



SPARKS

Daytona Section Newsletter
April 2018



APRIL SECTION MEETING

Thursday April 26th at the Halifax River Yacht Club, 6:00 PM
331 South Beach Street, Daytona Beach, Florida 32114

PROGRAM

ERAU Student Presentations
Tomoka Science Fair IEEE Award Winners

CHAIR'S REPORT



Happy April, everyone. Remember that the Region 3 is holding its annual SoutheastCon April 19 – 22 in St. Petersburg, FL.

This is also the last month for our section meetings before the summer break. We've had an active and successful year, reaching out to local schools, acknowledging member service, participating in the Florida Council, and completing a section financial audit. I hope to see you all at the section meeting Apr 26. As we typically do for the April meeting, we will be celebrating student achievement.

Keith

MARCH PRESENTATION



Dr. Al Helfrick gave another interesting “Night of Potpourri” discussing the contributions of the “Ham” radio community and the ARRL to the communications industry during times of war, conflict and peace.

Dr. Helfrick’s knowledge of communication history and presentation style always makes his presentations interesting and informative to audiences of all levels.

APRIL PRESENTATIONS

As usual for our April meeting, students from ERAU will do presentations of their senior projects. In addition, our Daytona Section special award winners at the 2017 Tomoka Science and Engineering Fair will be introduced to our membership.

ANOTHER TALE FROM THE OLD PROFESSOR

Pi Day.....another Tale from the Old Professor

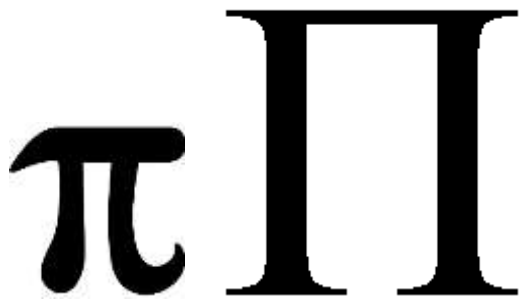
Until 1988, March 14 was no different than any other day. It was in 1988 that the San Francisco Exploratorium first celebrated the 3.14 date as Pi Day. The date, 3.14, represents the first three significant figures of the ubiquitous constant, pi or π . In 2016, Pi Day was 3.14.16 or the first 5 significant figures of the constant. The ultimate timing of Pi Day was in 2015 or 3.14.15 at 9:26:53 AM, or PM; which represents the first 10 significant figures of π .

Pi is the ratio of the circumference to the diameter of a circle. Pi was initially determined empirically by measuring the radius and circumference of a circle drawn in smooth sand. Evidence of the knowledge of π dates back as early as 2000 BC. Eventually mathematical formulas were created and the precise value of π could be calculated rather than measured.

Pi is an irrational number, meaning the significant digits never repeat and never end. The value of π to over 100 digits is:

3.141592653589793238462643383279502884197169399375105820974944592307816406286
2089986280348253421170679821480865132823066470938446095505822317253594081284
81.....

The maturity of science and mathematics of various cultures can be measured by how many digits of π they knew. Eventually π was represented by an infinite series and could be calculated to as many digits as one would like. That is assuming the computation of each digit is made without error. Today, with modern computers, there is no limit to the number of digits that π can be calculated without error.



Most people are not aware that the common form of π is actually the lower case of the Greek letter. The upper case is usually reserved for the product of a sequence of terms including the product of an infinite number of terms.

It is also notable that Pi Day is the eve of the Ides of March. The Ides was observed in Rome as a day to settle debts. From 1918 to 1955 it was “Income Tax Day” in the United States; the day your yearly income taxes were due. It was on Pi Day 44 BC that Julius Caesar was warned “beware the Ides of March” by a soothsayer.

Pi Day is also known for other events. The Nobel Prize Laureate Paul Ehrlich was born on Pi Day 1854.

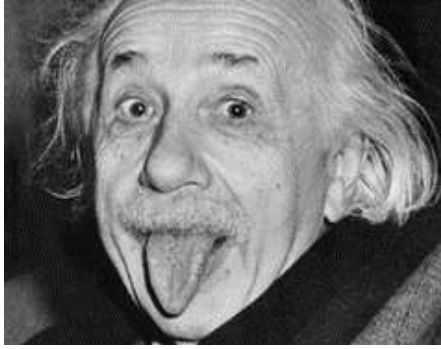
Paul Ehrlich, was a physician and scientist and won his Nobel prize for physiology for his work on hematology, immunology and microbial chemotherapy. On Ehrlich’s 25th birthday, Pi Day 1879, Albert Einstein was born in Ulm Germany. Einstein is household name throughout the world for his visionary theories. He was awarded the Nobel Prize in physics not for his theory of relativity, as many would assume, but for his research on the photoelectric effect.



Pi Day not only marks notable births but the recent death of one of the world’s most famous physicists; Stephen Hawking.

Hawking was diagnosed with amyotrophic lateral sclerosis or ALS; also known as Lou Gehrig’s disease. Gehrig died less than 3 years after his diagnosis but Hawking survived 55 years after diagnosis. After an amazing career Stephen Hawking died on Pi Day 2018. Rest in peace Prof. Hawking.

The world gained much from your teaching.



Einstein showing his dislike of the camera. He once listed his occupation on a form as "photographer's model".



John von Neumann used one of the first digital computers, ENIAC to compute π .

Dr. Al Helfrick, a.k.a The Old Professor

IEEE 50 YEAR SERVICE PIN PRESENTATION



Daytona Section members receiving their 50 year pins and certificates (left to right) Tracy Wichmann, Rudy Habermann, Charlie Husbands, Roger Grubic, Jim Zahnen, Mike Baran, Rich Kent, Ron Gedney, Al Helfrick, Al Jusko

PE CORNER

RULES AND LAWS AND ETHICS, OH MY!

For the last licensure renewal and going forward, the requirements for non-technical Continuing Education Hours changed substantially in that only one hour of Rules and Laws are now required. In addition, all PEs are required to have one CEH in Engineering Ethics.

Rules governing Rules and Laws and Ethics CEHs are found in the Board's rules at *61G15-22.010 Qualifying Activities for Laws and Rules Requirements* and *61G15-22.0105 Approval of Continuing Education Courses in Laws and Rules and Courses in Professional Ethics*. Not surprisingly, the Board integrated the new ethics rules into those currently existing for Rules and Laws. However, note that being provider of Rules and Laws CEHs doesn't automatically allow a provider to offer Ethics CEHs. The provider must apply to the Board to offer Ethics content separately. And each course to be presented by a provider on either topic must be individually approved by the Board as well.

IEEE is a registered provider with the Florida Board as a national professional society. The Florida West Coast Section puts on a wide variety of seminars that are both educational and qualify for technical CEHs. However, IEEE and others who are professional society-affiliated providers may only provide technical CEHs unless they otherwise apply to the Board. The Florida West Coast Section applied to the Board, and was approved, to be both a Rules and Laws and an Ethics CEH provider.

The FWCS has scheduled a Rules and Laws and Ethics seminar for June 29, 2018. These will be presented as back-to-back one hour seminars which will satisfy both the Rules and Laws and Ethics continuing education requirements for the next renewal period. A separate article with the details of these seminars may be found in this edition of the Signal and on our website.

On an unrelated note, at the last FBPE board meeting the Board voted to discontinue the practice of printing and mailing physical license cards to engineers for each renewal cycle. As it turns out, Florida was one of only three states that still did this. All of the others, and now Florida, email the image of the renewal card to the engineer, who may then print it out as they see fit, or not. So that printed certificate and card you received for your last renewal may become a collectable relic as the last of its kind, or not.

Whether you are a PE looking to attain required CEHs, or an engineer looking to learn something new or keep current with the latest trends in the profession, IEEE has seminars that will meet your needs. With renewal only 9 months away demand for our seminars is high. Sign up now!

Art Nordlinger, PE, Senior Member

DAYTONA SECTION SHIRTS



We are pleased to offer Daytona Section polo shirts for our Section members. The shirts are embroidered with the IEEE Logo and DAYTONA SECTION on the left and your name and grade, if desired, on the right. The shirt is a high quality 5 oz, 65/35 poly/cotton pique in Royal Blue with white embroidery. Available in S - 2XL in men's as well as ladies' sizes. Price is \$30, including tax, for S-XL size's, 2XL size is \$3 additional.

For more information or to order shirts contact: Allan Jusko 386-671-3706 or a.jusko@ieee.org.

IEEE MEMBERSHIP PINS

We have IEEE Membership pins available for years of IEEE membership. See Richard Kent or Dr. Keith Garfield if you're interested

FUTURE MEETING DATES:

The dates for the fall sessions are: Sep 27, Oct 25 and Nov 29

EDITORS NOTES

The **SPARKS** newsletter is also available on our website <http://www.ieee.org/go/daytona>

ENGINEERING HUMOR



2 x 371 - aiche.org

2018 SECTION OFFICERS

Chair – Dr. Keith Garfield

386-226-7081 garfielk@erau.edu

Vice Chair – Richard Kent

206-369-1965 rtkentjr@msn.com

Treasurer - Dr. Jianhua Liu

386-226-7713 liu620@erau.edu

Secretary – Ron Gedney

386-478-1204 r.gedney@ieee.org

Membership Development –

Publicity/Media – Ron Gedney

386-478-1204 r.gedney@ieee.org

PACE Representative –

Dr. William Barott

386-226-8973 barottw@erau.edu

Life Member Chair – Ron Gedney

386-478-1204 r.gedney@ieee.org

Computer Society Chair – Dr. Keith Garfield

386-226-7081 garfielk@erau.edu

Student Activities, (Co-Chairs)

ERAU - Dr. William Barott

386-226-8973 barottw@erau.edu

B-CU - Dr. Xiaohe Wu

wux@cookman.edu

ERAU Student Chapter Chair- Dean Laga

lagad@my.erau.edu

B-CU Student Chapter Chair – Ashim Ghimire

Ashim.ghimire@students.cookman.edu

Webmaster – Charlie Husbands

386-760-7163 chusbands@ieee.org

SRT Project Coordinator - Charlie Husbands

386-760-7163 chusbands@ieee.org

SPARKS Editor - Allan Jusko

386-671-3706 a.jusko@ieee.org

APRIL 2018 MEETING

Thursday April 26th at the Halifax River Yacht Club
331 South Beach Street, Daytona Beach, Florida 32114
Just south of the Fire Station at the corner of Beach and Orange Streets

TOPIC– Student Presentations

SPEAKERS – ERAU Students,
Tomoka Science Fair Winners

AGENDA

5:30 PM Greetings & Cocktails
6:00 PM Dinner
7:00 PM Presentation

Dinner Menu

Italian Buffet

Members and guests \$20.00 each

Students \$5.00

IMPORTANT DINNER NOTE!

The Yacht Club is requiring us to give them a dinner and menu selection count by the Tuesday afternoon before our meeting.

Since the menu items are special selections for each of our meetings and are prepared to be served at the same time, this gives the chef and kitchen time to order, receive and prepare the food items.

As always, all members and guests are welcome to attend the meeting and presentations, however any dinner requests received after Tuesday afternoon may not be accepted

Please contact Allan Jusko by Tuesday April 25th at noon to give us a count for dinner or for further information

If you make reservations and are unable to attend, call prior to the event to cancel.

The Section is charged for all dinners ordered, please let us know if your plans change

Allan Jusko Editor

386-671-3706

a.jusko@ieee.org