

# IEEE region8news

The Institute of Electrical and Electronics Engineers, Inc. 445 Hoes Lane Piscataway, NJ 08855

<http://www.ieee.org/r8>

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## IEEE Fellow Honoured by Britain's Queen Elizabeth

IEEE Fellow, Tariq Durrani was honoured by Britain's Queen Elizabeth with the "Order of the British Empire" at a ceremony at Buckingham Palace on 10 July 2003. The investiture recognized his outstanding contribution to the British nation for "services to electronics research and higher education".

At the University of Strathclyde, Scotland, Tariq established one of the largest research groups in Signal Processing in Europe. His leadership is well known in his community, in industry, and abroad. In 1994-95 he was President of the IEEE Signal Processing Society, now serves on several IEEE Boards, and is

VP-elect of the IEEE Engineering Management Society. His work has led to major technical developments and several of his PhD students have established advanced electronics companies in Scotland and abroad.

Readers may recognize Tariq in these pages – he is our Region 8 Vice-Chair of Technical Activities! With this photo, he sends us his regards "from the Investiture Ceremony at Buckingham Palace - my daughter Sophia, my wife Clare, me, and my daughter Monise."



## R8 Teams Succeed in Washington

### IEEE Computer Society Int'l. Design Competition

At the fourth annual IEEE Computer Society International Design competition held in Washington DC from 30 June to 1st July 2003, the top ten teams included two winners from Region 8. CSIDC was supported by Microsoft Corporation with additional funds from ABB and the IEEE Foundation. CSIDC 2003 expanded to include 164 teams from 133 universities in 40 countries.



Politech University Bucharest 2nd Place – CSID 2003:  
Tiberius Pircalabu; Nicolae Tapus (team mentor);  
Andrei Hagiescu

The theme of CSIDC 2003 was "Added Value: Turning Computers Into Systems" The top 3 winning schools also receive money to establish an IEEE Computer Society Financial Aid Fund for computer science and engineering students at their host schools

Politechnica Univ. Bucharest team won second prize of \$10,000. for their entry Eyes Only Security- an innovative encryption scheme that ensures privacy on personal computers. The team Mentor Nicolae Tapus, and students Tiberius Pircalabu and Andrei Hagiescu designed, built, demonstrated their system and its potential markets.

Another IEEE Region8 finalist last year, Karlsruhe University Team also received an Honorable Mention Award of \$1,000. for their project "Free-XS", a wireless network access device mounted on a balloon.

Learn more about the CSIDC 2004 competition Making the World a Safer Place. [www.computer.org/csiddc](http://www.computer.org/csiddc)

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# Editor's Ramblings...

## November R8 News

In Jozef Modelski's report on Chapters, he says that the number of members in R8 has declined to about 47,000. He observes that Chapter activity has increased. To me this means - members who remain intend to get more benefit for their money. Participation is the key - on hand to every member.

I have always found that volunteering and being involved with my profession increased my interests, knowledge, and contacts. This brought more pleasure to my career.

Many members do not know that IEEE well-developed volunteer structure is easily accessible. Please check out the "Region 8 Contacts" on this page. The volunteers listed are trusted to work in those positions and accomplish the operations in our Region. Please contact them.

Often the best place to start is to talk to someone. Attend a meeting. Write a letter/e-mail. Discover what is going on in your locale.

New in this issue: IEEE Region 8 Industry. This series will focus on the business achievements of IEEE members in Region 8 and relations with industry. Many employers do not know about IEEE. We need to inform companies about the benefits of IEEE membership for their employees.

Also inside: Life Members (yes we have some!); IEEE Foundation II (how to give and how to receive); IEEE StandardsEurope (appeal for players); Geothermal Power; EtCetera (cartoons by Tayfun Akgul).

Has your membership in IEEE helped you in some way? Please write about your work, enterprise, how your interest in engineering brought you there.

This newsletter is written by many volunteers who do many things - run meetings/ give talks/ student events/ pre-college development/ fund-raising. You do the writing, I simply do the editing.

Roland Saam

Editor

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## REGION 8 CONTACTS

### Help Desk Members:

Members, students, applicants may have all their questions answered by contacting the Help Desk volunteers. Please use this service freely. Information on what, where, when, how regarding membership, payments, procedures. IEEE member and affiliate inquiries from Region 8 should be sent to: member-services@ieee.org

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**Advertisements** of interest to Region 8 news are welcome. Prices, deadlines, and information - contact Hilary Turnbull, IEEE Media Telephone +44 131 660 6605 e-mail: ht.ieeemedia@ieee.org

**Region 8 Website:** www.ieee.org/r8

**Student Paper Contest** - contact Martin Bastiaans: m.j.bastiaans@ieee.org

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See <http://www.ewh.ieee.org/reg/8/committee/index.html> for descriptions, by-laws. E-mail addresses of Region 8 Committee Officers - 2003:

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Requests for extra copies for distribution at IEEE events, should be made to the Editor by e-mail before the deadline: specify quantity and delivery address.

All information of interest to members and articles from any member of the IEEE are welcome. Please send as Plain Text, RTF, and DOC files. Send photography separately as JPG files. Check R8News-Guide at [www.ieee.org/r8](http://www.ieee.org/r8). Emails: Subject [R8News] Please send Student News to R8StudentNews@ieee.org and GOLD News to R8GOLD@ieee.org. Read past issues at [www.ieee.org/r8](http://www.ieee.org/r8)

The deadlines for the Region 8 News for 2003 are as follows:  
February 2004 Issue: 1 December 2003  
May 2004 issue: 1 March 2004

### Acknowledgements

Tony Davies wrote the article "Challenges to IEEE's Future" page 4 May03, and sent photographs on page 6 (May). Drawings: Copyright 2002 and 2003 by Tayfun Akgul Photos: Roland Saam; Gerald Anleitner; Ryszard Romaniuk; Cemal Ozturk; Yaya de Souza; Adebawale Onifade; Peter Knott; Tony Davies Proofreader: Sheila Saam Icelandic history: Jon Jakobsson, Thorvardur Jonsson

# The IEEE Foundation ( II )

## Foundation Programs

**I**n my last article (Sept. R8News) I discussed the general tasks and goals of the IEEE Foundation Inc. Now I report on the IEEE Foundation's programs and projects, which give financial support to Awards, History, Education as well as Special Initiatives.

## Awards

The Foundation supports IEEE's goals by recognizing engineering achievements, encouraging excellence in engineering at the highest level and promoting public awareness of the work of engineers.

The IEEE Awards program comprises over 200 awards & recognitions which are annually presented by the Institute. The Foundation finances the program in different ways. Some awards and medals are financed from restricted funds - Donations, Bequests, and Grants administered by the Foundation. Those created by major IEEE Boards are financed from the General Fund, which is money raised by the Foundation.

## History

The Foundation encourages the study of history of electrical and information technology, by preserving, researching and promoting historical documents, devices and equipment. It seeks to help society to know more about the past, to better understand the present and improve the future.

A major project is support for the IEEE History Center. This is located at Rutgers University (New Brunswick, N.J.). It has a variety of initiatives IEEE Milestone program; "Technology in World History" research; "100 Years of Electronics-the Fleming Diode" conference which benefit the knowledge of academic historians and IEEE members.



The Foundation pays for the development of the "IEEE Virtual Museum" ([www.ieee.org/museum](http://www.ieee.org/museum)). This demonstrates in a popular way how engineers revolutionize the ways we work, play, learn and communicate.

## Education

Finally the Foundation supports education at all levels, from pre-college to continuing education. It strives to arouse interest, dedication and life-long appreciation of science, mathematics, and technology in young students, while also working to maintain professional engineers at the leading edge of technology.

Within the Foundation General Fund I would like to mention the "Marsh Theodore W. Hissey International Education Fund". This supports programs for education with special focus on developing and enhancing educational opportunities in IEEE Regions 8, 9, and 10.

## Foundation Projects

To illustrate the scope of these special initiatives- from more than 40 current Foundation projects in 2002 - I mention several in Region 8.

- The IEEE Education Activities Board (EAB) was granted US\$40,000. to continue the "IEEE Presidential Scholarship" for 4 years. It is awarded for outstanding achievement in research and presentation of engineering knowledge.
- IEEE Computer Society received \$50,000. for the 2003 and 2004 "IEEE Computer Society International Design Competition" (CSIDC). Undergraduate student teams design and implement computer-based solutions to real-world problems.
- IEEE Region 9 was granted \$2,900. towards the "2002 Region 9 Robotics Student Competition" , to be held in Santiago, Chile.
- IEEE Student Branch in Sarajevo, R8

was awarded \$11,500 for a conference entitled "EE Education in the 21st century in South-Eastern Europe". University members from this area meet to generate ideas on improving regional education programs applying international standards.

- IEEE Engineering Management Society (EMS) was granted \$10,000. for the "Joint Region 8 / EMS Leadership and Chapter Development Project".
- IEEE Region 10 was granted \$5,000. as support for the first "Region 10 Student Congress 2002".
- IEEE Student Branch Eindhoven, Netherlands R8 received \$2,000. towards a symposium "People Movin' the Future" -the role of electronics in transportation.
- IEEE EAB received \$15,000. to initiate a project called "Pre-college Education Activities Across Organizational Units and Societies". The purpose is to obtain data on IEEE Organisational Units' pre-college education activities.
- The Universidade Federal da Paraiba was awarded \$12,900. for a project entitled "Historical Evolution of Telecommunications in Brazil". - to document the history and evolution of telecommunications engineering in Brazil.

This overview describes topics and the financial range of actual IEEE Foundation Project grants. I hope it gives you some ideas - the Foundation seeks donors and contributors as well as applicants.

In my next article I will tell you how to apply for Foundation project support. If you would like information on the Foundation or any application right now, please contact me at [r.remshardt@ieee.org](mailto:r.remshardt@ieee.org) or the Foundation at [foundation-office@ieee.org](mailto:foundation-office@ieee.org) .

*Rolf Remshardt,  
Director Foundation Board,  
Region 8 Vice Chair Membership Activities*

## REMINDER CALENDAR

Visit our Website

<http://www.ieee.org/r8> Click Conferences

(Editor's note: latest information on-line)

# IEEE STANDARDS

## Principles for the Development of International Standards

**I**nternational standards are of utmost importance to promote world trade and to overcome fragmentation of markets. Therefore the World Trade Organisation (WTO) has obliged its members in its Technical Barriers to Trade Agreement to play a full part in the preparation of international standards, to use them for their technical regulations and to play also a full part in harmonising conformity assessment procedures. In this context the WTO-Committee on Technical Barriers to defined following principles for the development of international standards. The IEEE Standards Association reviewed them with the results shown below in italics.

### A. Transparency

All essential information regarding current work programmes, as well as on proposals for standards, guides and recommendations under consideration and on the final results should be made easily accessible to all interested parties. This includes amongst others also the possibility to make comments to draft standards.

*The IEEE Standards Association (IEEE-SA) meets these requirements by making available this information via the IEEE-SA public-area web site. Further notifications occur in the ANSI Standards Action publication, IEEE-SA-news, IEEE Standards Bearer and through press releases to numerous news wires.*

### B. Openness

Membership of an international standardising body should be open to relevant bodies of at least all WTO Members. This would include openness without discrimination with respect to the participation at the policy development level and at every stage of standards development.

*IEEE-SA does not use the delegation model in its development procedures, however, trade organisations, governments and other interested parties may participate in IEEE standards development as entity members or their representatives may participate as individuals and liaisons.*

### C. Impartiality and Consensus

All relevant bodies of WTO Members should be provided with meaningful opportunities to contribute to the elaboration of an international standard so that the standard development process will not give privilege to, or favour the interests of, a particular supplier/s, country/ies or region/s. Consensus procedures should be established that seek to take into account the views of all parties concerned and to reconcile any conflicting arguments.

*IEEE-SA's consensus procedures require balance and avoidance of dominance. Minority positions are given an important voice through negative ballot and comments, which must be addressed.*

### D. Effectiveness and Relevance

In order to serve the interests of the WTO membership in facilitating international trade and preventing unnecessary trade barriers, international standards need to be relevant and to effectively respond to regulatory and market needs, as well as scientific and technological developments.

*IEEE-SA is a member of ANSI which has adopted the WTO Code of Good Practice for the preparation, Adoption and Application of Standards. The Code addresses the issues of effectiveness and relevance.*

### E. Coherence

In order to avoid the development of conflicting international standards, it is important that international standardising bodies avoid duplication of, or overlap with, the work of other international standardising bodies. In this respect, cooperation and coordination with other relevant international bodies is essential.

*In the IEEE Standards Association, harmonisation and coordination is being achieved through formal and informal liaisons/agreements with ISO, IEC, ITU and regional standardisation bodies.*

### F. Development Dimension

Constraints on developing countries, in particular, to effectively participate in standards development, should be taken into consideration in the standards development process. The impartiality and openness of any international standardisation process requires that developing countries are not excluded de facto from the process.

*The IEEE-SA global web portals, email and teleconferencing enable developing countries to participate in the development of, and to have access to IEEE standards.*

### Summarising:

- 1) IEEE produces one third of world's literature in electro-technologies,
- 2) IEEE has worldwide membership and technical expertise in a broad range of electro-technologies,
- 3) IEEE is a key supplier to the international standards system.

*by Ingo Ruesch  
16 August, 2003*

## StandardsEurope Portal now available – Participation in standardisation has never been so easy

**O**n 27 March 2003 a new Web site, [www.standardseurope.net](http://www.standardseurope.net), was launched by the Institute of Electrical and Electronics Engineers Standards Association (IEEE-SA) which provides broad access in Europe to

technical standards created by the IEEE and other standards development organizations (SDOs). This multidimensional site supports those who want to learn about and obtain technical standards, especially in information technology, telecommunications, and

power and energy. The site also serves the needs of IEEE-SA volunteers who help create standards, as well as its members, customers and international partners.

This web portal adds value and focus to the ongoing IEEE-SA co-operative work

supporting international standardisation development efforts of the IEC and ITU, the international organisations for standardisation in the electrical, electronic and telecommunication area. It facilitates IEEE-SA's connection to Europe, and meets the needs of the global standards development community.

StandardsEurope is a major component in the IEEE-SA's ongoing globalisation initiative. StandardsEurope, the third portal dedicated to supporting standards users and developers by geographic region, incorporates new features. These include a real-time news feed addressing developments in international and venture capital markets and StandardsWire™, which provides timely announcements relevant to IEEE standards activities. It offers a direct log-in capability for customers of IEEE Standards Online and will soon offer an opt-in newsletter that will showcase news,

events and profiles relevant to IEEE's activities in Europe.

The site offers those in companies, trade organisations, government bodies and academia in Europe such options as:

- The ability to learn about and join new IEEE standards efforts.
- Links to Web sites carrying international and regional finance and economic news relevant to standards.
- Links to IEEE "Standards Zones" to explore standards in specific technologies, such as wireless communications, microprocessors, transportation and power generation.
- Access to approved standards, either directly through the IEEE-SA or from third parties.
- Links to IEEE-SA's international standards partners, such as the International Electrotechnical Commission, International Organization for Electrical and Electronic

Standardization, and the International Telecommunication Union.

- Profiles of volunteers in Europe involved in standards development and how companies in the region are using IEEE-SA standards.
- Help in becoming an individual or a corporate member of the IEEE Standards Association.
- Details on the IEEE-SA and its standards process.

At the Region 8 homepage you will have direct links to the StandardsEurope Portal as well as to the IEEE Standards Association via Region 8 Information: Standards.

*Ingo Ruesch,  
R8 Standards  
Coordinator  
ie.ruesch@t-online.de*



## Help Wanted - IEEE Standards Development

Many new standards are starting development. If you have or know someone who has expertise in the relevant areas - from Industry, Government or Academia - please contact the Standards chairperson mentioned.

### New Standards

IEEE P1650™, "Standard Test Methods for Measurement of Electrical Properties of Carbon Nanotubes," will recommend the tools and procedures needed to generate reproducible electrical data on carbon nanotubes. Those with expertise in the chemistry and physics of carbon nanotubes and

electronic devices are invited to help develop the standard. The IEEE P1650 standard, "Standard Test Methods for Measurement of Electrical Properties of Carbon Nanotubes," is sponsored by the IEEE Nanotechnology Council. For more information see: <http://grouper.ieee.org/groups/1650/> Contact Dan Gamota, IEEE P1650 Working Group Chair [gamota@motorola.com](mailto:gamota@motorola.com)

### Revisions Save Development Time

IEEE-SA Standards Board approved two amendments to IEEE 802® wired network standards. IEEE 802a™ allows vendors to

assign Ethernet Type numbers without depleting the number space.

IEEE 802.3af™ addresses how to supply power to low-power data terminal equipment with local area network (LAN) connectivity

### New Power and Filters standards

IEEE-SA also approved two new power generation standards, one for adjustable-speed drives, IEEE 958™, and for harmonic filters, IEEE 1531™.

IEEE C37.24 is a revised standard for how solar radiation affects outdoor metal-enclosed switchgear.

## CASS Vitold Belevitch Circuits and Systems Award



The new Belevitch Prize - to honor a person with fundamental contributions in the field of circuits and systems - was awarded to Professor Alfred Fettweis (University of the Ruhr, Bochum) during the European Conference on Circuit Theory

and Design (ECCTD'2003) in Kraków, Poland, 1-4 September 2003.

It is particularly fitting that Prof. Fettweis should be the first recipient, because Prof. Belevitch was his thesis-advisor, and he followed in Prof. Belevitch's footsteps by the invention and development

of the concept of the Wave Digital Filter, which succeeded in linking classical Circuit Theory with modern Digital Signal Processing.

*contributed by  
Prof. Anthony C Davies*

# CHAPTER COORDINATION

8 Local chapter activities are the most important key to membership growth, improvement of society image and realization of globalization process.

Region 8 is a very good example - we have 46,805 IEEE members and about 340 chapters as of August 2003.

The variety of chapters in Region 8 differs in many ways:

- About 30% are joint Chapters: members come from two or more Societies and sometimes from different Sections (countries), e.g. Joint MTT/ED/CPMT/COM/SSC Siberia Chapter; LEOS Italian Chapter; E Norway/Denmark/Finland/Sweden Joint Chapter.
- Size - Chapters range from very small (fewer than 20 members) to large (more than 500), but most have about 50-100 members.
- Variety of technical and educational activities. Some organize only a few meetings, while others have over 20 events a year, invite Distinguished Lecturers, host international and local conferences and workshops, support student branches etc.

Although the number of IEEE members in Region 8 decreased, the formation of new chapters is still going very well: 14 chapters were established during the

## Number of R8 Chapters in Sections (at June 2003)

|             |    |                  |    |                  |    |
|-------------|----|------------------|----|------------------|----|
| Austria     | 3  | Greece           | 10 | Russia           | 18 |
| Belarus     | 6  | Hungary          | 7  | NorthWest Russia | 7  |
| Benelux     | 15 | Iceland          | 2  | Siberia          | 4  |
| Bulgaria    | 8  | Israel           | 15 | South Africa     | 8  |
| C&S Italy   | 17 | Nigeria          | 3  | Spain            | 14 |
| Croatia     | 7  | North Italy      | 14 | Sweden           | 11 |
| Cyprus      | 2  | Norway           | 6  | Switzerland      | 10 |
| Czech. Rep. | 4  | Poland           | 16 | Turkey           | 13 |
| Denmark     | 6  | Portugal         | 5  | Ukraine          | 8  |
| Egypt       | 8  | Rep.of Macedonia | 5  | UAE              | 2  |
| Finland     | 8  | Romania          | 8  | UK&RI            | 23 |
| France      | 18 | Saudi Arabia     | 4  | Yugoslavia       | 8  |
| Germany     | 19 | Slovenia         | 4  |                  |    |

first six months of 2003, and 7 chapters are in the final phase of formation.

## Chapters in formation as of August 2003:

1. AP03/MTT17 Norway Section
2. NN11 North/Central & South Italy Joint Sections
3. SMC28 Hungary Section
4. EMC27 Spain Section
5. IE13/IA34/PEL35 Greece Section
6. MTT17 Romania Section
7. E25 France Section

Congratulations and best wishes for successful operation of all new chapters!

*Jozef Modelski  
CCS Chair  
August, 2003*

## Chapter Of The Year 2003 Contest

All Sections are encouraged to nominate candidates for the Third Annual Competition - Region 8 'Chapter of the Year' contest.

We have more than 300 chapters in Region 8 but very few of them were nominated last year for 'Chapter of the Year 2002' award. Many more are very active and they deserve recognition.

- There are two categories in the contest - Big Chapters (100 and more members)
- Small and Middle Size Chapters (fewer than 100 members)
- Winning chapters each receive \$1000.

You can find all information and the Contest Form at the Region 8 web site: <http://www.ewh.ieee.org/reg/8/chapters.html>.

Deadline for nomination forms - February 15, 2004

# CONFERENCE REVIEWS

## 200 Attend XII Wilga Symposium IEEE-SPIE

### "Photonics and Web Engineering"

22-25 May 2003 - Wilga, Poland

At Warsaw University of Technology Resort in Wilga, two hundred International M.Sc. and Ph.D. students gathered from IEEE Region 8. Sponsored by IEEE Region8, SPIE, Polish Academy of Sciences and Warsaw University of Technology, it is held every year during the last weekend of May.

Wilga Symposium is an effective forum for the exchange of research results and information on work conditions. Students discussed similarities and differences in their curricula and employment opportunities. Much personal information was exchanged during informal social meetings at the Wilga grill.

### Wilga is Different

Young researchers are often treated as marginal to scientific conferences and poster sessions.



Wilga is quite different in this respect. All papers are presented orally in English with an obligatory discussion following the presentation. Frequently, hot discussion continues during the coffee breaks. All sessions are led

by young researchers, while senior research staff work as judges.

Presentations are judged by colleagues, sometimes quite deeply, not only in respect of research content but also for appearance. All

are in electronic form, presented in this way and distributed on CDs and website.

#### **Low Cost & High Standards**

The fundamental assumption for Wilga Symposium is low costs for the young participant. Organizers offer full accommodation at a very competitive price. There is no conference fee at all. This is possible only because the event is organized wholly by volunteers.

The second assumption is to keep the program level of the Symposium high

Wilga is nearly an ideal spot. The resort is located at the outlet of the Wilga into the Vistula river in the middle of big pine forests. Accommodation conditions are modest but acceptable. The local food (and beer!) is very good.

#### **Wide Scope**

Photonics, optical communications and the optical Internet topics were extended to advanced electronic systems, digital signal processing, mechatronics, automation, etc.

The caliber of contributions, especially from Ph.D. students, increased. Because analytic methods used by quite different branches

of modern technology are sometimes similar, it was often possible to transfer experience between young researchers.

#### **Publication: Selection & peer review**

To assure the highest quality of the Symposium, papers are selected first for presentation and next for publication. Papers submitted have to be recommended by the supervisors of the young researchers, symposium participants.

After presentation and discussion, the best papers are chosen for publication in the IEEE professional press. Usually a special edition of one of the local professional journals. Sometimes a separate volume of well known Proceedings of SPIE. Prior to publication the papers are peer reviewed.

#### **World-wide access**

Wilga symposium is an official event of IEEE and SPIE. Regional Student Activity Committees, Sections and Chapters of both institutes are represented in Poland. IEEE and SPIE have rich libraries, freely accessible for members, located at the central technical library of Warsaw University of Technology. IEEE and SPIE patronage guar-

antees international meaning of the symposium which assures worldwide access.

#### **XIII Wilga 2004 - Invitation**

We want interested persons, member and non-members of IEEE and SPIE to participate in the IEEE-SPIE Symposium Wilga 2004, scheduled for 26-30 May 2004. Get more information at <http://nms.ise.pw.edu.pl/wilga>.

Senior researchers are invited to bring along younger colleagues, to organize topical or panel sessions and to suggest invited papers.

M.Sc. and Ph.D. students are invited to present the results of their research on theoretical and practical problems, which are subjects of their theses.

The IEEE-SPIE Wilga Symposium is a magnificent place to test your ability to present your own results and to defend the thesis in the fire of research discussion in an international environment. It is just the best road to begin gathering one's own achievements on a difficult but fascinating way of technical research.

*Dr hab. Ryszard S. Romaniuk*

*IEEE-SPIE Wilga Symposium Chair*

*IEEE Student Branch Counsellor*

*Warsaw University of Technology*

## **3rd ESA Workshop on Millimetre Wave Technology and Applications**

### **Espoo, Finland, May 21-23**

The third ESA Workshop on Millimetre Wave Technology and Applications was held in May in Espoo, Finland. The conference was jointly organised by the Millimetre Wave Laboratory of Finland - MilliLab, ESA/ESTEC, HUT Helsinki University of Technology and VTT Technical Research Centre of Finland. This was the second time the conference was held in the Otaniemi campus area close to Helsinki. The area is the home of two major technical



research and educational organisations, HUT and VTT along with more than 200 smaller organisations and high tech companies. The first workshop in 1995 was hosted by ESA/ESTEC in Noordwijk, The Netherlands.

The technical program consisted of 15 invited talks and over 90 contributed papers from 16 countries and three continents. These were organised in 5 plenary, 12 regular and 2 poster sessions over three days. The sub-

jects covered a wide range of millimetre wave related issues from material technology to system applications. The social events included a dinner reception on one of the 18th century fortress islands once built to protect Helsinki. The boat ride gave a good opportunity to do some sightseeing.

With approximately 150 attendees the atmosphere was friendly and focused. It was felt that the event was very successful and positively received by the attendees.

*Timo Karttaavi*

*Chair, Finland AP/ED/MTT Chapter*



# Section and Chapter News

## 40th anniversary of the IEEE Germany Section

The Germany Section was established with 7 members in April 1963 and contains altogether more than 5600 members now. The membership development during the last 40 years is shown in Fig. 1. Today the Germany Section comprises 18 societies with up to more than 2000 members.

The different societies and their abbreviations with chapters in IEEE Germany Section are listed below.

|                |                                                    |
|----------------|----------------------------------------------------|
| <b>C</b>       | Computers                                          |
| <b>CAS</b>     | Circuits and Systems                               |
| <b>COM</b>     | Communication                                      |
| <b>CPMT</b>    | Components, Packaging and Manufacturing Technology |
| <b>ED</b>      | Electron Devices                                   |
| <b>EM</b>      | Engineering Management                             |
| <b>EMB</b>     | Engineering in Medicine and Biology                |
| <b>EMC</b>     | Electromagnetic Compatibility                      |
| <b>IA/PEL</b>  | Industry Applications/Power Electronics            |
| <b>IT</b>      | Information Theory                                 |
| <b>LEO</b>     | Lasers and Electro-Optics                          |
| <b>MTT/APP</b> | Microwave Theory/Antennas and Propagation          |
| <b>NPS</b>     | Nuclear and Plasma Sciences                        |
| <b>PE</b>      | Power Engineering                                  |
| <b>RA</b>      | Robotics and Automation                            |
| <b>SP</b>      | Signal Processing                                  |
| <b>SSC</b>     | Solid State Circuits                               |
| <b>UFFC</b>    | Ultrasonics, Ferroelectrics and Frequency Control  |

**Tab. 1 Societies with chapters in IEEE Germany Section**

These societies organise lectures, workshops and conferences in the different fields of specialisation on a regular basis. During the last 40 years more than 450 scientific events have been organised in the IEEE Germany Section.

For the successful leadership of the Germany Section eight chairmen were elected during the 40 years. The chairmen and their time of office is listed in Tab. 2. From January 2003 on Prof. Adolf J. Schwab is the chairman of the Germany Section again.

**Tab. 2 Chairmen since foundation of the Germany Section**

| Name of chairman    | Time of office |
|---------------------|----------------|
| Lothar Rohde        | 1963 – 1969    |
| Kurt O. Fraenz      | 1970 – 1972    |
| Werner Kleen        | 1972 – 1978    |
| Walter E. Proebster | 1979 – 1980    |
| Rudolf Saal         | 1981 – 1987    |
| Adolf J. Schwab     | 1988 – 1996    |
| Rolf H. Jansen      | 1997 – 1999    |
| Hans L. Hartnagel   | 2000 – 2002    |
| Adolf J. Schwab     | 2003           |

Furthermore 11 Student Branches were founded in Germany, they are associated with universities throughout the country. These IEEE Student Branches give students the chance to come into contact with companies or other universities on a national or international level. Workshops, excursions and student projects are organised by these Student Branches.



**Fig. 2 Location of student branches in Germany**

## IEEE Israel Section Hot-Spots Rival 3G

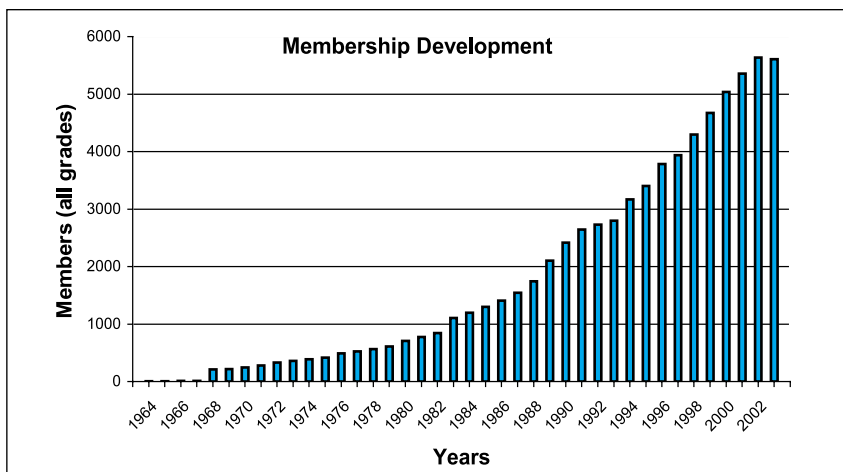
The subjects of Wi-Fi, Bluetooth and IEEE 802.11 Standards are catching on worldwide. Israel IEEE Communications Chapter sponsored a technical Seminar “Short range Communication Networks” attended by more than 180 participants.

The IEEE Israel Section is the veteran of IEEE Sections in Region 8 and was established back in 1954 by the late Prof. Ollendorf at the Technion in Haifa. The Communications Chapter was initiated in 1977 and I had the privilege to serve as its first Chair. Actually the Communications Chapter has about 600 members (out of 1600 members of the IEEE Section) and is very active, with Prof. Cohen of the Technion as its Chair.

### “Electronica 2003”

The Seminar was organized during “Electronica 2003” exhibition held at the Israel Trade Fair and Convention Center, Tel-Aviv, on June 11, 2003 and was chaired by Prof. Jacob Gavan of the Holon Academic Institute of Technology. A Wi-Fi Hot-Spot was demonstrated at the exhibition.

Following the Cover story on Wi-Fi in “Business Week” magazine (April 28, 2003) the Seminar opened with a “View towards the future” on Short-range networks, by Dr. J. Baal-Schem. The growth path of Wi-Fi, Bluetooth, was discussed, especially the phenomenal expansion of Hot-spots worldwide. It discussed the “rivalry” between the Hot-spots and Cellular telephony (3G), stressing the future applications - linking computers, stereos and appliances in the home.



**Fig. 1 Membership development of the IEEE Germany Section from 1963 until 2002**

Engineer Shaul Katz of the Israel Ministry of Communications told everyone about allocation of the different frequency bands spectrum required for Short-range communications.

Prof. Gavan and Dr. Alen Bensky presented technical views on wave propagation and the problems encountered in operating short-range networks. Their presentations were based upon research conducted in Israel and abroad on radio-wave propagation in GHz frequency bands.

### Interference & Mitigation

Prof. Jacob Gavan introduced the concept of Nano, Pico, and Femo cells for defining the limits of short range communication networks. Adequate standardization and reduction of the mutual and self-interference effects are mandatory

Dr. Alan Bensky's presentation, "Bluetooth and WLAN Coexistence", reflected the concern about increasing interference between Bluetooth and Wi-Fi devices on the 2.4 GHz ISM band as the use of both standards proliferates. Bensky described the mechanism of interference between the two systems, showed how throughput is affected, and discussed the ways coexistence may be promoted using adaptive frequency hopping for Bluetooth and closed loop packet fragmentation and data rate modification in Wi-Fi.

In particular, he outlined a procedure for determining the "interference radius" within which Bluetooth devices are likely to affect the throughput of data between a Wi-Fi access point and a mobile terminal.

Finally, Engineer Naphtali Hirsch of Vectronix presented the Hot-spot concept and installation. A Hot-spot at the exhibition covered all the exhibition area – up to the entrance to the Conference room.

Over 180 engineers participated and discussed the presentations. There is great interest in this subject which is a developing activity in Israel, especially at high-rate communications.

*Report by Jacob Baal-Schem,  
IEEE Senior Life Member*

### IEEE Portugal Section Launches New Website

The Portugal Section Executive Committee would like to welcome all regional members, especially those in our Section, to visit the IEEE-Portugal Section Web site. The lan-

guage will be the IEEE community official language (English - not too broken we hope)!

Informations for our members will be kept up-to-date:

- Portugal Section Executive Committee and National Committee members contacts
- List of Portugal Section Chapters and contact persons
- List of Portugal Section Student Branches and contact persons
- Section Bylaws
- IEEE - Ordem dos Engenheiros (National Society) Memorandum of Understanding in both versions (English and Portuguese)
- List of Technical/Scientific Meetings, from 1 hour seminars - to major International Conferences, taking place in our Section geographical area
- 2002 Portugal Section Annual Report
- News about main actions of the Executive Committee.

Please send all your comments on the web page to:

*"Henrique J. A. da Silva" hjas@ci.uc.pt  
Or*

*"Rui Cruz" rui.cruz@ieee.org*

### IEEE Russia Section

Vice Chair Heinrich Lantsberg writes:

Dear colleagues and friends: This note is just to inform you about the forthcoming events held within the IEEE Russia Section this September-October :

We are going to celebrate the following:-

- 50th anniversary of foundation of the Institute of Radio Engineering & Electronics of the Russian Academy of Sciences, which made great contribution to the development of modern communications and informatics. In the early 1950s they played the main role in establishing and developing beneficial long-term cooperation with the IEEE.
- 95th birthday (!!!) of Prof. Vladimir Kotelnikov -Dean of the Russian communication scientists and engineers, founder and the Director Emeritus of the Institute, IEEE Life Fellow.
- 70th anniversary of Kotelnikov's sampling theorem which has marked the beginning of new directions in science and technology such as digital systems, information control, coding and information processing.

*Heinrich Lantsberg,  
Vice-chair IEEE Russia Section*

### IEEE UKRI Section Power Engineering Chapter June 2 and 3, 2003

#### ~~"SUSTAINABLE ELECTRIC POWER SYSTEMS IN THE 21ST CENTURY"~~

Sustainable Electric Power Systems in the Future was presented by Prabha Kundur, Power Engineering Society Distinguished Lecturer and Chief Executive Officer, Powertech Labs,



Surrey, BC, Canada at two UKRI Power Engineering Chapter Meetings, in Coventry and in London.

Dr. Prabha Kundur described the requirements and challenges of building and operating Sustainable Electric Power Systems in the 21st Century. Sustainability requires balancing economic growth and prosperity with the preservation of natural environment. Business practices have to be built on three pillars of sustainability: environmental sustainability, economic sustainability, and social sustainability.

Challenges for the industry are to produce, transmit and use energy in an environmentally responsible manner, to reduce costs by improving operating efficiency and business practices, and lastly to enhance the reliability and quality of power supply.

He also discussed at length how hydrogen could be used to complement electricity as an energy carrier – the two form an ideal "energy currency pair" and are likely to dominate the energy delivery and transportation systems.

*Report by  
Tom Hammons  
Chair, UKRI Power Engineering Chapter  
T.Hammons@ieee.org*

### IEEE United Arab Emirates Section Report Year 2003

Our AGM started off a busy year for our activities -8 Technical meetings & one IEEE Conference, two Business meetings; a new Student Branch; EE Vision Newsletter, 3rd Issue. We also formed a Women In Engineering affinity group in UAE

The AGM was held on 9 January, 2003 at the Holiday International Hotel, Sharjah

## Section and Chapter News *continued*

and was sponsored By International Turnkey Systems.

- Dr. Eesa M. Bastaki, Chair
- Mr. Syed Riayzul Hassan, Vice Chair
- Mr. A. G. Hareendralal, Secretary
- Mr. K. S. Taj, Treasurer

### Technical Meetings

- 8 February, 2003: Power System Harmonics, Mohamed H. Shwehdi, Ph.D. (Associate Professor, Saudi Arabia, KFUPM,) at American University of Sharjah,
- 3 March, 2003: Criteria for Engineering Work Practice, Dr. Eesa M. Bastaki at Dubai Chamber of Commerce & Industry, Dubai
- 1 April, 2003: Web Based Monitoring and Control of Industrial Plant, Dr. Abdul Rahman Al Ali, Computer Engineering Department, American University of Sharjah, at Ajman University, Abu Dhabi
- 30 April, 2003: Electrical Safety of Medical Equipment, Dr. Hassan A. Al-Nashash American University of Sharjah at Emirates Scientific Club, Dubai

- 21 May, 2003: Industrial Visit to Thuraya Ground Station, Dr. Mohammed El-Tarhuni, American University of Sharjah, at Thuraya Ground Station, Dhaid
- 3 June, 2003: Evolution of Mathematical Concepts through the Ages, Prof. Ganti Prasada Rao, at the Cultural Foundation, Abudhabi
- 4 June, 2003: Control in an Information-Rich World, Dr. Abdulla Ismail Abdulla, UAE University, Dubai Airport Free Zone (DAFZA),

### Conferences

- 13-15 May, 2003: The First GCC Industrial Electrical & Electronics Conference, Manama, Bahrain
- Organized by: IEEE GCC Sections

### Coming UP!

- **14-17 December, 2003: 10th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2003), Sharjah, United Arab Emirates**

- Organized by University of Sharjah
- <http://www.icecs2003.org/>  
IEEE Student Branch was formed in Etisalat College of Engineering  
EE Vision Newsletter - 3rd issue: June 2003  
The Affinity Group, Women In Engineering was formed on the 4th of June 2003  
About 50 female IEEE members in UAE  
About 20 IEEE members in WIE Affinity Group in UAE

### Chapters & Student Branches in UAE

- IEEE PES Chapter
- IEEE Computer Society Chapter
- IEEE Student Branch, UAEU
- IEEE Student Branch, AUS
- IEEE Student Branch, Etisalat College
- IEEE WIE Affinity Group

Have a look at our IEEE UAE Section Website URL: <http://www.ewh.ieee.org/r8/uae/>

*Contributed by  
Dr. Eesa M. Bastaki  
Chairman, IEEE UAE Section*

## Raising Technological Literacy – A Challenge to IEEE Life Members

*by Jacob Baal-Schem  
Region 8 Life Member Coordinator*

**D**espite the great success of engineering innovations, we witness a worldwide decrease in enrollments to engineering studies. A recent report published in the IEEE Transactions on Education (May 2003 Editorial) states that the number of graduated students of departments of Electrical Engineering in the US has fallen from 25,000 in 1987 to 12,600 in 2000. Similar numbers can be quoted in many Region 8 areas.

Although engineering has completely changed the world of our young students, it seems somehow irrelevant to youngsters in many countries.

It is imperative to find ways to address the lack of interest and preparedness of High School students in engineering.

Among the persons best fitted to take this challenge are IEEE Life Members – retired scientists and engineers having a vast technological experience along with the wisdom and experience that comes with age.

To qualify for LM, members must be 65 or



more, and their age plus the number of years of IEEE membership must equal at least 100. We are proud to have 802 Life Members in Region 8 to date.

The Life Member Committee of IEEE supports activities to enhance interest in electrical and electronic engineering at the secondary and college level. These activities can best be performed through Life Member Chapters in the existing IEEE Sections.

Having been recently nominated by Region 8 Director as Coordinator of Life Member activities in the Region, I call upon Section Chairs and IEEE Life Members to form Life Member Chapters in our Sections.

Forming a Chapter requires the approval of at least 6 Life Members of the Section and the nomination of a person to serve as interim Chair of the Chapter.

The petition for a LM Chapter shall be submitted to the Regional Life Member Chapter Coordinator (e-mail: [j.baal.schem@ieee.org](mailto:j.baal.schem@ieee.org)) for approval. The Regional LM Chapter Coordinator will establish new LM Chapters with the cooperation and advice of the Section Chair. The Chapter shall be considered estab-

lished after the Regional Life Member Coordinator has contacted and informed the Section Chair of its formation I have lists of Life Members by Section and am willing to provide by e-mail any information required

I intend to launch a Regional activity towards raising Technological Literacy among our youngsters. This activity will be based on the lessons learned from project RE-SEED (Retirees Enhancing Science Educations through Experiments and Demonstrations), carried in the US and in Sweden to assist middle school teachers with the teaching of Science and math. I hope to bring together a small group of volunteers to be trained by experienced professionals on all aspects of the program.

It is my firm belief that Life Members can contribute much of their knowledge and experience to IEEE Section activities and to Society and I see the enhancing of Scientific Literacy as a great challenge to all of us.

I urge IEEE Life Members in Region 8 to become active, either by forming Chapters or by contacting me individually.

*Dr. Jacob Baal-Schem  
Region 8 Life Member Coordinator  
Chair, Israel IEEE LM Chapter*

## Get Local!

### Thoughts on a GOLD strategy

Read one of GOLD's mission statements: "The GOLD program has been established to provide the framework and tools for the Sections' use in retaining recent graduates."

"Recent graduates" often means former student branch members. What positive experience has an SB member which might make him continue his IEEE membership after university time?

An active Student Branch offers a social network for its members and connects people from different faculties and people from different years of study (from freshers to PhD students to professors). This network provides the opportunity to exchange views, ideas and knowledge regarding private and professional topics, to inspire and to help each other. It offers a platform to support the organization of events to discover like-minded persons with special interests.

When graduating from university, this network might be kept alive at least partially. But due to the distance between the connected people, due to work-load in the job, due to the adaptation to a new environment it gets more and more difficult to maintain it. Instead, new networks are built up within the social and professional domain.

Then what happens? IEEE Student branch is no longer available, the science might not be relevant to the job, costs of living compete with costs of IEEE membership. People quit IEEE membership.

This is where GOLD can step in. Graduates of the last decade - GOLD can offer much? Let us build on those Student Branch relationships. Let's go beyond.

GOLD covers the area of a whole country or a whole section. Even with four meetings with professional talks in a year and several additional activities like company visits, it is difficult to maintain a close relationship because the group that meets is different each time according to the place (e.g. city) where the meeting is held.

For example, through a GOLD member who was visiting Germany last year, we learned about the GOLD Affinity group of Bangalore, India which led to a new project within GOLD Germany: The "Get Local" approach.

As a first pilot, we extracted data about GOLD members in the Stuttgart area of Germany and invited them to a small meeting. As the response was not overwhelming, we decided just to meet at a cafe in an informal atmosphere. An additional aspect was the possibility to meet some old friends (you remember the SB network mentioned above?). After getting to know each other, we decided to give it another try.

The second meeting took place at Stuttgart University. The author explained the idea of GOLD and the "Get Local" approach to the



Stuttgart GOLDies Get Local

twelve participants. Another participant talked about mobile banking applications. In the end, every attendant expressed an interest in keeping this GOLD group alive and a speaker for the next meeting was determined.

The aims of this local group are: GOLD is an additional network that offers us an enjoyable opportunity to meet people in a different context, apart from the context where the GOLDie is employed. It offers a new opportunity to discuss private and professional issues as well as to organize events for which otherwise not enough interested people could be found.

This is just a small step, but in a more and more flexible and globalized world, these kind of networks will gain more and more importance for people and so this is a great chance for IEEE to fill a niche in its service to the engineering community.

By Gerald Anleitner  
GOLD Germany

## High-Tech and Visions

### German GOLD'ies visit Philips Semiconductors

The semiconductor foundry in Hamburg is Philips' principal office in Germany and the country's second biggest manufacturer of semiconductors. Mainly discrete semiconductors and ICs are produced.

On September 5, 2003 GOLD members were given an overview over the complex process.

The design of LCD displays – one of many applications for the fabricated ICs – addresses various aspects of digital imaging: Colour correction, motion compensation etc. A demonstration of the latest chip generation including image enhancement



algorithms allowed for a quick glance at the future of DVD and video.

### GOLD Committee Elected

During the GOLD meeting, Helmut Hauschild was elected new chairman of the Affinity Group and successor of Peter Knott who founded and supported it for many years.

IEEE Germany's new webpages were demonstrated. They were designed and built by members of the group.

### Hiding Places, Tapas & Drinks

We visited the German Customs Museum which tells the stories of customs and duty through-out the ages. Of special interest were the items from discovered smuggler's hiding places and trademark protection including various falsifications, from clothes to computer software.

Our group finally rested in Hamburg's nice Portuguese village where all aspects of IEEE GOLD were discussed while enjoying "tapas" and drinks.

Contributed by Peter Knott



his issue of Region 8 News brings you several articles under the banner of IEEE Region 8 Industry.

The intention is to give recognition to our members in industry. So I welcome your stories, articles, photos which illustrate our professional activities "on-the-job".

This month features a profile of the founder of a small company Robotica, Cemal Ozturk, who started making architectural models in his native Turkey (Ozturk Modelmakers) and today - in Glasgow, Scotland UK - also manufactures robots which are specially useful in teaching robotics.

Next Issue (February 2004) will profile - David Rhodes, a Fellow of the IEEE who started building microwave filters in a garage, and built this into a public company with three thousand employees - Filtronics.

Future issues will need stories sent in by our readers... please write to tell me about your enterprise!!

*Roland Saam,  
Editor, R8News  
e-mail: r8news@ieee.org*

## Member Profile: Cemal Ozturk

"It's undoubtedly true to say that electrical engineering is in my blood. I was born - in Istanbul - into a family peopled by electrical engineers. My father, one of the very first men ever in Turkey to become a registered electrician, was a highly respected businessman who ran his own electrical engineering company. He was later joined in the business by my two elder brothers, also qualified electrical engineers. Just to make up the numbers, my younger brother has now also joined the ranks, as he is now a qualified electronics engineer."

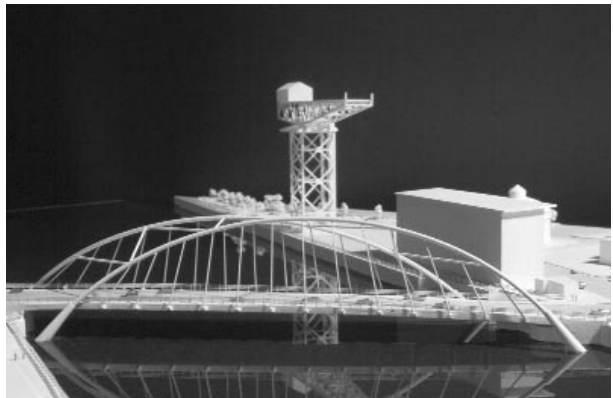


"My education in Turkey saw me achieve HND equivalent qualifications in electrical and mechanical engineering. Life around our family home wasn't so much about A, B & C - much more U, I & R. With this background in electrical engineering, I was then introduced to the world of architecture by my sister, now an Associate Professor of Architecture in Istanbul. Three worlds collided - to hugely positive effect - when I integrated electrics, electronics and architecture.

"I founded an architectural modelmaking company in Istanbul, which allowed me to combine these three strands thereby pushing forward the boundaries of traditional modelmaking into an altogether more hi-tech world. The business flourished in Turkey as many clients appreciated the benefits of architectural and marine models which comprised electronic features such as infra-red remote controls and fibre-optic lighting."

"I moved to Scotland to get married in 1989, and transferred my business to Glasgow. Since then, Ozturk Modelmakers has become the biggest firm of its kind in Scotland. Many of Scotland's landmark contemporary buildings and developments have seen their inception within our premises; we have modelled, amongst countless others, the new Scottish Parliament Building in Edinburgh, a major Scottish golf course designed by Severiano Ballesteros and the new stadium for Celtic FC at Glasgow's Parkhead."

"During these years, I have expanded my passion for all things electrical and mechanical into an area that combines modelmaking and electronics to futuristic effect - that of robotics. Expanding my business into the manufacture and supply of educational robotics is the reason I joined IEEE. When I established the robotics company - Robotica - I was keen to ensure I was part of a serious network of like-minded professionals."



"The team at Robotica now includes my brother as Technical Director and an in-house architect. The business is completely self-sufficient with an electronics lab, cad-cam and modelmaking workshops. The core staff of highly versatile people produces complex prototypes and thoroughly tested working products. All the robotics products are designed, developed and manufactured in-house."

"The business plan for the next three years has as its objective the development of the main robotics product - EduBot - and the progression of its high-level marketing abroad. I am now working on the design of a conveyor and a rotary table. This is to complement our robotic arm EduBot to form a robotic cell for which I have to find affordable industrial grade sensors with vision for object recognition."

"Please visit our website [www.robotica.co.uk](http://www.robotica.co.uk)"

*Cemal Ozturk  
Robotica Ltd.  
17-19 Park Terrace Lane  
Glasgow G3 6BQ, UK  
Tel: +44 141 353 2261  
Fax: +44 141 353 2614*



## First Meeting of Industrial Relations IEEE UK&RI Section

On 17th January 2003, a group of members met in London to set up Industrial Relations activities in United Kingdom & Republic of Ireland.

Present were Theresa Schofield, Steven Gao, Roland Saam.. Further team members were Nihal Sinnadurai, Simon Jones. and Ahmed Shihab.

In UK&RI we have some ten thousand members, and there are vast numbers of people who work in our fields of interest but do not know about IEEE, or how they can join and participate in activities.

Theresa Schofield outlined the purposes of EMTA (Engineering and Marine Training Authority); which has wide contacts to Industry in UK and how it might help us. For example IEEE UK&RI IR team could gain the attention of heads of industry in the UK. She suggested a method to choose Companies to target, ie those which already have an awareness of IEEE benefits (USA companies on UK&RI) - "quick hit = likely success". Success would gain more names, incentive as well as give experience to the team in approaching European companies.

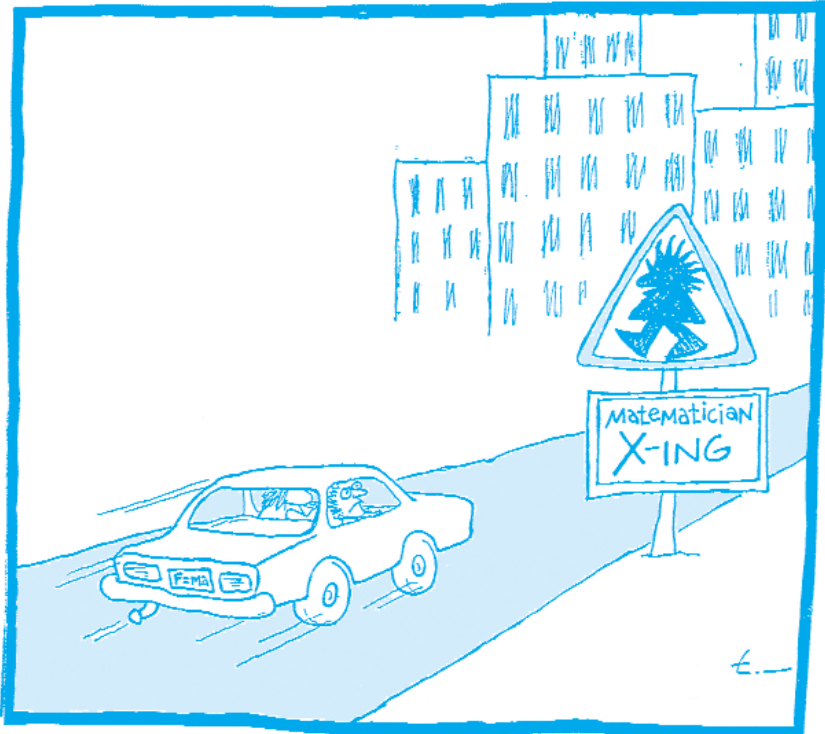
A report by the Region 8 Industrial Relations coordinator, Terje Gegendahl gave details of how he started up IR in Norway in 2001, and what results they achieved, with a business plan for development.

The UK&RI Industrial Relations team initial meeting got off to an early start.

## IEEE Industry Relations

In this first of a continuing Series, Region 8 Industry will tell it's readers about how IEEE Industry Relations is set up. At the top, the Regional Activities Board (RAB) has set out the scope:-

The Industry Relations Committee is responsible for the following RAB objectives:



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1. Promote and inform the concept of IEEE as a progressive technical information provider to industry and its employees.
2. Promote and inform the relevance of support of IEEE in developing/changing technologies.
3. Work with industry to establish our understanding of their needs, to determine their further needs and to demonstrate how we can help address their needs.
4. Encourage the establishment of Leadership Training within the Regions and Sections.

So at the Region level there is a committee headed up by Jean Gabriel Remy (jean-gabriel.remy@cegetel.fr). He works with the Sections in our region to stimulate activities which inform people in industry about the benefits of IEEE. He is there to help your Section IR Volunteer to establish Industry Relations

There is a great deal of information on this subject. I encourage readers to search the IEEE website for useful material such as PDF files of helpful brochures which explain the IEEE

- IEEE Xe.pdf a three page executive summary;
- WhatIsIEEE.pdf "What is the IEEE?";
- Guidelines1.pdf "Guidelines For Developing Executive Contacts"

There is a lot of potential in Region 8 for informing the world of commerce and industry about the benefits to encouraging membership in the IEEE. I hope that you will contribute to this series. Please write about what your Section or Chapter is doing to bring members and non-members closer together to our fields of technical interest. I am also interested in Personal Profiles of members in Industry.

*Roland Saam*  
Editor

**IEEE Women  
in Engineering**  
— [www.ieee.org/women](http://www.ieee.org/women)

**Visit the Women in Engineering website**

**[www.ieee.org/women](http://www.ieee.org/women)**

**- New WIE PhotoContest**

**- Search Women at [www.ieee-virtual-museum.org](http://www.ieee-virtual-museum.org)**

# Photo Quiz

## Our Iceland correspondent writes:

"The photo (published in September R8News) shows a true copy of a coin-telephone box that was long time ago in the middle of the center square in Reykjavik (Laekjartorg).

I think that the original coin-telephone box was put up shortly after the opening of Iceland's first automatic telephone exchange in Reykjavik 1. December 1932 and it stood there for 30 to 40 years. (The first public telephone in Iceland).

The original coin-telephone box was known as a symbol for Reykjavik at that time. When it was taken down it was destroyed. The box which stands outside the Telecoms museum today, was bought from the producer in Sweden.

The sign "SIMI" on the top of the box means "TELEPHONE".

The enclosed photograph - was taken by the photographer Skafti Gudjonsson (1902 - 1971) on 14. june 1942, - the original is in the Reykjavik Photograph museum.

It shows the main central square in Reykjavik, "Laekjartorg". The street on the right is "Bankastraeti" and the big house on the left is the Prime Ministry."

*Thorvardur Jonsson,  
Iceland*

**Editor's Notice:** To all who entered the September contest - The Winner will be announced in the February 2004 issue of region 8 News. As I write this, the closing date for the September contest had not yet finished.



## New Photo Quiz November 2003

Many readers are familiar with the engine compartment of a modern car. It surely is complex, as this photograph proves. The words "Hybrid System" appear on it. So the questions for November are:

Q.1 What is an engine with a Hybrid System?

Q 2. How many electrical, electronic, computing systems in this engine can you describe?

I guess that many readers are involved with design and development for the Automotive industry. The engine shown is from a production car, but it is unique.

Maybe you belong to the IEEE Vehicular Technology Society. The Society concerns itself with land, airborne and maritime mobile services; portable commercial and citizen's communications services; vehicular electrotechnology, equipment and systems of the automotive industry; traction power, signals, communications and control systems for mass transit and railroads. Have a look at their website: [www.vtsociety.org](http://www.vtsociety.org)

All entries must be received by 1st December 2003. Winner will receive a "IEEE Milestone 02 SWATCH" quartz wristwatch in a presentation case. The SWATCH kindly donated by IEEE Switzerland Section.



# Harnessing Geothermal Heat for the Supply of Energy

## A visit to the Nesjavellir power plant in Iceland



by Jacob Baal-Schem

The word “Geyser” is quite well known worldwide, but only a few know that the original “Geysir” is a hot spring site in Iceland.

Geysers erupt because the thermal water ascending through their channels boils at some depth below the surface. As the water boils it flashes into steam, and as the steam occupies far greater volume than water, the water above in the channel is thrown high up into the air. At about 23 m depth in the Geysir pipe the water is at 120°C temperature. The turbulence (boiling) can increase to the point where the water above in the pipe is lifted slightly, and a chain reaction starts - the pressure decreases making further boiling possible and the water flashes into steam, resulting in a “Geyser eruption”.

In previous centuries, the utilization of geothermal heat in Iceland was primarily limited to bathing and laundering. In 1930 a primary school near Reykjavik was heated by a supply of hot water (at 87 degree centigrade). The harnessing of geothermal heat especially in the Hengill area near the original Geysir (about 50 square kilometers

on an active volcanic belt), was discussed for a long time. In 1948 the Town Council of Reykjavik, the capital of Iceland, approved participation in research. Nesjavellir became the focal point, as it had the greatest geothermal activity in the area.

Nesjavellir is the biggest geothermal power plant in Iceland, 177 metres above sea level. Exploration and planning for utilization started already in 1947 and was continued for two years. A few experimental boreholes were drilled for the evaluation of the exploitable power and the chemical composition of the steam. After a rather long intermission, exploration and research continued with shorter intervals from 1965 to 1986.

The construction of the geothermal power station commenced in 1987 and the cornerstone was laid in May 1990. The processing power of the power station is now 200 MWt (heat energy), with the water production reaching more than 1100 litres per second. In June 2001 the third turbine was put into operation, making the total production of electricity 90 MWe (electrical energy). The steam is utilized both for generating electricity as well as

for heating cold water taken from a nearby lake. The hot water flows by a 23 km pipeline to Reykjavik, with a temperature decrease less than two degrees, and serves to heat about 26,000 houses serving more than half the population of Iceland.

I was impressed to see how the Iceland nation harnessed geothermal power for the production of electricity and the heating of houses without harming the environment.

Contributed by  
Jacob Baal-Schem

### Editor's note:

For further information please look at website <http://www.energy.rochester.edu/is/reyk/index.htm> where you will find interesting facts about the Geothermal Resources in Iceland and the Reykjavik Heating & Electricity Plan.

*History of geothermal sources of energy in Iceland*

*How the plant works*

*Geothermal Resources in Iceland*

*Output & Distribution*

*Economy and Investments*

*Research & Outlook for future developments*

Student Representative: Basak Yüksel ([basak@ieee.org](mailto:basak@ieee.org)) Send news to e-mail address: [R8StudentNews@ieee.org](mailto:R8StudentNews@ieee.org)  
Website: <http://www.ieee.org/r8sac>

## Hi!

Hi everybody,  
To say these are active times of student branches may be a considerable statement. After a resting summer period, student branches restart to organize activities and look for different IEEE opportunities. This November issue of Region 8 Student News is a rich collection of challenging IEEE announcements. Once more, I thank all our student branches for their contributions to these pages and want to invite all of you to write about your announcements, activities i.e., anything you want to share with IEEE student members.



*Best regards,  
Basak Yüksel*

*Regional Student Representative*

## Message From R8 SAC

Hola!

How are you all? There are a lot of new opportunities that we are sharing with you in these pages. Take a look at them and find out more in our brand new web page: <http://www.ieee.org/r8sac>

Take your time to browse through these pages and find out about the highlights that your IEEE membership provides. If you have any questions or suggestions, do not hesitate to contact us at: [r08-sac@ieee.org](mailto:r08-sac@ieee.org). Also remember that we are looking to forward your feedback, your constructive critics and your support.

*Best regards from Spain!*

*Pilar Molina Gaudó*

*Vice Chair Student Activities*



## Student Branch Congress 2004 (SBC'04)

### Preliminary Announcement

The biannual Student Branch Congress that joins together all the Student Branch leaders in Region 8 will take place next year in Passau, Germany on 4-7 September 2004. This congress will be held in conjunction with the Region 8 GOLD Congress. I first want to show my gratitude to the local volunteers that are doing a good job to make this a great success.

For the first time there will be a maximum number of Region 8 sponsored delegates. To be able to receive travel support from Region 8 for the Student Branch to send a delegate, the Student Branch has to meet the following criteria:

- 1) Student Branch has more than 15 members in May, 2004. Now the renewal campaign for 2004 is open, so it is time for SB leaders to recruit new members.
- 2) Student Branch has to submit the Annual Report before June, 1st 2004.

Furthermore, if there are more applications than travel grants, the following guidelines will be followed by the organization:

- Number and quality of activities reported by the Student Branch,
- Quality of the web,
- Awards and prizes won by the Student Branch in the last two years OR at least participation and submission of candidates (Web Contest, Outstanding Branch Counselor Contest, Region 8 SB Membership Growth Contest, Student Paper Contest, Region 8 Photo Contest, etc.),
- Participation in R8 News,
- Number of Student Branch Chapters and WIE Affinity Group,
- Years of term of SB officers (the less the better).

This is a preliminary announcement and we will let you know of more details as soon as possible.

For more information send an e-mail to: [pimolina@ieee.org](mailto:pimolina@ieee.org) Also, send us an e-mail with ideas of activities you would like to see in SBC'04.

## Interested In History?

Check the Virtual Museum web site: <http://www.ieee-virtual-museum.org/> but more important:

### IEEE Student History Paper Competition

**Investigate the History of Your Profession and Win a Trip to England!**

**28-30 June 2004**

This is an unusual opportunity for a student of electrical engineering and computing to do some historical research and present it at an international IEEE conference in England, with travel expenses paid.

The IEEE 2004 Conference on the History of Electronics marks the hundredth anniversary of the invention by John Ambrose Fleming of the diode electron-tube, the first of the radio tubes. The conference will take place from 28 June through 30 June 2004 at Bletchley Park, 50 miles northwest of London. Bletchley Park, the centre of British code-breaking during World War II, is an appropriate site for the conference since it was there that the Colossus, considered by many to be the first large-scale digital electronic computer, was designed and built.

The student should investigate some topic in the history of electronics broadly defined, including, for example, computers, signal processing, control systems, and consumer electronics. He or she may focus on any aspect of this history—technological, economic, or social—and should present the research results and conclusions in a 10- to 20-page paper. (See the Guidelines for more information at: [http://www.ieee.org/organizations/history\\_center/Che2004/contest.html](http://www.ieee.org/organizations/history_center/Che2004/contest.html))

Ten winning papers, one from each of the ten IEEE Regions, will be selected, and each of the winning authors will be invited to attend the conference, expenses paid, at Bletchley Park. In addition, the Student Branch of each winner will receive an honorarium. After presentation at the conference, from the ten winners, the Conference Program Committee will select the overall first-, second-, and third-place winners.

This IEEE Student History Paper Competition is sponsored by the

IEEE History Committee and the IEEE History Center, and it is made possible by a grant from the IEEE Foundation.

### Briefs:

These are short reminders and information that you might find useful:

- 1) REMEMBER: Region 8 STUDENT BRANCH MEMBERSHIP GROWTH AWARDS  
This Awards prizes to the top 5 Student Branches with a higher membership growth with \$600 for activities. This is a lot of money! And now the 2004 Membership Renewal campaign is open. More information at: <http://www.ieee.org/r8sac>
- 2) MONEYLESS and willing to travel to an IEEE technical conference? Now you can earn yourself a trip if you volunteer to organize a Student event at the venue. Again you can find the details in the web page. Don't miss this chance to get this travel grant!
- 3) Region 8 Student Activities offers up to \$500 help to Student Branches to organize activities, contact us!
- 4) There is a Region 8 Student Photo Contest going on. Check it out!
- 5) I INSIST... do not forget to check the web: <http://www.ieee.org/r8sac>!

### IEEE Sarajevo SB

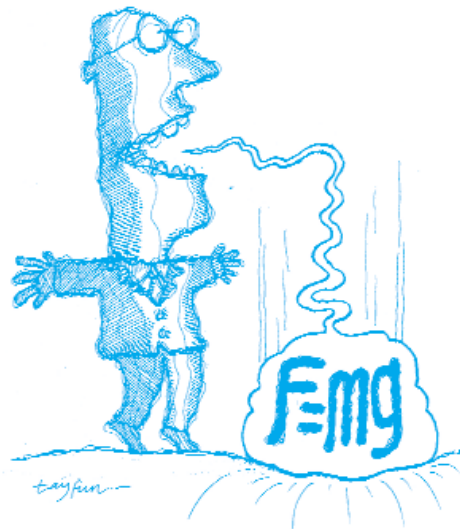
#### EESEE 2003

The Capital of Bosnia and Herzegovina, Sarajevo, from 1st till 3rd of July was the host of the IEEE International Conference "EE Education in the 21st Century in the Southeastern Europe (+Greece and Turkey)", organized by the IEEE Student Branch of Sarajevo.

Reforms in Higher Education are taking place in the SEE at this moment and the implementation of EU standards is in front of all of us, so we felt the need to create an appropriate environment for the representatives of Universities, professors and students from the region in order to exchange knowledge, ideas and experiences about education systems and to improve cooperation in the region.

Three days of the Conference were full of activities and here are some highlights:

- 20 papers were presented;
- "Leadership and Creativity in EE" Workshop for students was



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held by Prof. Frank Prochaska from Colorado Technical University and 15 Students received a valuable Certificate;

- Round table on Academic Exchange was the place where excellent ideas and concrete agreements drew the most attention;
- IEEE SEECEE, idea about making the 'Olympic' Games in Electrical Engineering was well accepted and a team of people who will work on this idea was formed;
- Visit to the Faculty of Electrical Engineering, University of Sarajevo;
- Dean of the Faculty of Electrical Engineering at the Politehnica University of Bucharest Prof. Mihai Octavian Popescu initiated the forming of the "Southeastern Europe Dean's Network"

This conference was organized with support of the IEEE Foundation and the help of several local companies and organizations. Many thanks to:

Prof. Branislava Perunicic Drazenovic, Mr. Leid Zejnilovic, Mr. Jasmin Velagic, Miss. Alma Skopljak, Miss. Sabina Vejzagic, Mr. Duvnjak Dragan, Mr. Amar Uzunovic, Mr. Adnan Strojil, Mr. Damir Mudric, Mr. Senad Uka, Miss. Sabina Dacic, Miss. Lejla Becirbasic and others.

*Edin Drljevic*

*IEEE SB Sarajevo – Chair*



Electrical Engineering Education in SE Europe Conference – Sarajevo EESEE 2003

## STUDENT PAPER CONTEST 2004

The Regional Student Paper Contest 2004 deadline is approaching. Deadline for submission of papers is 15 December 2003. To participate, you have to be a Region 8 Student belonging to a Student Branch. The size of the paper should not exceed 6 pages and you can read the detailed rules in the web page. There are three prizes 800, 500 and 200 US dollars respectively that are offered by the Life Member Fund. Furthermore, the Region 8 Student Activities Fund offers 250 US Dollars as the "Dick Poortvliet Award" to the branch where the winner comes from.

The oral finals will take place in Dubrovnik, Croatia, as part of Melecon 2004 (<http://www.melecon2004.org>), the 12th Mediterranean Electrotechnical Conference (12-15 May 2004). Finalists get travel support to the venue, and Dubrovnik is really worth visiting.

For further information, contact: M.J. Bastiaans@ieee.org

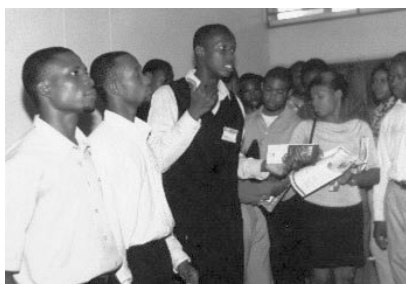
## The Nnamdi Azikiwe University, NAUSB Bags R8 Award

The Nnamdi Azikiwe University Student Branch was, in June 2003, declared the FOURTH BEST STUDENT BRANCH in Region 8, in terms of membership growth.

The award, which carries a cash prize of \$300, got all the students (and faculty members!) jubilating. Few hours later, the branch inbox was full of congratulatory messages.

Such recognition, at a time when student membership was almost discouraged by the dues increase -especially in Africa- goes to show that NAUSB is actually one of (if not) the best SB in IEEE!

To the members, it is simply a product of



From L-R; Efeyena Duke, Chukwu Michael (Membership Comm. Chair), Igboanugo Charles (Branch Chair) during a membership campaign on campus.

hard work - from inauguration in 2001 to weekly branch meetings, regular membership campaigns on campus to technical visits to industries, hosting the Nigeria section and organizing an SPAC to an effective representation at an IEEE R8 conference in South Africa.

A lot of thanks to the R8 Student Activities Committee for such a nice initiative and also to the Nigeria section executives for their support.

*Contributed by,  
Igboanugo, Charles*

## IEEE Federal University of Technology Owerri Student Branch (FUTO SB)

### Teaching Evening (July 14th, 2003)

The Technical Evening started at 4.00 pm with overwhelming enthusiasm of Futo students. The Branch Chair, Mr.Chinonso Emehelu, introduced the speaker Mr.Okwudili Nwachukwu who made a presentation on Bluetooth Protocol, which was the technical paper of the evening. The presentation was well received by the participants with so many follow up questions and contributions in the Q&A session. This brought the technical session to an end and the general session then started.

This was the first Technical Evening of the semester, the Branch Chair gave a talk on IEEE, going back to basics: history, organizational overview, purpose, function and benefits to students and the relevance of a branch to student activities. He also emphasized the networking advantages as suggested by the motto, "Networking the World", as well as the scholastic provisions for outstanding and upcoming engineering students.

This elicited a lot of questions from participants, especially non members who were enthusiastic about joining the IEEE. Also, members indicated their interest in participating in the regional paper contests.

With the attendance of over 50 people, the technical evening ended with a lot of participants expressing their satisfaction with immeasurable benefits of IEEE student registration and looking forward to the next technical evening.

*Emehelu Chinonso Oha Onyedika  
Student Branch Chair Student Branch  
Secretary*

## Kwame Nkrumah University of Science and Technology, KNUST

### IEEE Student Branch Kumasi, Ghana

The KNUST (Kwame Nkrumah University of Science and Technology) Chapter was formed in September 2002. In less than a year, the branch has increased its number of members over 50 students. The increase in membership was impeded by the recent 78.5% increase in the student registration fee. The branch is also taking part in as many contests and activities organized by IEEE as possible. As such, it participated in this year's regional web-site contest.

In preparation for the Student Paper Contest, the branch organized an orientation for members. Prof. Toby Cumberbatch, a visiting lecturer from Cooper Union, N.Y., USA, carried out the orientation. He gave an overview of how to plan for the contest and choose a topic.

The branch is also planning strategic means of increasing membership. As part of these, there will be a one-year anniversary celebration in September 2003. The activities, which will mark the occasion, are listed below:

1. A presentation of IEEE organization,
2. A symposium on the topic "The recent technological advancements in Ghana.",
3. A cocktail party.

The listed activities will also be used to register new members into the branch.

*Yayra de Souza  
Branch Chairman  
ydesouza@ieee.org  
IEEE-KNUST*

<http://www.ghana-youth.com/ieeeknust>

## Warsaw University of Technology,

### IEEE Student Branch, Poland

IEEE Student Branch of Warsaw University of Technology in cooperation with IEEE Poland Section and SPIE Poland Section is organizing annual conference on Photonics and Web Engineering to be held in WILGA Village near Warsaw, on 26-30 May 2004. The WILGA Village resort is owned by the Warsaw University of Technology and offers unique friendly country side conditions. The conference is designed primar-



IEEE-KNUST members with Prof. Toby Cumberbatch at orientation for the IEEE student paper contest

ily for young researchers from academia, industry and hi-tech business including spin-offs. It is also designed for M.Sc.E.Eng students, Ph.D. students and GOLD members. Every evening there are IEEE sponsored barbeques. The scope embraces, but is not confined to: complex electronic and optoelectronic systems, optical and photonic technologies, measurement and telemetric systems, applications of photonics in communications, biomedicine and industry, high energy physics experiments, experimental astronomy, optical Internet technologies, Grid calculations, Optical multigigabit Ethernet, Optical networks theory and practice, mechatronics and nanomechanics, 3D and 4D object recognition and tracking.

Conference website is: <http://nms.ise.pw.edu.pl/wilga/2004/eng/index.php>

There is no conference fee for IEEE and SPIE members and the accomodation price is just symbolic, around 10 Euro per day for night and whole day food. The conference papers are published internationally in the recognized series Proceedings of SPIE ([www.spie.org](http://www.spie.org)). Official language of the meeting is English. Information: [R.Romaniuk@ieee.org](mailto:R.Romaniuk@ieee.org)

*Best regards,*

*Ryszard S.Romaniuk*

*Warsaw University of Technology, Poland*

*IEEE Student Branch Counselor*

## University of Ibadan,

### IEEE Student Branch, Ibadan, Nigeria

The IEEE Student Branch of Nigeria's premier university, University of Ibadan recently held its third program in the academic session - a technical trip to two

organizations in Ibadan, Nigeria. Internet to GSM mail/text technology, web design/hosting, VSAT, networking, IP telephony, certifications, among others were topics presented. Earlier in the session, we had had an excursion to an ISP in Ibadan and a seminar, with the Nigeria Section Vice Chair in attendance. It's indeed a privilege to be an active member in this great organisation - IEEE and to be continually encouraged by the Nigeria Section.

*Adebowale Onifade*

*[debo@ieee.org](mailto:debo@ieee.org), [deboprime@hotmail.com](mailto:deboprime@hotmail.com)*

*Student Branch Chair*

*IEEE, University of Ibadan*



IEEE Ibadan, Nigeria SB Participants during the excursion



From left to right: Adebowale Onifade, Oladiran Amao, Ade Odutayo, Tolu Alalade, Adedotun Oludemi and Segun Tinubi

## Neural Net Notes

### Up to \$600. Travel Grants for Students:

The IEEE Neural Networks Society Conference Travel Grant program offers a limited number of travel grants to assist IEEE Student Members presenting papers at IEEE NNS sponsored conferences. Students who reside in the local area of the conference will receive the equivalent of the early student registration fee.

For more information, please contact Slawo Wesolkowski, IEEE NNS Education Chair at [s.wesolkowski@ieee.org](mailto:s.wesolkowski@ieee.org) or visit the website: <http://www.ieee-nns.org/edu/travel/>  
**NNS offer up to \$4,000.**

### Scholarships for Summer Research

The Walter J. Karplus Summer Research Support Program of the IEEE Neural Networks Society allows students to apply for funding to carry out research during the summer period.

This initiative includes (1) a visit to another university, institute or research agency for collaboration with an identified researcher in the field of interest of the applicant, (2) expenses (such as software or books) that are justifiable and relevant to the research being conducted.

## Region 8 Students get 2-of-4 Awards in 2003!

The four projects awarded for 2003:

1. Theoretical Analysis of Multi-Objective Evolutionary Algorithms - Jian-Hung Chen, Feng Chia University, Taiwan;
2. Bio-Instrumental Complex Assess Bio-Psychological State of the Persons Doing Activity under Stress Conditions, Dan Dobrea, Technical University "Gh. Asachi" Iasi, Romania
3. Intrusion Detection with Neural Networks, Timo Horeis, University of Passau, Germany
4. Modeling of Reactive Ion Etching Using Neural Networks, Chen Min, Beijing Institute of Technology, China

For more **information on the 2004 program** please visit the website at <http://www.ieee-nns.org/edu/research/index.html> or contact Slawo Wesolkowski, IEEE NNS Education Chair at [s.wesolkowski@ieee.org](mailto:s.wesolkowski@ieee.org).

## IEEE EAB Pre-University Presentation for Regional Meetings

Through the initiative of Ferial El-Hawary, the Region 7 meeting held on 2 May 2003

included a presentation about pre-university outreach activities by Dr. Douglas Gorham, Manager, IEEE Educational Activities Pre-college Education

"During his IEEE-Eastern Canada Council Tour, Dr. Gorham did a super job of providing strategies that can connect engineers with the pre-university community and solve the problem of including technology and engineering in the schools," said Dr. El-Hawary.

"Students and teachers often regard science, technology, engineering, and mathematics as being either scary or dull. Engineers can demonstrate that engineering projects can teach teamwork, be challenging, and fun."

The IEEE Educational Activities Board (EAB) pre-university education programs and supporting materials are designed to form collaborations between engineers and teachers and/or engineers and students. The EAB pre-university education website features over 30 links to programs and strategies for activities at the Section level.

A corollary is to increase the profile of engineering. Exposure is the surest way to overcome the idea that engineering is too difficult a subject to tackle.

EAB offers many materials to support you. Pamphlets, brochures and information are available at the EA website. Direct e-mail to Doug Gorham will also bring help.

\* "PEERS," <http://www.ieee.org/organizations/eab/precollege/peers/>, tells you how engineers can support educators and how educators can use engineers' support. Answers to the "who, why, where, how, and when" are given.

\* "Teacher-in-Service Program,"

<http://www.ieee.org/organizations/eab/precollege/tispt/>, describes a project for their classroom and give instructions on how to do it. Specific and practical information includes many tips.

\* "City Technology: Stuff that Works," <http://www.ieee.org/organizations/eab/precollege/sitytech/about.htm>, explains how IEEE members can serve as online mentors for middle elementary schools. Stuff that Works instruction sheets are on-line.

EAB's goal is to give the pre-university presentation at each of the Regional meetings. If you are interested in arranging a regional presentation, contact Dr. Doug Gorham at [d.g.gorham@ieee.org](mailto:d.g.gorham@ieee.org).

Lynn Murison

## New! New! New! The R8 Student Forum

The R8 Student Forum is an online community open to all Region 8 Student Members. Take a look at it and join in: <http://www.ieeecommunities.org/region8sf>

You will be able to:

### Discuss:

- Share experiences and information with colleagues across Europe, Africa and the Middle East,
- Create new discussions and respond to open ones,
- Share ideas with people participating in Student Branches from half of the world,
- Learn about what it means "trying to become an engineer" in other places.

### Share files:

- Share files and information,
- Awards information,

- Technological information.

### Chat:

- Chat with other people in the community and meet people. There are two chat possibilities:
  - i. Chat in a one to one basis, just by clicking on the Who's On link of the community.
  - ii. Chat with up to 10 people in the chat room of the community by clicking on the Chat link on the left banner.
- Participate in one of the programmed chats with leaders of R8 SAC and other students.

### Post calendar entries:

- Know what is going on in other parts of the world and find out about international programmed activities,

- Share the things that are happening in your area with the community.

### And also:

- Take part in polls,
- Send images to be posted to the community,
- Get information of other community members,
- Influence the IEEE leadership with your views,
- Express yourself!,
- Meet people and network,
- Take advantage of your IEEE membership.

If you like the idea of the community, and also you want to be volunteer to help us a little by developing this tool, you can become a Community Moderator. If you are ready to step forward send an e-mail to Pilar at: [pimolina@ieee.org](mailto:pimolina@ieee.org)

# Student News Calender of Events



## \* 1st IEEE Region 8 Student Branch Chess Tournament

Start of tournament was October 5, 2003

First IEEE Region 8 Student Branch Chess Tournament!

Challenge for Knights of Chess

IEEE Region 8 SAC and BTI (Biysk, Altay region, Russia) IEEE

Student Branch

New Chess Tournament! - Now in Progress

See who's in the team and follow results on the sac website:

[www.ieee.org/r8/sac](http://www.ieee.org/r8/sac) follow links to chess.

## \* Student Branch Congress 2004 SBC'04, Passau/Germany

4-7 September 2004

## \* The Regional Student Paper Contest 2004

Deadline for submission of papers: 15 December 2003.

[m.j.bastiaans@ieee.org](mailto:m.j.bastiaans@ieee.org)

## \* IEEE Student History Paper Competition

The conference will take place from 28 - 30 June 2004 at Bletchley Park, 50 miles northwest of London. The papers will be judged by the Conference Program Committee after the presentations at the IEEE 2004 Conference on the History of Electronics.

## \* Student Design Teams Sought for 2004 CSIDC

Students from universities and colleges worldwide are invited to participate in the 2004 IEEE Computer Society International Design Competition. The CSIDC is an annual challenge that allows teams of undergraduate engineering students the opportunity to design, from inception to prototype, a special-purpose computer-based device to solve a real-world problem. The competition has a \$25,000 first prize.

In 2004, the idea of social responsibility is targeted in the theme "Making the World a Safer Place." Examples of devices that might follow this theme include GPS technologies that could help aircraft avoid collisions, environmental monitoring systems, or devices that track patients who experience dementia.

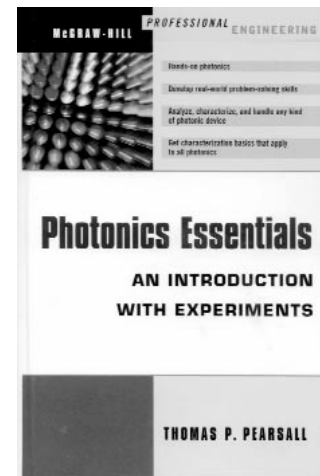
Application materials are due by 1 November. Teams will be selected by 14 November. [www.computer.org](http://www.computer.org)

# Book Corner

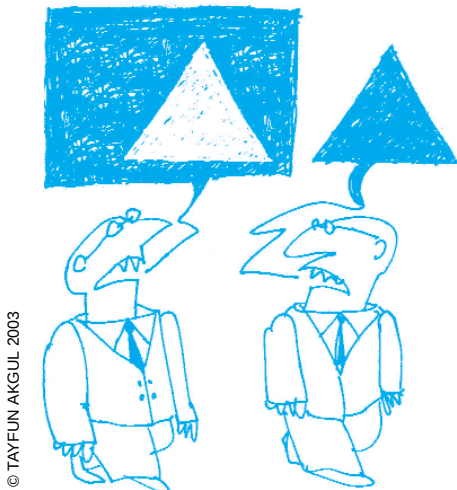
## Photonics Essentials – An Introduction with Experiments,

This text was written by Tom Pearsall, a Region-8 member and Fellow of the IEEE. 

It teaches photonics – the electronic devices that manage light and electricity (Light-emitting Diodes, Photodetectors and Lasers). You learn by "hands-on" measurement techniques common to all photonic devices. It is designed for students and engineers looking for practical expertise rather than abstract theory. Contact [pearsall@ieee.org](mailto:pearsall@ieee.org) for more information



et cetera



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## Photo Review – IEEE R8 in 2003





MELECON2004

May 12 -15, Dubrovnik, Croatia



**IEEE**

Region 8  
Croatia Section

<http://www.melecon2004.org>

## LAST CALL FOR PAPERS

The 12<sup>th</sup> IEEE Mediterranean Electrotechnical Conference - MELECON 2004 will be held in Dubrovnik, Croatia on May 12 - 15, 2004. (moved from May 9 – 12). The Conference will be an inspiring forum for the exchange of ideas and results. It will include regular technical sessions, plenary sessions, tutorials, special sessions and workshops. Regular sessions will include poster and lecture sessions. Prospective authors are invited to submit their manuscripts reporting original work, as well as proposals for special sessions, tutorials and workshops in areas of, but not limited to, Circuits and Systems for Signal Processing, Information and Communication Technology, Power Resources and Systems.

### IMPORTANT DATES:

|                                   |                          |
|-----------------------------------|--------------------------|
| Submission of papers              | <i>November 11, 2003</i> |
| Notification of acceptance        | <i>January 20, 2004</i>  |
| Deadline for final papers         | <i>February 17, 2004</i> |
| Deadline for authors registration | <i>February 18, 2004</i> |

### MELECON 2004 SECRETARIAT:

#### MELECON 2004

University of Zagreb

Faculty of Electrical Engineering and Computing

Unska 3, 10000 Zagreb, CROATIA

Phone: +385-1-6129-938

Fax: +385-1-6129-652

e-mail: [melecon@melecon2004.org](mailto:melecon@melecon2004.org)

web: <http://www.melecon2004.org>

## CALL FOR PAPERS –

### AFRICON 2004



15 - 17 September 2004

Gaborone, Botswana

<http://eerc.up.ac.za/~ieee/>



Region 8's AFRICON 2004 will be in Gaborone, the capital of Botswana, from 15 - 17 September 2004, at the Grand Palms Hotel and Conference Centre.

The Conference is organized by the South African (SA) Section of the IEEE, The SA Institute of Electrical Engineers, the SA National Research Foundation, the University of Botswana and the Botswana Institute of Engineers (BIE).

#### Call for Papers

Prospective authors should submit a 300 word abstract in English by e-mail or fax, to Prof. Albert Helberg – Africon'04, not later than Friday 6 February 2004. An **electronic copy** of the final paper by Wednesday 3 March 2004. The final papers will be subjected to peer review

#### Industry sponsorship and marketing

Companies that are interested in sponsoring the conference or marketing their products at the conference please contact Prof. Gerhard Hancke, Prof. Albert Helberg or Mr. Shedden Masupe

#### Contact details:

| Name                            | E-mail                                                                       | Telephone                      | Fax                 |
|---------------------------------|------------------------------------------------------------------------------|--------------------------------|---------------------|
| Prof GP Hancke                  | <a href="mailto:gerhard.hancke@eng.up.ac.za">gerhard.hancke@eng.up.ac.za</a> | +27 (0) 12 420 3736            | +27 (0) 12 362 5000 |
| Prof ASJ Helberg                | <a href="mailto:eeiasjh@puk.ac.za">eeiasjh@puk.ac.za</a>                     | +27 (0) 18 299 1966            | +27 (0) 18 299 1977 |
| Prof GO Anderson<br>(Botswana)  | <a href="mailto:anderson@mopipi.ub.bw">anderson@mopipi.ub.bw</a>             | +267 355 4331<br>+267 355 4226 |                     |
| Mr Shedden Masupe<br>(Botswana) | <a href="mailto:masupes@info.bw">masupes@info.bw</a>                         | +267 355 4363<br>+267 393 6298 | +267 395 1836       |

**Conference Chair:** Prof GP Hancke, Department of Electrical, Electronic and Computer Engineering, University of Pretoria, Pretoria, 0002, SOUTH

#### Themes and Topics

AFRICON '04 presents a forum for Electrical, Electronic and IT research activities in Africa. The annual local IEEE and SAICSIT conferences will be included.

- Aerospace and Electronic Systems
- Communications and Signal Processing
- Components
- Computer Science
- Computer Systems
- Control and Automation
- Education and Technology
- Electron Devices and Circuits
- Energy and Power Systems
- Engineering Management
- Geomatics
- Engineering Applications in Health, Transport and Communication
- Lasers and Electro-Optic Systems
- Microwave Theory Techniques and Antennas
- Information Systems
- Power Electronics and Drives