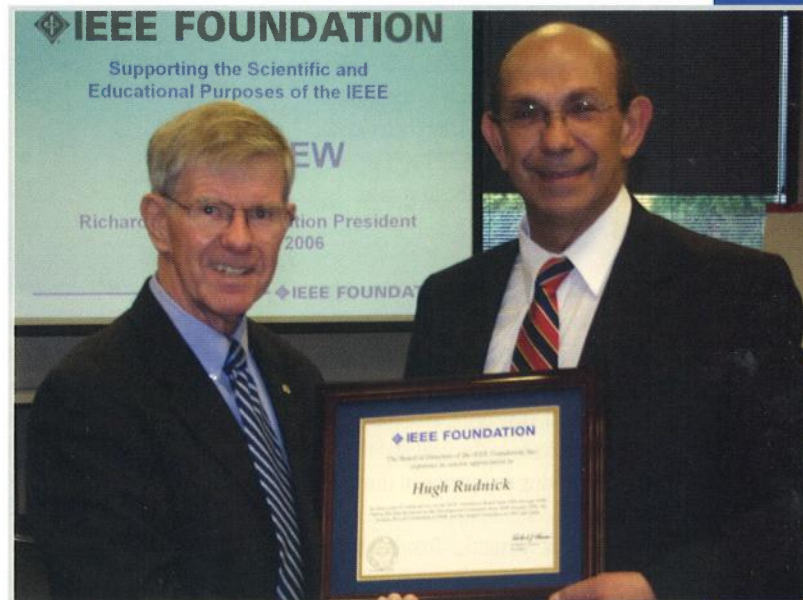# The President's Perspective

On behalf of the IEEE Foundation Board of Directors and Staff, I thank you for your contributions in support of the mission of the IEEE Foundation to further the scientific and educational purposes of the IEEE. In 2007, the IEEE Foundation will give priority to developing additional resources to broaden the services provided by the many organizational units that are the IEEE.

We plan to meet with leaders of boards, regions, and societies to explore how the IEEE Foundation can best assist these IEEE units in preparing activities that respond to the needs of our members and their communities. In support of the international membership of IEEE, members of the IEEE Foundation Board of Directors will meet with the leaders of each of the four transnational regions of the IEEE to expand donor supported member activities.

The IEEE Foundation provides the bridge between the interests of donors and the philanthropic programs of the IEEE. As the opportunities to support the IEEE member activities develop through the discussions with IEEE leaders, the IEEE Foundation will assist IEEE units in presenting their activities to donors.

In addition to assisting IEEE units in the development of activities of interest to donors, the IEEE Foundation provides the management of donations in support of IEEE organizational units. The IEEE Foundation, with the cooperation of the Life Members Committee, also provides grant programs for the development of services to members and the public in support of our mission.

In this newsletter, you will see examples of the many ways we seek to achieve our mission. On page 4, you will find an article that explains a unique giving opportunity made available in the United States through the Pension Protection Act of 2006. Through the stories highlighting the *Takagi Student Prize Fund* and the *Leo L. Beranek Student Travel Grants* (pages 3 and 4), you will see how we help connect our donors' interests with philanthropic programs of the IEEE and manage the donations they entrust to us. Finally, the Thai

Richard (Dick) Gowen (left) thanks Hugh Rudnick (right) for his three years of dedicated service as a member of the IEEE Foundation Board of Directors. During his tenure on the Board, Rudnick was the transnational Director from IEEE Region 9.

Book and the History Russian Computing Conference articles are prime examples of the types of programs the IEEE Foundation invests in on behalf of the IEEE.

Please take a few moments to read this newsletter and reflect on how your support has made one or more of these activities a reality.

Warm wishes for a happy and prosperous new year,

Richard J. Gowen

Richard J. Gowen
2007 President, IEEE Foundation

Perspectives on Soviet and Russian Computing

By: **John Impagliazzo**, IEEE Member

In the region of Karelia, Russia, during July 2006, Petrozavodsk State University hosted the first-ever international conference titled "Perspectives on Soviet and Russian Computing" (SoRuCom) under the auspices of the International Federation for Information Processing (IFIP). This weeklong conference addressed the history of Soviet and Russian Computing as well as the future of computing in the Region. Over 170 participants, representing academic institutions, industries, and professional organizations, such as the Russian Academy of Sciences, attended the conference. Thanks to a grant from the IEEE Foundation, several of the attendees were the Region's computing pioneers.

The writer, an IEEE History Committee member, organized the conference as chair of IFIP's Working Group 9.7 on the History of Computing. Sessions covered a wide range of issues from how Soviet computing emerged, developed, and evolved, to contemporary problems in the field and the approaches to teaching computing at universities. Papers from Soviet computing pioneers such as Yaroslav Khetagurov, Alexander Tomilin, Zinovy Rabinovich, Igor Lisovsky, and Azat Yarmuhkamedov provided a rich historical panorama of hardware and software development in the USSR. An "East-West" round table conducted by Impagliazzo addressed past and contemporary issues of professional computing education.

The abstracts and preliminary papers of the participants were published in two volumes. The most interesting of the papers presented will be published in a separate IFIP Springer edition. Consult the conference website http://sorucom.karelia.ru, which is available in English and Russian, for further information.

Many computing pioneers were able to attend SoRuCom thanks to grants such as the one received from the IEEE Foundation.

First Row from left to right Khetagurov, Yaroslav Afanas'evich—Designer of the series military computers; and Rabinovich, Zinovii Lvovich—Design team member of the MESM computer by Lebedev from the 1950s

Second Row from left to right Tomilin, Alexander Nikolaevich—System programmer of the BESM-6 and other computers by Lebedev and Lisovskiy, Igor Michailovich—Design team member of the "Elbrus" computer

Third Row in the center Azat, Usmanovich Yarmuhkamedov—Designer of the ES 1007 computer

Standing by the entrance to SoRuCom are (left to right) John Impagliazzo, SoRuCom organizer; Natalia Sokratovna Ruzanova, Head of SoRuCom local arrangements; and Tomás López Jiménez, SoRuCom author and presenter.

IEEE Foundation Announces 2007 Application Deadlines

The IEEE Foundation, the philanthropic arm of the IEEE, is committed to improving the technological literacy of society from childhood through adulthood. One way the IEEE Foundation seeks to achieve this goal is by awarding grants to new and innovative projects. During 2007, unsolicited applications will be accepted in three cycles from IEEE units and other organizations working in areas of relevance and importance to the IEEE and its membership. Projects should achieve one or more of the following objectives:

- **Improve** primary and secondary science, technology, and math learning

- **Encourage** pre-university students to consider engineering as a career path

- **Increase** the public's understanding of the role of engineers and technology in society

- **Preserve** the history of IEEE associated technologies

- **Tap** the technological expertise of IEEE members

- **Demonstrate** ability to be replicated

Application deadlines:

Applications Due	IEEE Foundation Meeting Date
13 Apr 2007	June 2007
7 Sep 2007	November 2007
8 Dec 2007	March 2008

To learn more about the IEEE Foundation's grant guidelines, and to submit an online application, please visit: www.ieeefoundation.org

Preserving the Memory of an IEEE-GRSS Pioneer — Mikio Takagi

By **Michael Deering**, IEEE Development Office

Mikio Takagi, one of the most accomplished engineers in digital image processing and remote sensing technology, passed away on 2 February 2006. Professor Takagi is remembered for his lifetime of research, development and dissemination of digital image processing and achievements that span almost the entire spectrum of remote sensing. In addition to his technical achievements, Professor Takagi was known for his dedication to his students and society as a whole. He provided significant assistance to international standardization activities and was instrumental in the development of digital image input/output devices for the processing of digital images by computers.

Throughout his career, Professor Takagi was an active volunteer. Dr. Takagi served on the Administrative Committee of the IEEE Geoscience and Remote Sensing Society for several years and was General Chair of its annual conference, IGARSS, in 1993. He was an IEEE Life Fellow and was recognized numerous times for his technical achievements and service.

The Takagi Family invites you to pay tribute to Mikio Takagi and join them in supporting the Mikio Takagi Student Prize Fund.

In memory of Mikio Takagi, his family members, friends and members of the IEEE Geoscience and Remote Sensing Society worked with the IEEE Foundation to establish a fund called the *Mikio Takagi Student Prize Fund*. Beginning in 2007, this fund will support the awarding of a US$500 honorarium and certificate to student(s) selected to participate in the Student Paper Competition at the annual IEEE Geoscience and Remote Sensing Symposium (IGARSS). The *Mikio Takagi Student Prize Fund* will allow young and promising engineers, who attend IGARSS and present a paper in the student paper competition, an opportunity to strengthen their skills in resource management, communication and leadership while pursuing their academic degrees and careers within the disciplines of Engineering.

The Takagi Family invites you to pay tribute to Mikio Takagi and join them in supporting the *Mikio Takagi Student Prize Fund*. By making a donation to the *IEEE Foundation – Mikio Takagi Student Prize Fund*, in his memory, you will not only be perpetuating the memory of Mikio Takagi, but you will help increase student participation at IGARSS. If you have any questions or wish to discuss methods of giving, please contact the IEEE Development Office by telephone at +1 732 562 3915, or by email at supportieee@ieee.org.

Mikio Takagi (front left) with many of his admiring students. Professor Takagi is located at the bottom left of the staircase.

Pension Protection Act of 2006 Brings New Charitable Giving Opportunity

By: **Karen Galuchie**, IEEE Development Office

Between now and 31 December 2007, US IEEE Members 70½ and older may take advantage of a special giving opportunity allowed under the Pension Protection Act of 2006. An IRA Charitable Rollover Provision in the Act allows US taxpayers to make tax-free distributions of up to US$100,000 from traditional, or Roth Individual Retirement Accounts (IRA), assets to a qualified charitable organization, such as the IEEE Foundation.

Highlights of the IRA Charitable Rollover Provision:

- Donors must be age 70½ or older at the time of the distribution to the charity
- Distributions to qualified charities in any amount up to US$100,000 are allowable per taxpayer. Couples with separate IRAs can each gift up to US$100,000
- Gifts can be applied to satisfy a donor's minimum required distribution from his/her IRA for the year the gift is made
- Gifts must be outright and cannot be used to fund gift annuities or charitable remainder unit trusts

- Gifts cannot be made to donor advised funds and supporting organizations, including most private foundations
- Gifts must be made and received before 31 December 2007
- This opportunity applies only to traditional IRAs and Roth IRAs, not to other forms of retirement plans such as 401(k), 403(b), etc.
- Gifts must be transmitted directly from your IRA's plan administrator to the charity
- Because no income will be reported on your tax return, you will not receive a charitable income tax deduction for the contribution
- A gift receipt from the charity is specifically required for a donor to substantiate a charitable IRA distribution

To qualify for Charitable IRA rollover treatment, you must direct your IRA plan administrator to transfer funds directly to the IEEE Foundation. Instruct your IRA plan administrator to make the gift payable to the "IEEE Foundation". To ensure you receive proper acknowledgement for your gift, be sure to share your intentions with the IEEE Development Office

at +1 732 562 3860 or via email at supportieee@ieee.org.

If you have questions about making a gift to the IEEE Foundation using your IRA, please contact the IEEE Development Office. To learn more about the Pension Protection Act of 2006, visit these online resources:

- Library of Congress summary of the Pension Protection Act of 2006: http://thomas.loc.gov/cgi-bin/bdquery/z?d109:h.r.00004:
- Summary of the act's charitable provisions, visit: http://www.ncpg.org/gov_relations/Pension%20protection%20ACT.pdf

The information in this article is for educational purposes only and is not intended as legal, tax or investment advice. If you are considering a planned gift to the IEEE Foundation, we highly recommend you consult with your own tax and legal advisors to determine the best options for you.

First Leo L. Beranek Student Travel Grants Awarded

By: **Karen Galuchie**, IEEE Development Office

Giuseppe Selli and Timothy Dew were the first two students selected to receive the *Leo L. Beranek Student Travel Grants*. Thanks to this newly enacted travel grant program, these two students were able to attend and present their award-winning work at the 2006 IEEE International Symposium on Electromagnetic Compatibility (EMC) held August 2006 in Portland, OR, USA. Selli, a student at the University of Missouri-Rolla, received his grant to present his paper entitled "Model-to-Hardware Correlation of Physics-Based Via Models with the Parallel Plate Impedance Included", which he co-authored with Christian Schuster and Young Kwark. Dew, a student at the University of Tennessee-Knoxville, received the grant to share his EMC Student Design Competition project at the Symposium. Dew co-authored the project with Robert Hughes and Scott Waite.

The *Leo L. Beranek Student Travel Grants* program was created as a tribute to its namesake — Leo L. Beranek. Administered by the IEEE Electromagnetic Compatibility Society, this grant program recognizes and rewards students for outstanding work in the area of electromagnetic compatibility. Each winning student receives a travel grant between US$500 to US$1,000 to present his/her work at the annual IEEE International Symposium on Electromagnetic Compatibility. James Beranek and Constance Brown, Leo Beranek's son and daughter in-law, are the sponsors of the program. They hope that the availability of the grants will encourage more students to participate in the IEEE International Symposium on EMC.

The Leo L. Beranek Student Travel Grants is just one of the over 100 funds administered by the IEEE Foundation on behalf of educational and technical programs of IEEE units.

First *Leo L. Beranek Student Travel Grant* recipients smile for the camera. From left to right, Timothy Dew, Andrew Drozd, IEEE EMC Society President, and Giuseppe Selli.

Students in Thailand to Receive a Book Highlighting History and the Impact of Electro-Technology

By: **Ekachai Leelarasmee**, Secretary, IEEE Thailand Section

In Thailand, students are taught the facts and figures of science and technology, but rarely about its history and impact on society. This project, initiated by the IEEE Thailand Section, will help to address this missing piece of information by translating, and publishing, a book based upon the content of the IEEE Virtual Museum for distribution to students throughout Thailand. The IEEE Virtual Museum, which is found at www.ieee.org/museum, explores the global social impact of electrical and information sciences and technologies and demonstrates how relevant engineers are to society.

The project started with a group of ten (10) students and four (4) professors, all from the Electrical Engineering Department of Chulalongkorn University, translating almost the entire content of the IEEE Virtual

Museum website into Thai. The translated documents were then grammatically corrected by a member of the Academy of Science within the Royal Institute of Thailand and edited by IEEE Thailand Section Secretary. It resulted in a book with 330 pages broken down into seven chapters based upon the exhibits found in the IEEE Virtual Museum as follows:

1) **Socket to Me**
2) **Edison: A Life Time of Inventions**
3) **Let's Get Small**
4) **The Beat Goes On**
5) **Microwave**
6) **Nanotechnology**
7) **People in EE History**

Front cover of the book.

Additional copies will be used in engineering camps organized by IEEE student branches

By the end of January 2007, 6,000 copies of the book will have been produced. A ceremony to donate the books to the Ministry of Education of Thailand is being planned. The books will go to more than 4000 high school libraries in Thailand serving more than 3 million high school students. Additional copies will be used in engineering camps organized by IEEE student branches. Since this book highlights an area not often taught within Thailand, those who read it will be exposed to the history of electro-technology, its impact on society and the environment, and the role engineers play in technological development.

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The IEEE Foundation, Incorporated raises and distributes funds to support activities that further the scientific and educational purposes of the IEEE for the benefit of society as a whole. It is an organization qualified under U.S. Internal Revenue Code 501(c)(3) and is eligible to receive tax-deductible contributions in the United States. For other countries, please check with your local tax advisor regarding tax deductions of charitable contributions.

The IEEE Foundation Focus is published twice a year. It reports on the programs supported through the IEEE Foundation and the individuals and organizations whose charitable gifts make the programs possible. Questions or comments on the newsletter should be directed to:

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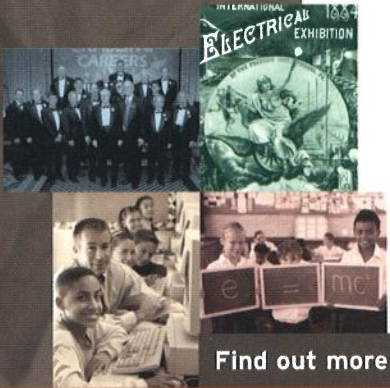www.ieeefoundation.org

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