# RegiOne



# Newsletter of Region 1 July 2017



Executive Committee of IEEE Region 1, 2016-2017: L to R:

Bala Prasanna, William Carakatsane, Charles Rubenstein, Dan Sniezek, Babak Beheshti, Harold Belson, Ron Tabroff, Soon Wan, Art Winston, Vince Socci, Fred Mintzer, Jonah Cuker, Babak Izadi (Photo: Courtesy: Bala Prasanna) Editor: Amitava Dutta-Roy

# Principal officers of IEEE Region 1 in 2016-2017

**Director: Ron Tabroff** 

**Secretary: William Carakatsane** 

Treasurer: Bala Prasanna

Immediate past director: Vincent Socci (2014-2015)

Director elect (2018-2019): Babak Beheshti

# Our life is Frittered away by detail. Simplify, simplify -

Senry David Thoreau (1817 - 1862 Concord, Myass)

#### In the following pages you will find:

A few words from your editor p. 4 Presentation by Jim Jefferies p. 5

### **Election Messages from candidates**

Josef F Moura p. 6

Vincenzo Piuri p. 7

Jacek M Zurada p. 8

Thomas Coughlin p. 9

Guru Madhavan p. 9

Ali Abedi p. 10

Eduardo Palacio p. 11

Membership Development p. 12

Cyber Security p. 13

Region 1 Students' Conference p. 15

Region 1 Recommendations for the Sections Congress p. 15

MakerFaire 2017, NYC p. 16

# THE BOARD OF GOVERNORS OF REGION 1 MEETS AT NASHUA, NH

The BoG of Region 1 held its annual meeting on Saturday, 10 June, 2017 at Radisson Hotel in Nashua, NH. Most of the delegates and their spouses or companions arrived on Friday so that the business meeting could start as early as 8 o'clock on Saturday evening and they were greeted with a warm welcome! A sumptuous dinner also awaited the guests. (But due to 5 incredible accidents along our way- Route 87- to Nashua my wife Maria and I were running late. (I then wisely called the front desk of the hotel us ahead of time and informed that we couldn't be there by 9 pm, the stipulated end of the dinner.) And you know what? Sandy Tabroff checked all messages and guests, and was kind enough to save some food for us. Thank you, Sandy, the first lady of Region 1 for being so attentive to our pent-up hunger for food after such a long drive. What would we do otherwise?). When we arrived at the hotel the executive committee (see the cover picture) was already in session. However, we, the commoners got our room and the food!

After a great breakfast on Saturday the business meeting, open to all members of the BoG, started in earnest. It opened with a welcome by Ron Tabroff, the director. After Tabroff's remarks the chairs of various committees were called upon to

present their reports. There brief Q&A interludes after each report.

Tabroff, the Region 1 director then called upon Jim Jefferies (president-elect in 1918) for his view on the future of IEEE. Tabroff also called the candidates for the annual election of IEEE: three of them vying for the presidency (2019); two are offering their services as the next president of the IEEE-USA; and still two more are up for election for the position of the director of Region 1, to present their election manifestos. RegiOne requested each one of them for a message to our members so that they can decide whom to vote for. We are pleased to thank the seven candidates for taking time to convey their missives. Below we reproduce those messages, totally unedited. Please note that the order of the messages follow of that which appears on the IEEE Web site.

Amirat was the keynote speaker at the meeting. He gave a most informative talk on security and networking. His presentation is reproduced in this edition of the RegiOne.

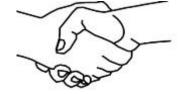
As usual the Region 1 have sent its members' suggestions to the Sections Congress (Sydney, Australia, ). We have posted those suggestions below.

**Exercise your right to vote in the IEEE Election** 

Last day for accepting your ballot: 2 October, 2017

**IEEE Election Home Page** 

Click on above for more information



# Jim Jefferies' vision of IEEE

**Jim Jefferies** is the president-elect for 2018.

He will be the president and the CEO of the entire IEEE operations for one year starting 1 January. It is therefore was most fitting that he spoke about his vision of the immediate future of IEEE. You can



watch the Jefferies presentation complete with sound, thanks to Greg Gdowski, Webmaster and Information Management Coordinator of Region

1. Please note that Jefferies was earlier the

President of IEEE-USA (2015).

#### ANNOUNCEMENTS, R1BOG2017

# JAMES A. JEFFERIES PRESENTATION REGION 1 IEEE BOARD OF GOVERNORS MEETING JUNE 10, 2017



Click here to access the presentation

## Messages from the candidates for the position of JEEE president

# Jose F Moura Professor at Carnegie Mellon University, Pittsburgh, PA

(Nominated by petition)

I am a petition candidate for 2018 IEEE President Elect. My petition was successful because of the tremendous support I received from IEEE members all over the world. I have two main priorities that I would like to pursue as IEEE President:

1) dramatically increase membership, say, double or triple our current membership, reversing the slow decreasing trend of the last few years; and 2) manage efficiently IEEE finances

to root out waste, get rid of a persistent multimillion dollar deficit in our annual operations budget, and focus our resources on creating the best value for our members and communities. Why is membership my first priority? If we understand how to retain and grow significantly our membership, we will have mastered the value proposition for each of our many and diverse groups and communities; we will have returned IEEE to its roots of members first, correcting a corporate outlook that looks at IEEE as a company and business. Setting a lofty goal on membership, will force us to leverage technology to provide young professionals with networking opportunities, mentoring by seasoned professionals, leadership skills, access to the latest technologies; it will compel IEEE to recognize the diversity of our technical community in all aspects from gender to regions, from academy to industry, from researchers to

backbench engineers, and that the interests and needs of

the world.

members are very different in different parts and countries of

IEEE is facing tremendous challenges; just 3 examples. With others, in the last few years, we championed transparency at all IEEE levels, namely: 1) Financial transparency, to understand where every dollar that comes in is spent—spent in the best interests of all members, to appreciate the impact of investments, costs, and overruns, so we run a deficit free efficient organization; 2) Governance

transparency, promoting broad discussion of important issues to guarantee an informed membership and that diverse perspectives are heard and considered by IEEE decision makers, so that volunteers have an active voice building an IEEE that is member driven and member relevant, rather than risking to become a corporate like organization; and 3) Member relevancy, a laser focus on member value so that IEEE offers significant value to each and all diverse segments of our membership, from Young

to Senior Professionals at the different stages of their careers, coming from all 10 Regions of the world and from our 46 technical Societies and Councils.

I want to reaffirm IEEE as a member based organization, built by and for volunteers. I ask you to support my candidacy to 2018 IEEE President Elect by spreading the word to other IEEE voting members (graduate student level and above) and by voting for me when time comes.

For more information on Prof Moura please see

www.ece.cmu.edu/~moura



# Vincenzo Piuri Professor at University of Milan, Italy

### (Nominated by the IEEE Board of Directors)

IEEE is the leading association in science, technology, and innovation in our field, thanks to the extraordinary competences, efforts, and dedication of the many outstanding volunteers and staff. To continue to be the premiere reference in the world, we should timely identify and address all needs of our scientific and professional community, supporting scientific, technologic, industrial, economic, and social development for the benefit of humanity.

To this purpose, we should understand the needs and the aspirations of each individual in our community and provide a personalized experience across the entire IEEE by adopting a human-centric approach, with selected services and products in the various stages of her professional career. These increased value and relevance will also contribute to attract and retain members and volunteers ensuring that IEEE will continue to flourish.

In this direction, I envision several opportunities for strategic actions:

- Expand activities, events, services, material, and products on emerging technologies and interdisciplinary areas as well as emerging needs for technologies, standards, and applications to support technological development and innovation in research and industry, while continuing to produce high-quality knowledge and enhance curation and modern delivery mechanisms facilitating the access to knowledge.
- Increase continuing education programs and centralize the access to materials available in the various IEEE groups, to support the transition from student to professional, the evolving career of young professionals, entrepreneurship, and people changing jobs as well as the industry needs for tailored corporate-wide approaches.
- Create practical knowledge for professionals to solve real-world problems and use standards, including guidelines, methodologies, best practices, and successful cases showing how to translate effectively the

- knowledge learnt in university courses into working solutions and be more effective in the industry.
- Develop services for sharing knowledge through data, algorithms, and experimental results, with data mining and data analytics, by fostering innovation in the industry, and by supporting educational activities with advanced educational materials.
- Enhance people networking with specialized forums and events to foster dissemination of knowledge and best practices, mentoring on technology and career development, supporting inclusivity, and providing competence directories and repositories.
  - Introduce a recommendation system to promote awareness about and facilitate the selection of knowledge, events, activities, products, and services available in IEEE, by tailoring the search on the profile of each individual and proactively suggesting opportunities.
  - Personalize membership, with affordable membership fees, tangible benefits, tailored bundles of services and products, participation in technical communities, joint memberships, rewarding mechanisms, sustainable payment methods, and multitier membership models.
- Promote inclusivity and diversity and make this approach more visible and pervasive, by focusing especially on local communities, underserved groups and areas, young professionals, women, young generations, so as to tailor activities, events, products, and services to their specific needs.
- Enhance the support to public services, public policy, and humanitarian activities to reinforce the visibility, standing, and appreciation of IEEE worldwide.
- Increase cooperation among groups in IEEE and with other international and national associations with a holistic approach, exploiting synergies and focusing on the needs of the community.

In summary, we should nurture each individual in the scientific and professional community, making IEEE her real scientific and professional home. We need:

 to continue to be the trusted source for high-quality, innovative, and timely knowledge for scientists and professionals,

- to empower and engage the IEEE members and the whole scientific and professional community,
- to promote inclusivity, diversity, diverse thinking, and active participation.

We should strive for innovation in IEEE activities, events, services, and products. We should promote cooperation, transparency, trust, and overall financial sustainability. We should understand and serve our community, both globally and locally, with a holistic view for One IEEE, recognizing diversity as a fundamental richness for synergic cooperation, and in which everybody feels proud to be. An IEEE by people for people.

If we will properly do so, people will appreciate and value IEEE, perceive relevant to have an active role in it, and consequently – be happy and proud to become or remain a member and contribute to fostering the advancement of technology for benefit of humanity.

For more information on Prof. Piuri please visit http://vincenzopiuri.org/home



(Nominated by the IEEE Board of Directors)

I will focus on several aspects of the future IEEE, namely its Intellectual Property (IP), and its engagement with technology workforce. It seems reasonable to set the prediction horizon for 2037, 20 years from now. Looking at the recent history of The Institute and taking a snapshot of the Institute of 1997 can be very helpful with predicting.

20 years ago we began electronic publications (under so called OPERA project) and initiated electronic submissions to IEEE journals and conferences. I had a pleasure to serve as an Editor-in-Chief of one of our flagship IEEE Transactions at that time and be a part of this important transition. Today, we are in the interim phase. Although submissions are all in eformat, our products are a mix of paper and epapers, but are read mostly in e-format. 20 years from now IEEE IP will go entirely paperless. So, books, journals will be all e-books and e-journals.

Further, since electronic dissemination is inexpensive and mature, 20 years from now we will be swamped with the digital information. It will be increasingly difficult to keep up with the increasing volume. It will also be difficult to find quality technical information that is relevant for us, engineers and academics. So, we will have to improve access to the IP and convert the information to knowledge.

IEEE IP of over 4M papers today will be increased to 15M as we will be adding about 1M papers per 2 years. To make such enormous mass of papers useful, they will be combined with intelligent analytics tools. We will have new sets of tools that will replace classic searches of today based on simple metadata such as keywords, names, titles and alike. The tools will analyze the content in order to deliver personalized answers to the technologists and researchers. This process will provide our members and customers with knowledge rather than traditional information that we retrieve today in the form of papers.

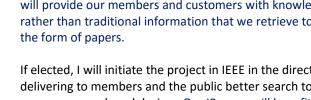
If elected, I will initiate the project in IEEE in the direction of delivering to members and the public better search tools for

> research and design. Our IP users will benefit from tools that help answer individual questions, find design or locate algorithms. While this goal is somewhat distant, it's important to realize that five years ago we could not make inquiries with a smartphone and get instant answers, as we do today.

> As the workforce in 20 years will be more global, decentralized and mobile, we will need to make our products, services, and educational offerings more relevant to the new jobs and career aspirations. If elected, I will concentrate on providing our members

with technical information through topically organized industry resource centers that will help practitioners locate and leverage quality technical information quickly. The centers will also offer career resources and will allow members to continue their education.

In conclusion, while we will see many changes in the future, IEEE's lead in technology and the dedication of its volunteers who serve the profession in advancing the technology will remain a cornerstone and will be the driving forces behind the progress. Thanks for offering me your column and connecting with R1 members and I look forward to being your IEEE 2019 President. (See http://www.jacekzurada.org/)



## Messages from the candidates for the position of JEEE-ZISA president

# Thomas Coughlin, President Coughlin Associates, Atascadero, CA

(Nominated by IEEE-USA)

(At the request and permission of the candidate we post the following position statement- Editor)

#### **POSITION STATEMENT**

If elected as IEEE USA President I will work with the IEEE USA regions to increase the value of IEEE membership and furthering our motto of advancing technology for humanity. Here are some initiatives that I will support as IEEE USA President:

- Make sure that IEEE and IEEE member interests are represented to the US government
- Increase IEEE membership in the USA by engaging our members and providing value to them
- Promote corporate membership programs that increase overall IEEE membership and engage industry with the IEEE
- 4. Support inter-regional meetings to replace IEEE USA meeting

- 5. Support regional and IEEE USA meetings to engage students and YPs
- Promote recording and creating greater value around IEEE local section meetings
- 7. Support the engagement and mutual activities with multiple IEEE organizational units to increase overall IEEE effectiveness
- 8. Increase sponsorship and partnerships for IEEE USA activities to increase our effectiveness
- 9. As president elect, to support the IEEE USA president in any way I can
- 10. Make IEEE fun!

For more information on Thomas Coughlin please see https://tomcoughlin.com/ieee/- Editor

#### Guru Madhavan

Senior Program Officer, National Academies of Sciences, Engineering, and Medicine, Washington, DC

#### (Nominated by IEEE-USA)

#### A Modern Foundation for IEEE-USA

A century ago, big cities in the United States were confronting a challenge. It was fueled by a (literal) collision of two systems: motor cars (then a new technology gaining public acceptance) and horse carriages (a traditional business practice struggling to adapt). If horses had a choice, as a saying goes, they wouldn't have voted for automobiles.



This metaphor has direct relevance to IEEE-USA. The organization must adapt to better meet the needs of the membership and expand its influence. In this platform economy, our sources of information are exploding and the nature of our work is evolving. The key players in this reality—Gen X and the millennials—are the most diverse generations the world has ever seen, and we are not effectively engaging them. To overcome such

hurdles and strengthen our organization and profession,

IEEE-USA needs a new mindset, broad vision, and fresh leadership.

IEEE-USA's goal must be to create a modern institute that is relevant, effective, and visible. This goal has three elements: Producing rigorously high quality, premium programs for member engagement and experience; being robust and nimble in public policy matters; and elevating the public consciousness of engineering. Our members routinely note these as priorities, and they are also the core elements of my vision and strategy. We need to develop new partnerships to drive our public agenda and uniquely distinguish IEEE-USA in a vigorous marketplace of ideas and talents. This is important to gain participants from beyond our fields of interest.

Change is one of the most difficult things for people to imagine and implement even though it remains an ever popular topic in books, politics, business, and society. Responsiveness and adaptation are propagated as vital ingredients for survival. IEEE-USA and IEEE at large help unify our interests, values, and talents to serve humanity. If we as engineers and members do not work toward designing a better IEEE-USA, our relevance will fade. Or worse, we might just be trying to run the latest software using obsolete hardware—much like perhaps using horses to drag cars instead of carriages. (For more information on the candidate please visit www.ieeeguru.com - Editor)



# Messages from the candidates for the position of Region 1 director

#### Ali Abedi

Professor of Electrical and Computer Engineering and Director of Center for Undergraduate Research at the office of VP Research, University of Maine, Orono

(Nominated by IEEE Region 1)

#### Statement

Working at both academic and industry settings prepared me for a balanced contribution to IEEE. Member retention is my high priority, which can be achieved by delivering new benefits in innovative ways such as: hybrid online and physical lectures; moderated panels and tutorials on hot technical topics; and job creation and networking opportunities to provide direct value to our members. I will focus on members' and volunteers' needs equally and rethink the way local chapters used to provide value. Modern communication technologies can facilitate chapters' collaborations

to provide enhanced value for members. I served IEEE in different capacities in both technical and regional levels, and the industry as principal

investigator on several funded research projects and member of Board of Directors. These experiences are used to efficiently manage the IEEE budget to the advantage of members. High quality theoretical and applied publications need to be equally emphasized to support industry and

academia according to IEEE Strategic Plan by promoting continuing educational activities, student activities, and public awareness.

## Eduardo Palacio Founding Partner, P&L Technical Management Solutions. Stonybrook, NY

(Nominated by IEEE Region 1)

## **Statement**

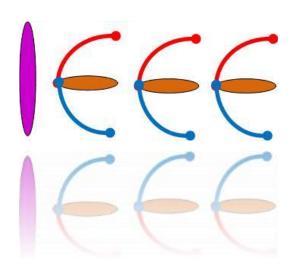
A Regional Director's role is twofold, with two very distinct responsibilities. On the one hand the Director's job is to lead, train, initiate, and shepherd the activities and the leadership of



his/her Region and Local entities towards providing the member with a satisfying experience and a perception that true value is being provided for their annual fee. Our membership is quite varied and our diversity is our strength. Besides all the societal diversity that you would expect to find in the Northeast United States, we

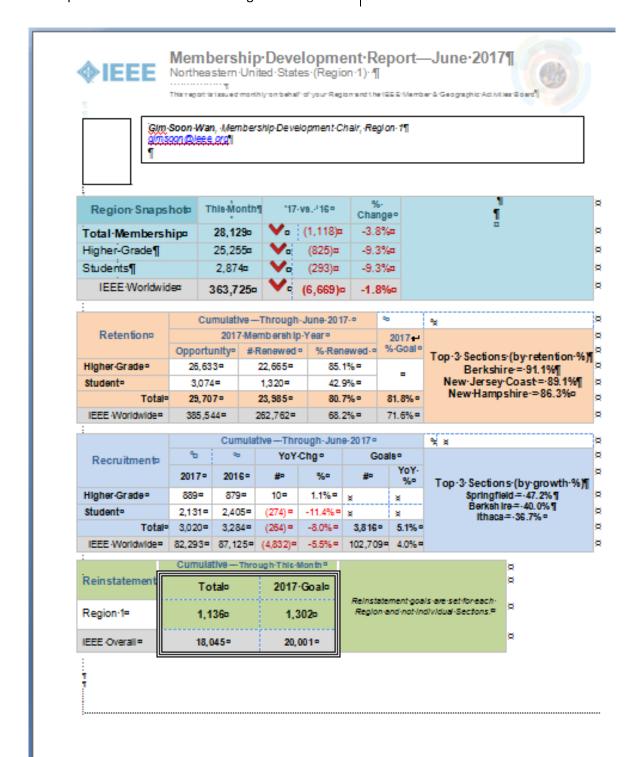
are have diversity in professional focus, in the economic and technical situation of our local area,

and in individual professional life stages, that dictate that we must understand our memberships wants, desires and needs to be able to properly address their value proposition. The Regional Director, therefore, must be an enabler and must have a local focus. On the other hand, the Regional Director, by the very nature that he/she sits in multiple Institute-wide governing boards, must also act as a steward of the IEEE, and in those instances, to act on the side of what is best for the IEEE as a whole. I believe that my industry experience as a Sr. executive, coupled with my broad view of the IEEE, through the many committee assignments and throughout all levels of the IEEE, give me the proper perspective to address both roles successfully. Additionally, the current state of my professional life finally allows me the time to serve this very demanding role. Lastly, if elected, it would be my honor and pleasure to serve.



## Status of the Region 1

Soon Wan is our chair of the Membership Development Committee. He gave a presentation on the status of membership in various Sections of the Region 1. Below we reproduce his most demonstrative slide (we apologize for its low resolution.



# **Cyber Security and IEEE**

IEEE has been taking adequate steps to maintain cyber security of its servers. This is important for us. Thousands of IEEE members use the servers for as their proxy for forwarding and receiving their e-mails. And this is certainly no small matter. The person in charge of the IEEE's cyber police is Dr. Cherif Amirat, currently our Chief Information Officer (CIO). Prior to joining IEEE, Dr. Amirat was a Senior Director of Business Technology at Pfizer Inc. with global responsibility for IT teams across the Emerging Markets where he directed digital marketing strategies and solutions. Cherif has also worked in finance, management consulting, and as a Member of Technical Staff at Bell Laboratories. Dr. Amirat is currently a part time lecturer at Rutgers University teaching

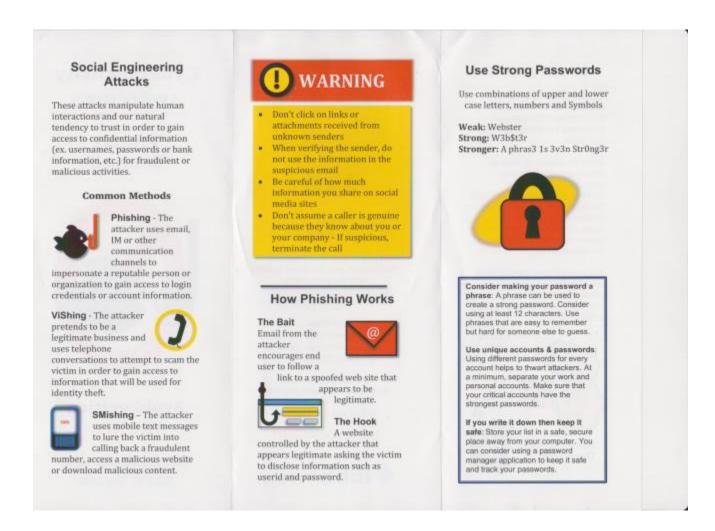
"Information Technology Strategy" course. Cherif holds a Masters and PhD in Electrical Engineering and Computer Science from Stevens Institute of Technology and an MBA from Wharton Business School, University of Pennsylvania. Cherif is an IEEE Senior member.

He reminds us how important cyber security is and how, as users of the Internet can prevent cyber disasters.

It is certainly worth the time you will spend watching Amirat's presentation at the Region 1 BoG meeting. Please click on the text: Cherif Amirat at Nashua, NH.

## Cyber security warnings from IEEE. Please read carefully





At the end of the meeting we were entertained with a sumptuous dinner hosted by Ron Tabroff, the R 1 director. He was generous enough to acknowledge the work put in by volunteers during 2016 and 2017. He also presented a jacket to each of the guests that will help in the cold though we may have forgotten what winter is like in this sweltering heat. Thank you Ron! Many photographs were taken, mostly by our membership development point man Soon Wan. He has

graciously given us his permission to publish his Dropbox address so that all of you can enjoy the photos. That brings us to the end of the report on 2017 R 1 BoG meeting. If you want to see the photos taken at the meeting and the dinner by visiting

https://www.dropbox.com/sh/tk84qtk5t3jrrpz/AAAN-GlapwrXNb8kdPicmqJka?dl=0 (courtesy: Soon Wan)

## The IEEE Region 1 Students' Conference,

## University of Buffalo, NY 7 – 9 April, 2017

Charles Rubenstein, our conference coordinator informed us that the conference was a success. As usual (but not the least important) Micromouse competition led by Soon Wan drew a huge crowd. Soon has parked his photos taken at the conference at a DropBox location:

https://www.dropbox.com/sh/v9zqpfc78sjd2x8/AABr2R 0FgDU-oJd7lRTNSDNha?dl=0

Thank you, Soon!



# R1 RECOMMENDATIONS TO BE PRESENTED TO THE 2017 SECTIONS CONGRESS

You may have noticed that the IEEE will hold its 2017 Sections Congress on 11-13 August in Sydney, Australia. There the leaders of IEEE will receive and study our recommendations for further actions within IEEE. The following recommendations were selected by its executive committee of the Region 1 from diverse recommendations sent by its 22 Sections

**Topic i. Networking** (e.g. Interaction with other members, Local meetings with other professionals, Online meetings and webinars, etc)

#### **RECOMMENDATION #1: vTools Enhancement**

"Invest in development/improvement of V-tools beyond current functionality to better help us set up event registration." (Ideas are: making it more user friendly, allowing users to add fields based on the type of events, etc., and making an App for smart phones for setting up events. Commercially available products may be looked at as some models.)

#### **RECOMMENDATION #2: Member Communities**

"Provide an "instant community" and/or "forum" facility either using Collaboratec (5 minutes or less to create a community and/or forum) or with some alternative system so members are not forced to go outside of IEEE to pursue immediate online community and/or forum creation"

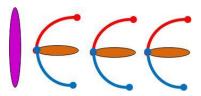
**Topic ii. Skills Improvement** (*Technical Skills, Continuing Education Opportunities, ...*)

There were no Region 1 recommendations received for this topic.

**Topic iii. Public Service** (Promoting the appreciation of technology and our profession to the general public, Representation on public policy issues related to the profession, ...)

#### **RECOMMENDATION #3: Outreach and Public Service**

"Assist sections to develop a visibility campaign that reaches out to non-Engineers to let them know what IEEE has done to make the world a better place as a means for enhanced Membership Development above and beyond the current efforts. The being that IEEE would be known in key countries for it's contributions in terms of Patent citations, Wi-Fi, AI Ethics, as well as the wide breadth of IEEE fields of interest. (Ideas are, offer mini-grant for the purpose of outreach to engineering firms and society at large to show the contributions of IEEE to the profession and advancement of Technology, hiring a business and marketing consultant to help IEEE sections better advertise and conduct outreach activities to attract new members, utilize/make available social networking tools to advertise "what IEEE is about", and create an expert list which can be accessed by engineering firms as a service to profession.)



## World MakeFaire, 2017

New York Hall of Science, Corona Park, Queens, New York City

Saturday and Sunday 23 + 24 September, 10 am to 6 pm on both days

MakerFaire is undoubtedly is the biggest Do It Yourself (DYI) fair in the world. The non-profit holds its fairs in various parts of the world. However, its biggest show in reserved for New York. Its objective is to inspire and encourage little kids to adolescents to young adults to get involved with science and experiments that do not cost thousands of dollars. Our IEEE is also an institution that encourages the young to become engineers or scientists. Hence, it is with great joy and pride that IEEE's Region 1 decided to sponsor a booth inside the

MakerFaire pavilion. It's a goodwill gesture and fun to participate in this show by enrolling as a volunteer at the IEEE booth. In exchange for your booth duty you will get a free pass to the show. The MakerFaire is worth attending not only for IEEE members but for their entire families, children and your adults. For more information please contact Charles Rubenstein at the contact e-mail address shown in the poster below. Hope to see you there! See the slide show (of 2016 fair).





# Call for Volunteers 'Learn to Solder'

You MUST be 18 years old to help folks learn this skill



# World Maker Faire New York 2017

# 23 – 24 September 2017

at the New York Hall of Science - Queens, NY http://www.nysci.org

For a 4½ hour shift (9:30am-2:00pm or 1:30pm-6:00pm) you get a Day pass and more! (Two shifts give you a Weekend pass to the Faire!)

Volunteers are also needed at the IEEE Booth Sponsored by Region 1, IEEE-USA, EAB and IET

Volunteer! - contact Charles Rubenstein <c.rubenstein@ieee.org>

Make, and Make. Sprg. are registered trademarks of Make. Media, No. Copyright © 2008-2017 Maker Shella, Inc. All rights reserved.

Sevizion I

The end