SECTION MEETING
Nov. 17, 2015
Dinner: 6 pm
Speaker: 7 pm
Sheraton University City
Philadelphia
Meal Cost: $25.00 (students $15.00)
Parking cost paid by section
Clinical applications of microwave radiometry”
Dario B. Rodrigues, Ph.D.
Emerging diagnostic and therapeutic applications with ultrasound contrast agents
John Eisenbrey, Ph.D.

Note: In the event of bad weather please call the Sheraton after 1pm the day of the meeting at 215-387-8000. Ask the front desk if the meeting has been canceled.

November 2015

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IEEE NIGHT
Philadelphia Section Meeting
Joint with: Aerospace and Electronic Systems(AES), Engineering in Medicine and Biology(EMB)

Date: Tuesday, November 17, 2015
Time: Dinner is at 6 pm. Program starts at 7 pm, and 8 pm.
Location: Sheraton University City, 36th and Chestnut, Philadelphia
Cost of dinner is $25.00 (students $15.00); meeting only is free (Real cost of dinner is higher, which is mostly subsidized by section)
Reservations are needed, call 484.270.5136 or email the section office.
sec.philadelphia@ieee.org or use vtools in the web site
Indoor parking is at location and paid by section. Bring ticket to be stamped.
Note: In the event of bad weather please call the Sheraton after 1pm the day of the meeting at (215) 387-8000. Ask the front desk if the meeting has been canceled.

Clinical applications of microwave radiometry
Dario B. Rodrigues, Ph.D.
Over the last two decades, passive microwave radiometry has made considerable progress in the study of the Earth's surface and atmosphere. Drawing from this space technology, microwave radiometry is finding increasing application in studying internal body temperature by measuring centimeter wavelength thermal radiation emitted from human tissues. Knowledge of such thermal patterns can assist the detection or diagnosis of diseases, as well as monitoring of therapeutic or physiological processes. In particular, this talk will address the use of microwave radiometry for three novel clinical applications: non-invasive detection of vesicoureteral reflux into kidney, monitoring brain temperature during extended hypothermic surgery, and monitoring brown fat metabolism to understand its role in diabetes and obesity. The technique has important practical advantages for many clinical applications since it is noninvasive, passive, and inherently safe.

Dario B. Rodrigues received his B.S. and M.S. in Biomedical Engineering from the New University of Lisbon (Portugal) and obtained his Ph.D. in Biomedical Engineering (Thermal Medicine) from a collaboration between the New University of Lisbon and Duke University. He is currently a research fellow in the Radiation Oncology Department of Thomas Jefferson University, under the mentorship of Prof. Paul Stauffer, Dr. Dennis Leeper, and Dr. Mark Hurwitz, three former Presidents of the Society for Thermal Medicine. His main research interests include microwave hyperthermia and microwave radiometry with focus on noninvasive monitoring of physiological processes. He has been involved in three NIH grants that aim to bring passive microwave radiometry to the clinic, work that recognized him with two international awards. Dario is also a hyperthermia physicist, where he implements treatment planning and quality assurance of clinical hyperthermia treatments for cancer.

Emerging diagnostic and therapeutic applications with ultrasound contrast agents
John Eisenbrey, Ph.D.
Technological advancements over the last 20 years have greatly expanded the role of ultrasound in medicine. One such advancement has been the development of ultrasound contrast agents. These intravascular agents consist of encapsulated microbubbles and have many properties that make them unique among contrast media. The microbubble response when exposed to an ultrasound beam is highly nonlinear, and these nonlinear frequency components can be isolated for diagnostic purposes in imaging and pressure estimation. Additionally, when exposed to sufficient acoustic pressure amplitudes, these microbubbles undergo stable or inertial cavitation. This localized destruction can be used for targeted gas or drug delivery for a variety of therapeutic applications. This talk will explore emerging uses of ultrasound contrast agents in medicine and cover the translation of these techniques from the bench-side, to animal models, to clinical trials.

**John Eisenbrey** is a Research Assistant Professor in the Department of Radiology at Thomas Jefferson University. He completed his undergraduate degrees in Management and Mechanical Engineering at the University of Delaware, before completing his MS and PhD in Biomedical Engineering at Drexel University. His current research interests focus on photoacoustic and ultrasound imaging, targeted drug delivery, and contrast-enhanced ultrasound for diagnostic and therapeutic applications. He has published over 40 papers in the field of ultrasound, has received research funding from the NIH, DoD, and Industry, and is an active member of the AIUM and IEEE.

**YOUNG INNOVATORS FAIR**

A massive, one-of-a-kind K-12 STEM family event to be held January 2-3, 2016, at the Greater Philadelphia Expo Center, Oaks, Pa. Experience mind-blowing exhibits, hands-on attractions, and live entertainment across 120,000 sq. ft. in ten innovation worlds.

The diverse group of partners includes leading toy companies (FIRST LEGO League, K’nex, ROBOTIS), up-and-coming startups (Starfall Studios, Everblock), non-profits (Girls Scouts, Center for Aquatic Sciences), educator mavens (ISTE, National Math Festival), leading schools (Pennsylvania Leadership Charter School, Penn State University), world-renowned museums (The Franklin Institute, Johnsville Science Museum), STEM programs (Engineering for Kids, WOW Science Camps), and performing arts leaders (The Kimmel Center). Purchase tickets in advance. You are also encouraged to give back to the community by donating tickets to youth from disadvantaged communities and providing a monetary contribution to Ronald McDonald House Charities. The section has a group code for a discount. Get your tickets now at [younginnovatorsfair.com](http://younginnovatorsfair.com) and use our group code IEEEFIVE to receive $5 off each ticket.
Really? You Are Going to an Unconference?
Then you are a ‘preneur! Are you looking for inspiration or motivation? Do you have ideas you
wish you could share and help build your own brand? Do you have a question you always
wanted to ask? Then join us for the first-ever ILF Unconference:

"How to Become a Great Preneur"
Saturday, November 14
9:00 A.M. to 2:00 P.M.
The DEC Center, Philadelphia University

REGISTER through gpseg.org or Vtools —And register now; seating is limited to the first
100 registrants. Make sure you take advantage of the IEEE discount!

Preneur is from the French and means “taker” or “one who takes.” It’s become
synonymous with taking advantage of or creating an opportunity. For example, a person who
takes the risk of starting a business or businesses is called an entrepreneur.

"The best time to plant a tree was twenty years ago. The second best time in NOW”
- Chinese proverb

What’s in it for you?
That depends on what you put into it, because you and fellow participants determine the
discussion and learning topics. For instance, if you are interested in finding out the basics of
building preneurial skills, you can post that as a topic and see how many others share your
interest. At the very least, you’ll get to explore what other great preneurs have done and how
they think; find out what’s on the minds of your colleagues and what piques their curiosity most
about preneurship; and hear a keynote address from a rock star of the preneur world.

An Unconference combines the level of synergy and excitement present in a good coffee
break with the substantive activity and results characteristic of a good meeting. It’s an event
where incredible things happen as participants choose the topics and facilitate their own
discussions. Ours in focused on becoming a great preneur.

You can link to a video about this unique event format. The host is Sunlight Foundation.
Unconference 101 _ https://youtu.be/iUEt0xOysr4

Our Speakers
Stephen Spinelli, PhD, Keynote Speaker: Stephen is President of Philadelphia University and
will kick off the conference. He is an entrepreneur with an early and continuing specialty is
franchising that began with being a member of the founding team of Jiffy Lube. Stephen Spinelli
on LinkedIn

Natalie Nixon, PhD, Unconference Leader: Natalie is Associate Professor and Director –
Strategic Design MBA at Philadelphia University. She is an experienced unconference leader
and a hybrid thinker, comfortable synthesizing creative and analytical thought processes from
design and business to arrive at innovative opportunities. Natalie Nixon on LinkedIn

For more details click Here! REGISTER HERE Or go to:
http://www.gpseg.org/events/event_details.asp?id=662691&group=135921
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Section notes

IEEE PHILA. SECTION OFFICERS
Chair: Philip Gonski; P.E.; pgnski@gmail.com
Vice Chair: Adam Fontecchio. Ph.D., sec.philadelphia@ieee.org
Treasurer: Richard Primerano, sec.philadelphia@ieee.org
Secretary: Tal Singer tsinger@centrak.com
Past Chair: Mark Soffa msoffa@kns.com

Adcom meets second Tuesday of the month (Nov. 10) at the Sheraton University City. Members are welcome to attend. Reserve a seat by calling the office by the Friday before. This is Student Award Night so Adcom meets at 5:00 pm.

Almanack Staff
Publisher: Phil Gonski, P.E.
Editor: Peter Silverberg
Asst. Editor: Janet English-Cartwright jenglish@fi.edu
News and notices contact psilverberg3@comcast.net or 856.461.6615 or fax 509.461.6617
Deadline for the December issue is November 10, 2015.

New & improved web site:
www.ieeephiladelphia.org

ADVERTISE IN THE ALMANACK:
The Philadelphia Section of the IEEE encourages placement of technical, professional, promotional and commercial advertisements in the Almanack. The Almanack is published ten times a year and is read by more than 4,000 members with an average annual salary of over $70,000 in over 150 key industries. For more information, contact Peter Silverberg at 856.461.6615 or psilverberg3@comcast.net

Rates:
Full Page: 7.5x10: $100
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1/4 Page: 2.5 x 5: $25
1/8 Page: 2.5 x 2.5: $12.50

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Email blasts: We send emails every week. The first time we send an ad, it costs $50. We will send the identical ad three more times for $25 each time. If the copy changes, the $50 applies. If four times are done, the fifth time is like a first time i.e. $50. We might be bandwidth limited, so please keep them short.

Life Member Tour Jan. 2016
The Life Member Group, headed by Merrill Buckley, suggests that if you are interested, you should save the date on your calendar for the next Life Member sponsored tour of a modern technology's facility in our area. It will be start at 2:30 P.M. at Inductotherm, in Rancocas, NJ. on 14 January, 2016. A detailed description by Life Member Bob Paglee, P.E. (Ret), will follow next month.

Jan 12 meeting
Section will meet jointly with EIA (Electrical Industry association). Watch the Almanack for details.
CoNet Meeting Announcement for Tuesday, November 3rd, 2015

General Meeting & Call for Chair Person

Date & Time: Tuesday, November 3rd, 2015 @ 7:00 PM

Place: Sheraton University City, 36 & Chestnut Streets, Philadelphia PA 19104
Fairmount/Franklin Suite – downstairs from main lobby

Take your garage ticket, and have it stamped when you sign in to the meeting.
For information on becoming a member, please visit http://www.PhilaConet.com

Networking / Social Time: 7:00 PM to 7:15 PM (please allow for rush-hour traffic)

Meeting: 7:15 PM to 9:00 PM

Fee / Dinner: No fee and no dinner provided for this meeting

Agenda:

1. Welcome and Opening Remarks by Vice Chair (Baw Ch’ng)
2. Reports and Remarks by Officers
   a. Program Chair (Charles Smollin)
   b. Correspondence Secretary (Gene Bruschke)
   c. Recording Secretary (Jonathan Allen)
   d. Technical Advisor (Ed Segall)
3. Treasury Report and Discussion (Treasurer, Peter Ingerman)
4. Call for volunteers for the CoNet Chair position (additional information in Appendix)
   a. Remarks by Vice Chair (Baw Ch’ng) concerning this call for volunteer
   b. Overview of Chair’s primary responsibilities by all former Chairs in attendance
   c. Call for volunteers
   d. Election of CoNet Chair
5. Any other CoNet business as may be raised by members in attendance
6. Adjournment
APPENDIX

Call for Volunteer for CoNet Chair Position

Former CoNet Chair Mike Mayor has decided to step down from the Chair position. As a result, CoNet’s Chair position is now vacant. As we thank Mike Mayor for his leadership and service to CoNet, we also look to fill the vacancy. Hence this call for volunteers for the Chair position.

**Eligibility and Election:** All CoNet members (including new members who join CoNet or returning members who reinstate their memberships on the same day at the meeting) are eligible to volunteer to serve as CoNet Chair, and an election will determine which volunteer will become Chair. All CoNet members in attendance will be eligible to vote in the election for CoNet Chair, whose tenure will be from then to the end of 2016.

**CoNet Chair’s primary responsibilities:**

1. Provide vision and leadership for CoNet to fulfill its **mission to improve our technical consulting businesses by sharing and expanding our technical knowledge and our business capabilities**
2. Represent and promote CoNet with other local professional organizations and local industries. Work with CoNet Officers and Members to maintain and publicize the Directory of Philadelphia Consultants as a resource for hiring managers in the greater Philadelphia/Allentown area to directly locate and evaluate candidates who can fulfill their technical consulting requirements.
3. Interface with IEEE and IEEE Philadelphia Section Administrative Committee (ADCOM) and maintain CoNet’s standing as an IEEE Affinity Group
4. Provide leadership and support for all other CoNet Officers and Directors towards the fulfillment of their respective functions
   a. Schedule and facilitate regular meetings of the Officers and Directors
   b. Follow-up with Officers and Directors to ensure that action items are carried out
   c. Work with Program Chair to arrange and conduct open, public, face-to-face meetings that may feature a variety of speakers, presentations, reports, anecdotes, and discussions relevant to the practice of technical consulting. Initiate and manage professional activities that inform and educate Members who may not yet be, but aspire to become, technical consultants to industry and government.

**Questions** about this meeting and call for volunteers for the Chair position can be directed to Baw Ch’ng at (865) 229-6268 or by e-mail to info@bawman.com.
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“Wearable Microcontrollers Work shop”

SPEAKER
Anthony Gold
Anthony’s Desk
“Leadership in Tech”

SPEAKER
Ellen Weber
Robin Hood Ventures
“Nuture the Entrepreneur in You”

SPEAKER
Barbara Taylor
JanBara & Associates
“Women and Confidence”

Career Fair - November 7th - 1-5pm

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IEEE WIE SUMMIT USA EAST 2015
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Philadelphia Section Looking for IEEE Awards Candidates

The Philadelphia Section IEEE Awards Committee needs your help in the process of nominating members (yourself included) to the Senior Member and Fellow membership grades, and to receive IEEE awards and medals. The committee is seeking the names and biographies of individuals whose meritorious achievements in one of the areas of IEEE interest — Electrical Engineering, Computer Science and allied branches of Engineering, Arts and Sciences — deserve wide recognition. Many significant contributions to the profession that originated in Delaware Valley companies and universities are yet to be promoted and properly recognized by the IEEE.

The Senior Member grade is the highest professional IEEE grade for which application can be made. This grade requires the candidate to have been active professional practice for at least ten years. Evidence is requested for significant performance of the candidate over at least five of these years, as an engineer, scientist, educator, technical executive, or technical originator. The awards committee will gladly furnish application forms to interested members, and help in preparing the application.

The Fellow grade recognizes unusual distinction in the profession, and is conferred by the IEEE Board of Directors. IEEE Fellows are individuals of outstanding and extraordinary qualification and experience in IEEE fields of interest. Nominations to the Fellow grade are made by peers of the nominee, and are usually supported by other Fellows, by local IEEE Chapters and by an IEEE Society.

The IEEE also bestows recognition on its most outstanding members in the form of a Medal of Honor, IEEE Medals, Technical Field Awards, Service Awards, and Paper-Prize Awards.

The IEEE Philadelphia Section will help nominators and nominees in preparing forms, locating appropriate nominators, endorsing candidates for awards and medals, and sometimes serving as the nomination body. We strongly encourage members of our Section to contact the committee for information, nomination kits, and general assistance in the process.

The various Philadelphia Section Awards available for nomination are:

Philadelphia Section Engineer of the Year Award
The Philadelphia Section Executive Committee seeks nominations for the IEEE Delaware Valley Electrical Engineer of the Year Award. The Electrical Engineer of the Year will be recognized at the Section’s Annual Awards Banquet. Nominees should be engineers who are members of the section, and who have demonstrated excellence in technical, scientific, academic, or managerial endeavors. The award emphasizes creative, important, and widely recognized work.

*Nominees are asked to submit a short letter of nomination (1-2 pages) and a resume of the candidate.

Young Electrical Engineer of the Year Award
The Philadelphia Section Executive Committee seeks nominations for the IEEE Delaware Valley Young Electrical Engineer of the Year Award. This person will be recognized at the Section’s Annual Awards Banquet. The nominee must be under 35 years of age before January 1, 2016 and should be a graduate of an accredited curriculum with a degree in Engineering or a related field.
The award emphasizes creative, important, and widely recognized work. An additional part of the judging will be the candidate’s contribution to professional, civic, and charitable affairs. *Nominators are asked to submit a short letter of nomination (1-2 pages) as well as a resume of the candidate.*

**Benjamin Franklin Key Award**
The IEEE Philadelphia Section invites nominations for its annual Benjamin Franklin Key Award to recognize an electrical engineer in the Philadelphia Section for outstanding technical innovation and technological contributions that have had significant practical applications. The award emphasizes technical innovation, such as a system (design and application), a significant improvement to a system, or patents of clear practical values. Emphasis will be put on tangible technical and technological achievements that demonstrate intellectual, industrial, economical or human benefits.

*Nominations should include:  □  1. A description of the nominee’s technical invention, system, project, or patent □  2. A proposed citation (30 words or less) □  3. The nominee’s curriculum vitae □  4. Additional evidence demonstrating the invention, system, project, or patent

**Philadelphia Section Corporate Technology Innovation Award**
The IEEE Philadelphia Section invites nominations for its annual Corporate Technology Innovation Award. This award recognizes a company or corporation for its outstanding contribution to electrotechnology. The award emphasis developments, projects, products, and other group achievements, that have been very innovative and successful.

*Nominations should include:  □  1. A description of the nominee’s technical accomplishment □  2. A proposed citation (30 words or less) □  3. Any additional appropriate information □

Submit ALL nominations by December 15, 2015 to:
**Merrill W. Buckley, Jr., Awards Committee Chair**
IEEE Section Office, 11 Bala Avenue, Bala Cynwyd, PA 19004.
Think carefully about your fellow workers and about your own contributions. Don’t be shy! We really need your help. Call with the name of a potential awardee; even your own. For more information, please call the Section office at 484.270.5136, or use email at sec.philadelphia@ieee.org, or contact any member of the committee:
Merrill W. Buckley, Jr.  484.573.5156
Thomas Fagan  484.678.1078
Dr. Victor Schutz  610.649.9331
Donald C. Dunn  856.227.2458
IEEE NJ Coast Section
2nd Conference on Mobile Security/Cyber Security and Privacy
November 4, 2015 (Wednesday)
Venue: The Edison Hotel & Conference Center,
3050 Woodbridge Avenue, Edison, NJ 08837 USA

Keynote Speakers
Dr. Ed Amoroso
AT&T
Donna Dodson
NIST

Invited Speakers
Prof. Steven Bellovin
Columbia Univ.
Eric S Green
Mobile Active

Mobile security, cyber security, and privacy have become more critical in our business, government, travel, healthcare, and every-day lives. With society’s exploding dependence on mobile devices and wireless technologies, effective security solutions have become increasingly important in everyday life. Whether you are a security expert or a novice, practical solutions are crucial in your industry as well as personal life. Join us at this upcoming high-impact one-day conference to hear more about these important topics from business, academia, federal government, and research. Take some time with us to catch up on the latest trends, review the issues, collaborate with colleagues in industry and research, and take away practical ideas to enhance security of your world.

Who Should Attend: This conference is geared to IEEE members, non-members, students, and guests who would like to review the state of the art in mobile security, cyber security, and privacy and become aware of issues and directions of research, academic, and practical solutions.

What Will You Learn at This Conference: If you have considered learning more about security, this is an ideal event to attend. Awareness of mobile security, cyber security, and privacy improves your job, consulting, and life skills. You can get Professional Development Units PDU (Continuing Education Units (CEU)).

POSTER DISPLAYS: The student posters presentations will be on display all day.

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Please register at [https://meetings.vtools.ieee.org/meeting_view/list_meeting/25959](https://meetings.vtools.ieee.org/meeting_view/list_meeting/25959)

For More Information please visit the IEEE New Jersey Coast Section website
[http://sites.ieee.org/njcoast/](http://sites.ieee.org/njcoast/)
Maker Faire 2015

By John Ianuzzi

On September 26-27, 2015, the New York Hall of Science in Flushing NY, hosted the 6th World Maker Faire 2015. The Philadelphia Section of the IEEE sponsored a trip to the event for the second year in a row.

Maker Faire brings together inventors and DIY (do-it-yourselfers) enthusiasts from all over, to exhibit their projects and share ideas in an open, family friendly environment. The New York Hall of Science provided the perfect atmosphere for the event. The grounds outside of the museum provided room for larger displays, tents and demonstrations. Inside the museum (Maker Faire ticket includes admission) there are many additional projects interwoven between exhibits. This year, an estimated 90,000+ DIY enthusiasts attended.

Among the outside attractions were the YouTube sensation, Eepybird, with the Coke Zero and Mentos demonstration, presented at the world-famous Unisphere in Corona Park, a full size mouse trap game and the first time ever, Drone Wars Cage. The Drone Wars Cage featured some of the best drone pilots performing aerial battles, races and free style flying. Lots of fun to watch!

For the makers, 3D printers and accessories continue to be a popular item and growing in scale, capable of "printing" much larger objects. The printers are emerging from the DIY garages and being offered as quality products. Additionally, there are also many other smaller scale, affordable tools demonstrated including routers, milling machines and rapid prototyping devices. Some can even be fitted with tools to create printed circuit boards.

Intel, Atmel and Microchip were among the big name sponsors showing new and improved microprocessors and applications with Raspberry Pie, Arduino, BeagleBone and Edison leading the way.

In addition to the projects and demonstrations, there were walk-in workshops for soldering, woodworking, building and launching air-propelled rockets and paper airplanes. These workshops enabled new DIYs (a lot of them kids) to pick up some helpful hints and allowed more experienced DIYs to share their skills.

Making is fun, satisfying and educational. Events like this provide an outlet to show, share and exchange ideas in an open, friendly environment filled with folks and families with common interests.

World Maker Faire 2016 will be held at the New York Hall of Science on Saturday and Sunday, October 1 & 2.

Maker Faire is presented by Maker Media who publishes Make Magazine. Additional information about Maker Faire can be found at: http://makerfaire.com.
Section attendees waiting for the bus to go home

Photos by Bill Patterson

EepyBird-Coke_Zero-Demonstration_Unisphere_Corona Park

Waiting for the bus to go to NYC

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Can You Volunteer for Career Day at Springfield Twp. High School

Springfield Township High School, in Montgomery County, is having its first career day in many years. This is being developed by a student organization called “Voices of Excellence” that is focused on helping students of color connect with school and be successful. One thing that these students asked for is a career day with working professionals to talk with about careers. Engineering was voted up by the entire student population and is one the top 10. We are looking for an engineer to come to our school on December 17th from 8 am to noon.

Thanks.
Tammy Pirmann
tammy_pirmann@sdst.org

Ernest's Page

Bicycles

By Ernest Cohen

When I was young, I rode a bicycle which was bought for my mother, who never learned to ride. It had a New Departure coaster brake, which we retrofitted to two speeds. In 1946, when British industry was beginning to convert back to civilian needs, we saw an ad for a British bicycle, and my father bought it for me. Having seen many British drama shows on TV since then, I now know it was an obsolescent model, a rod brake Armstrong roadster with a 3-speed Sturmey Archer hub, and a frame mounted control. I loved that bike, and when I started courting my wife, Elaine, I would ride over to her house. For night riding, I equipped it with a carbide miner's lamp. (In case anybody is interested in an antique, I still have the lamp, and will give it away.)

Of course, the first thing I did with the bike was to take apart the hub to see how it worked. In 1950, I was a freshman in mechanical engineering at CCNY, and I received a scholarship check from New York State. I saw an ad for four-speed bicycles at the Bicycle Club of America, and went down on the subway to look. These were more modern, having cable brakes and the shift control on the handlebars. I bought that bike with the check. I took apart the four-speed hub to see how they got four different gears. A few months later, I was at Cornell University, studying math, and physics, and I rode that bike all over campus.

Then I got married, and moved into an off campus apartment in Ithaca. I needed some rare bicycle parts, and went down to Chambers Street in lower Manhattan. After I bought the parts, they gave me a copy of their catalog. I was now in the bicycle business, and the distributor of Phillips bicycles in Ithaca, New York. I bought a pair of green Phillips bikes, one for me and one for Elaine, and equipped them with four-speed hubs. I realized that by controlling the planetary gear ratio, in addition to switching from Low, Direct and High, you could get an extra high. The control for the New Departure two-speed gear would do that but it needed some hand made parts to work with the British hub. A graduate student who had access to a machine shop helped and I made a converter to hold the actuator for the New Departure two-speed gear, and this made a very nice five-speed hub gear. I converted five bicycles: The two Phillips bikes mentioned above, two for the graduate student and his wife, and one for my sister-in-law. Around this time, I got an Austrian bike with a coaster brake for my brother, and converted it to hub gears. A graduate student from Scandinavia had trouble with the coaster brake in his bike. Not being able to get parts for it, I spoked the Austrian coaster brake into the wheel. Being used to the American New Departure, I was disturbed by how poorly the brake worked, but the student was really pleased with it.

I was still fascinated by the possibilities of bicycle gearing. I picked up a French frame,
and put in a two speed deraileur along with a Sturmey Archer FM hub. This was a wonderful sports bike. It is still in the family, but awaiting my son, Arthur, to reassemble it for my grandson, Tovi.

The last time I had dealings with that wholesaler I had already moved to Pennsylvania. My oldest child was about five, and I got her a very nice looking English tricycle. Unfortunately, there was a design problem, which we tried to fix by brazing, but the heat damaged the steel, and the frame a few years later. I still have a photo of her on that tricycle.
UNISYS OFFICE WINS TEKNE AWARD
MINNEAPOLIS, Sept. 25, 2015 — To honor leading-edge innovation and the technological advancement of local companies, the Minnesota High Tech Association (MHTA) has announced 45 finalists for its annual Tekne Awards, which will be held on Wednesday, Nov. 18, at the Minneapolis Convention Center.

The Tekne Awards honor science and technology across 13 categories, including the Internet of Things, advanced manufacturing, cyber security and more. The 41 local finalists have gained recognition based on the progression of their organizations, products and services. Finalists will be honored among Minnesota’s most influential business, educational and government leaders for their contribution in fueling the state’s technological growth.

“Each year, MHTA seeks out companies and people leading the way in innovation in Minnesota,” said Margaret Anderson Kelliher, president and CEO of MHTA. “These advancements are changing the way people all over the world live and work, and the Tekne Awards recognize those achievements.”

Throughout the past six months, Minnesota has been ranked as the fastest-growing state for attracting technology jobs, according to the U.S. Bureau of Labor Statistics. Minnesota was also recently ranked sixth in technology and innovation by CNBC.

The 16th annual Tekne Awards program will begin at 4:30 p.m. with a VIP registration and reception, followed by general registration and cocktails at 5 p.m. The awards ceremony will commence at 7 p.m., with a post-event reception at 8:30 p.m. WCCO anchor Amelia Santaniello will emcee the event.

For additional information, or to register for the 2015 Tekne Awards program, visit http://www.tekneawards.org or contact Aly Roach at 952-230-4553 or aroach@mhta.org.

The Software Award honors innovation in software development or applications that enhance productivity and efficiency for business or consumer use. Finalists are: Blue Cross Blue Shield (Eagan), Digital River (Minnetonka) and Unisys (Roseville). Small and growing company finalists are: Apex Revenue Technologies (Little Canada), MedNet Solutions (Minnetonka) and Quantum Retail (Minneapolis).

Chair’s Message
I’d like to cordially invite all of our members to the upcoming IEEE WIE Summit East. In just the first year, the event organizers have nearly sold out attendance and planned a full slate of distinguished speakers and activities. The mission of WIE is to help foster the interest of women in electrical engineering, as well as provide professional enrichment for all members. I hope to see you on November 6th http://sites.ieee.org/wie-summit-usa-east/

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