

FOUNDED 1916



Florida
Engineering
Society

BLACKLINES

*A Monthly Newsletter for Members of the
Treasure Coast Chapter of the Florida Engineering Society*

Volume 30, Issue 02

February 2015

PRESIDENT'S MESSAGE

Dear Treasure Coast Engineers and Colleagues:

February 22nd through 28th is "Engineer's Week" which began in 1951 by the National Society of Professional Engineers (NSPE). The idea is simple, promote the engineering profession by celebrating engineering excellence. We can all agree that engineers never seem to get much recognition, until there is a problem of course. In fact, we are much better known for our ability to fix problems than we are for proactively preventing them. Therefore, engineering excellence can be indirectly measured by the lack of recognition.

The problem is not that we don't have enough ticket tape parades for ourselves. It is simply that our lack of recognition inherently muffles the very crucial need for more great engineers. We need to promote our profession to attract students to become interested in engineering at a young age and to hopefully convince them to pursue a career in engineering. We need to get the word out that engineering is an extremely important career that is essential to modern society. That is the purpose of Engineer's Week.

Our Chapter has a banquet each year to celebrate Engineer's Week. And of course, local engineers and their guests are invited. The guests are usually just spouses that already know about the importance of engineering. Do we really accomplish the goal of Engineer's Week? Maybe not at the Engineer's Week banquet, but our Chapter does promote the engineering profession by facilitating the MathCounts competition that was just held at IRSC a few weeks ago and during our Project Lead the Way. In both of these events, local FES members and engineers from our community volunteer their time interacting with young elementary and high school students. That is what Engineer's Week is all about.

We encourage all of our members to participate in these events as well as any other outreach opportunities to promote the engineering profession to our future engineers. Engineer's Week is not just a one week effort. It is just a reminder to promote the engineering profession every day and every chance you get.

Dan J. Zrallack, PE—FES Treasure Coast Ch., President

Calendar of Events for Upcoming Months



Feb 26	TC FES E-Week Banquet
Feb 28	PE License Renewal
March 13	FES Award Deadlines
March 20	FL MATHCOUNTS Competition (Orlando)
April 9-10	GMEC Conference, Hilton Cocoa Beach

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ENGINEERS
LEAD THE WAY

February Meeting at a Glance...

- Who:** Treasure Coast FES
What: FES E-Week Banquet
Guest: David Scott, PE of Jacobs Engineering
Where: The 19th Hole at the Saints
2601 SE Morningside Blvd,
Port St. Lucie, FL 34952
When: 2-26-2015 at 6:00 pm
Cost: \$35.00 per person
RSVP: Pat Helms vicepresident@tcfes.org

Geotechnical and Materials Engineers Council 2015 Conference Hilton Cocoa Beach Oceanfront

April 9-10, 2015

It is time for the Geotechnical and Materials Engineers Council Conference. In general the Conference will cover the following: Geotechnical and Materials Case Studies & Technical Presentations, Exhibits by Suppliers and Service Providers, and Networking opportunities with your peers from around the state. Additionally, there is the opportunity to earn more PDHs to satisfy increased requirements for PE Licensure Renewal. Up to six (6) PDHs can be earned for the area of practice requirements. Please go to https://www.fleng.org/seminars.cfm?event_id=662 for additional information.

To obtain PDHs you must attend 1 hour technical presentation covering advancements in Geotechnical and Materials Engineering practices. In addition to other presentations there will be presentations on Polyurethane Foam Injection for Stabilizing and Lifting Concrete, Advances in Soil Mixing, and The Fastest Growing Paving Option: Roller-Compacted Concrete.

The cost for attending the Geotechnical and Materials Engineers Council Conference varies depending on attending or portion or the entirety of the conference and whether you are a FICE member or non FICE member, government employees and students. For clarification of costs to attend the Conference please go to https://www.fleng.org/seminars.cfm?event_id=662.

COMMITTEE CHAIRS

FES is a member driven organization. Our volunteers steer the Society in the best direction. Ideas and programs are created at the committee level and impact the organization at each level. Becoming part of a FES committee is very simple and rewarding.

We have several new volunteers, however, we still need a few more. For further details on a specific committee, or if you are interested in volunteering for any of these committees, please contact Patrick Helms, PE at vicepresident@tcfes.org.

In addition, please thank your fellow members who are volunteering their time to make a difference.

COMMITTEE CHAIRPERSONS

- Annual Meeting Steering – Kelly Cranford, PE
- Awards – Craig Dunkelberger, PE
- Charter & Bylaws – Adam Schildmeier, PE
- Communications Advisory – Kelly Cranford, PE & Adam Schildmeier, PE
- Conservation & Env. Quality – Richard Creech, PE.
- Constructed Environment – Richard Creech, PE
- Energy – Jo-Ann Clynch
- Ethical Practices – Will Cornelius, PE & Allen Bortoff, PE
- Golf Tournament – Pat Ferland, PE
- K-12 Education – Adam Schildmeier, PE & Jennifer Gent, PE
- Leadership Advisory – Steve Gaydosh Jr., PE
- MathCOUNTS – Kathleen Edgemon, PE
- MathCOUNTS – Chad Rucks, PE
- Membership Development – Pat Ferland, PE
- Philanthropy – Will Cornelius, PE
- Prof. Concerns – Steve Gaydosh Jr., PE
- Prof. Development – Marcos Montes De Oca, PE
- Project LTW Co-Chair – Adam Schildmeier, PE
- Scholarship Co-Chair – Paul Bangs, PE
- Scholarship Co-Chair - Sue Zheng, PE, PhD
- Student Prof. Development – **VACANT**
- Webmaster - Adam Schildmeier, PE

CHAPTER LIAISON REPRESENTATIVES

- Engineers in Government - Heath Stocton, PE
- Engineers in Construction - Paul Bangs, PE
- Engineers in Education - **VACANT**
- Engineers in Industry - Marcos Montes De Oca, PE
- Engineers Retired - **VACANT**

MATHCOUNTS PROBLEM OF THE MONTH: THE CULLINAN DIAMOND

On January 26, 1905 a 3,106-carat diamond was discovered in Pretoria, South Africa. Weighing nearly 1.5 pounds, the Cullinan, as it was named, is the largest diamond ever found. Since the greatest value in such a large diamond is the number of stones the can be produced, renowned diamond cutter, Joseph Asscher was chosen to cut the diamond. What remained after the stone was finally cut were nine major stones and 100 smaller stones totaling nearly 1,068 carats.

What percent of the diamond's 3,106-carat total weight was lost as a result of cutting? Express your answer as a percent to the nearest tenth.

Can't figure it out? Find the Answer on Page 5!

Engineering Joke of the Month

The Guillotine

Once upon a time there were three men: a doctor, a city planner, and an engineer. For some reason all three offended the king and were sentenced to die on the same day.

The day of the execution arrived, and the doctor was led up to the guillotine. As he strapped the doctor to the guillotine, the executioner asked, "Head up or head down?"

"Head up," said the doctor.

"Blindfold or no blindfold?"

"No blindfold."

So the executioner raised the axe, and z-z-z-z-ing! Down came the blade--and stopped barely an inch above the doctor's neck. Well, the law stated that if an execution didn't succeed the first time the prisoner had to be released, so the doctor was set free.

Then the city planner was led up to the guillotine.

"Head up or head down?" said the executioner.

"Head up."

"Blindfold or no blindfold?"

"No blindfold."

So the executioner raised his axe, and z-z-z-z-ing! Down came the blade--and stopped an inch above the planner's neck. Well, the law stated that if the execution didn't succeed the first time the prisoner had to be released, so the planner was set free.

Finally the engineer was led up to the guillotine.

"Head up or head down?"

"Head up."

"Blindfold or no blindfold?"

"No blindfold."

So the executioner raised his axe, but before he could cut the rope, the engineer yelled out:

"WAIT! I see what the problem is!"

BIG CHANGES TO CONTINUING EDUCATION REQUIREMENTS

House Bill 713 was signed into law by Governor Scott in June 2014. Among other rather minor changes, a huge change has been made to our continuing education requirements. The changes are summarized as follows:

Licensed professional engineers are currently required to obtain eight continuing education course hours every two years in order to renew their licenses. Of the eight hours, four hours are required to be on the laws and rules of professional engineers. The bill requires 18 continuing education course hours in order for licensed professional engineers to renew their licenses. Of the 18 hours, one must relate to the laws and rules of professional engineers, one must relate to professional ethics, and four must relate to the licensee's area of practice. The remaining hours may relate to any topic pertinent to the practice of engineering. Four hours of the continuing education course hours may be obtained by being an officer for a professional or technical engineering society, or serving as a member of the Legislature or as an elected state or local official. This portion of the bill becomes effective March 1, 2015.

These continuing education requirements will not become effective until our next renewal cycle. A full copy of HB 713 can be found [here](#).

JOB OPENINGS

Currently we have not been provided with any job opening information. If your company is currently looking to expand or has an opening please provide a brief summary and necessary information to our Secretary Colt Schwerdt at secretary@tcfes.org to have the job opening advertised on your local Treasure Coast Florida Engineering Societies' addition of Blacklines.

MEMBERSHIP NEWS

Just for YOU

FES is always working to increase benefits offered to members, and to make sure members are aware of their benefits. Below are just three of the benefits available to FES/NSPE members, and we encourage you to visit www.fleng.org/membership.cfm for more information.

As an FES/NSPE member you are eligible for a \$20,000 scholarship to pursue a Corporate MBA degree with the Florida International University. That is almost half the cost of tuition, and available to you as an FES member.

Your FES/NSPE membership entitles you to a number of discounts on a wide variety of publications, standard contract documents, and other services. Make sure to visit NSPE's Benefits pages at www.nspe.org/MemberBenefits/benefitpartners.html for more information and a complete listing of member benefit partners.

As an FES member you can connect with over 470 FES members throughout the state in the 'Members of FES' group on LinkedIn.

Have an idea? If you think of a benefit or service that you would like to see available to FES members, please don't hesitate to contact your Member Services Department at 850-224-7121 or email Anne Wilson, Member Services Coordinator at awilson@fleng.org.

Forward the online FES Membership application or FES Brochure to a friend or colleague today:

www.fleng.org/membership-app.cfm

http://www.fleng.org/images/aboutFES/FES_Membership_Brochure.pdf

Professional Development Hours (PDHs)

Date	Event	Location	PDHs	Cost
At Your Leisure	The Project Management Professional	Online/DVD	4 PDHs	\$75 FES/FICE Members, \$99 All Others <i>For more information visit http://www.fleng.org/distancelearning.cfm</i>
February 26, 2015	TC FES E-Week Banquet L-8 Flow Equalization Basin Project Technical Presentation	The 19th Hole at the Saints Port St. Lucie, FL	1 PDH AOP	Free for FES Members, and \$10.00 for non-FES members. <i>For more information Contact Colt Schwerdt at secretary@tcfes.org</i>

Please visit www.fleng.org for the latest listing of continuing education programs.

<http://www.fleng.org/seminars.cfm>



Please visit our website!
<http://www.tcfes.org>

Send your comments and suggestions about our website or Facebook page to



Questions or Comments?

If you have any questions/comments, or if you would like something included in the monthly publication, please contact Colt Schwerdt at (772) 380-3635 or secretary@tcfes.org

2014 — 2015 Treasure Coast Chapter Board Members

- Dan Zrallack, P.E., President (772) 878-0072 president@tcfes.org
- Patrick Helms, P.E., Vice President (561) 718-0899 vicepresident@tcfes.org
- Heath Stocton, P.E., Treasurer (772) 370-8203 treasurer@tcfes.org
- Colt Schwerdt, P.E., Secretary (772) 380-3635 secretary@tcfes.org
- Marcos Montes De Oca, P.E., Regional Vice President (863) 634-2131 regionalvp@tcfes.org
- Sue Zheng, PhD, P.E., Past-President (772) 343-9787 pastpresident@tcfes.org
- Adam Schildmeier, P.E. State Director (561) 398-6090 statedirector@tcfes.org

TREASURE COAST CHAPTER
 Chartered 1987
FLORIDA ENGINEERING SOCIETY
 Affiliated with
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
P.O. BOX 8764, PORT ST. LUCIE, FL 34985



We are told that 1,068 carats of the original 3,106 carats remained after the diamond was cut. Thus 3106 - 1068 = 2038 carats were lost as a result of the cutting. So $2038/3106 = 0.6561493883 \approx 65.6\%$ of the total 3,106 carats was lost.