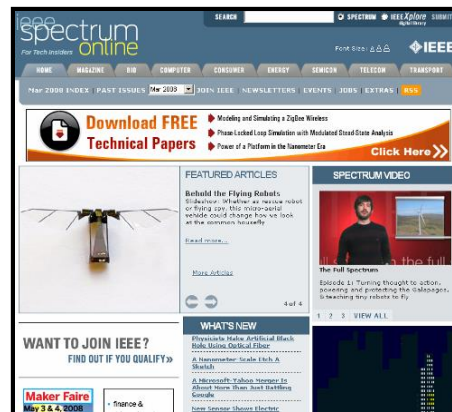
Keeping technically current

- IEEE Produces
 - Full-text access to over 100,000 Papers from more than 850 IEEE-related conference proceedings annually
 - More than 1,750,000 documents delivered online through IEEE Xplore® digital library
 - Average IEEE Xplore use is over 8 million downloads a month



Keeping technically current

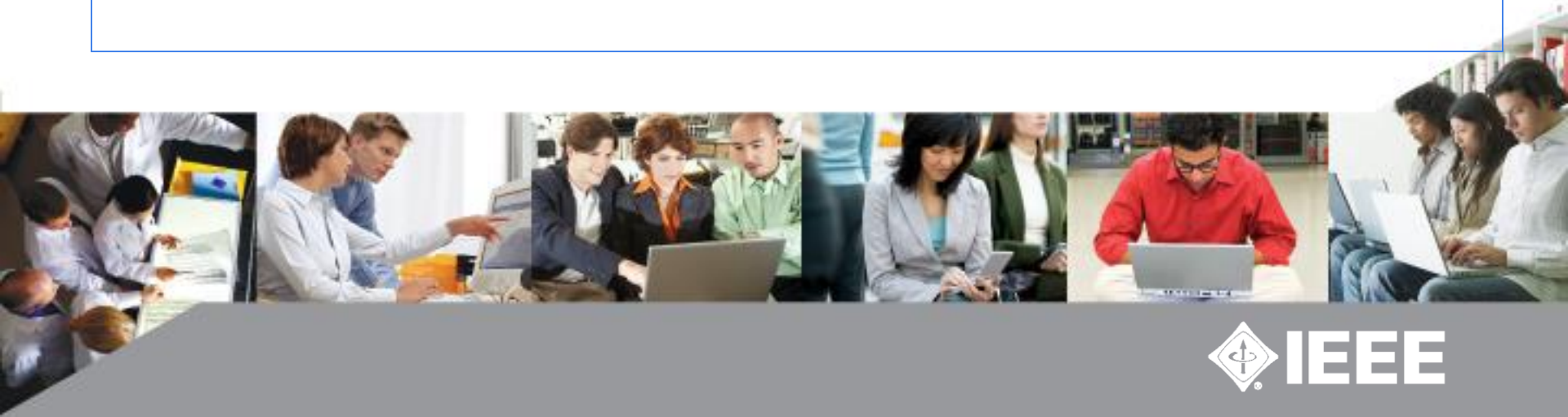
- IEEE Spectrum
 - IEEE SPECTRUM Magazine in print and online is the #1 benefit of membership
- Online Features:
 - Spectrum Radio
 - Webcasts
 - RSS Feeds
 - Blogs



Keeping technically current

❖ IEEE Press E-Books Classics

--- 200+ digitized books downloadable from IEEE Xplore, with 40-50 new e-books added annually



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❖ IEEE.tv 2.0

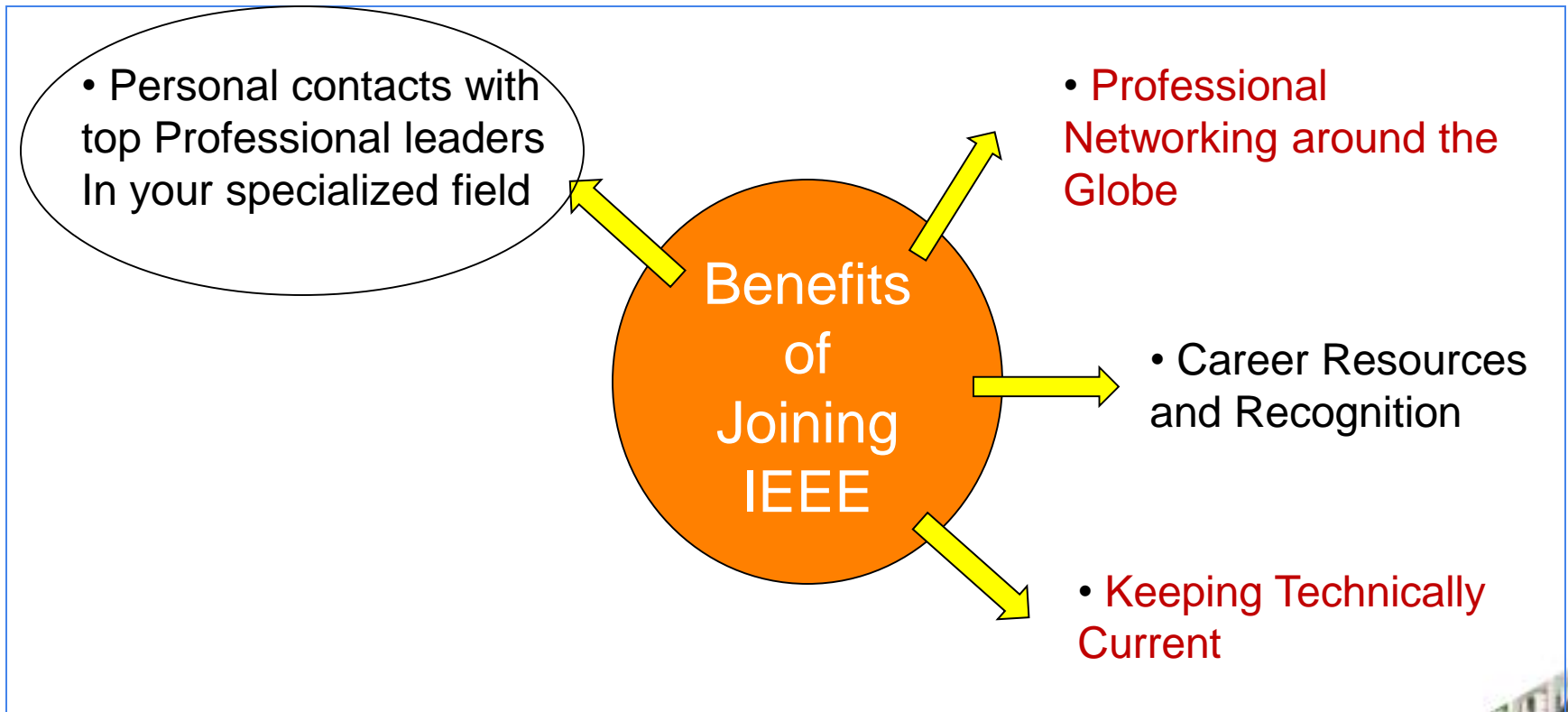
--- IEEE's Internet television network, exclusive Member programming, downloading privileges, and transcripts

❖ IEEE Potentials Magazine

--- is dedicated to serving the needs of UG & PG students; Article subjects are on technical and career-related issues;

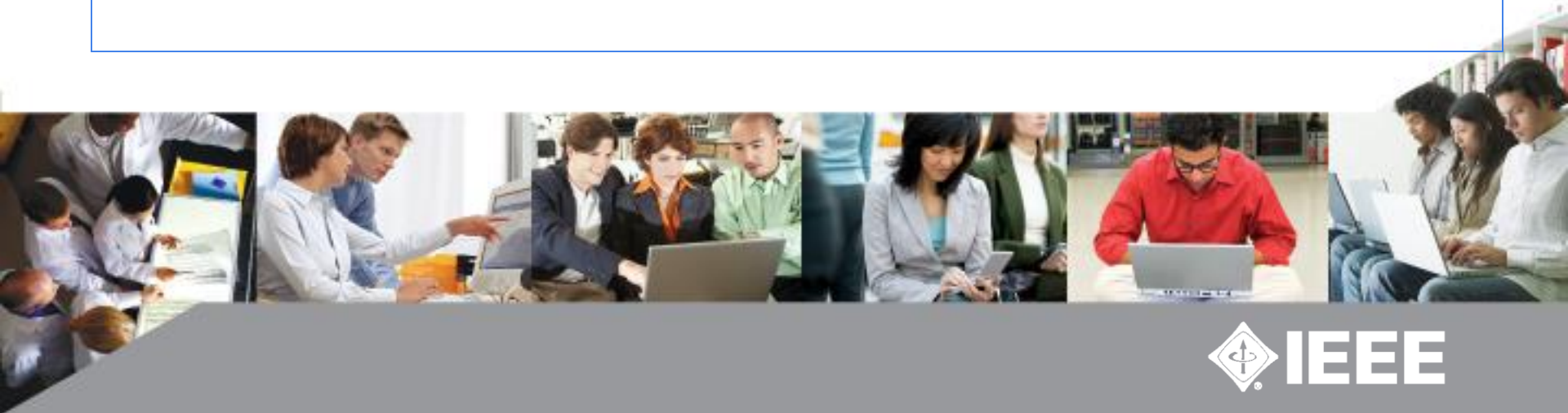


Benefits of joining IEEE



Personal contacts with professionals

- ❖ Each year, over 100,000 technical professionals attend the more than 1,300 conferences sponsored or co-sponsored by the IEEE all over the globe, providing opportunity to have first hand interaction with top professionals in your area of specialization
- ❖ This provides ample opportunity for interaction with top-level scientists and specialists in the discipline of your interest



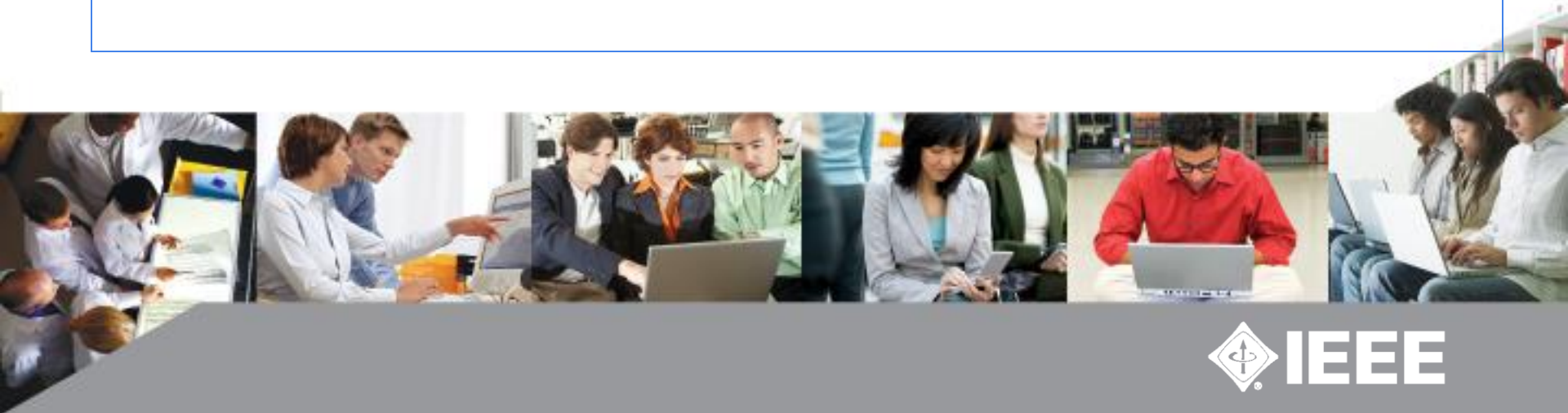
Personal contacts with professionals

❖ IEEE Conference width and Quality

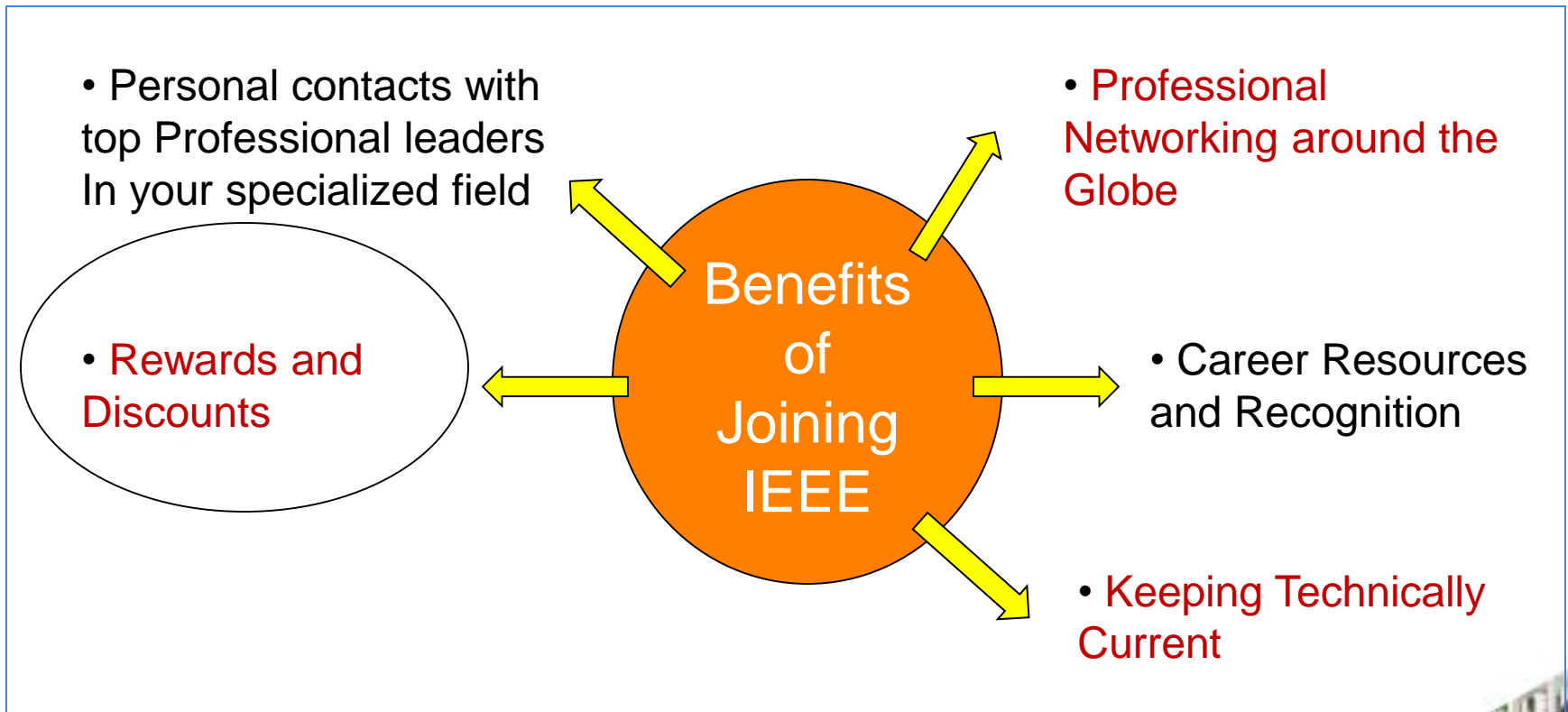
--- Conference papers are authored by innovators of today's top emerging technologies and cover relevant topics that showcase the **depth and breadth** of members' technical fields--from microelectronics to microwaves, from sensors to security, from grid computing to wireless communications

--- Most IEEE conferences follow a paper selection process and many have peer-review procedures to **maintain quality of content**;

--- Cutting-edge conference publications of IEEE in various technology areas have **great acceptability and recognition** by academia and industry worldwide



Benefits of joining IEEE

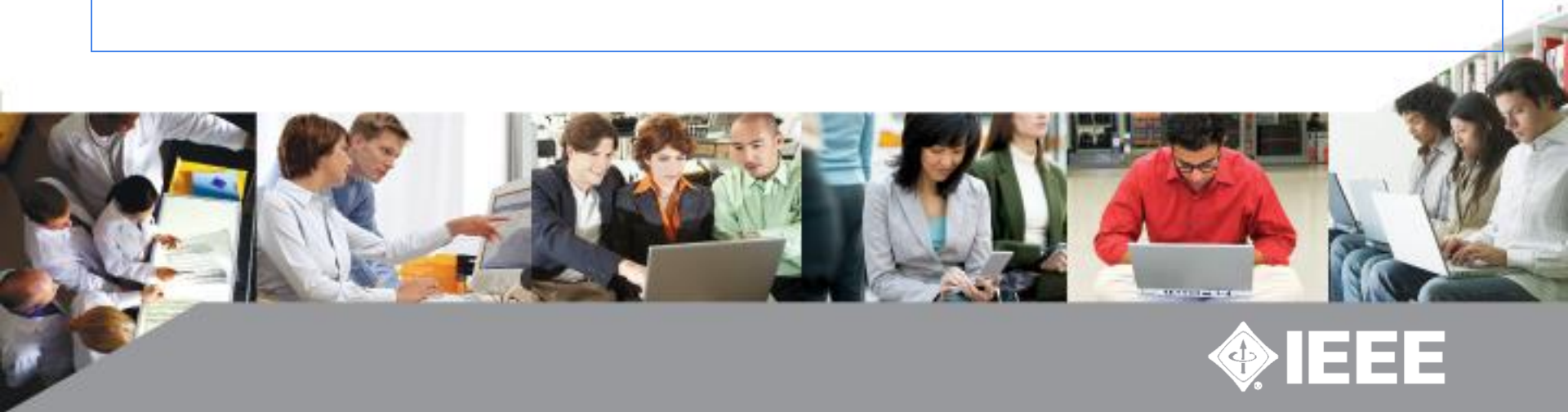


Discounts and Rewards

- Membership paying for itself
 - As much as 50% off IEEE products
 - Registration discounts on 350+ conferences annually
- Additional Benefits (add-ons)... the power of volume
 - Financial Services
 - Insurance Services
 - Home & Office Services
 - Travel Services

CASE STUDY
Meet: Macey, a Software Developer

2005 Purchases	Non-Member Rate	Member Rate	Savings
Purchased IEEE Standard for Software Verification and Validation	\$105.00	\$65.00	= \$20.00
Purchased conference proceedings for 2005 Workshop on Information Assurance & Security	\$218.00	\$109.00	= \$109.00
Total IEEE Member Savings			= \$129.00

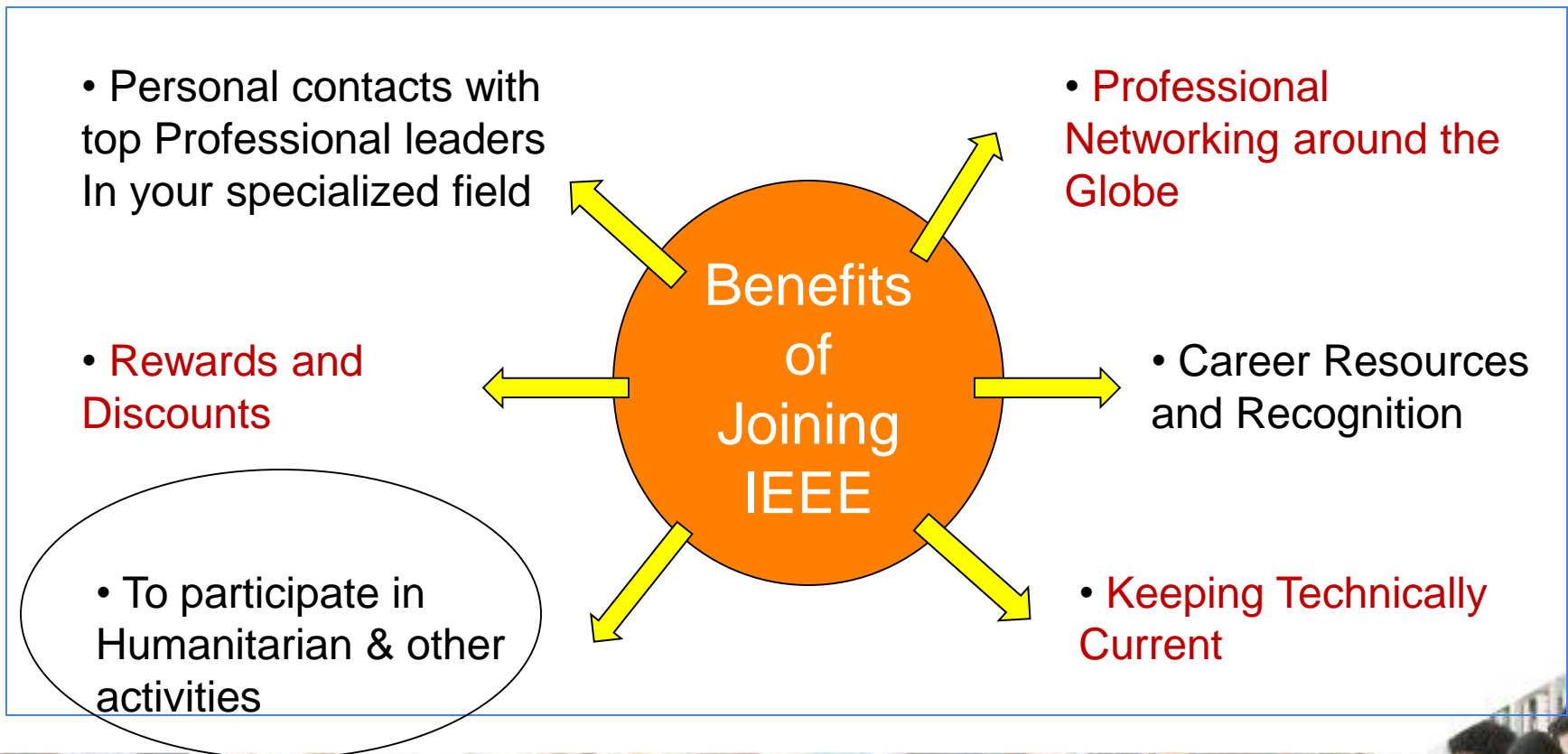


Discounts and Rewards

- Continuing Education Partners Program
 - Up to a 10% discount on online degree programs
- Awards & Scholarships
 - Recognizes the accomplishments of IEEE members
 - Enhance your resume with an IEEE scholarship
- IEEE Student Grants
 - offer a number of Student Travel Grants to assist Student Members in attending conferences and presenting papers
 - IEEE PES Student Program Fund, Ganesh N. Ramaswamy Memorial Student Grant, William R. Mann Memorial Student Travel Grant, RajMitra Travel Grant, IEEE Magnetic Society Student Travel Award



Benefits of joining IEEE



To participate in Humanitarian & other activities

- IEEE also works on Humanitarian Activities towards improving the quality of life for underserved populations



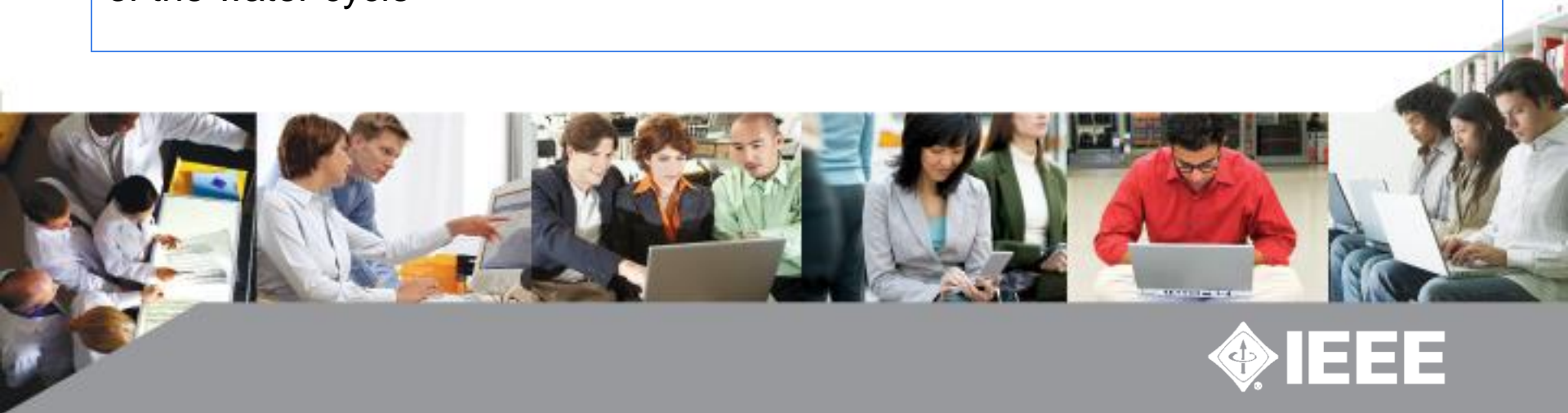
To participate in Humanitarian & other activities

- IEEE also works on Humanitarian Activities towards improving the quality of life for underserved populations
- Engineering Projects in Community Service (EPICS)
 - Organizes university and high-school students to work on engineering-related projects for local area non-profit organizations
- Construction of a simple scrap wind-generator and solar-power hybrid system



To participate in Humanitarian & other activities

- Areas of Interest -- SIGHT
(Special Interest Group on Humanitarian Technology)
 - Disasters: Reducing loss of life and property from natural and human-induced disasters
 - Health: Understanding environmental factors affecting human health and well-being
 - Energy: Improving management of energy resources
 - Climate: Understanding, assessing, predicting, mitigating, and adapting to climate variability and change
 - Water: Improving water resource management through better understanding of the water cycle



To participate in Humanitarian & other activities

- Areas of Interest -- SIGHT
(Special Interest Group on Humanitarian Technology)

- Weather: Improving weather information, forecasting and warning

- Ecosystems: Improving the management and protection of terrestrial, coastal and marine resources

- Agriculture: Supporting sustainable agriculture and combating desertification

- Biodiversity: Understanding, monitoring and conserving biodiversity



Six reasons to join IEEE

▪ Six reasons why a practicing professional has to join IEEE can be

--- It helps to be a part of Professional Networking

--- To update yourself technically

--- To be among Professional leaders

--- To get rewards and discounts

--- To enhance your career

--- To participate in Humanitarian & other activities

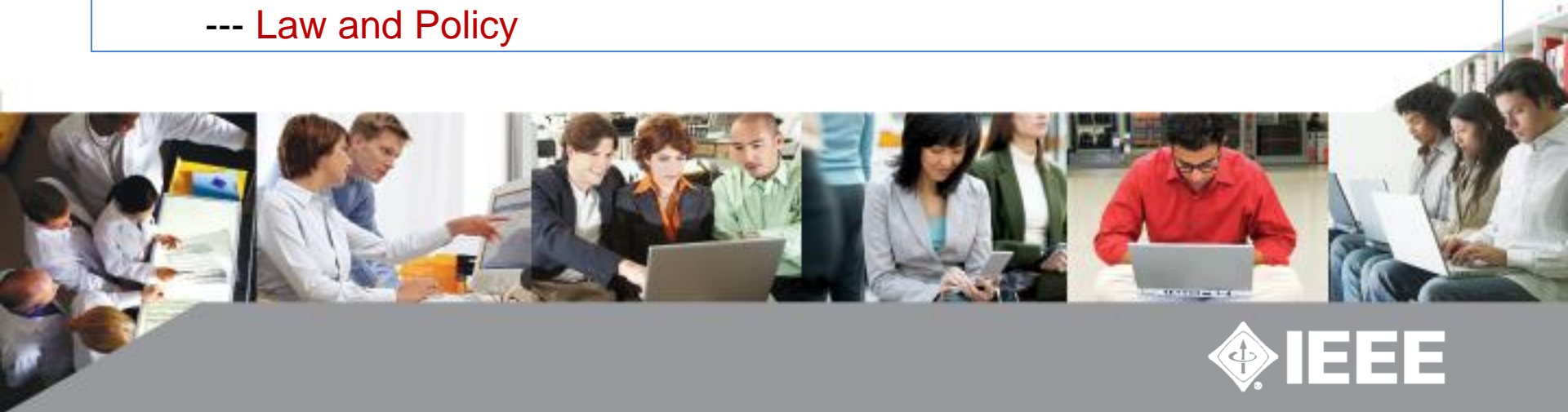


Joining IEEE



Qualifications to join IEEE

- Membership in IEEE is open to individuals who **by education or experience give evidence of competence** in an IEEE designated field
 - Engineering
 - Computer Sciences and Information Technology
 - Physical Sciences
 - Biological and Medical Sciences
 - Mathematics
 - Technical Communications
 - Education
 - Management
 - Law and Policy



IEEE membership Grades

- IEEE offers the following grades of membership
 - Member / **Senior member**/ Fellow (Professional members)
 - **Student** / Graduate Student / **Associate** (**Student members**)
- Special categories
 - **Life member**
 - Young Professional
 - **Society Affiliate**



IEEE Member Grade

- Member grade eligibility
 - An individual who has received a three- to five-year university-level or higher degree from an accredited institution or program and in **an IEEE-designated field**



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 - An individual who, through **at least six years of professional work experience**, has demonstrated competence in teaching, creating, developing, practicing, or managing within IEEE-designated fields



IEEE Senior Member / Fellow Member grade

Member

- Professional Maturity & Experience
- **Elevation through Application**

Senior Member

- For recognizing great distinction in the profession for extraordinary record of accomplishments
- **Conferred only by invitation**

Fellow Member



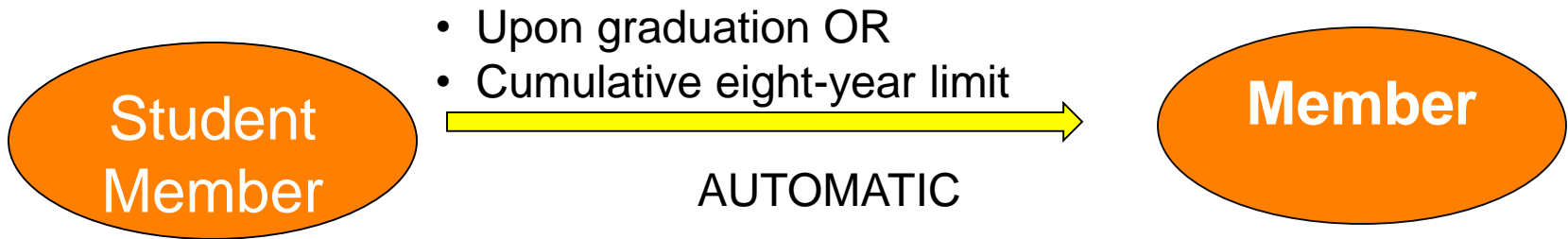
IEEE Student Member Grade

- Student grade eligibility
 - A Student member must carry **at least 50% of a normal full-time academic program as a registered student** in a regular course of study in IEEE-designated fields(Total cumulative limit < 8 years)



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Other IEEE membership grades

- **Associate member**
 - Associate member grade is designed for **technical and non-technical individuals who do not meet the qualifications for member grade** but who wish to benefit from membership and partnership in IEEE
- **Life Member**
 - Age > 65 years and { Age + Years of IEEE membership >100 years}
- **Young Professional**
 - **Post-Student members** who are within **15 years of receiving their first professional degree**



Opinion

MeghaBasu, Graduate Student Member,
Cornell University.



“ The two important factors of being an engineer are staying up with cutting-edge technologies and networking. What I think IEEE provides is the best combination of both worlds.”

MY LAST WORD

**IT IS TIME TO BE PART OF
THE WORLD'S
LARGEST PROFESSIONAL SOCIETY**



Best of Luck & Thanks



Prof GS Mani

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