

The quarterly newsletter of IEEE GOLD  
for young professionals



# GOLD*Rush*

March 2012



## Featured in this issue

Insights From Non-Technical Perspectives

A Fresh Engineer's Brief

The Volunteering Entrepreneur



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### GOLDRush Timeline for 2012

May 17: June article submission deadline

June 30: June edition released

August 17: September submission deadline

September 30: September edition released

November 16: December submission deadline

December 31: December edition released

## From the Editor

Stuart Bottom

### Greetings, and welcome to another edition of GOLDRush!

I'm Stuart, your new Editor-In-Chief. I'm beginning my tenure as Editor with several goals in mind—efforts I am ultimately responsible for.

First, you should expect GOLDRush to be published on time (I appreciate your patience as we worked on this issue, which should have been released near the end of March).

Second, you should expect high-quality articles. This is a combination of GREAT submissions by you, the GOLD members (keep it up!) and a more rigorous editorial process (something we began working on for this edition). If you are skilled in the art of written English or eager to participate in a quality peer-review process, we would love to have you join our team.

Third, authors should expect a more streamlined editorial process. This includes prompt communication from our editorial team on the status of your article, etc. (To the authors who submitted articles for this edition: thank you! I owe many of you an email still, and I appreciate your patience as I work to expedite our communications).

We won't achieve these goals immediately—but in the meantime, I'd love to hear what you think. Please feel free to connect with me on [LinkedIn](#), [Twitter](#), or via [email](#). Let's work together to continue making each edition of GOLDRush better than the last!



Stuart Bottom  
2012 Editor-in-Chief

## Welcome from the 2012 MGA GOLD Chair

Eva Lang



### Dear GOLDen friends and colleagues,

Have you ever wondered about time? It flies way too fast, there is never enough of it and it is one of the most precious things in life!

10000<sub>2</sub> years ago, back in 1996, GOLD was established as a pilot program to increase the retention rate of IEEE student members as they transitioned to full membership. This is still a valid goal today. But there is much more to it now. Under the GOLDen wings, there is a vast array of programs, engagement possibilities, career related activities, scholarships, competitions, benefits, already offered for and by GOLD members ... Mentoring? Networking? Competitions? Awards? Career planning and advice? You name it! You can be sure it already exists under the name of GOLD.

I invite you to find out for yourself what GOLD groups and leaders around the world do for a living - and for fun! You will meet young professionals at the beginning of their careers, read about the STEP program and get a glimpse into the exciting work of our technical societies.

Are you interested in volunteering, meeting new people, discussing technical ideas, career advancement, humanitarian work and tackling challenges with peers? As a GOLD member you already are part of our network, so go out and connect to your local GOLD group or spend some time with us on our online channels. Our doors are always open!

Looking at the last page of this newsletter, you will notice that with the passage of time we have some new names on the GOLD Committee this year. Let me take the opportunity to thank my predecessor, William Sommerville, for his excellent work! Will, you have been a great inspiration to me personally as well as to the GOLD committee! Also, a very big thank you to Timothy Wong, who stirred the direction of GOLDRush and passed it on to Stuart Bottom earlier this year.

Welcome to a new year of GOLD!  
Happy reading,

Eva Lang  
2012 IEEE MGA GOLD Committee Chair

**Front cover:** The new 2012 IEEE GOLD Committee poses for a group photo at the Hotel Derek in Houston, Texas, USA.  
**Photo credit:** Timothy Wong



# Readers' Forum

Your questions and opinions

## This month's feature letter comes from

Dr. Adam Norten  
Elmhurst, Illinois, USA

IEEE member for 9 years

My wife and I often get into heated discussions over news stories that involve both technology and the law. I received my Ph.D. in Information Systems in 2011 and usually approach issues from the technology perspective. As an attorney, my wife offers the legal perspective. While our views on news stories are often very different, the exchange of ideas always encourages me to think more broadly.

We recently talked about the January 23, 2012 ruling by the United States Supreme Court in *U.S. v. Jones*. In that case, the Court held that the defendant's rights under the Fourth Amendment to be free from unreasonable searches and seizures of his person, house, papers and effects were violated. The violations began when federal and local law enforcement installed a Global Positioning Systems (GPS) device on a vehicle registered to Jones' wife without giving him notice, receiving his consent, or having a valid warrant. The violations also included use of the device to monitor the vehicle's movements for 28 days. The Court deemed these actions a "search" requiring a warrant.

In our discussion of the Jones case, my wife explained that the Court partly based its ruling on the fact that law enforcement personnel physically applied the GPS to the automobile. This reasoning leaves the door open for different rulings in cases in which law enforcement simply use tracking technologies that a suspect may already have installed in their vehicle or available on their person in the form of a smartphone or other device. In cases in which installation of tracking technology does not require physical invasion of property, according to the Court in Jones, the Fourth Amendment in-

quiry would concern the individual's reasonable expectation of privacy.

The impact of technology on individuals' privacy rights was an issue I investigated in school. In particular, my dissertation looked at U.S. nurses being required to wear identification badges with embedded radio frequency identification (RFID) tags to track their movements within a hospital. Our discussion of the Jones decision reinforced for me that while technologies such as GPS and RFID are becoming more common, inexpensive, and easy-to-use, their use can have serious consequences. However, it also made me think that law enforcement personnel are not the only ones who should be concerned about whether their use of such devices is within the bounds of the law. GPS and RFID devices are being used to track everything from individuals to cargo crates to plates of sushi. As technology professionals, we may be called on to develop, install and maintain technologies that directly impact the lives of others in ways such as tracking their movements. As we do so, we should be asking whether these efforts violate the law, company policy, common decency, or even common sense.

Rather than looking at our work from the technology perspective, which is often focused solely on hardware and operating systems, maybe we need to step back and look at our work from a another perspective. Maybe we need to consider how our efforts are affecting others and whether what we are doing is impacting them in ways that could be illegal, against company policy, or just plain unethical. Perhaps an exchange of ideas with someone outside the technology community concerning a technology-related issue

will offer you fresh insight and encourage you to see technology use from another perspective. ■

## Do you have something to say?

Express your opinions on GOLDRush articles and ask questions to the authors by submitting a letter to the GOLDRush Readers' Forum.

Send your submissions to [GOLDRush@ieee.org](mailto:GOLDRush@ieee.org) before 17 May 2012 for inclusion in the June 2012 edition.

Submissions must be no more than 400 words and may be edited if necessary.

We look forward to hearing your thoughts!

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# IEEE GOLD Community News

From around the world

## New IEEE AESS Education Initiative: GOLD for GOLD Tutorials

Cosimo Stallo, Ph.D — IEEE AESS GOLD Representative

The first GOLD for GOLD event was held on December 12, 2011 in Sala del Teatro at Villa Mondragone, Frascati (Rome) with two tutorials presented by GOLD AESS members for fellow GOLD AESS people:

- Sense & Avoid Systems: How to insert Unmanned Aircraft Vehicles into the General Air Traffic? by Myriam Nouvel from Radar and Warfare Technical Directorate of Thales Airborne Systems;
- Smart ICT in Ambient Assisted Living Applications to Improve Quality of Life by Susanna Spinsante, Director of the ArieLAB.

Cosimo Stallo inaugurated the new IEEE AESS educational activity: GOLD for GOLD people.

Myriam Nouvel presented a tutorial on the challenge question how to insert Unmanned Aircraft Vehicles into the General Air Traffic?

*"Up to now, UAVs are employed in crisis or war times. For training purposes, some areas are especially attributed for UAV deployment in a limited space area and in a limited time slot, called "segregated areas". In the future, both for emerging civilian applications and for training purposes, these limitations will no longer be acceptable and UAVs will have to be inserted in the general air traffic. Thus, UAV will have to be equipped with "Sense and Avoid" systems. As they are safety systems, several redundant sensors shall be merged. At least one sensor must be non co-operative. An interesting solution is to merge a cooperative sensor like ADS-B and a Radar, which is intended for autonomous "all weather" operation. The radar provides, by essence, accurate ranging, direction and closing speed. A low cost radar solution based on the coherent "MIMO" principles was discussed. Finally, in favourable cases, the radar measurements can be improved by using additional and wide field of view Electro-Optical sensors, for instance video sensors operating in the visible or near visible range".*

Susanna Spinsante presented a tutorial on Smart ICT in Ambient Assisted Living Applications to Improve Quality of Life.

*The striking diffusion of smart communication devices among users, opens the way to the effective implementation of a number of advanced Ambient Assisted Living applications aimed at improving people's Quality of Life. Such applications are typically targeted at specific categories of users, such as older people, or people with limited disabilities, to increase the degree of independent living at home.*

*This talk presented the most recent activities developed in this field by the Communications Group at the Marche Polytechnic In the context of AAL solutions for older people, a home automation system was presented, that is designed to exploit several different interfaces according to the needs of the users. Besides the possibility of interacting with the system by means of a tablet or a smartphone, the more familiar TV interface is supported, through an MHP enabled STB and suitable applications that make it possible to interact with the home automation system, while watching TV contents. The system also integrates SIP based communica-*



Cosimo Stallo with Myriam Nouvel (top) and Susanna Spinsante (bottom)

*tion capabilities, that have been exploited to interface an innovative IP based videocomm device. Looking at the specific needs that may be expressed by users with disabilities, recent developments in interface design include eye and head tracking controls of the home appliances through the system.*

*The second part of the talk discussed another facet of AAL, related to the development of a remote care system, based on the OSGi architecture to integrate Bluetooth enabled medical devices. This solution may be integrated into the home automation system described in the first part of the talk, and it was shown how the user's access to his personal health data may be again enabled through TV and an MHP STB. Finally, future developments based on the continuous availability of new advanced communication devices on the market were discussed.*

Further details are available at <http://www.ieee-aess.org>.

The tutorials were attended by around one hundred participants: company managers, institutional representatives, and academics (among them there were 20 IEEE AESS student members and 30 IEEE AESS members). ■



# IEEE GOLD Community News

From around the world

## 2<sup>nd</sup> Teacher In Service Program (TISP) Workshop in Tunisia

Riadh Besbes and Habib Kammoun - GOLD Tunisia Affinity Group

After the great success of the 1st Tunisian TISP organized on March 22, 2011 in Monastir, the IEEE GOLD Tunisia Affinity Group and the IEEE Tunisia section, together with the IEEE Education Society Tunisia chapter, the IEEE Industry Applications Society Tunisia chapter, the IEEE Sfax Subsection and the IEEE Student Branch in the National Engineering School of Sfax (ENIS), co-organized the 2nd TISP workshop on December 19, 2011 in Laico Hotel, Yasmine Hammamet. The workshop was jointly conducted with the Research Groups on Intelligent Machines (REGIM Lab.), the Scientific Association for the Support of Research and Technological Innovation (ASARIT), the IEEE Region 8 Educational Activities Subcommittee and the IEEE Educational Activities Board (EAB).

The workshop was a huge success with more than 60 participants including five pedagogical inspectors, forty five secondary educators and ten university teachers (IEEE GOLD members). Teaching materials were taken from Try Engineering website (<http://www.tryengineering.com>), which is a resource for students of ages 8-18, their parents, teachers and school counselors on engineering and engineering careers.

TISP Tunisia was jointly chaired by Riadh Besbes and Mounir Ben Ayed who have also championed engineering outreach efforts for Zambian school students in September 2010. The event drew active participation from local secondary schools teachers from scientific disciplines and academic inspectors. In cooperation with IEEE members, they were trained in application of engineering, science, and mathematical concepts to real-world projects in order to enhance students' motivation during science classes. The event was a good occasion for IEEE volunteers to develop collaborative relationships with pre-university educators.

Riadh Besbes inaugurated the workshop by introducing TISP as an effort to encourage better understanding of engineering and technology through lessons at school. Prof. Adel M. Alimi, chair of the IEEE Sfax Subsection, then spoke about IEEE's involvements in education at the pre-university level.

During the day, two plenary talks were presented by Prof. Mabrouk Aloui on "Project-based Learning" and by Prof. Abderrahmen Essaadi on "Quantum mechanics". In addition, three practical sessions were held for groups of 4 participants each, on "Rotational Equilibrium", "Trebuchet Toss", and "Robotics".. Teachers were grouped according to their disciplines in order to promote training and exchange activities.

Based on their background, teachers adopted different approaches to these hands-on projects. The technology science teachers came up with the most efficient project realizations. They demonstrated a high level of engineering analysis which enabled them to give the best solutions. The physics teachers were temporarily disengaged by the Trebuchet Toss project after several failures until the help of a teacher from another group. The whole group took



TISP attendees enjoying the sessions and interactions

over the activity with enthusiasm and successfully reached its' goals.

During the course of the event, teachers and stakeholders reflected on the importance of TISP workshops in Tunisia. In fact, the Program for International Student Assessment (PISA) conceived by the OECD (Organization for Economic Co-operation and Development) shows that among a sample of 10,000 Tunisian students, the young learners cannot do much with what they have learned in school. According to the PISA report of May 2009, less than 0.2% of Tunisia's 15-year-olds can conceptualize, generalize, and creatively use information based on their own investigations and modeling of complex problem situations in Mathematics. The national government stakeholders resolved(?) to pay attention to the initial training of new teachers before they took over classroom responsibilities. They will try to identify the type of continuing training should teachers get, ways to improve the performance of those who are struggling and provide opportunities for the best performers to acquire more status and responsibility.

As the event drew to a close, teachers clearly felt that TISP activities were very well suited to stimulate a constructive interaction between them and their students in classrooms. Indeed, that engagement is dependent on learners' interest level in what is being taught, and undoubtedly, teachers tasted the flavor of completion within TISP lessons achievements.

For more information, please visit: <http://sites.ieee.org/tunisia-gold/> ■

# IEEE GOLD Community News

From around the world

## R8 GOLD fully open to the world

Rafal Sliz, Region 8 GOLD Committee

Is it a bird? Is it a plane? No, it's the new R8 GOLD Website. One of the main goals of R8 GOLD Committee was to establish and improve internet communication with IEEE GOLD members. Facebook, Twitter and LinkedIn websites were established at the beginning of 2011. The R8 GOLD website was released a year later, but it was worth the wait! Now, GOLD Chairs have access to latest news and information from the R8 GOLD website.

In order to make browsing more intuitive, the website has a left-pane menu with tabs related to different issues concerning GOLD. The committee tab contains information about the GOLD committee and lists all the Chairs in Region 8. One of the most interesting and useful tabs is the "HOWTO" tab where all FAQs are answered. Additionally, the awards sub-section contains information about recipients of IEEE awards and calls for nominations.

The website also contains recent copies of publications where R8 GOLD was mentioned. In the – Local events – tab,

GOLD chairs have a chance to publish notes and pictures from their events. One of the latest achievements of the Committee; the GOLD Book, has its own tab where you can download the electronic version.

Finally, the links and contact tabs allow users easy navigation within IEEE websites and other contact information. Our Committee has a great hope that this website will serve us well. Naturally, nobody is perfect and suggestions are always welcome – especially GOLDies. Check us out at: [www.ieeer8.org/gold](http://www.ieeer8.org/gold).



IEEE Region 8 GOLD Website

## Gold Management Training Workshop

San Salvador, El Salvador

The CONCAPAN XXXI, is the biggest event for the electrical and electronics engineering industry in Central America and took place in San Salvador, El Salvador on November 11, 2011. During the event, a GOLD workshop designed to train CAPANA Council GOLD Coordinators on the management, tools, and programs available to affinity groups, and the activities conducted by GOLD affinity groups in the region, was conducted. The congress was attended by over 500 attendees from several countries, including Region 9.

The GOLD workshop focused on GOLD volunteer training and reviewed various affinity group topics. A lecture about electronic tools available for GOLD group volunteers was delivered by the Region 9 Director, Tania Quiel. The first section focused on GOLD group management, starting with a lecture about how to form a GOLD group, explaining the steps to form a GOLD affinity group and finished with a presentation focused on the GOLD Coordinator's objectives and responsibilities.

The workshop continued with a lecture called "GOLD Affinity Group administration and management". It is important that the GOLD Affinity Group's coordination is done by IEEE members, and a team should be formed to conduct the group's activities. The workshop highlighted the importance of working in conjunction with Section, Professional Chapters and Student Branches in organizing activities; the importance of forming an "Activity Plan" for next year; and the idea of forming a GOLD group with members distributed around the Section. To conclude, the lecturer showed some examples of GOLD activities that can be developed, among which conferences, workshops, seminars and participation in programs such STEP and EPICS were highlighted.

The second part of the workshop was conducted by Tania Quiel, who showed the audience some tools available to GOLD groups to carry out its activities. The workshop presented some tools like SAMIEEE, V-tools, GOLD webinars, e-notice, and the GOLD website.

The workshop concluded with presentations about funding sources that may be applied to by GOLD affinity groups. The STEP Program (Student Transition & Elevation Partnership), which grants up to \$500 for social activities with students near to graduation or recently graduated, and EPICS project (Engineering Projects in Community Service), a project that can be carried out by GOLD groups or Student Branches in conjunction with a pre-university college and a non-profit organization (NGO) were discussed. All attendees were invited to publish their activities through electronic tools available, such as NoticIEEEro (Regional publication) and GOLDRush newsletter (published worldwide).





# IEEE GOLD Community News

From around the world

## IEEE Argentina Section

Augusto José Herrera — IEEE Argentina Section GOLD Chair

During the second half of 2011, the GOLD Argentina Section organized several technical, social and recruitment events.

The workshop "IP Telephony System Implementation", was presented by the GOLD-Argentina (GOLD-Ar) Coordinator and organized jointly with the Córdoba National University (UNC) Student Branch. The workshop took place at the National Academic Network of Computer Engineering Congress (CRUNIC), attracting more than 60 participants.

IEEE Day and the 72<sup>nd</sup> Anniversary of the Argentina Section, was held in the city of Cordoba, involving Córdoba Subsection authorities, students of three Student Branches (UNC, UBP, UTN-FRC), and GOLD members.

The GOLD-Ar Committees participated in the Student Branch National Meeting, held in the city of Rosario, Santa Fe, Argentina, and attended by more than 80 students from 12 student branches in Argentina including two from the Paraguay Section and one student branch from Chile.

GOLD-Ar presented on the GOLD Affinity Group and activities held throughout the year. As part of the IEEE Road Show, a program which aims to create and reactivate student branches was run, and the GOLD Argentina section visited Blas Pascal University to help reactivate and show the GOLD activities held in the Argentina Section.



Workshop "IP Telephony System Implementation", organized by GOLD-Ar group and UNC SB



IEEE Day (October, 2011) IEEE Day celebration and the 72<sup>nd</sup> Argentina Section Anniversary held in the city of Córdoba

## CE Society Takes GOLD Members to the Top

Carsten Dolar — GOLD Member Liaison for IEEE Consumer Electronics Society

In January, the biggest show for consumer electronic goods, the CES, was held in Las Vegas. The IEEE Consumer Electronics Society (CE Society) organizes its annual flagship conference, the International Conference on Consumer Electronics (ICCE) to be held in parallel to the CES. Large numbers of young engineers and researchers from both, academia

and industry, meet to present and discuss their work, making this event ideal for bringing together the GOLD members and promoting networking. The GOLD meeting has been added to the regular ICCE conference program and is sponsored by the CE Society.

This year's event location was the Stratosphere Tower, one of the most outstanding buildings in the Las Vegas skyline. Around 60 recently graduated researchers and engineers, from well-known brands such as Samsung and Texas Instruments, and universities from all over the world signed up to attend.



The GOLD event at Stratosphere Tower during the Int. Conf. on Consumer Electronics (Photo by Maria Dolar)

The event started with a dinner, which gave the attendees the chance to make new connections, exchange ideas, or even start new projects together. On the following day, the get-together of interested GOLD members with the Administrative Committee and other members of the CE Society gave GOLD members the chance to connect to established members in the CE community in a relaxed atmosphere. The CE Society has decided to fund and organize future GOLD events at all of their conferences.

# IEEE GOLD Community News

From around the world

## IEEE-BTH Student Paper Competition

Amir Zahoor — IEEE GOLD Sweden Affinity Group Chair

"IEEE- BTH Student Paper Contest 2011" was an event for young researchers to encourage innovation and creativity. The event was announced on October 30, 2011 and the deadline for paper submission was December 20, 2011. BTH and IEEE GOLD Sweden AG were the joint organizers of the competition. All graduate students from The School of Engineering of Blekinge Institute of Technology were welcome to participate in the event.

After analyzing over 50 papers from different areas, the Content Technical Committee, chaired by Prof Dr. Wlodek J. Kulesza, declared the following five winning papers; in alphabetical order:

- Muhammad Arif, Maboud F. Kaloorazi, and Arash Hasanzadeh: Improving A-Scan Signal in Ultrasonic Testing by VSS-LMS and SWT.
- Praneeth Kumar Bejjanki, Muneeb Goraya, and Syed Fovad Moid: Optimized Takagi-Sugeno Fuzzy Power Control Strategy for Cognitive Radio.
- Joyraj Chakraborty, Amir Shehni and Sundas Sheikh: Using Hilbert Curve Slot for Bandwidth Enhancement of Microstrip Patch Antenna.
- Sadh Ibna Rahmat, Sabine Mukaze and Shakira Shaheen: Mobile Services for Diabetic Patients' Sustainable Lifestyle.
- Dineshkumar Muthusamy, Hossein Sabri and Tomasz Skalski: Area Change Detection Based on Iterative



Certification and appreciation ceremony

Histogram Matching Combined with Morphological Processing.

IEEE-GOLD Sweden AG organized the certification and appreciation ceremony for the winners, technical committee and organizers on January 12, 2012.

I am grateful to Sweden Section R8 GOLD and all other people for their support and encouragement. We are looking forward to an active 2012 with STEP, industry trips and workshop activities.

## Lapin GOLD

Rafal Silz — IEEE GOLD Finland

Finland GOLD recently celebrated its achievements of the past 2 years by having a gathering for all GOLD and Student Branch members in the small village of Pyhä, almost 200km up north from the Arctic Circle.

The main goal of the event was to motivate and encourage current young professionals to stay/join the IEEE after graduation.

During the event, all the past events organized during last two years were discussed and concluded in order to record lessons learned. This will ensure that the same mistakes will not be made in the future.

Additionally, the industry representative gave a presentation about the benefits of IEEE membership in industry. After the official lectures and brainstorming, participants had a chance to enjoy the real winter at 67,01°N.

The last day of the meeting was focused on future planning and member development. On the way back, some participants had the chance to visit Santa Claus Village, and purchased official pictures with Santa.

Unfortunately, group pictures were allowed only with advanced reservation. Nevertheless, Santa promised to call IEEE when the light in Santa Claus Village burns out...

All participants were very motivated and thankful for such a great conclusion of tremendous GOLD work in the last two years. With this event, GOLD Finland would like to suggest a competition for the most Northern/Southern GOLD event in IEEE history.



Santa is an engineer too...



# IEEE GOLD Community News

From around the world

## Young professionals to students: the 6th Career Development Workshop

Alex Fung, Yasuharu Ohgoe—Tokyo GOLD, Japan

"The 6th Career Development Workshop for Young Students and Professionals" was held in Keio University (Hiyoshi campus), Yokohama. The event was jointly held with IEEE Japan Council Women in Engineering (WIE), student branches of Tokyo University of Science, Tokyo Denki University, Keio University, Meiji University, Waseda University and Yokohama National University.

With the success of previous workshops, we invited some young professionals from different companies as facilitators. Each facilitator decided a topic which they want to discuss with the young students. The participants were free to discuss topics with facilitators which were closest to their interests. This workshop was opened to non-members of the IEEE, such that they would be given the opportunity to learn more about the IEEE.

At this workshop, the topics included:

- A. Necessary skills for new employees;
- B. What skills are required for those who work actively in the Internet communication industry?
- C. Career development and personal training in a company;
- D. Differences of research activities between academia and industry;
- E. What skills are required to be successful abroad?
- F. Global career development through IEEE's activities.

A facilitator lead each group in discussion, and the workshop was designed to be interactive such that the participants could freely express their ideas. It was interesting to find that while most of the participants did not know each other (in their respective groups), and the facilitators are somehow in a "superior" position to the students, a common topic/interest lead them all to active discussions, without hesitation.

In Group A, the facilitator shared some general opinions on skills required to be a successful "fresher" in a company. Not only is technical knowledge and interpersonal skills required, but also the belief in oneself, which can affect the company and society as a whole.

Group B focused on the development and maintenance of Internet infrastructure. After discussing the nature of the industry, the members in this group concluded that Internet developers need a sense of future trends and open minds, whilst the maintainer needs to be able to communicate with the developers effectively to be flexible in their response to varied and unpredictable incidents.

In Group C, career development and personal training in career and university were discussed. While it is important for one to be clear about his/her own goals, developing career skills differs in university and company environments.

In Group D, the students wanted to know the difference between research in academia and industry. Some of the participants had internship experiences, and they lead the



Workshop "IP Telephony System Implementation", organized by GOLD-Ar group and UNC SB



Workshop "IP Telephony System Implementation", organized by GOLD-Ar group and UNC SB

discussion to the objectivity of research. Although there is more freedom in academia, research in industry is more practical and usually conducted in teams. For both cases, research requires presentation and communication skills.

Group E looked at the characteristics (and skills) of people who succeed overseas were discussed. The topic then shifted to the obstacles one might be faced with when going overseas. It was interesting how this Group went off-topic, but we were pleased to hear about the new ideas that emerged.

Finally in Group F, IEEE's role for a global career was discussed. Some students had very little idea what IEEE was all about. The facilitators introduced some examples of past student branch activities, such as the IEEE Region 10 Congress. The valued experience of learning from foreign cultures was highlighted. Participating in IEEE was discussed and the following benefits were noted: networking, support in shifting careers, and improvement of English presentation skills.

There was a small party following the workshop, and this allowed members to have extra time with the facilitators as well as participants in the other Groups. Overall, everyone found the discussions with such a diverse group of people extremely interesting and enjoyable. As organizers, we were proud to receive many positive comments and we hope the next Workshop will be even better!

# IEEE GOLD Community News

From around the world

## Kerala GOLD: On a roll!

Ranjit R. Nair — Kerala Section GOLD Chair

The Kerala GOLD Affinity Group has grown exponentially this year while offering a wide array of activities, ranging from professional memberships to educational and student activities. Our objectives this year have been to intensify and diversify. We have maintained focus on our professional members, with events like the GOLD Congress and Membership Drives, and we have catered for students and academics with events like Continuing Education Congress (CEC) and Student Transition & Elevation Partnership (STEP). We have accelerated our educational activities by collaborating with the Section's Educational Activities Committee. It is through this collaboration, that many of our milestone events like the CEC and Teacher in-Service Program (TISP) were formed.

### Continuing Education Congress

Where did the CEC idea come from? The Congress was born out of the necessity; i.e., we wanted to attract members of academia to our Affinity Group and introduce them to the marvelous world of opportunities that is IEEE. Selected for the IEEE R10 EAC Support fund this year, the CEC was one of our dream projects. Thanks to the support of the R10 EAC and the fraternity of the Kerala Section, we were able to succeed in coordinating an eventful and respectable programme for the academic elite.

Two Continuing Education Congresses were held – the first of which (CEC-1) was organized at ToC H Institute of Science and Technology on 30th September and 1st October 2011. Approximately 40 delegates, from various engineering colleges attended and the sessions were noted for their quality and for providing a platform for the academic fraternity to learn, interact and get motivated. The participants expressed a keen interest in joining IEEE and in making their colleagues and students aware about IEEE.

### TISP Workshop

Kerala Section had the esteemed privilege of hosting the first actual TISP Workshop exclusively for school teachers and IEEE volunteers, after the launch of the TISP Initiative by IEEE EAB in India in May 2011. A very strong contingent had attended the TISP Roll-Out at Hyderabad, India and the Kerala Section was keen to take the initiative to drive the next event forward in Kerala, as soon as possible. Three Workshops were planned, one each in North Kerala, Central Kerala and South Kerala.

The first TISP Workshop was held in South Kerala at TKM College of Engineering, Kollam on 16th July 2011. The Workshop was a grand success and received excellent feedback from the participants, which included 48 school teachers - from 30 schools spread over a radius of 100km. Including the IEEE volunteers, total participation was 153 delegates. The IEEE volunteers were especially eager to champion TISP in their local areas. We are happy to note that the challenge was taken up by the school teachers in all seriousness. The next TISP Workshop is being planned for December 2011.

### PIIGOM



Pan India IEEE GOLD Officers Meeting



TISP Workshop



TISP Workshop

PIIGOM-11, the Pan India IEEE GOLD Officers Meeting 2011, was held on the 19th June 2011 and became a major milestone in the history of Region 10 GOLD activities (and another golden feather in the cap of the Kerala GOLD affinity group). The event was conceptualized and organized by IEEE Kerala Section GOLD at the Hotel Grand Seasons, Cochin, Kerala, and included participation of five affinity groups spread across the geographical span of India: Bombay, Madras, Hyderabad, Bangalore, Kerala (host).

The purpose of the meeting was to discuss the strategies and action plans of all the GOLD AGs in India, with the overall objective to empower our volunteers to create activities for GOLD in India. The meeting was ideal for the officers of the various affinity groups to network with their peers, share ideas and give insight about the activities that are happening in their respective GOLD AGs.



# IEEE GOLD Community News

From around the world

## Region 10 IEEE GOLD

Timothy Wong - Region 10 GOLD Coordinator

### Introduction

Welcome to 2012. This inset provides an overview of the main objectives and organizational structure of Region 10 IEEE GOLD. IEEE GOLD aims to help students transition to and maintain a professional working life in industry or academia. An IEEE member who has graduated within the last ten years is automatically a member of IEEE GOLD. Like IEEE, IEEE GOLD has a worldwide presence.

Region 10 in IEEE covers the Asia/Pacific region and is one of the fastest growing regions in IEEE. IEEE is a heavily volunteer driven organisation which relies on its volunteers with the support of IEEE staff to deliver benefits to its members.

### Committee Structure

Region 10 GOLD is one of the most geographically, socially and politically diverse regions. It is impossible to travel to the other end of the Region by means other than by air. This sometimes presents some logistical challenges when it comes to ensuring that IEEE GOLD members in Region 10 has access to support for their membership. In order to serve a broad range of IEEE members across the entire Region, the following committee structure has been set up for 2012.

- Region 10 GOLD Coordinator: Timothy Wong
- South Asia Clustering Coordinator: Rayees Amar Nishad
- Australia/New Zealand Clustering Coordinator: Noel Gomes
- South East Asia Clustering Coordinator: LF Yeung
- Webmaster
- Women in Engineering Liaison
- Student Representative
- Educational Activities Representative

### Region 10 IEEE Goals

Region 10 GOLD recognises the importance of attracting new IEEE members as well as ensuring member satisfaction among existing members. An IEEE member that is satisfied with their membership benefits will generally continue their membership. The following initiatives will ensure that Region 10 GOLD continues to deliver benefits to its members:

- Clustering Project
- Website
- Engagement with sections, societies and students.
- IEEE STEP

- Internal initiatives to provide training and support to IEEE volunteers
- Publicity and recognition of volunteer efforts

Region 10 GOLD will be continuing to evolve with the needs of its members. Watch this space for new and exciting initiatives.



Region 10 GOLD Coordinator:  
Timothy Wong

### External Partnerships

The success of Region 10 GOLD would not be possible without partnerships within other IEEE sub organisational units such as sections, societies and student branches. Region 10 GOLD also understands the importance of functional working relationships with other National Societies and organisations to maximise benefits to its members.

### Further Information

Please feel free to contact the Region 10 GOLD Coordinator, Timothy Wong for further information at [timothy.wong@ieee.org](mailto:timothy.wong@ieee.org).

Visit the Region 10 IEEE GOLD website at [www.r10ieeegold.org](http://www.r10ieeegold.org).



Above: The newly launched Region 10 GOLD website. Visit: [www.r10ieeegold.org](http://www.r10ieeegold.org)

# IEEE GOLD Peer Reviewed Articles

## A Fresh Engineer's Brief

Rahul Radhakrishnan, Analog ESD Product Specialist and IEEE Member

As young engineers in our first jobs, we have spent most of our life in school. We are used to choices that allowed us to pursue depth over breadth of knowledge. Some of us, like me, have spent many years in graduate school being trained in the art of scientific research. Getting ready to defend my Ph. D. dissertation last fall, I had good memories of the limitless time the life of a graduate student allowed in pursuit of the depths of a narrow thesis topic. However, I was also ready to move on to a position where I would have a much more immediate impact on our profession and the world.

Today I find myself in such a place where the things I do as a semiconductor device designer have a key role in many electronic components of consumer products. It is exciting to work with smart colleagues in a productive environment where I learn a tremendous amount of technical and team skills every day. Still, among the day to day priorities of work I feel that I have to make a conscious effort not to lose sight of how I as a fresh graduate can put my unique training and set of skills to the best use, both at the workplace and in my career.

For many open positions, managers like to hire experienced people who can "hit the ground running" and keep ongoing projects on track. Yet, many companies today realize the importance of inducting more fresh college graduates who bring a new perspective to the workplace and without the accumulated burden of habit, are likely to ask the kind of questions that lead to a different, more fundamental innovation. But this also requires young graduates and researchers new in the workplace to actively seek out commonalities between what they worked on in school and their brief at work.

Personally, I have some ideas on the problems that I was working on in graduate school that were weeded out of the thesis but I continue to toss around the back of my mind now. Besides giving me a cherished feeling of continuity to my work in graduate school and a chance to see them to fruition, they also provide fresh perspectives on my projects at work that traditional approaches might not offer.

Nurturing the training and experience we bring from school is a great investment of our time for long term career growth. For those of us who have done research and are moving to a less research-oriented position, it takes only a small amount of diligent, consistent effort to keep up with our erstwhile area of focus. But if we stick to the narrow contours of our work profile, that expertise will be very hard to rebuild later.

Unlike the progression we are used to in school, as practicing engineers we need to broaden our skills without losing track of our areas of expertise. Time management is perhaps the critical determinant of one's success here but it is also important to take full advantage of various training programs at work, network with other young engineers, attend technical conferences and stay engaged in the professional community.

Today's engineers work with ideas and tools radically different from those even just a decade ago. Honing our existing interdisciplinary skills is perhaps the best way for young engineers to ensure we stay on the leading edge of our rapidly-changing profession.

### About the Author

Rahul Radhakrishnan received his Ph. D. in Electrical Engineering from Rutgers University in January 2012 and currently works in the Analog ESD lab at Texas Instruments. He served as the IEEE Student branch chair at NIT Calicut, Kerala, India in 2003 while he was pursuing his B.Tech. He currently lives in Dallas, TX and tries to find time for books, plays and travel.

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# IEEE GOLD Peer Reviewed Articles

## The Volunteering Entrepreneur

Luis Ribeiro, Ph.D — Research Engineer at UNINOVA

I often get the impression that young professionals underestimate the power of volunteering. When you volunteer, it says a lot about you. It is most of all an expression of altruism and initiative, values which are greatly appreciated by society in general (and certainly by any potential employer).

There is still the misconception that a volunteer is an instance of a “yes man.” Volunteering is a conscientious act which is by nature fairly different from accepting to work randomly.

During my undergraduate and graduate studies I did a lot of professional volunteering work and I’ve learned that if you pick the right opportunity and context you are not only helping others, you can gain a lot from it as well.

Some of the work pays off immediately, while some might take years to bear fruit. Remember that in the first place you are helping someone and, if you have done your best, you will develop your relationship with that specific someone as he or she will feel compelled to reward you according to the importance of the work that you have just carried out. So volunteering is a good way of consolidating and nurturing your network of contacts (an invaluable asset nowadays).

Especially if you are, like me, pursuing a career in academia, getting to know your peers is fundamental. If you are a researcher, for example, you will have to participate in scientific events (conferences, workshops, summer schools, etc). You will rarely approach one of those keynote speakers since they are normally surrounded by other “sharks” (people with a formidable reputation) and you may feel you are no match for them—so is there a better alternative to simply participating? Organizing! If you are part of the organization your distance to those “sharks” is dramatically reduced since you are likely to know someone who knows them—and they might just invite you to the discussion. It is a win-win situation since young professionals account for a great share of value creation and your ideas might just ring the right bells. So where does this take you? You are right! Volunteering!

I’ve volunteered for the organization of several conferences and events, including recently the IEEE International Conference on Industrial Informatics (INDIN’11) in Lisbon and I’ve never feared hard work—yes, sometimes it is boring—but trust me, it pays off.

Now let’s consider: you are a professional and there’s some pending task which is specially challenging or boring and which everyone else in the office has been avoiding. Just remember that no one is irreplaceable, but people who know how to perform very boring or challenging tasks are more difficult to replace in general—and you might even learn something new to put on your CV. Aside from that you will certainly impress your boss.

It might work if you are a freelancer as well. I once volunteered to help a relative who was still in high school in the context of his school project about the history of computers. I ended up giving a small talk there. A couple of

days later I was contacted with a job offer. It happened that a parent of one of the kids in the classroom had a startup project and wanted to hire young engineers. So never underestimate the power of apparently irrelevant connections between people!

These may be my personal experiences, but I do not believe I’m alone in them. So if you still feel that volunteer work is just work... wake up and learn to plan in advance. You may even become a volunteering entrepreneur.

If you, on the other hand, are a true volunteering entrepreneur please do keep in mind that sometimes helping others for its own sake is fulfilling, and that your reward is simply making this world a better place to live.

### About the Author

Luis Ribeiro received his PhD in Electrical and Computer Engineering (Robotics and Integrated Manufacturing) from the Faculdade de Ciências e Tecnologia of the Universidade Nova de Lisboa. He is currently a researcher at the UNINOVA institute in the CODIS (Collaborative Networks and Distributed Industrial Systems) group in Portugal.



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# IEEE GOLDRush Notices

## 2012 IEEE AESS ESTEL CONFERENCE: THE KICK-OFF

Cosimo Stallo, Ph.D — IEEE AESS GOLD Representative



The first international IEEE-AESS Conference on Satellite Telecommunications in Europe was announced in Rome at the European Commission Representation in Italy on December 21 2011.

The EU Commission representation in Italy hosted the presentation of ESTEL Conference 2012, the first international conference on satellite telecommunications

ESTEL Conference will be held in Rome at the “*Centro Congressi Fontana di Trevi*”, from the 2<sup>th</sup> to 5<sup>th</sup> October 2012. The conference is organized by **IEEE AESS** (Aerospace and Electronic Systems Society and **ESOA** (European Satellite Operator’s Association), with the technical support of **ESA** (European Space Agency) and CTIF (Centre for TeleInfrastruktur, with the headquarters in Aalborg University).

The organization office of the event is managed by **SAT Expo** (International Expo-Forum on Satellite and Advanced Telecommunications). The press conference was attended by a hundred of participants: company managers, institutions (Ministries of Government and Foreign Embassies), academics and press agents; and it was followed in live-streaming by over two-hundreds of contacts.

The welcome speech by Lucio Battistotti, Head of the European Commission Representation in Italy, under-

scored the importance of the Galileo project for the European Commission.

Giuliano Berretta (ESTEL Conference General Chair - ESOA Chairman Emeritus) gave an excursus on the historical developments of satellite telecommunications from Marconi to nowadays. Marina Ruggieri (Estel Conference Vice Technical Program Chair - AESS President) gave prominence to the uniqueness of the event in Europe, confirming the IEEE’s intention to promote a strong partnership with the “old continent”. Simonetta Cheli (Head of Coordination Office, Directorate of Earth Observation Programmes, ESA, ESRIN) illustrated the fundamental role played by satellite technologies in the development of the Earth Observation projects of the European Space Agency. Professors Kai Borre (Aalborg University, Department of Electronics) and Pierangela Samarati (University of Milan, Department of Information Technologies) presented the last advances in applied ICT technologies to navigation systems and Cyber Security, respectively. In the closing speech, the President of SAT Expo Paolo Dalla Chiara presented the new website “ESTEL Conference Community”, a Web-based community allowing a direct dialogue among all the key players in the Satellite Telecommunications Sector. The portal, soon available at [www.estelconference.org](http://www.estelconference.org), will allow a permanent interaction and exchange of business and research opportunities among all the participants of the ESTEL Conference.

Finally, Cosimo Stallo (ESTEL Organising Committee Chair and Treasurer) announced the main deadlines for submission of workshop and tutorial proposals and the important dates for submission of papers.

Over 120 representatives of the international scientific community will compose the ESTEL Conference technical committees, which will be in charge of examining the research papers and of defining the main topics of the Con-

## IEEE GOLDRush Call for Articles: June 2012 Edition

IEEE GOLDRush invites you to submit an article for publication in the June 2012 edition.

The article topic(s) shall be of interest to young professionals, the primary readers of the publication. Articles must be strictly no more than 700 words and should be sent to the IEEE GOLDRush editor at [GOLDRush@ieee.org](mailto:GOLDRush@ieee.org) on or before 17 May 2012. Please feel free to include captioned photos or pictures with your submission. All articles and photo(s) will be peer reviewed and edited if necessary.

Full submission guidelines must be adhered to and can be found at

<http://www.ieee.org/web/membership/gold/newsletter/goldrushPolicy.htm> ■



## Life Insurance

### Setting Up a Financial Safety Net for Your Loved Ones

No one wants to think or talk about this subject of life insurance – especially when you are young. **But if someone depends on you financially – a spouse, partner, child, elderly parent, or business partner – it's not a subject you can avoid.** In fact, 93% of Americans say that life insurance is something most people need.<sup>1</sup> Yet, only 53% of individuals in the United States have it.<sup>2</sup> Are you one of them? And if so, do you have adequate coverage to meet your changing financial needs?

#### When Should You Consider Buying Life Insurance?

There are some general life stages or life events that may trigger the need for life insurance (or the need to purchase more):

- *When you get married*
- *When you buy a house*
- *When you have children*
- *When you change jobs*
- *When you're single, divorced or widowed*



#### Why life insurance vs. an investment vehicle?

You may have several resources you count on for financial security such as savings or investments. Yet for many people, life insurance can provide the strongest, stable resource for financial security in the event of death, regardless of the economic climate. That's because it's relatively affordable and the proceeds can help pay the bills, finance future needs like your children's education, and much more. And, the death benefit proceeds from life insurance are generally not subject to federal income taxes.

#### The Benefits of Purchasing Coverage When You Are Young

In most cases, the younger you are, the lower the price will be for life insurance coverage. In addition, if you are in good health now, premiums will likely be lower than if you decided to wait and purchase coverage at a later date, when your health status may have changed making it difficult to find coverage at an affordable rate – or even at all.

<sup>1</sup> LIFE Foundation and Kelton Research, 2008; <http://www.lifehappens.org/pdf/printable-consumer-guide/life-insurance-pcg.pdf>

<sup>2</sup> LIMRA's 2011 Fact Book

## What to Look For Stability

When shopping for coverage, the first thing many people look at is the price – and rightly so. But don't forget to make sure that your insurance carrier has the financial stability to pay your claim in the event of your death. You can research the financial soundness of an insurance company at <http://www.ambest.com>.

## Accelerated Death Benefit

The "Accelerated Death Benefit" option is available to help terminally ill individuals during a difficult and often financially challenging time. Under this provision, a person may request an advance payment equal to a certain percentage of a qualified terminally ill person's life insurance coverage to be paid while that person is still alive. This money can be used to help cover high prescription drug costs, medical bills, outstanding debts, experimental treatments, or the cost of modifications to your home—the choice is yours.

## Premiums Waived If You're Totally Disabled

If you become totally disabled before a pre-determined age, and remain so for a specified period of time, your insurance will be continued as long as you remain totally disabled without additional premium contributions until the coverage termination date.

## What If Your Needs Change?

If you are just starting out and not sure where life will take you or how many children you will have, your initial coverage may not be enough. Be sure to check whether you can increase the amount of coverage should your needs change in the future.

## Term Life Insurance Plans Available Through IEEE

For the past 50 years, the IEEE Member Group Insurance Program has delivered exceptional protection at affordable rates, including several group term life insurance products, including a:

- Term Life plan that renews each year
- 10-Year Level Term Life plan that allows you to lock-in your rate for 10 years
- 20-Year Level Term Life plan that allows you to lock-in your rate for 20 years.

And now, the popular Group Term Life Insurance Plan is an even better value, thanks to a **recent base rate reduction of 10% for all current and new insured members, with an additional rate reduction of 13% for members under age 30**. These plans are underwritten by New York Life Insurance Company, 51 Madison Avenue, New York, NY 10010 on Policy form GMR. For more information\*, including a rate comparison tool and calculator, you can [click here](#) to visit the website or call the Administrator at 1-800-493-IEEE (4333).

\*Features, costs, eligibility, renewability, limitations and exclusions.

The IEEE Member Group Term Life, 10-Year Level Term Life, and 20-Year Level Term Life Insurance Plans are available in the U.S. (except territories), Puerto Rico and Canada (except Quebec). This coverage is available to residents of Canada (except Quebec) through Marsh Canada Limited. Stephen Fretwell, an employee of Marsh Canada Limited, acts as a broker with respect to residents of Canada. This program is administered by Marsh U.S. Consumer, a service of Seabury & Smith, Inc.

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### Immediate Past MGA GOLD Chairperson

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### Do you have feedback on GOLDRush?

Email us anytime at

[goldrush@ieee.org](mailto:goldrush@ieee.org).

We look forward to hearing from you!