THE "BIT TAX"
by: Robert Bruce,
Long Island Section/USAB Liaison

The Dec. 2 '96 issue of "Barrons" contains an article entitled, "Phone Bill", which describes a conflict between Internet Service Providers (ISPs) and regional Bell telephone companies. The results of that conflict may drastically affect those of you who 'surf the Net,' use E-mail, or send FAXes. Regional Bell companies have started a campaign to persuade Federal regulators to let them attach a surcharge to phone bills for use of the phone to transmit data. I've spoken to several persons at the FCC, and I'm not aware of any scheduled FCC hearings. However I do know that the FCC is beginning deliberations in 12/96. I urge all readers to: 1. Get and read the article; 2. Write FCC Secretary William Caton (address below) and FCC Commissioner Reed Hundt (same address or E-mail rhundt@fcc.gov) to express your opposition to this "BIT TAX." In case you feel disinclined to write a letter, here's a sample of what you can say. Feel free to use as is or edit to suit your taste.

Your return address
Your city, state, ZIP
Date

Mr. William Caton,
Secretary FCC
1919 M Street NW
Washington, DC 20554
Dear Sir:

I understand the regional Bell telephone providers are requesting permission to attach an access charge (or other rate increase) to their bills for use of the phone to transmit data. I urge you to deny any such request, as this would have a smothering effect on all Internet use, all E-mail and use of the phone to transmit FAXes. As much as the phone companies contribute to the wealth of the U.S., the enormous number of Internet, E-mail and FAX users contribute far more. To permit a surcharge is to penalize the nation for its progress in communication. Don't let it happen.

Thank you for your consideration of this request.

Yours truly,
Your signature
Your Name printed

APPLICATION SPECIFIC
ACTIVE PIXEL IMAGE SENSORS
LI LEOS Chapter is hosting Prof. Brad Carlson

Electronic imaging systems used for electromagnetic radiation detection are present in many consumer, commercial and defense products (e.g., video cameras, infrared imagers and gamma ray detectors). The dominant technology in present electronic imaging systems is the charge-coupled device (CCD); however, significant advantages are obtained by using more flexible technologies such as CMOS. In recent years researchers have investigated the use of standard CMOS technology for electronic imaging with (perhaps surprisingly) good results. In this talk CMOS active pixel image sensors are described, and the results of ongoing work at the University at Stony Brook are presented.

Biography:

Bradley S. Carlson received his Bachelor of Electrical Engineering degree from Gannon University, Erie, PA in 1987, and MS and PhD degrees in Computer Engineering from Syracuse University, Syracuse, NY in 1989 and 1991, respectively.

From 1986 to 1987 he was employed at the General Electric Company. He is currently an Assistant Professor of electrical engineering at the State University of New York at Stony Brook, and Associate Director of the NSF Industry/University Collaborative Research Center for the Design of Analog/Digital Integrated Circuits (CDADIC). He has published numerous articles on the subjects of VLSI circuit design, CAD for VLSI and parallel and distributed computing.

His seminal paper on the use of transistor reordering for the performance optimization of digital CMOS VLSI circuits was awarded a best paper award at the 1993 ACM/IEEE Design Automation Conference. His research is funded by NSF, the Engineering Foundation and commercial industry.

His research interests include CMOS image sensors, performance optimization and automatic layout of VLSI circuits, circuit simulation, circuit synthesis, granularity optimization, scheduling and allocation for parallel computing and fault tolerant broadcasting algorithms for distributed computing.

Date: March 6th, Time: 7:30 PM, Place: AIL Systems Commack Rd, Deer Park, NY. For more information please call Marie Cotrone at (516) 738-4914.
February 5, 7-10 p.m. - Student Branches Dinner Meeting at All Systems on Commmack Road in Deer Park. All the Student Officers of IEEE are invited to this dinner get together. Call Kevin Shapihor at (516) 472-6666 ext. 24 or E-mail to K.Shapihor@ieee.org. February 5, 7-10 p.m. - LI Consultant's Network. Ron Richardson, a well known knowledgeable and humorous speaker will give a presentation. Location: 2nd Floor Conference Room. L.I.E. exit 57 at the LILCO training center. For further information call Peter Buitenkant at (516) 491-3414.

February 6, 7:30 p.m. - Vehicular Technology Society, NY / LI Joint Chapter presents: "Penn Station Central Control", Talk by Ian Parks and By Phil Buih, LIRRC Assistant Chief Engineer - Signal and Communications. 400 31st Street, on west corner of 9th Ave., NY,NY. Follow the signs to the meeting. For further information contact Tom Sisler, Chairman, E-mail: tssler@ieee.org or phone (516) 758-4569.

February 10-26, 6:00 - 9:00 p.m. - PROGRAMMING LANGUAGE SEMINAR C++/C++/C by Walt Whipple, Ph.D., P.E. The seminar will be held in Farmingdale. For more information call Walt Whipple (516) 738-3114 or e-mail at whipple@ieee.org. February 11, 3-7 p.m. - EICL at Manor East Cafeter, 201 Jerusalem Ave, Manasqua. 6:00 p.m. Cocktails and exhibit of winning Rubie Goldberg machines; 7:00 p.m Dinner & awards; Keynote Speaker Dr. Raymond Damadian, Founder, President & Chairman of Foran Corporation: "Long Island and its Role in the Incubation & Development of Medical Devices" Table reservations on a first-come-first-served basis. Send reservations with checks for $35/person no later than February 17 to Mort Rockman, 31 Ryder Ave, Dix Hills, NY, 11746, (516) 586-1765.

February 20 - 10:00 a.m. - 5:00 p.m. - The Metropolitan Engineering Societies Council Presents a Symposium "Technical Feasibility of Manned Flights to Mars" Location: The New York Academy of Sciences, 2 East 62nd Street, New York City. The speakers are major scientists and engineers in the field of inter-planetary flight systems. They will present the technical elements for achieving the manned mission within the next 10-20 years. Attendance Fees: IEEE & IES Members $50. Non-members $75. College IEEE Student Members $10. Non-member college students $15.00. Make Checks payable to: IEEE-NY. Mail check to: Leon Katz, Rail Transportation Systems Inc., 120 Lexington Avenue, Suite 504, NY 10703.

February 24, 6:00-8:00 p.m. - EXCOM MEETING. AT ALL SYSTEMS. 26-615 PM - EMC and EMBS - JOINT MEETING Long Island and New York: Design of PHYSIOLOGICAL MONITORING EQUIPMENT for FMC and Safety in the MIR Environment. Speaker: John Pump, Magnetic Resonance Equipment Corp. TOURO College of Health Sciences Rm.79 Bldg. 14, West Road, Long Island Development Center, Dix Hills, NY 11746. For details or to arrange for a contact Robert L. Hayes. 2nd Floor Conference Room. L.I.E. exit 57 at the LILCO training center. For further information call Kevin Shapihor at (516) 491-3414.

February 25, 7:30 p.m. - LI Consultant's Network. General networking meeting. A roundtable discussion "Aspects of Consultant-Client Relations" will be conducted. (Hold over from our January meeting). L.I.E. exit 57 at the LILCO training center. For further information call Kevin Shapihor at (516) 491-3414.

March 4, 5, 7:30 p.m. - The Long Island LEOS Chapter is hosting a guest speaker, Professor Brad Carlson. "Applications Specific Active Pixel Image Sensors". Place:AIL Systems Commmack Rd, Deer Park, NY. For more information see page 1 or call Marc Shapihor at (516) 738-4914.

April 2, 7, 9, 4, 6:00 - 9:00 p.m. - Intermediate Microprocessors and Software Seminar. For more details call Babak Beheshti at (516) 686-7457 or e-mail at b.beheshti@ieee.org.

Design of Physiological Monitoring Equipment for FMC and Safety in the MIR Environment

Long Island and New York Joint EMC and EMBS Meeting - February 26, 1997, 6:15 pm


John Pump will discuss the reasons for physiological monitoring and the types of sensors used in the MIR environment. EMC issues with FMC safety will be discussed including design factors for equipment that must operate without generating radiating fields and varying radio frequency fields in the MRI room. Mr. Pump will describe the design and exhibit a fiber optic pulse oximeter sensor. ECG monitoring will be discussed and simulated.

Mr. Pump is the marketing manager of MR Equipment Corp. He graduated from Brooklyn Polytechnic Institute as an electronic engineer. He has worked as a computer design engineer for 15 years. He has worked for North American Philips in marketing and sales management for more than twenty years.
PROFESSIONAL ACTIVITIES REPORT
by Irwin Weitman, P.E., PACE Chairman

The PACE report for January mentioned the improved economic conditions for engineering employment that has finally arrived on Long Island. This means that we will experience a repeat of history where the Employment Assistance Committee will just disappear due to such little need. I find this distressing since as we all know, that these economic cycles always repeat. What it means is that when the next downturn occurs there will be no structure in the Long Island Section to help those of us in need. What I propose here, is that we find several other services that our employed members need and include them in the responsibilities of a new committee (new name) that we will form.

As a guide we should look to the functions that the IEEE Consultants’ Network provides for its members. Such a committee will be organized and able to respond more quickly. It took the present committee more than two years to get running smoothly. Many of the downturns don’t last that long and therefore the EAC is not able to satisfactorily serve our members.

I would like to set up a committee to look at the various services our employed members need and that IEEE could provide. I am looking for volunteers to serve on such a committee and individuals with ideas to present to the commit-

tee. Anyone with ideas or a desire to serve on this committee please contact me by e-mail at i weitman@ieee.org

Instead of just letting the EAC die from lack of use and purpose, lets just change its name and give it new life with more goals. From time to time I will list e-mail addresses that I think will be useful to some of our members. If you have any such addresses please send them to me by e-mail and I will try to include them in this column. For starters here are a few from a Legislative Report Letter I receive from IEEE-USA.

Presidents Office of Science and Technology regarding an international “intellectual Property Treaty”:

NSF grant proposals:
http://www.nsf.gov/od/lpa/meritfr.htm

FCC standards for digital
TV: http://www.fcc.gov

IEEE job listing service for both employees and companies.
www.ieee.org/jobs.html

For downloading listing autoresponse files
info.ieeus.org/ jobs.r0r@ieee.org where r is the region number (we are in region 1). No message is required.

More next month. Your comments about the PACE REPORT to me by e-mail is encouraged.

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The PULSE of Long Island 4
The Feb. issue of the PULSE, 30 years ago, was devoted completely to increasing the membership of the Long Island Section. There were editorials by the editor, the Chairmen and notes from other officials but the most compelling article, I thought, was a report by Ray Hellmann on an analysis and survey done at Hazeltine.

The analysis of different departments there showed that those with the greatest ingenuity and greatest output came from departments with the highest proportion of IEEE members. It stands to reason that for a company like Hazeltine or other companies pushing the frontiers of communications, air traffic control, navigation, or other new innovations, engineers regularly discussing the latest developments with experts in the field at IEEE meetings, would be the best equipped to utilize this information in their work.

So much for the analysis, now for the survey.

Ray reported that in the underachieving departments the supervisors were IEEE members. In the underachieving departments the supervisors were not. In talking with the engineers in the underachieving departments, the engineers concluded that if the supervisors were not members, membership must not be that important to their career. To bring the whole company up, Hazeltine started a drive to enlist all the supervisors in the IEEE! Has human nature changed in 30 years? I suspect not.

If your company has departments that are underachieving it may be the lack of leadership syndrome. For when the leaders have lost their way the followers are likely to wander also. So, do your company a favor and encourage the supervisors of any laggard department to set a more professional example for their followers by joining the IEEE; and participating in the activities where they will learn the latest information from the best sources. They will help not only themselves but their department members also. A rising tide lifts all boats.