

IEEE History Center

ISSUE 73, March 2007

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STATIC FROM THE DIRECTOR

With this issue we welcome a new chair of the IEEE History Committee, Dr. Richard Gowen (see page 2), as well as welcome continuing and also new members of the Committee, as indicated on the masthead. As I mentioned in my previous columns, last year – 2006 – saw a strategic review of the History Center by the IEEE Board of Directors. Dick and I have identified five priority areas where the History Center Staff and the History Committee can partner to move the IEEE's historical activities forward to serve IEEE's strategic interests:

1) Revise the Center's web presentation, better integrating the IEEE Virtual Museum with our other web resources;
2) thoroughly review the Milestones Program (successful—after 20 years and 80 Milestones —but due for an update);
3) work on expanding and improving the History Committee's and the History Center's networking within IEEE;

4) reconsider the role of the History Committee and the History Center in preserving IEEE current developments not otherwise captured; and 5) consider changes to the structure and composition of the History Committee which would make it more effective in carrying out its mandate.

I will be sure to keep you apprised of these development as the year progresses. Meanwhile, all of our programs will continue to move forward. We are redoubling our efforts in the area of oral history, and I would like especially to draw your attention to our biennial conference, the next – and sixth – which will be held this coming August on the campus of the New Jersey Institute of Technology in Newark, New Jersey, U.S.A. on the topic of the history of electric power (see page 3). I hope that many of you will have an opportunity to participate.

Finally, our long-time readers know that our March issue is our opportunity to thank you, our donors, for your stalwart and generous support of IEEE's historical activities. Our annual Honor Roll begins on page 9. Literally, without you we could not carry out our mission to preserve, research and promote our history, and I am extremely grateful. I look forward to continuing to partner with you in years to come.



History of Power will be the topic of upcoming History Center-sponsored Conference



IEEE History Center

CENTER ACTIVITIES

The newsletter reports on the activities of the Center and on new resources and projects in electrical and computer history. It is published three times each year by the IEEE History Center.

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RICHARD J. GOWEN - 2007 HISTORY COMMITTEE CHAIR



Dr. Gowen is the President of the IEEE Foundation. He was the 1984 Centennial President of the IEEE, and has served in IEEE Section, Chapter, Society, Region, Division, and

Board positions. A Commissioner of the 1999-2000 Congressional Web-Based Education Commission, he has provided leadership to industry, education, and government, including the direction of space biomedical research and supercomputer development. He was also the 1998-2000 President of Eta Kappa Nu, the honor society for electrical and computer engineering. He was also the president of Dakota State University from 1984-1987, and the president of the technological research university, the South Dakota School of Mines and Technology, from 1987-2003. He was also the Executive Director of the Homestake Laboratory Conversion Project to create the world's premier deep underground scientific research laboratory in an 2400 meter former mine.

STAFF NOTES

"An Afternoon at Glenmont"

On Thursday 4 January, Center Archivist Mary Ann Hoffman, along with IEEE volunteers Carl and Virginia Sulzberger, visited Glenmont in West Orange, New Jersey U.S.A. Glenmont is the home of Thomas A. Edison, and part of the Edison National Historic site.

The home was completed in 1882 and purchased by Edison in 1886, and he lived there until his death in 1931 (he and his wife are interred in the back yard.). Glenmont is a 29-room mansion in Queen Anne style. It is situated in the exclusive Llewellyn Park

Section of West Orange. Situated on 13.5-acres, the estate also contains a garage, green house and other smaller structures.

Mina Edison, his second wife, was an avid conservationist and bird watcher. During each of the three growing seasons of the year you can, to this day, always discover something new blooming in the gardens. She was also a great music lover, and an organ and several pianos can be found in the mansion. Gifts to Edison from countries around the world are on display. A framed certificate of appreciation from the AIEE also adorns the walls.

THE IEEE HISTORY CENTER NEWSLETTER ADVERTISING RATES

The newsletter of the IEEE History Center is published three times per annum with a circulation of 4,600 of whom approximately 3,000 reside in the United States. The newsletter reaches engineers, retired engineers, researchers, archivists, and curators interested specifically in the history of electrical, electronics, and computing engineering, and the history of related technologies.

	Cost Per Issue
Quarter Page	\$150
Half Page	\$200
Full Page	\$250

Please submit camera-ready copy via mail or email attachment to

ieee-history@ieee.org. Deadlines for receipt of ad copy are 2 February, 2 June, 2 October.

For more information, contact Robert Colburn at r.colburn@ieee.org.



In 1886, when Edison purchased the home, he spent \$125,000 for the land, the mansion, the outbuildings, and all of the furnishings, about half of its then estimated value. All furniture in

the house is original. The mansion contains twenty-three

fireplaces, and the wood carvings, moldings and parquet floors are a magnificent sight.

Restoration continues on the home today, and currently the third floor is closed to visitors. It contains some of the children's bedroom, and sleeping quarters for the maids. To learn more on the web, visit www.nps.gov/archive/edis/home_family/edison_homelife.htm or better yet, plan a day trip to the West Orange site and experience it in person.

RELIC HUNTING: ENGINE ROOM OF MARCONI'S YACHT ELETTRA IN VENICE

Venice, Italy may be more famous for 15th century painting, canals, and magnificent gothic architecture, than for electrical and computing history. Nonetheless, the Museo Storico Navale di Venezia preserves two important artifacts pertaining to the history of electronics and to early computing. A section of the engine room of Guglielmo Marconi's 220-foot long steam yacht Elettra - which served as Marconi's floating radio test platform – is displayed in the Museum's Pavilion of Ships. It was from the Elettra - nicknamed "La nave dei miracoli" - that Marconi transmitted a radio signal from Genoa, Italy to Sydney, Australia in March 1930 to illuminate the lights in the Sydney town hall. Marconi also used Elettra to demonstrate that reflected radio waves could be used to avoid obstacles at sea (anticipating radar). In 1934, Marconi steered the yacht into Sestri Levante harbor, Italy using radio waves reflected off navigation buoys. It required, he said, "little skill" and he even allowed his non-nautical guests aboard the yacht to try it.

Other parts of *Elettra* (which was requisitioned – over Italian protests – by the German Kreigsmarine in World War II, eventually to be bombed and sunk in Diklo, Yugoslavia in 1944) are preserved at Marconi's Villa Griffone (part of the keel), Trieste (the bow), Milan (bridge equipment), and

Fucino (the stern, propeller, and rudder). Rome preserves Elettra's steam dynamo the Museum **Posts** and Telegraphs, and the reconstructed radio cabin is at EUR (Esposizione Universale Roma, three miles south of the city, near the road to Ostia).



Marconi (in white suit) on wheelhouse of Elettra. A radio direction finding antenna is visible on front of the wheelhouse. © Smithsonian

The Museo Storico

Navale displays an early (mechanical) fire-control computer from a World War I-era warship. The gunnery officer set dials to input information such as the degrees of the ship's roll, wind direction, wind speed, and range to target in order to calculate the point (i.e. horizontal traverse of the muzzle) and the elevation. The museum's web site is: www.marina.difesa. it/venezia/padiglione.htm

(We would enjoy hearing from our readers about any relichunting stories they might wish to share via this newsletter. Anecdotes or stories about tracking down artifacts, or about coming across them unexpectedly (in situ and still operational is even better), are welcome: **ieee-history@ieee.org**)

HISTORY CENTER CONFERENCE ON THE HISTORY OF ELECTRIC POWER

The sixth in a series of conferences sponsored by the IEEE History Committee and the IEEE History Center at Rutgers University is entitled "The 2007 IEEE Conference on the History of Electric Power." The conference will be held from Friday 3 August 2007 through Sunday 5 August 2007 on the campus of the New Jersey Institute of Technology, home to the Edward Weston Papers, in Newark, New Jersey, U.S.A. The profound role electric power has had in shaping the modern world, from Edison's first central station in 1882 to the present, makes this a vital topic of historical study. We expect that at this conference, as at our earlier conferences, we will have

a congenial group of engineers, historians, museum curators, and others, dozens of fascinating papers, plenty of time for informal discussion, and some interesting excursions. Conference papers will deal with all aspects of electric power and its applications from the 19th century to the present. Please submit abstract and 1-page c.v., either electronically or in paper form, to Frederik Nebeker, IEEE History Center, Rutgers University, 39 Union Street, New Brunswick NJ 08901, USA; f.nebeker@ieee.org. The deadline for paper proposals is 15 April 2007. Additional information will be posted on the IEEE History Center Web site at www.ieee.org/web/aboutus/history_center/.

THINGS TO SEE AND DO

HISTORY OF PROGRAMMING LANGUAGE CONFERENCE III

HOPL-III will be held in conjunction with FCRC 2007 in San Diego, California, 9-10 June 2007. The 12 HOPL-III papers will detail the early history or evolution of specific programming languages. Preliminary ideas about each language should have been documented by 1996, and each language should have been in use by 1998. As with its predecessors,

HOPL-III will produce an accurate historical record of programming language design and development. We expect that the HOPL-III proceedings to be available in electronic format at the conference and in the ACM Digital Library. research.ihost.com/hopl/

SPECIAL SESSION ON HISTORY OF ELECTROTECHNOLOGY

9-12 September 2007, Warsaw University of Technology, Warsaw, Poland. The Session will deal with historical developments which contributed to the creation of technologies and applications in electrical and computing engineering and the participation of scientists and engineers in those developments. The focus will be on developments in the geographic area of Region 8 – Europe, Africa, and the Middle East. For more information: **eurocon2007.isep.pw.edu.pl**

SURF CITY

MIT Museum:

The Massachusetts Institute of Technology (MIT) has a brick and mortar museum in Cambridge. It is home to vast collections dedicated to science and technology, holography, architecture and design, and nautical engineering; the museum has both permanent and temporary exhibits as well as an array of public programs. Its web site offers a glimpse into this world. http://web.mit.edu/museum/index.html

IEEE.tv:

This newest member benefit launched in August 2006 and will offer members a new membership service. As part of IEEE's commitment to value-added membership and its pledge to educating the public about engineering and technology, it aims to provide exclusive programming for members as well as provide general interest programming to promote technology. The History Center will be looking to work with IEEE.tv to provide historical programming. http://www.ieee.org/web/membership/IEEEtv/about.html

FCC History of Telecommunications

http://www.fcc.gov/omd/history/

The Federal Communications Committee (FCC) in its role to oversee telecommunications launched a web site dedicated to the history of radio and television. The web site offers a look at the history of these technologies and offers numerous articles on the history. The IEEE donated numerous articles to the FCC on early radio which were discovered in the IEEE Archives. They plan to convert them to PDF and offer them on their Web site.

JAPANESE ELECTRONICS ENGINEERS IN THE U.S. IN THE 1950s AND '60s AND THEIR AMERICAN HOSTS: (AN APPEAL FOR RESEARCH HELP)

By Hyungsub Choi, 2006-2007 Life Members Fellow in Electrical History

In October 1960, RCA Chairman David Sarnoff visited Tokyo at the invitation of the Japan Federation of Economic Organizations. In a speech, Sarnoff remarked, "I understand that in the past five years alone, Japanese electronics production has risen seven-fold," Sarnoff pointed out that "Japan has been alert to electronic developments in other countries and quick to benefit from information

and techniques made available to it. This is the best tradition of scientific exchange."

Throughout the 1950s, Japanese electronics manufacturers dispatched their engineers to the U.S. to license new patents and learn advanced manufacturing technology. In 1951, a team of engineers from Kobe Kogyo came to Harrison, New Jersey, home of the RCA Tube Division to learn the manufacturing of vacuum tubes, radios, and televisions. Kobe engineers toured the RCA Labo-

ratories at Princeton as well. While the focus of their visit was on tubes, one of the engineers—Tetsuya Arizumi—was intent on finding out more about transistors, of which RCA was in the process of building pilot production facilities. Based on what they learned, Kobe became the first Japanese firm to manufacture point-contact and alloy-junction transistors in 1954.

In 1952, Hitachi and Toshiba sent engineers to RCA after signing a technical assistance contract. In 1953, Tokyo Tsushin Kogyo (later Sony Corporation) signed a transistor patent licensing agreement with Western Electric, and dispatched Kazuo Iwama in the following year. In 1958, NEC contacted General Electric for a technical assistance contract on transistor manufacturing, and sent Hiroe Osafune. With the invention of the integrated circuit, more Japanese engineers came to the U.S.

During their trips, the Japanese engineers kept meticulous notes. During his 1954 trip, Sony's Kazuo Iwama sent twenty-one aerograms and letters to his colleagues in Tokyo. Often accompanied by sketches, these "Iwama Reports" included detailed manufacturing processes of transistors, descriptions of manufacturing equipment, and the rationale behind the choices.

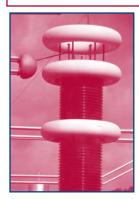
I am preparing a book detailing the history of the transistor during the 1950s and 1960s. The bulk of my research materials so far has come from Japan. As all good historians

do, I would like to consider the voices of all sides concerned. However, in the course of my research, I found that records on U.S.-Japan relationships are conspicuously missing in the U.S., corporate archives I have worked in. Thus, it is important for me to interview the people who have taken part in the historical drama.

I am eager to interview the American counterparts who hosted visiting Japanese engineers in the 1950s and 1960s. They could be laboratory researchers, factory engineers, or patent attorneys working at the major electronics manufacturers such as RCA, AT&T, General Electric, Fairchild Semiconductors, Texas Instruments, Westinghouse, etc. If you are one of them, I am eager to meet and talk with you about your experiences. Also, if you are aware of any historical records that might shed light on my research, I would love to hear about that too.

Hyungsub Choi can be reached at 215-873-8231 or **hchoi**@ **chemheritage.org.**

MYSTERY PHOTO



The IEEE History Center maintains a photographic archive of more than 4000 images. From time to time images are donated without any identification. Can you help identify this photograph? We are interested in any details such as type of equipment, approximate dates, manufacturer, how/where used, and anything else of historical interest you would like to tell us.

This photograph is identified as a "substation thingie" in the History Center database. It is in the Power Distribution folder. One of the members of the History Center staff believes that it is an air-gap circuit breaker, but we would like to be sure.

Please email any information you might have to: ieee-history@ieee.org

ELECTRICAL TECHNOLOGIES IN THE MOVIES: Jukeboxes

In the late 19th century there were coin-operated weighing machines and gum-dispensing machines. In 1889 a man by the name of Louis Glass equipped an Edison phonograph with a nickel-in-the-slot operating device and placed this forerunner of the jukebox in a San Francisco saloon. The machine was so well received that by mid-1891 more than a thousand coinoperated phonographs were in use. Such machines were battery-operated because at that time electric current was not available in most places. Many of the machines were in so-called "phonograph parlors," which, with the addition of other coin-operated entertainment devices, evolved into penny arcades. Machines that could change the record cylinders or disks automatically, according to customer choice, began appearing in 1905. The coin-operated phonograph business peaked shortly after the turn of the century, in part because of the growth of the home-phonograph market and in part because the lack of effective amplification limited the appeal of the coin-operated machines.

Shortly after the advent of the electronic phonograph in the mid 1920s came a much improved phonograph-playing machine, the "jukebox," a name acquired in 1930s. Customers were attracted by the big sound made possible by electronic amplification fidelity and volume were greater than what radios or phonographs in the home offered—by the impressive record-changing mechanisms,



and by the opportunity to choose the music and often to adjust the volume. An early jukebox, one from about 1930, can be seen in the movie "The Whole Wide World" (1996). A chest-type jukebox in the waiting area of a bus terminal features in the 1947 Humphrey Bogart – Lauren Bacall movie "Dark Passage". In the movies "Gung Ho!" (1943) and "The Postman Always Rings Twice" (1946) we see jukeboxes in eating places. The record-changing mechanism is shown prominently in several

movies, such as in "The Lady from Shanghai" (1948), in "The Glenn Miller Story" (1954), and in "I.Q." (1994), which takes place in the 1950s.

In 1939 the Seeburg company offered a "wireless" jukebox system, in which selections made at any of many small units, which were plugged in at ordinary sockets, were signaled—over the building's wiring—to the central recordplaying unit. The Depression, together with the soaring popularity of radio, had hit the record industry hard—record sales in the U.S. fell from 100 million in 1927 to six million in 1932—but jukeboxes helped revive the industry. Indeed, in the late 1930s half of all records produced in the U.S. went to the some 500,000 jukeboxes in use. In the 1942 movie "Orchestra Wives," which stars Glenn Miller and his orchestra, the bandleader says that it is the kids putting nickels in jukeboxes who keep the band in business, and, of course, jukeboxes are shown. Something about the jukebox business is revealed in the 1957 Elvis Prestley movie "Jailhouse Rock," where we meet a woman whose job it is to open jukeboxes to check how many times particular records have been played.

The early jukeboxes had wooden cabinets and resembled traditional furniture. In the 1940s jukeboxes took on a different look, with cabinets of translucent plastic that were brightly backlighted. In the 1950s jukeboxes often had automobile styling, in that era of flashy cars with tail fins and chromed protuberances on bumpers, fenders, and hoods.

Jukeboxes of the 1950s can be seen in "Last Picture Show" (1971), "The Wild One" (1954), and "Touch of Evil" (1958).

The malfunctioning of jukeboxes is sometimes shown. In the James Dean – Elizabeth Taylor movie "Giant" (1956), a jukebox starts playing when bumped into. More famous is the jukebox in the TV series "Happy Days": coming into



the diner, the Fonze would hit the jukebox to get it to play.

Though the jukebox business declined in the last decades of the 20th century, the machine continued to be used in bars and eating places. It was no longer a nickel per play, but more often, as shown in "Top Gun" (1986), a quarter per play. The records on a particular jukebox could be selected to appeal to the clientele of the establishment, as in the 1974 movie "Ali: Fear Eats the Soul" where, in a bar in Munich which caters mainly to guest workers, the jukebox seems to play only Arab music. In the 1980s CDs replaced vinyl records, and jukeboxes showed that transition. In the 1994 movie "Chungking Express" we see a CD jukebox, with rotating CDs, in a Hong Kong eating place.

As always, we would be grateful for reports from readers of other interesting movie scenes that involve jukeboxes. You may contact us at **ieee-history@ieee.org**.

IN MEMORIAM JOHN J. GUARRERA – by Arthur P. Stern, President, IEEE 1975

The IEEE History Center lost a friend and supporter in former IEEE President John Guarrera last December. We are fortunate to be able to publish a remembrance of him by his friend and fellow IEEE President, Arthur Stern.



John J. Guarrera, long time activist and leader of IEEE, President in 1974, died on 5 December 2006.

The son of Italian immigrants, John was born in Rochester, NY, U.S.A. on 4 March 1922. He became interested in electricity as a child; at the age of twelve, he learned about electrical wiring from the contractor who was remodeling his fa-

ther's restaurant. Throughout his teens, he helped family and friends, and sometimes strangers for money, repair wiring in their homes.

A good student involved in many extra-curricular activities, he earned a bachelor's degree from MIT in 1943. Five days after graduation, he married his childhood sweetheart, Jo Ferrara, also of Italian origin, his partner, unconditional supporter and best friend for the balance of his life: almost 64 years.

At MIT, John became interested in microwaves. After graduating, he spent two years as Research Associate at MIT's famed Radiation Lab. In 1946-48, he was an instructor in microwaves at New York University and then at City College of New York. He consulted for several companies and U.S. government agencies, including USAID. In 1949 he switched to Reeves Instrument Corp., where he led UHF transmitter, receiver and antenna engineering.

Mobility was in John's nature. In 1954 -- shortly after acquiring and improving their first home -- John surprised Jo by suggesting that they move to California. He joined Canoga Corporation as Director of Radar Systems (1954-57). After three years as a consultant, in 1960, he became CEO and principal owner of Guide Manufacturing Co., which he later took public and expanded to several subsidiaries. His com-

pany manufactured microwave products and provided technical support to government and industry. It grew, was renamed SaCOM, and prospered during the 1960s. In the early 1970s, SaCOM declined, primarily because of the retrenchment of defense spending in the late Vietnam War era. SaCom failed in 1975.

John joined the staff of the School (later: College) of Engineering and Computer Science (SECS) of California State University, Northridge. He soon became Director of SECS's

Center for Research and Services. John's passage from industry to CSUN was facilitated by his actions in 1974, when he spoke forcefully for the continued existence of SECS in a public controversy that threatened it with extinction.

John's interests were broad. He joined IRE in 1942 as a student member. (Associate in 1944; Member, 1955; Senior member, 1956.) Arriving in California, he became active in the San Fernando Valley Section of IRE, was its chairman in 1957 and a member of its leadership until 2001. He chaired the Los Angeles Section (later Los Angeles Council) in 1962/63. He was a member of IEEE's Executive Committee (1971-78) and President of IEEE in 1974. It was indicative of his commitment that, after being President, he became Vice President of Professional Activities. His presence and ideas were felt throughout the Institute for decades.

John viewed engineering as socially important in improving the lives of engineers and of all people. He concentrated on advancing the "professional" and social status of engineers. John (and quite a few others) felt that – in addition to enabling engineers to publish original papers, to advance technology, to write standards, to be educated in new technologies, to advise government and others, etc. -- IEEE should also lead in improving the social and economic standing of engineers, commensurate with the contributions of engineers to society. These kinds of activities he and others called "professional", as distinguished from "technical" activities which historically constituted the dominant work of IEEE.

John proposed lobbying for better and portable pensions, for better student awareness of "professional" goals, for better legislative oversight, for a more cutting engineering code of ethics, against age discrimination, etc. John did not hesitate to deal with politics, and he expected IEEE to testify before government agencies and committees, to propose new approaches, and to bargain and haggle when necessary. Much of this was unacceptable to those leaders of IEEE and of the engineering profession who felt that engineers should limit their public activities to promoting technology. A great deal has been accomplished in these areas since the 1970s, thanks to the work and insistence of many. John was one of the leaders of these endeavors.

John's outlook on life was optimistic and ambitious. Religious Catholic, he believed in the attainability of improved lives on earth for all. He was an active and dedicated member of the Democratic Party, member of its California Central Committee and Executive Committee, and participant in national conventions and presidential inaugurations. For fifteen years, he was the volunteer campaign chair of Congressman James C. Korman.

John was honored by numerous organizations: Fellow, IEEE (1974), IEEE Engineering Professionalism Award (1978), Fellow, Institute for the Advancement of Engineering (IAE, 1971), Engineer of the Year, San Fernando Valley Engineers Council (1973), Tau Beta Pi (1978), Distinguished International Interprofessional Award, IAE (1985), Service Award, USA Office of Scientific Research and Development, President's Award, Engineers' Council (1994), CSUN Emeriti Merit Award (2004) and others.

From a personal point of view: I became acquainted with John in the late 1960s, in the aftermath of the creation of IEEE, when much needed to be done to achieve real unity in an organization composed of two parts that were quite disparate. John and I became allies and as two "IRE electronickers" (I also belonged to AIEE) were joined by Joe (Joseph K.) Dillard, an "AIEE power type" from Westinghouse. We became known as the "three rebels" who advocated integration of technical activities (via transformation of IRE's Professional Groups and some of AIEE's committees, into "societies," creation of a clearly-defined U.S. entity within IEEE for U.S. members — later IEEE USA — establishment of advocacy for better pensions, and against age discrimination.)

The "three rebels" did not always agree. John was outspokenly progressive, Joe cautious about "excessive" innovation, and I often the guy in the middle. All three of us became presidents of IEEE: John first (1974), I next (1975), then Joe (1976). We often planned, argued and plotted in the coffee shop of the Lexington Hotel in New York. Being rebels was an exciting experience for us. We remained friends and chuckled at times about the "roaring 70s."

John will be remembered with affection and admiration, not only by his surviving wife Jo, four children, eight grandchildren and two great-grandchildren but by many who worked, occasionally differed and sometimes even got angry at him but who learned from and were impressed by his leadership, convictions, and dedication.

For several years John was the senior living past President of IEEE. With John's passing I have inherited this phase of life in IEEE.

John Guarrera ... farewell and vale! May your memory be a blessing!

PENSION PROTECTION ACT OF 2006 BRINGS NEW CHARITABLE GIVING OPPORTUNITY FOR 2006 AND 2007

By: Karen Galuchie, IEEE Development Office

Between now and 31 December 2007, U.S. taxpayers 70½ and older may take advantage of a special giving opportunity allowed under the newly enacted Pension Protection Act of 2006. An IRA Charitable Rollover Provision in the Act allows US taxpayers to make tax-free distributions of up to U.S. \$100,000 annually 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 charity
- Distributions to qualified charities in any amount up to US\$100,000 are allowable per taxpayer, per year. Couples with separate IRAs can each gift up to US\$100,000 per year
- 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 unitrusts
- 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 manager to transfer funds directly to the IEEE Foundation. To designate your gift to the IEEE History Center, instruct your IRA manager to make the gift payable to the "IEEE Foundation – IEEE History Center Fund". 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.

What is the IEEE History Fund?

The IEEE History Center Fund is one of the over 100 funds administered by the IEEE Foundation. It supports the overall efforts of the Center to record, archive, and educate the public about the nature of technology and its relationship, both past and present, to society.

The IEEE Foundation is an organization qualified under U.S. Internal Revenue Code 501(c)(3) and is a qualified charitable organization as described in the Pension Protection Act of 2006. Its US Employer Identification Number (EIN) is 23-7310664.

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Recognizing donors who have made significant contributions to the History Center at crucial stages in its founding and development.

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DR. JACOB BAAL-SCHEM APPOINTED FIRST REGION 8 HISTORY ACTIVITIES COORDINATORS

The History Center was delighted to read about the appointment of Region 8's first History Activities coordinator - Jacob Baal-Schem **j.baal.schem@ieee.org**. Dr. Baal-Schem has been active in the IEEE's Milestones in Electrical History program, and we look forward to working with him.

PROGRAMMABLE LOGIC CONTROLLER HISTORIAN SEEKS HELP

Oxford University PhD student researching the history and development of the programmable logic controller wishes to contact engineers and managers who were involved with PLCs over the period 1968-1990. Please let me know if you'd be willing to be interviewed informally, and share your recollections. Please reply to Mark Walker mailto:mjw74@student.open.ac.uk

THE IEEE LIFE MEMBERS' PRIZE PAPER

The IEEE Life Members' Prize in Electrical History, supported by the IEEE Life Members' Fund and administered by the Society for the History of Technology (SHOT), is awarded annually to the best paper in the history of electrotechnology—power, electronics, telecommunications, and computer science—published during the preceding year. Any article published in a learned periodical is eligible if it treats the art or engineering

aspects of electrotechnology and its practitioners. The prize consists of a cash award of \$500 and a certificate. To nominate an article, please send a copy of the paper to each member of the prize committee. Deadline is April 15. For more information, please contact the committee chair (Slava Gerovitch, slava@mit.edu) or Amy Bix, SHOT Secretary, 515.294.8469, shot@iastate.edu.



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