



## STEM Activities

**Great Minds in STEM** – Thanks to the great generosity of Tinker AFB, Tulsa Alliance for Engineering was able to partner with Tulsa Public Schools, Tulsa Tech, and Great Minds in STEM/Viva Technology to bring an all day STEM immersion event to 10 8th grade students from each of TPS' 12 middle schools. This 3 part event featured parent and teacher orientation the evening of November 8, and then a fun filled exposure to STEM careers and activities on Friday, November 9 for the 8th grade students under the leadership of 20 area college captains at Tulsa Tech Lemley Campus. One teacher reported: "More and more of my science students are clamoring to be included in the next STEM opportunities. All ten students came back excited and now so many more want a chance to attend."

**STEMulation Brainstorming Summit** – On Tuesday, November 13, teachers and administrators from KIPP, Street School, STARBASE, and, Broken Arrow Public Schools, Jenks, Public Schools, Tulsa Community College and Tulsa Public Schools joined area engineers and business partners in taking a look at ways to improve STEM education in the Tulsa area. They were exposed to an update on some research going on in aviation through a presentation by Spectrum FX and enjoyed a lively presentation by Dr. Norm Hyne regarding the Tulsa Geoscience Center. Teachers, engineers and administrators alike were scratching their heads as they joined forces to build gravity fed lemonade machines. The next STEMulation Brainstorming Summit will be at 4:00 PM at the University of Tulsa's Allen Chapman Activity Center. The meeting will feature a presentation by Nathan Pritchett of Fab Lab Tulsa.

**Scale Model Gingerbread Building Contest** – This new contest will be held at WaterWorks Art Center. Exhibits are due at WaterWorks by November 30. This is a chance for students and adults to enjoy STEAM – Science, Technology, Engineering, ART, and mathematics in a tasteful way! Contact Xan.black@tulsacc.edu for entry form and guidelines. The exhibit will be on display through December 12.

Tulsa Tinkerer School – Calling all budding engineers who relish the chance to take apart small machines and appliances! Now imagine having that fun in the cradle of creativity and ingenuity – Fab Lab Tulsa. Thanks to the generosity of OSPE, 20 area high school students will be treated to a 3 day tinkering school over Christmas Break at no charge! All participants will receive a T-shirt as well. The camp will be on January 2-4, 1:00 PM – 5:00 PM.



## EST Christmas/ Holiday Party

**DECEMBER 11th**

**DEADLINE EXTENDED:  
Thursday, December 5th**

EST will be having its annual Christmas/Holiday Dinner Tuesday, December 11, 2012 at the Tulsa Country Club, 701, N. Union Ave. We are planning some fun "happenings," so join us and have a great meal and fellowship. All TEF organizational members, spouses, and their guests as well as others from the engineering community are invited.

Our special program presentation will be by Doug Henderson, a photographer of world-renown, teacher, and traveler. See <http://www.douglashenderson.com/> for more about Doug.

We will begin with a cash bar social hour at 6:00 pm, dinner at 7:00 pm, followed by program festivities. We will have a plated meal: a plate with 2 Entrees-6oz Flat Iron Steak and Grilled Salmon, with Vegetable and Starch, Classic Caesar Salad and a Desert Table. Let us know of any special dietary needs with your reservation. We need your reservations by Friday, November 30.

Cost is \$40 per person, with drinks on your own. Our reservations must be made by Thursday, December 5. Send your pre-payment and names to: EST, PO Box 703065, Tulsa, OK 74170-3065. Please contact Bill Stith, mobile 918 520-1307 or [wstith@cox.net](mailto:wstith@cox.net) for more information.

## 2012 CALENDAR of EVENTS

P - PDH Credit given

### December 11

EST Holiday Dinner  
at the Tulsa Country Club

### January 14, 2013

Buck's Restorations  
Buck Herron – P

### January 28, 2013

Tour – 1st Presbyterian Church  
Expansion - P

### February 2, 2013

MATHCOUNTS – TU ACAC

### February 11, 2013

United Aerospace – Bruce  
Weddendorf - P

### February 17, 2013

National Engineers Week  
Events

### March 8, 2013

Tulsa Engineering Challenge at  
Tulsa Tech, Riverside

**EST  
Meetings  
are always open.  
Visitors are always  
welcome.**

# TULSA ENGINEER

## Tulsa Engineer Challenge March 8, 2013

Mark Friday, March 8, 2013 on your calendar. The Tulsa Engineering Challenge (TECh) will be held at the Tulsa Tech Riverside Campus in one of their hangars. Volunteers are always welcome. Contact Meg Broge for more information at 918-492-8740 or [mbroge@vtresources.com](mailto:mbroge@vtresources.com).

The competition rules for the 2013 Tulsa Engineering Challenge are on the [TulsaEngineer.org](http://TulsaEngineer.org) website! A special thank you to the judges for their quick review of the rules. Lead judges are: Gaylon Pinc – Aluminum Boat; Steven Johnson – Academic Olympiad; Laura Ford & Christi Luks – Chemical Switch; Cayti Burch – Extreme Engineering Challenge; Joe Vitali & Al Williams – Electric Motor; Ram Mohan – Mini-Math; Tom Haanen – Paper Airplane; Chris Strunk – Ping-Pong Ball Launcher; Thomas Kuruvilla – Robot; Allen Bates – Toothpick Bridge; and Stacy Loeffler – Wacky Wonder Works. Suzanne Dodson is the lead for the Chemistry Magic Show and Laruen Silverman is the lead for the SPE Fishing Well.

## Nominations Due for the Tex Richardson Engineering & Science Guidance Award

The Tex Richardson Award was established in 1992 to recognize teachers and engineers in Oklahoma who demonstrate exceptional service in guidance activities, and is in memory of the late Tex Richardson who inspired so many in his years of guidance service.

Caring, dedicated, selfless...Tex Richardson was a giver. During his lifetime (1922 – 1991), he influenced many in his quest to promote learning – especially in the fields of mathematics, science and engineering. His enthusiasm was boundless. Tex was an alumnus of the Oklahoma Engineering and Technology Guidance Council (OETGC). His energy positively affected young people statewide. He was such a strong influence to the professional technical and engineering committees, a group was formed to memorialize his outreach work and recognize others who exemplify Tex Richardson's lead. In 1992, the Tex Richardson Award was established. This award is jointly sponsored by the Tulsa Engineering Foundation, Inc., the Oklahoma Engineering Foundation with the cooperation of the Construction Specification Institute.

It is in Tex Richardson's honor and memory that an award is presented annually to special people (oftentimes, both an educator and an engineer). The awards, recognizing outstanding achievement and service in engineering and science guidance activities in the state of Oklahoma, are presented at the Tulsa E-Week Student Breakfast held during National Engineers Week in February.

The selection committee welcomes nominations throughout the year for the next year's awards. Please include 1) name of nominee, school or organization, address, email & telephone number, 2) paragraph explaining why you wish to nominate this individual, and 3) your name, email and telephone number. Nominations must be received no later than February 1st.

The nominations may be emailed to [infor@tulsaengineer.org](mailto:infor@tulsaengineer.org) or mailed to the permanent address of the OEF or TEF office. Serving on the committee are Bob Strattan, TEF; Gaylon Pinc, OEF; Jack Vest, CSI; Susan Oliver, Teacher; and Barbara Wollmershauser, Chairman.

### Previous Awardees are:

2012 Teacher: Pamela Diaz, Booker T Washington, FIRST  
2012 Engineer: Susan Thompson, Tulsa Alliance for Engineering, Youth Outreach  
2011 Teacher: Cheri Sieck, Metro Christian Academy, MATHCOUNTS  
2011 Engineer: Chriss Chavez, OU-Tulsa, TECh  
2010 Teacher: Dan Beaty – Jenks Middle School, MATHCOUNTS, Computer Teacher  
2010 Engineer: Dr. Jack Sellers, P.E. – Retired – FIRST Robotics  
2009 Teacher: Ray Snider -- Wells Middle School, Catoosa Public Schools, Tulsa Engineering Challenge  
2009 Engineer: Marion and Bob Simmons, P.E. – Retired, MATHCOUNTS, TECh, E-Week for OSPE & EST  
2008 Teacher: Marilyn Ann Thomas Howard – TU University School, MATHCOUNTS, Computer Challenge  
2008 Engineer: James W. Kilmer, P.E., Retired, Science Enrichment at Eliot School, Endowed Scholarship  
2007 Teacher: Patricia Yvette Laughlin - Catoosa Wells Middle School, Tulsa Engineering Challenge  
2007 Engineer: Gaylon Pinc, P.E., Program Management Group: MATHCOUNTS, TECh, OSPE State-Wide  
2006 Teacher: Lane Cardwell Matheson – Engineering Academy Coordinator, Memorial High School  
2006 Engineer: Robert D. Strattan, Ph.D., P.E. – Emeritus Prof. of Electrical Eng'g & Mech. Eng'g, Univ. of Tulsa  
2003 Teacher: Norma Rodriguez -- Assistant Principal, 7th Grade Center, Union Public Schools  
2003 Engineer: Perry Brown, P.E. – Staff Engineering Technologist, AEP/PSO, MATHCOUNTS  
2002 Teacher: Glenda Nelson – Mathematics Teacher, Jenks Public Schools, MATHCOUNTS Coach.  
2002 Engineer: Todd Hiemer, P.E. – Sr. Research Engineer, bioMerieux, Inc, Future City Comp. Coord.  
2001 Teacher: Donald L. Mathieson, Assoc. Prof. of Math. & Physics, Tulsa Community College  
2001 Engineer: Dr. Gerald R. Kane, P.E., Prof. & Chair of Electrical Engineering, University of Tulsa  
2000 Teacher: Denny Stanford, Science Teacher, Union Public Schools, Tulsa

2000 Engineer: Thomas A. Carlisle, P. E., Phillips Petroleum Company, MATHCOUNTS  
1999 Teacher: Cathie Casper, Mathematics Instructor, St. Pius X School, Tulsa  
1999 Engineer: Dennis D. Beckmann, P.E., Amoco Corporation, MATHCOUNTS  
1998 Teachers: George E. Abshire, Mathematics Instructor, Jenks Public Schools and John D. Cook, Jr., Academic Principal, Grace Fellowship Christian School, Tulsa  
1998 Engineer: Allison Fate, Management Consultant and President, HFK, Inc., Engineering Explorer Scouts  
1997 Teacher: Susan Oliver, Science Teacher, Owasso Public Schools  
1997 Engineer: Richard W. Mattes, P.E., Willbros Engineers, Inc, Science and Engineering Fair  
1996 Teacher: Tenna Whitsel, Academic Dean, Will Rogers High School, Tulsa  
1996 Engineer: Edwin "Bud" Averill, P.E. of Public Service Company of Oklahoma, TECh  
1995 Teacher: Dr. Indestructo, a.k.a. Dr. Stewart Ryan, University of Oklahoma Physics Department  
1995 Engineer: Barbara Wollmershauser, P.E., Warren Petroleum Company, Discover-E  
1994 Teacher: Richard Maule, Science Teacher, Union Intermediate Schools, Tulsa  
1994 Engineer: Harlan Dunn, P.E. retired from the Corps of Engineers, Career Guidance Service  
1993 Teacher: Gene Thompson, Physics Teacher, Booker T. Washington High School, Tulsa  
1993 Engineer: Dr. Eric Bandurski, Science Enrichment Program, Amoco Research Center, Tulsa  
1992 Teacher: Shelley Fischer, Science Teacher, Sand Springs Schools

## Three Engineering Scholarships Available

The Tulsa Engineering Foundation (TEF) is awarding three \$2,000 engineering scholarships for the 2013-2014 academic year.

The scholarships are available to first-year students planning to study an accredited engineering curriculum. Please encourage any senior high school student to apply. Applications are available on the [TulsaEngineer.org](http://TulsaEngineer.org) website under Youth Outreach or can be obtained by contacting Barbara Wollmershauser at [wollmersh@aol.com](mailto:wollmersh@aol.com) or (918)299-1196. Applications will also be mailed to 36 schools in the Tulsa / Northeast Oklahoma region. Forms are due by February 1, 2013.

## Request for Edowed Scholarships

Would you consider donating funds for an endowed scholarship? Since the Hujsak Scholarship was established in 2007, we have added a second scholarship in 2008

and a third in 2009. More scholarships are needed. It is very difficult to narrow the scholarship recipients down to three. Each year we continue to receive more applications. In 2012 37 applications were received from 15 different schools. This is ten more than 2011. A donation of \$25,000 provides funds to establish an annual \$1,000 scholarship. The Tulsa Community Foundation manages the investment of the endowed scholarship funds. Contact Robert Strattan, 663-9484, r.strattan@ieee.org or Barbara Wollmershauser, Chr., 299-1196, wollmersh@aol.com for more information.

## Engineering Scholarship Golf Tournament Update

We have an update on the Joint Engineering Scholarship Golf Tournament held on Sept. 28 at White Hawk Golf Course. Over \$6,500 was earned for scholarships by the four participating societies and TEF. Teams awarded prizes were 1st Place - McElroy Mfg., 2nd place - Oral Roberts University and 7th place - T-G Excavating. Jason Mohler on the Crafton Tull team won the Longest Drive Contest. Tim McCorkell on the T-G Excavating team won the Closest to the Pin Contest.

After the Tulsa Engineer went to press, we had an additional hole sponsor - SAIC. The other hole sponsors are listed in the October issue. A special thanks to the following for donating team and door prizes: APWA OK, BASF, Walter P Moore, Yellowhouse Machinery, Duane Huetter, Bonefish Grill, Chimi's on 15th, P.F. Chang's, The Bistro at Seville, Texas Roadhouse, and Waterfront Grill. Also thanks to Dave Myers of AAON for sponsoring the Drink Cart and Charlie Meyer of Warren CAT for sponsoring the luncheon. Thank you to all that donated and participated! Many youth in our area will appreciate the scholarships.

Golf Tournament Committee members were Philip Howery, APWA OK; Kyle Williams and Jennifer Butler, ASCE; Duane Huetter, EST; Rick Petricek, OSPE; and Barbara Wollmershauser, TEF.

## BIO - December 11 Holiday Dinner

Doug Henderson is a native-born Oklahoman (part Cherokee Indian). He comes from unpretentious working class stock, the son of a welder and the first person in his family history to have a college degree.

Even as a child Doug was always writing, painting, filming or designing something. He discovered photography as a teenager, made dramatic 8mm movies in high school, and wrote a regular humor column for his college newspaper. His design work first surfaced in elaborately painted murals on custom motorcycles in the 1970s.

He began making a living in photography in 1985.

In 1987 he trained as a police

photographer in Chicago and began providing photography and graphic design services to create forensic exhibits for court cases.

Doug claims his forensic photography, much of which has taken place in morgues, accident scenes and burn centers has greatly influenced his life perspective and thus his design aesthetic.

He says that a person can't be confronted with that much death, pain and suffering and not look at life differently. He sees beauty in common objects and scenes that most people pass by. He feels that any human being still drawing breath is inherently beautiful. His photojournalistic photography is known to be very empathetic.

His photography of the Oklahoma City Bombing appeared in Newsweek, Newsweek Japan and many other publications. His work has also appeared in The New York Times, National Enquirer, National Examiner, Oklahoma Today, Tulsa World, and others.

He has worked all over the USA, in South Africa, Ghana, the Ivory Coast, Senegal, The Gambia, Ecuador, the Andes, the Amazon Rainforest, Columbia, the Galapagos Islands and the Yucatan Peninsula.

In 1996 Doug began teaching a photography class for Tulsa Technology Center, then later an Adobe Photoshop class. As he puts it, based on what his students taught him about how people learn these subjects, Doug ended up writing textbooks on these topics, and his spin-off business; Now Books. He is the author of Photoshop Now, Digital Photography Now, More Photoshop Now and Photography Now, used in schools and tech centers all over the United States. Oddly enough he is also the author of a Why Inclusion, a theology book.

His work can be seen in three museums. His photography was the subject of a one man show "Light & Death", at Apertures Gallery in 2002 and was featured in a two artist exhibit, Art After Hours in 2005 in Broken Arrow, Oklahoma. Some of his photography from Africa was featured in a one man show at the Circle Cinema, "Threads of Africa". His next show will be at Philbrook Museum of Art, "Doors of No Return: The Remains of Africa's Slave Castles" which will hang in the main rotunda from June 5 through August 7, 2011.

Doug is the author and photographer of Slavery's Castles, his book on the castles and forts used during the Trans-Atlantic slave trade, to be published by the University of Mississippi Press in 2012.

He contributes his time and talents to social work and churches, providing graphic design, photography, web design and copy writing to several causes, including AIDS research.

Married for 36 years, Doug is a family man with two grown sons. He lives out in the country, with his wife and three large dogs, near Owasso, Oklahoma, in a home he designed and built.



Doug with his Body Guard in Ghana, Africa, 2004

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email: info@tulsaengineer.org

# TULSA ENGINEERING FOUNDATION *Members & Contacts 2012-2013*

**ACI American Concrete Institute**

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phillip@concreteservicescorp.com

**AIChE American Institute of Chemical Engineers**

Joseph Smith (918) 760-1257  
jdsmith@sas-ieng.com

**AISES American Indian Science and Engineering Society**

Brett Cowan (918) 627-6161  
bcowan@kleinfelder.com

**APWA American Public Works Association**

Graham Brannin (918) 596-9806  
gbrannin@cityoftulsa.org

**ASCE American Society of Civil Engineers**

Eric Zellers (918) 392-5620  
ezellers@meshekengr.com

**ASHRAE American Society of Heating, Refrigeration & Air Conditioning Engineers**

Rob Teis (918) 382-6134 robt@aaon.com

**ASME American Society of Mechanical Engineers**

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**AWS American Welding Society**

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**CSI Construction Specifications Institute**

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**EST Engineers' Society of Tulsa**

Mike Miller (918) 664-7511  
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**IEEE Institute of Electrical & Electronic Engineers**

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**ISA Instrumentation, Automation and Systems Society**

Andy Lucas (918) 599-7200  
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**NSBE National Society of Black Engineers**

None Available at This Time

**ORU Oral Roberts University, Engineering & Physics Department**

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**OSPE Oklahoma Society of Professional Engineers**

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**TT Tulsa Tech**

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**TU University of Tulsa, College of Engineering & Natural Sciences**


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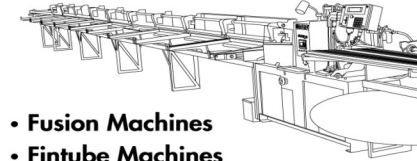
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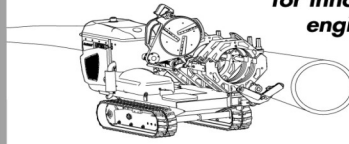


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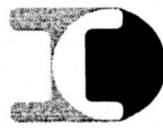
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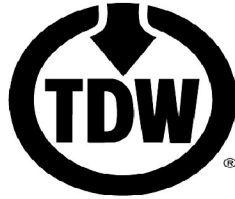
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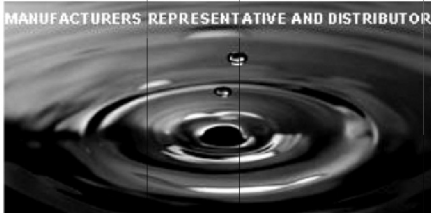
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