We have the power!
Earlier this year, mechanical engineering professor Sean Bailey and chemical engineering professor Brad Berron each earned prestigious CAREER awards from the National Science Foundation. The CAREER award is the NSF’s most prestigious award in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations.

Dr. Bailey has been at UK since 2010. His research focus is: **Unraveling the Spatial Structure of Turbulence in the Atmospheric Boundary Layer using Unmanned Aerial Vehicles.** He will address the challenge of scale separation by using highly instrumental UAVs designed to spatially interrogate the turbulent flow structure over a wide range of length scales.

Dr. Berron has been at UK since 2011. His research focus is: **Artificial Cell Membranes for Ultra-Pure, High Throughput Cellular Isolation.** He will investigate multiple ways of quickly killing cells in order to design coatings that can protect designated cells.
From the President’s Desk.................4
KSPE President Angela Akridge reflects on her presidency: what has happened, what’s left to come and where KSPE is headed!

The Board Report.............................6
B. David Cox, Executive Director of the Kentucky Board of Licensure for Engineers and Land Surveyors shares what’s been going on with the Board.

2014 Professional Development Opportunities..................................9
See what professional development opportunities we have scheduled for YOU to take advantage of for the rest of the year!

KSPE Annual Convention........11-12
See what is in store for this year’s 79th KSPE Annual Convention to be held at the Embassy Suites in Lexington, Kentucky, on May 21-23, 2014.

The Institute for Aerospace Education: Building Futures in Aerospace.................................14-16

Executive Director’s Report..........17
Derek Guthrie, executive director of KSPE/ACEC-KY/KEF, talks about what’s been happening with the organizations.

Kentucky MATHCOUNTS..........20
The Kentucky MATHCOUNTS Competition has been held. Find out more about the top four students who have advanced to represent Kentucky at the National MATHCOUNTS Competition being held May 8-10, 2014 in Orlando, Florida!

James E. “Jim” Maggard
Monday, December 25, 1933 - Saturday, March 29, 2014

James E. “Jim” Maggard, Jr, 80, widower of Lois Ann “Lou” Grove Maggard, died Sat, March 29, 2014. Born in Cumberland, KY, he was the son of the late James Elmer and Hazel White Maggard.

A graduate of Cumberland High School and the University of Kentucky, he was a former Vice President of Watkins and Associates in Lexington, and was currently a civil engineer with the Finance Cabinet for the Commonwealth of Kentucky. His engineering projects ran the gamut from interstate highways to dams to golf courses. He was highly involved in the urban renewal projects of Main and Vine Streets, work at the University of Kentucky, several Veterans Administration Hospitals, and projects with the coal industry. He spent many hours working with the Kentucky Horse Park in preparation for the World Equestrian Games. He was an Air Force veteran, traveling throughout the US, Northern Africa, the Middle East, and Europe as a C-130 navigator. He was part of the first unit to land C-130s on skis, delivering supplies to complete the DEW line in Greenland. He loved music and sports. He was a member of Mary Queen of the Holy Rosary.

Jim was devoted to his family above all else. He is survived by his children, Joey (Sara) Maggard and Kim Maggard (Forest) Molloy, both of Lexington; grandchildren, Lindsey Maggard, Andy Maggard, Margaret Molloy and William Molloy.

Funeral services have already been held at Mary Queen of the Holy Rosary.
As I think about the upcoming Annual Convention, it seems as though it was just yesterday that I assumed the role as your President, but it's been almost a year. School will soon be out. Summer vacations will soon be taken. And the cycle will continue. Time – our most valuable asset - goes by oh so fast. Sometimes we get so caught up in what the next thing is, we forget how far we've come and what we've accomplished.

A Year in Review
A great deal of work and accomplishment has occurred in 12 short months across the state by our awesome volunteer leaders and staff. Let's journey back in time to highlight just a smidgeon of the hard work that's been performed by the membership and celebrate the fruits of the collective labor.

KSPE Annual Meeting April 2013. The annual event was bittersweet as it celebrated both the incoming state Board of Directors and the retirement of our Executive Director, George Binder. It takes a small village to conduct this event and the Louisville volunteers came out in full force. Members came from all over the country to celebrate with George, making this an event we'll talk about for years to come.

Search for the Next Executive Director Spring 2013. After 20 years of seamless leadership from George Binder, it was time for him to move on with his life and time for KSPE to look for its next Executive Director. George left GINORMOUS shoes to fill! More than 100 individuals applied. After thorough review and a few incredible interviews, Derek R Guthrie, PE, was chosen to lead us through the next leg of the journey. The bar had been set pretty high, but so far Mr. Guthrie seems to be living up to the challenge! I think we'll keep him around for another year.

NSPE Annual Meeting and Leadership Training July 2013. Your President, President-Elect, outgoing Executive Director and incoming Executive Director attended this annual leadership summit. We were encouraged to engage with the national President and see how he is taking NSPE leadership to the next level through a strategic process named “The Race for Relevance”. His goal is to transform the organization from the inside out with the whole focus of providing value to the members. We were further impressed by the vision of the new NSPE Executive Director Mark Golden. The organization is in good hands and on the road of providing relevance to the engineering community it is designed to serve. We are excited that Mr. Golden will join us at the KSPE Annual Convention this May. We hope to have our members come out in force to meet him.

Leadership Conference August 2013. It's KSPE custom to celebrate the end of summer by bringing together past and present leadership across the state for a summit. The goal is simple: get to know the current state and chapter leadership, impart wisdom from the past leadership to the current, and chart the journey for the coming business year. Tremendous energy exists in our organization and our new Executive Director Mr. Guthrie used that energy to focus the group on identifying opportunities for enhancing both KSPE’s and our engineering profession's sustainability over the years ahead. A few focused areas emerged and we have been developing the concepts over this past year:

- Advancing the use of available technology in the state office for more efficient association management operations and membership communication;
- Exploring opportunities for mentoring programs to sustain the both the KSPE and the engineering profession. The first component was identifying opportunities for life
after Leadership PE graduation, including potential for serving as mentors to future classes and potential applicants. The LPE curriculum was enhanced this year to include the basics of being an effective mentor and mentee, and each member of the class was challenged to find a “mentee” so that they could contribute to continuing the Leadership PE pipeline; and,

- Evaluating how to sustain the current membership, how we might work more closely with NSPE on this effort, and reaching outside the box to identify the “members of the future” to understand what they might expect from our organization. This work is not easy as generational differences are challenging but the team continues to explore opportunities.

18th Annual Kentucky Engineers’ Golf Classic September 2013. The annual event was held at the University Club of Kentucky. 152 Golfers participated in this event which profited more than $10,000 for the Kentucky Engineering Foundation! It amazes me how we pull together year after year to make this event successful!

MathCounts Spring 2014. This program takes a small army from across the state to be successful, and we do it year after year - unbelievable! In February, 13 Chapters across the state held competitions for 945 participants! Then in March, 161 participants came to Louisville to compete for more college scholarships and a trip to the national competition.

16th Class of Leadership PE Engaged for the 2013-2014 Program. The 16 members of the 16th class have successfully completed the 6 sessions and are prepared for graduation at the Annual Convention. Please join us at the President’s Party for the graduation ceremony.

And the Journey Continues
And the next year of the journey continues with the 2014 KSPE Annual Convention. This year our celebration returns to Lexington May 21-23, at the Embassy Suites on Newtown Pike. This convention is for YOU and also made successful by YOU! It takes all of us from across the state to make this convention a success. What a fantastic opportunity to gather 16 hours of PDHs in one place, while also networking with your peers and catching up with friends. I look forward to seeing everyone at the technical sessions, in the exhibitor area AND at the evening celebration events. Lets make this year’s celebration of the Professional Engineer the most-attended one yet. There is energy in numbers!

Thank you for letting me serve YOU this year as President. Its been both an honor and a privilege.

Be sure to check out our Calendar for upcoming seminars!
http://kyengcenter.org

Want to be more productive with your CAD software?

Need hours for your education requirements?

Then check out these classes offered through ACEC of Kentucky:

MicroStation I
MicroStation II
InRoads Survey
InRoads I
InRoads II
InRoads III
Modeling in 3D

Call 502-695-5680 or visit www.kyengcenter.org and click on the KEC Events Calendar for details

CAD PRODUCTIVITY
www.cadprodinc.com
Direct Supervisory Control

Professional Engineers are often asked or required to certify record drawings, certificates of substantial completion, and other similar statements to clients and public agencies. Examples include record drawings for construction projects, sewer and waterline extensions for the Kentucky Division of Water, floodplain construction, mine maps, fill and dam construction, and construction of mine seals. The preparation of such statements is an important function provided by a PE. Site reviews, field inspections, interpreting test results, etc. should be performed by the PE or under his or her direct supervisory control as defined in our code of conduct regulation; 201 KAR 18:142. Every PE should be familiar with this issue, but we are becoming aware of potential cases where licensees are providing such certifications without performing the proper work. As always, please feel free to contact the Board office if you have questions.

Continuing Education Audits

Please be aware that if you are selected for audit, our initial letter will give you 30 days to respond. Please do not ignore that deadline. Per our regulations, failure to respond during that 30 day period is a violation which will subject you to a disciplinary action. We have had some licensees ignore the letter and we have had to spend many hours chasing down the information we require and taking disciplinary action.

During the renewal process, one of the questions asked is if you have complied with the continuing education requirements. Be sure to carefully read the question and respond accordingly. We have had several licensees indicate they answered the question incorrectly for their situation.

Calendar of Events

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<th>Event</th>
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<tr>
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<td>Committee Meetings</td>
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<td>July 18</td>
<td>Board Meeting</td>
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<td>August 8</td>
<td>Board Meeting</td>
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<td>August 20-23</td>
<td>NCEES Annual Meeting</td>
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<td>October 10</td>
<td>Board Meeting</td>
<td>Frankfort KY</td>
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<td>PE, STR Vertical, PS Exams</td>
<td>Louisville KY</td>
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<tr>
<td>October 25</td>
<td>STR Horizontal Exam</td>
<td>Louisville KY</td>
</tr>
</tbody>
</table>

ENFORCEMENT ACTIONS SUMMARY

For The Period
January 11, 2014 – April 4, 2014

WILLIAM M. REEVES, PE
In January 2012, Mr. William Michael Reeves, PE of Milford, Ohio entered into a Consent Decree in settlement of a disciplinary action against him. Among other things, that agreement called for Mr. Reeves to submit to an audit of his Continuing Professional Development credits for the 2012/2013 reporting period. Mr. Reeves failed to respond to the audit. In accordance with the terms of the Consent Decree and after being notified of the default, Mr. Reeves’ professional engineering license was suspended. The suspension became effective February 5, 2014.

JONATHAN HENRY VOTEL, PE
Mr. Jonathan Henry Votel, PE of Burlington, was disciplined for practicing professional engineering on a lapsed license in violation of KRs 322.020, and for operating K.O.I. Precast Concrete Products, Inc., a business entity which provides engineering services, without a Business Entity Permit in violation of KRS 322.060. The case was settled by a Consent Decree wherein Mr. Votel acknowledged the violation, and agreed to the following: (1) An administrative fine of $1000, (2) Mr. Votel's pending application for reinstatement would be approved upon the Board's acceptance of the Consent Decree, and (3) K.O.I. Precast Concrete Products, Inc. would apply for a Business Entity Permit not later than ten days after Mr. Votel's PE license was reinstated. The Board accepted the Consent Decree on April 4, 2014.
CHARLES MILTON BEATTIE, PE
Mr. Charles Milton Beattie, PE, of Somerset was disciplined for a failing to respond to an audit of his Continuing Professional Development (CPD) credits in a timely manner and for failing to obtain the required number of CPD credits during the specified audit period, in violation of 201 KAR 18:196. The case was settled by a Consent Decree wherein Mr. Beattie acknowledged the violations and agreed to the following sanctions: (1) a $1000 fine, (2) Mr. Beattie will make up the CPD deficiency for calendar years 2011 and 2012 within six months, and (3) Mr. Beattie will submit proof of participation in at least 30pdh of qualifying CPD activities for calendar years 2013 and 2014 by not later than December 31, 2014. The Board accepted the Consent Decree on April 4, 2014.

DAMON LEE CRUTCHER, PE
In September 2013, Mr. Damon Lee Crutcher, PE of Frankfort was subjected to an automatic audit of his Continuing Professional Development (CPD) credits due to late renewal of his professional engineer’s license. As a result of that audit and a subsequent investigation, the Board learned that Mr. Crutcher had not participated in any CPD activities since 2010 in violation of 201 KAR 18:196. During settlement negotiations, Mr. Crutcher was presented with a proposed settlement which laid out a timetable during which he would make up the past-due CPD hours and would be subjected to certain penalties. After considering the proposal, Mr. Crutcher elected to voluntarily surrender his Kentucky professional engineering license. The surrender of license was presented to the Board of Licensure in the form of a Consent Decree, which it accepted on April 4, 2014.

ADRIAN BRENT COMBS, PE, PLS
In 2012, the Board received a complaint against Thoroughbred Engineering, Inc. of Georgetown, its owner, Adrian Brent Combs, PE, PLS and an employee, Robert Kelly Richard, PLS. The complaint alleged numerous violations of the Surveying Standards of Practice as well as ethical violations arising from an alleged conflict of interest involving Combs’ involvement at Thoroughbred Engineering and his employment as engineer for the Georgetown/Scott County Planning Commission. A Board investigation identified extensive violations of the Standards of Practice, 201 KAR 18:142 by Mr. Combs and Mr. Richard. The investigation also determined that Mr. Richard certified a subdivision plat knowing that at the time the work for that project was performed, Mr. Richard was unlicensed and the work could only have been performed under the direct supervisory control of the licensee then in responsible charge. By certifying that plat, Mr. Richard violated Section 8 of the Code of Professional Practice and Conduct, 201 KAR 18:142. The matter was settled through a Consent Decree which calls for (1) The voluntary surrender of Mr. Combs’ professional land surveyors license, (2) An agreement, signed by Mr. Combs and acknowledged by his employer, that Mr. Combs will not in the future, sit in review of any work product of Thoroughbred Engineering (now known as Thoroughbred Surveying, Inc.) as long as Mr. Combs retains any direct or indirect connection with that entity, whether as an advisor, officer, owner, lender or landlord; and (3) Mr. Combs will complete the online course in engineering ethics offered by Texas Tech University within six months. The Board of Licensure accepted the Consent Decree on April 4, 2014.

ROBERT KELLY RICHARD, PLS
In 2012, the Board received a complaint against Thoroughbred Engineering, Inc. of Georgetown, its owner, Adrian Brent Combs, PE, PLS and an employee, Robert Kelly Richard, PLS. The complaint alleged numerous violations of the Surveying Standards of Practice as well as ethical violations arising from an alleged conflict of interest involving Combs’ involvement at Thoroughbred Engineering and his employment as engineer for the Georgetown/Scott County Planning Commission. A Board investigation identified extensive violations of the Standards of Practice, 201 KAR 18:142 by Mr. Combs and Mr. Richard. The investigation also determined that Mr. Richard certified a subdivision plat knowing that at the time the work for that project was performed, Mr. Richard was unlicensed and the work could only have been performed under the direct supervisory control of the licensee then in responsible charge. By certifying that plat, Mr. Richard violated Section 8 of the Code of Professional Practice and Conduct, 201 KAR 18:142. The matter was settled through a Consent Decree which calls for (1) The voluntary surrender of Mr. Combs’ professional land surveyors license, (2) An agreement, signed by Mr. Combs and acknowledged by his employer, that Mr. Combs will not in the future, sit in review of any work product of Thoroughbred Engineering (now known as Thoroughbred Surveying, Inc.) as long as Mr. Combs retains any direct or indirect connection with that entity, whether as an advisor, officer, owner, lender or landlord; and (3) Mr. Combs will complete the online course in engineering ethics offered by Texas Tech University within six months. The Board of Licensure accepted the Consent Decree on April 4, 2014.

STEPHEN P. MASLAN, PE
In 2009, the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Landscape Architects disciplined the professional engineering license of Stephen P. Maslan, PE of Kansas City, Missouri. In July 2011, in settlement of a reciprocal action, Mr. Maslan entered into a Consent Decree with the Kentucky Entity Permit statute, KRS 322.060. The matter was settled through a Consent Decree which calls for (1) The voluntary surrender of Mr. Maslan’s professional land surveyors license, (2) An agreement, signed by Mr. Maslan and acknowledged by his employer, that Mr. Maslan will not in the future, sit in review of any work product of Thoroughbred Engineering (now known as Thoroughbred Surveying, Inc.) as long as Mr. Maslan retains any direct or indirect connection with that entity, whether as an advisor, officer, owner, lender or landlord; and (3) Mr. Maslan will complete the online course in engineering ethics offered by Texas Tech University within six months. The Board of Licensure accepted the Consent Decree on April 4, 2014.
Board of licensure. Among other things, that agreement placed Mr. Maslan’s Kentucky license on probation until such time as he satisfies the terms of probation of his license in Missouri. In June 2013, the Board learned that Mr. Maslan had violated the terms of his Missouri probation and that as a result, the Missouri Board revoked Mr. Maslan’s Missouri engineering license. In accordance with the terms of the Consent Decree, Mr. Maslan’s Kentucky professional engineer’s license was suspended. Mr. Maslan successfully appealed the revocation of his Missouri license based on sufficiency of notice of a hearing on that matter. A Missouri Circuit Court reversed the order of the Missouri Board and a new hearing before the Missouri Board was scheduled. In February 2014, after the second hearing, the Missouri Board again revoked Mr. Maslan’s license but stayed that revocation contingent upon Mr. Maslan’s successful completion of a five year period of probation. In response to the new action in Missouri, Mr. Maslan and the Kentucky Board agreed to reinstate Mr. Maslan’s Kentucky license subject to a new Consent Decree which calls for Mr. Maslan’s Kentucky license to be on probation until such time as he satisfies the terms of his probation in Missouri. During the period of probation, Mr. Maslan is required to provide a quarterly report of his Kentucky related work and to provide documentation of that work upon request. Additionally, Mr. Maslan has agreed to restrict his Kentucky practice to civil and structural engineering. The Board of Licensure accepted the Consent Decree on April 4, 2014.

FRED LEE SHANNON, PLS
Mr. Fred Lee Shannon, PLS of London, was disciplined for performing a defective survey which encompassed approximately 72.58 acres of land not covered by his client’s deed; and for otherwise engaging in a general pattern of violations of the Surveying Standards of Practice, 201 KAR 18:150. The case was settled by a Consent Decree wherein Mr. Shannon acknowledged the violations, and agreed to the following: (1) An administrative penalty of $1000, (2) Probation of Mr. Shannon’s surveying license for five years with quarterly review of his surveying projects, (3) Mr. Shannon must attend an additional training seminar in the Surveying Standards of Practice, KRS 322 and the Code of Professional Practice and Conduct, and (4) Mr. Shannon must complete the online course in Surveying Ethics offered by the New Mexico State University. The Board accepted the Consent Decree on April 4, 2014.
KSPE State Officers

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Angela Akridge, PE

President Elect
Michael Harris, PE

Treasurer
Lee Czor, PE

Secretary
M. Chad LaRue, PE

Past President
Eddie Mesta, PE

National Delegate
Charles Anderson, PE

Bluegrass Region Vice President
William Bowie, PE, PLS

Central Region Vice President
Justin Verst, PE

Eastern Region Vice President
Michael R. Jones, PE

Louisville Region Vice President
Kelly Meyer, PE, PLS

Western Region Vice President
Clint Harbison, PE

Chapter Presidents
Ashland - Michael Enders, PE
Big Sandy - Ashlie Childers, EIT
Bluegrass - Abbie Jones, PE
Capital - Vaughn Williams, PE
Cumberland Falls - None
Green River - David Topolenski, PE
Kentucky Lake - None
Kentucky River - Chuck Mullins, PE
Louisville - Wes Sydnor, PE
Mammoth Cave - Joe Plunk, PE
My Old Kentucky Home - Henry Greenwell, PE, PLS
Northern Kentucky - Jeff Shuchter, PE
Pine Mountain - Michael Jones, PE

State Directors
Ashland - Richard Howerton, PE, PLS
Big Sandy - Philip Elswick, PE
Bluegrass - Doug Burton, PE
Capital - Brad Eldridge, PE
Cumberland Falls - Robert Zik, PE, PLS
Green River - Tony Huff, PE
Kentucky Lake - none
Kentucky River - Danny Maggard, PE, PLS
Louisville - Kristen Crompton, PE
Mammoth Cave - Matt Rogers, PE
My Old Kentucky Home - Robert Bush, PE
Northern Kentucky - Mike Willenbrink, PE
Pine Mountain - Michael Jones, PE

Kentucky Engineering Center

STAFF
Derek R. Guthrie, PE, Executive Director
Marcie Fisher, Deputy Director
Nancy Parker, Administrative Assistant
Jennifer Gatewood, IT Coordinator

Kentucky Society of Professional Engineers
160 Democrat Drive | Frankfort, KY 40601

Phone 502.695.5680 Toll Free 800.455.5573
Fax: 502.695.0738
Email: kspe@kyengcenter.org

PROFESSIONAL 2014 DEVELOPMENT OPPORTUNITIES

May 2014

May 21 - 23
79th Annual KSPE Convention - Embassy Suites, Lexington, Kentucky

June 2014

June 17
Paducah Seminar Day - WKCTC Campus, Paducah, Kentucky

June 17-18
InRoads Survey - Kentucky Engineering Center, Frankfort, Kentucky

June 19-20
InRoads Survey - Kentucky Engineering Center, Frankfort, Kentucky

July 2014

July 8-10
Basic HEC-RAS - Kentucky Engineering Center, Frankfort, Kentucky

July 29-30
Advanced HEC-RAS - Kentucky Engineering Center, Frankfort, Kentucky

September 2014

September 8-10
ACEC-KY/FHWA/KYTC Partnering Conference - Galt House Hotel, Louisville

September 17
Somerset Seminar Day - Rural Development Center, Somerset

October 2014

October 3
Bowling Green Seminar Day - Western Kentucky University, Bowling Green

October 21
Prestonsburg Seminar Day - Jenny Wiley State Park, Prestonsburg

November 2014

November 12
Paducah Seminar Day - Location TBD, Paducah, Kentucky

December 2014

December 4
Winter Dendrology & Native Tree Identification - Bernheim Arboretum & Research Forest, Clermont, Kentucky

December 10
KRS 322 Code of Conduct & Expert Witness - Clarion Hotel, Lexington, Kentucky

December 10
Lexington Seminar Day - Soft Skills - Clarion Hotel, Lexington, Kentucky

Be sure to check the calendar online at http://www.kyengcenter.org!
CONSULTING ELECTRICAL ENGINEER, PLLC

JAMES W WILSON III, PE

107 Creekside Dr, Georgetown, KY 40324
Phone: 859-846-8224 Mobile: 859-227-5940
Email: jwwilson3@roadrunner.com
Professional Directory Advertising

KYTC/ACEC-KY/FHWA PARTNERING CONFERENCE
September 8-10, 2014
Galt House Hotel
Louisville, KY

Kentucky Engineers’ Golf Classic
Wednesday, September 24th
University Club of Kentucky - Lexington
79th Annual KSPE Convention  
May 21 - 23, 2014
REGISTER ONLINE at www.kyengcenter.org

KSPE Chapter: ______________________________________________________________
Name: _______________________________________________________________
Company/Firm: ________________________
(Mr./Mrs./Ms.)        (First) (MI)   (Last)               (Jr./Sr./etc)             (EIT,PE/etc)
Street Address:  _________________________ P .O. Box: ____________City:_______________ State: ______ Zip Code: ________
Phone: (___) _________________ Fax: (___) __________________ Email: _________________________           Work          Home
Convention Badge: _____________________    _____________________   _____________________   _____________________
Name (s):                       Your Preferred Badge Name                     Spouse/Guest Badge Name                  Child's Name and Age  Child's Name and Age

Events AND Guest Tickets

<table>
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<tr>
<th>Order of the Engineer</th>
<th>Wednesday Night Event</th>
<th>Thursday Lunch</th>
<th>Thursday Night President's Party</th>
<th>Friday Lunch</th>
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<td>$10.00</td>
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REGISTRATION Price Total

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<tr>
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<td>Thursday One Day Registration -</td>
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<td>(Classes Only)</td>
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Seminars and Tours
Please Select, Seminars, Tours and Events that you plan to attend from the Lists Below and register ONLINE

Wednesday, May 21, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>8:00 - 8:50 am</td>
<td>GIS Software Presentation</td>
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<tr>
<td>8:00 - 8:50 am</td>
<td>LED Lighting</td>
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<tr>
<td>8:00 - 11:30 am</td>
<td>Asphalt Institute Tour</td>
</tr>
<tr>
<td>9:20 - 10:10 am</td>
<td>KYTC Professional Services Update</td>
</tr>
<tr>
<td>9:20 - 10:10 am</td>
<td>BIM for Roads &amp; Highways</td>
</tr>
<tr>
<td>9:20 - 10:10 am</td>
<td>What Will Happen To All Those SSO's?</td>
</tr>
<tr>
<td>9:20 - 10:10 am</td>
<td>Changes to the Kentucky Building Code</td>
</tr>
<tr>
<td>10:40 - 11:30 am</td>
<td>KYTC Machine Guidance Update</td>
</tr>
<tr>
<td>10:40 - 11:30 am</td>
<td>Bentley's OpenRoads Technology</td>
</tr>
<tr>
<td>10:40 - 11:30 am</td>
<td>Big Ass Fans Presentation</td>
</tr>
<tr>
<td>10:40 - 11:30 am</td>
<td>Structured Public Involvement</td>
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Thursday, May 22, 2014 (continued)

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<td>Big Ass Fans Presentation</td>
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Friday, May 23, 2014

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<tr>
<td>7:30 - 10:00 am</td>
<td>Breakfast with the Board</td>
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<tr>
<td>10:00 - 10:45 am</td>
<td>Milton Madison Slide</td>
</tr>
<tr>
<td>10:00 - 10:45 am</td>
<td>Two Way Streets</td>
</tr>
<tr>
<td>10:00 - 10:45 am</td>
<td>Asphalt Topic</td>
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<td>10:45 - 11:30 am</td>
<td>Project Lead the Way - Creating a Future Workforce, With Your Help!</td>
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<td>1:30 - 2:20 pm</td>
<td>Introduction to Kentucky Air Quality Permitting</td>
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<td>Aerospace Education</td>
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<td>Gas Tax</td>
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<td>3D Printing and Rapid Prototyping for the Engineer</td>
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<td>2:20 - 3:10 pm</td>
<td>Future Cities</td>
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**79TH ANNUAL KSPE CONVENTION**

**The convention is being held at the Embassy Suites Hotel in Lexington. The hotel facilities include WiFi access, parking, full cooked to order breakfast each morning, and more.**

Our block of rooms was released to the general public on April 23rd. Hotel reservations are subject to taxes.

**HOTEL INFORMATION**

Embassy Suites Lexington
1801 Newtown Pike
Lexington, KY 40511
Phone: (859) 455-5000

Web: [http://bit.ly/1dLimI5](http://bit.ly/1dLimI5)

Our room block has now been released to the public.

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**MAY 21 - 24, 2014**

**Wednesday, May 21**

1:00 pm Three Tracks of Seminars - Embassy Suites Hotel
1:30 pm Tour of UK Dorms Project
6:00 pm Wednesday Night Event: Town Branch Distillery

**Thursday, May 22**

8:00 am Five Tracks of Seminars + Tour of Asphalt Institute
11:30 am Lunch
Speaker: Jim Gray, Lexington Mayor
1:30 pm Five Tracks of Seminars + Tour of Big Ass Fans
6:00 pm President's Party

**Friday, May 23**

8:00 am Breakfast with the Board of Licensure; Order of the Engineer; KSPE & KEF Business Meetings
10:00 am Three Tracks of Seminars
11:45 am Lunch
Speaker: Mark Golden, NSPE Executive Director
1:30 pm Three Tracks of Seminars

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**WEDNESDAY NIGHT RECEPTION**

**A Special Evening at the Grand Reserve**

There is going to be lots of fun to be had with the activities that are shaping up at the Grand Reserve. We will be enjoying our activities at the Barrell House.

The Grand Reserve is located in downtown Lexington, Kentucky in the Historic Distillery District.

There will be plenty of opportunities to network and mingle with colleagues. We will enjoy plenty of food, drinks, and festivities, so be sure to join us at this special event.
In the Beginning

In 2005, I was a mathematics teacher in the Frankfort Independent School District. I gave flight lessons to my wife for Christmas. Her father had an antique airplane, a J-3 Piper Cub and we wanted to keep the airplane in the family. Once I noticed the mathematics and the science that went into learning how to fly, I was hooked as well. After perusing the Airplane Flying Handbook and the Pilot’s Guide to Aeronautical Knowledge, it was clear where my students could start applying aeronautics in algebra, an airplane’s rate of climb. In aviation terms, $V_y$ is the speed that allowed for the best rate of climb and $V_x$ provided the pilot the best angle of climb. Each of these speeds represented the slope of two different linear relationships.

Linear algebra is an important concept for students to learn early in high school. Many algebraic concepts seem abstract to students and many cannot make the leap directly to symbol systems. One day, I came to class with aircraft controls: yoke, rudder pedals, Microsoft Flight Simulation software, and a laptop. All the students, even the ones that had a fear of flying, were instantly engaged in the work. My idea was to collect time and altitude information at certain intervals while keeping the pitch angle of the aircraft constant modeling both $V_y$ and $V_x$. After flying the simulation, the data and flight analysis were charted into a spreadsheet and graphical format showing students what happened in the lesson. Students were excited about learning mathematics in this way and some even wanted more exposure to other aerospace applications.

Fast Forward to 2010

In 2010, The Institute for Aerospace Education was born. I had created an aerospace course of study at Frankfort High School. After the students asked for more, we implemented an FAA endorsed groundschool for flight, made connections with various industry representatives including Larry Mooney, a master aircraft mechanic from Humana. We even acquired an antique taildragger similar to the J-3. In 2010, a parent, aircraft mechanic, a teacher, and a commercial pilot met at Capital City Airport to create a new kind of organization. This entity would help other schools improve STEM learning but provide strategies and improve capacity so that they could implement their own aerospace programs as well. Flight/aeronautics was the core and a few other career paths were added that year such as aircraft maintenance and aviation management/operations. For the nine schools that joined the Institute, a set of core practices was set in motion:

- A school must have an on-site facilitator. The facilitator not only was the aerospace champion at the school level, they also created their aerospace network locally and plugged into support and resources from the IAE.
- Each school must partner with their local airport. Many capacities exist at local airports. It is where the pilots, mechanics, and other aviation professionals do their work.
- Each school must implement FAA approved aeronautics program (FAA groundschool).
- Partner with other aerospace organizations such as NASA Kentucky, Civil Air Patrol, Build A Plane, and others.

Design, Build, and Fly

Also in the first year, the Institute learned about the Unmanned Aerial Systems laboratory at the University of Kentucky. Dr. Suzanne Smith, mechanical engineering professor and Director of NASA Kentucky communicated with us the work her students were doing with the Design, Build, and Fly (BBF) program. DBF is a national collegiate engineering competition where students focus...
on an engineering problem within the context of flight. I immediately brainstormed that the DBF could be tweaked to help high school students understand basic concepts of aeronautical engineering, construction, and flight. Together, the IAE, NASA KY, and the UK College of Engineering rolled out the first Wing Design Competition (WDC) in 2011.

The premise behind the WDC was for high school engineering teams of 5-7 students through a common aviation platform (RC Trainer, radios, and motors), materials and other consumables, and a theoretical framework, could design, build, and fly an aircraft with a new wing based on an engineering problem. The engineering problem would focus on payload, weight of the wing, speed, and other variables and constraints. At the first event at RJ Corman’s Lucas Field, we were amazed to have nine teams that completed the mission and were successful. It is amazing to realize that powered flight is just over 100 years old and our students are designing airplanes that are powered and controlled! In 2013, the WDC grew to twenty-seven teams from twenty different high schools. The 2014 WDC event will be held at Lake Cumberland Regional Airport and will include teams that were invited from other states.

Aerospace Engineering: Aeronautical and Space Systems
After the first WDC event, the Institute examined other engineering programs and applications. The Institute collaborated with the Real World Design Challenge, a national program that engages students from across the US and abroad to aeronautical engineering. In 2012, a high school team from Frankfort was selected to represent Kentucky in the National Real World Design Challenge in Washington DC. The Institute also reached out to Dr. Ben Malphrus at Morehead State University. Dr. Malphrus and his team at MSU have an exceptional Space Systems Engineering program. They design, build, and deploy satellites into space as well as manage their missions. The Institute reached out to Dr. Malphrus and we agreed that it was important to engage high school students to learn about space and applications that are being developed. Cell phone communication, credit card transactions, television programming, and research are just some of the applications of space systems engineering.

We opened up Space Systems Engineering I and II to high school students that were interested in the work.

Other Engineering Connections
Other connections to engineering that is now hitting the mainstream includes Unmanned Aerial Systems (UAS). Through UAS and satellites, the Institute learned that computer engineers help this type of vehicle move autonomously in space or in our atmosphere. Not only do we want students to understand aerodynamics and mission operations, but also in human interface and usability. Computer engineers have huge role in aerospace. Civil engineering, specifically, airport design and construction also has a direct connection to aerospace. Runways, ramps/aprons, hangars, lighting/markings, and other airport applications are designed...
by companies such as Stantec. In a recent meeting, we discussed the need for engineers that work on airport designs to have some aeronautical experience. We have students that are laying out an airport and embedding their design into our flight simulator. Once they are in the flight simulator, the student pilot taxis and flies aircraft from their virtual airport.

Fast Forward to 2014

Next year, the Institute will add seven schools from Tennessee. These will be added to our 25 existing Kentucky schools to form an aerospace network of 32 schools in two states. The growth that we are experiencing is staggering. We learned from the Governor’s economic development report that this past year, aerospace manufacturing has surpassed automotive as number one in Kentucky. We need to not only plan to attract aerospace companies to Kentucky but develop a workforce that can supply these companies with aerospace professionals. We have seen great results over the past 3 years and we want to keep this resource in the region:

- Over 600 students in 22 school districts study aerospace (over half of schools just started in the past two years…. potential of over 1000 students)
- 50% of IAE students are on free/reduced lunch
- IAE students scored 17% higher than peers on ACT
- IAE students surpassed college benchmarks in mathematics and science
- IAE students had a 100% graduation rate over the past 3 years
- 75% of IAE students have pursued STEM related career training at university or technical college
- 25% of IAE students have pursued aerospace career training at a university or technical college

The Future

The Institute for Aerospace Education is excited about our future. In May 2014, we will break ground on the IAE Aerospace Education Center. The Center (over 16,000 sq ft) will be an aerospace standard facility that will help students and teachers from across the network learn about knowledge and practices directly related to the aerospace industry. There will be engineering labs (mechanical and electrical), a flight simulation lab, classrooms, operations/logistics lab, and an aircraft maintenance lab that will house our 12 Institute aircraft. Our plans also include adding staff to the Institute. Connecting to the aerospace industry is our goal and bringing in an aerospace engineer and aircraft mechanic to go along with our Chief Pilot will add to the level of support for our schools and students.

The work will scale if the Institute has the resources available to do the work. Connecting Kitty Hawk to Dayton and the schools in between are dreams that we have considered. Bringing in states such as North Carolina, Virginia, Ohio, West Virginia, and Indiana would make this aerospace network even more impressive. Folks would not look for Florida or California to learn about aerospace education, they would reach out to us at The Institute.

The Institute loves to work with organizations, companies, and individuals that believe in our mission. The Engineering community can help by doing some of the following:

- Join Stantec and other companies to providing sponsorship so that we can hire an aerospace engineer annually.
- Help us build the aeronautical engineering and astronautical engineering labs. Naming rights are available for each lab.
- Donate equipment such as CNC milling devices and other technologies. We will find a home for equipment that you have upgraded.
- Individual donations and sponsorships. Every donation helps us move the work forward.
- Volunteer with our organization or help schools in your area. Future engineers need to connect directly with the industry so that they can prepare and be ready when they enter engineering school in college.

If you would like to learn more about the Institute, are interested in getting involved, or want to help, please contact Dr. Tim Smith, Executive Director and CEO, at tim@iae.aero or by phone at (502)320-9490.
It is mid-April and the weather has managed to finally feel more like spring, with only a couple of replays of winter weather; the Kentucky General Assembly just concluded its 2014 regular session; and finally, this is the last edition of the Kentucky Engineer for the 2013/2014 KSPE year.

LEGISLATIVE NEWS
The 2014 General Assembly adjourned at midnight on April 15th. It was not an overly productive session, primarily due to a heaping dose of partisan politicking in advance of the November elections. With the entire House up for re-election as well as half the Senate seats, there was plenty of groundwork being laid in the session in advance of these elections. The Republicans hold hope that they can become the majority party in the House (Democrats currently hold a 54 to 46 advantage), something that has not existed since the 1920’s.

By the session deadline, the General Assembly avoided what would have been the certain calling of a special session by passing the state funding bill for the biennium which included the funding to provide bonding capacity for each of our universities to construct their top priority projects. They also managed to pass a transportation funding bill and the two-year road plan. The transportation funding plan that was sent to the Governor did not “Stabilize the Road Fund”, as the effort was being called to restore the gas tax funding. As you may recall, the initial House version of the bill would have restored the tax back to the December 31, 2013 level. This was not included in the bill that was sent to the Governor and as a result, the two-year road plan reflects a reduced level of funding.

KSPE did not have any particular agenda that we pursued this session. There were only a limited number of bills that we were closely following.

One was the Public-Private Partnership bill (HB 407) which was introduced in the House on February 19th. The Kentucky Chamber of Commerce had identified this as one of their priorities. We began meeting with the chamber in December to ensure that any bill drafted would reflect a qualifications based selection (QBS) approach. As designed, the bill would have provided additional clarification to the P3 process for transportation projects, but more importantly, create a process for non-transportation projects and services for local governments and districts. Early drafts of the bill were similar to laws that exist in surrounding states and in our estimation would have weakened QBS requirements. The bill that was ultimately introduced relied on existing statutes which for us at least, did not backtrack on QBS. The bill sent to the Governor basically modified existing statutes dealing with the model procurement code (KRS 45A), significant transportation projects (KRS 175B) and the roles of counties, cities and other local units of government (KRS 65). Since HB 407 relied on these existing statutes, it does not require the use of QBS but highly encourages it. The Governor chose to veto the bill citing two main considerations: first, existing law does not preclude the use of P3 and second, he did not want to sign a bill that limited his ability to get the Brent Spence bridge project built. The second consideration was triggered when Northern Kentucky legislators successfully placed amendments on the bill that would have precluded the use of tolls on any bridge built between Kentucky and Ohio. In the end, the General Assembly did not override the Governor’s veto of the bill, so it lives to resurface in a future session.

The other bill that we closely followed was SB 74. This bill provided protection for professional engineers and architects that volunteer their services during a declared emergency. This bill is similar to laws in other states dealing with “Good Samaritan” services. The bill made its way through both chambers, but as often is the case, a totally unrelated amendment was added in the waning hours of the session. The amendment added language to support the Kentucky Industrial Revitalization Act. Though unrelated to the original intent of the bill, we had no real objections to its addition. The bill still awaits the Governor’s signature.

ANNUAL CONVENTION
The KSPE Annual Convention is nearing, scheduled for May 21st through May 23rd. The Annual Convention Committee’s desire was to bring the convention back to Lexington and May, as opposed to the normal April date, was the best deal for the hotel responses that we received. This year we will be at the Embassy Suites at Newtown Pike and I-75/I-64. We hope you can attend.

We’re excited to have NSPE’s new Executive Director, Mark Golden, as our guest at the convention. Mark was hired by NSPE not too long before I came on board. Mark is a dynamic guy and has great vision as to what NSPE needs to be to its members. If you want a preview of Mark’s vision
for NSPE, take a look his talk on YouTube titled “Back to the Future: A New (Old) Vision for NSPE” at http://www.youtube.com/watch?v=Vm3Dm4XQ2nU&feature=youtu.be

It is a refreshing change from the NSPE that we have grown to know over the last several years.

For more information on the convention, check out our website at www.kyengcenter.org.

**NSPE FELLOWS**
The NSPE Fellow Program is a national program intended to recognize deserving professional engineers who have demonstrated long-term professional service at the chapter, state and national levels of NSPE. The NSPE Board of Directors established the Fellow recognition program to honor those licensed members who have demonstrated exemplary service to the profession, the Society, and the community. Fellows must have exhibited continuing effort over years in NSPE Involvement, Professional Activities, and Community Involvement.

At the Annual Convention, we will be recognizing Kentucky’s two newest NSPE Fellows, Charles “Chuck” Anderson, P.E. of Strand Associates and Stephen Scott, P.E. of Mason & Hanger. Becoming an NSPE Fellow is a prestigious honor and reflects significant contribution to our society.

Be sure to come honor Chuck and Stephen at the President’s Dinner on Thursday evening, May 22nd.

**STEM/KEEP**
You probably have heard of “STEM”, but “KEEP”? Well, we are embarking on a new initiative at KSPE. Working with Kamyar Mahboub, P.E., Associate Dean for Outreach and External Partnerships at the University of Kentucky, an initiative is being developed to enhance Science, Technology, Engineering & Mathematics (STEM) efforts in the commonwealth. The effort is being called “KEEP”, Kentucky Engineering Education Pipeline, and will identify current resources and activities being conducted by the numerous engineering organizations, employers and individuals across the state. The objective is to ensure that a maximum level of coordination is occurring in order to effectively utilize available resources and possibly allow for growth of these efforts.

You have heard me talk about KSPE’s efforts in building the “pipeline” for engineers in our commonwealth. We currently have efforts underway to become much more active at the university level, which will funnel new graduates into our newly formalized mentoring program. The mentoring program will in turn direct the 20-somethings to Leadership PE (LPE). We’re still working on what would be the right post-LPE program to encourage life-long learning and professionalism.

KEEP will fit nicely with these efforts. It will be a program that will cultivate future engineers for our engineering schools – to better feed the pipeline that I have described previously. It is designed to leverage and enhance the current engineering outreach in Kentucky. KEEP will be designed to have multi-entry points that ultimately feed into engineering education. The target audiences will be Kentucky students in elementary, middle, and high schools, as well as community colleges, and regional universities.

A main goal of the KEEP initiative is to leverage the existing outreach infrastructure in order to coordinate and enhance the quality of the outreach effort – no need to be reinventing any wheels just yet. Some of the anticipated elements of this effort include:

- Develop an updated master list of all Kentucky engineering outreach activities (who, what, when, where).
- Use social media to coordinate engineering outreach throughout Kentucky.
- Increase the access opportunities for schools to reach an engineer.
- Enhance the quality of engineering outreach in existing programs
- Seek corporate sponsorships to the Kentucky Engineering Foundation to support outreach activities

Stay tuned for more details.

**LEADERSHIP PE**
The 16th class of Leadership PE completed their last session March 12th through the 14th in Bowling Green. This has been a very engaged class and is the first one to be asked to officially select someone to mentor – hopefully preparing that “mentee” for a future Leadership PE class. As is tradition, the class will be actively involved in the upcoming KSPE Annual Convention in everything from serving as session monitors to hospitality suite workers. Be sure to congratulate our newest Leadership PE graduates while attending the convention.

**WE NEED YOUR HELP**
This is my quarterly request to you help us better serve you. If you have not already done so, please log in to our website (www.kyengcenter.org) and make sure your profile is up to date (and keep it up to date!). This helps us in managing all the activities that rely on member data. Thanks in advance for your attention to this matter!
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It was a beautiful end to a wonderful year for Kentucky MATHCOUNTS. The state competition was held on Saturday, March 22nd. So many bright students participated in this year’s competition, both at the chapter and state levels. We had a total of 945 students from across the state of Kentucky compete at chapter competitions! Never in the history of Kentucky MATHCOUNTS have we had that many students.

Without a doubt, it was another fantastic year for the growth of our competition. Since Western Kentucky University began adding scholarships two years ago to the Chapter competition, we have seen our number of participants skyrocket. It is amazing that students all over our state, in thirteen different regions have the opportunity to compete for a four-year, full-tuition scholarship, just for winning the chapter competition. For years, the University of Kentucky and University of Louisville have been so supportive of the MATHCOUNTS program, offering scholarships for state winners, and getting to state is a very difficult process. Scholarships being given at the chapter level spread the “wealth” a little and give each student a real shot at a bright, successful future in post-secondary education. Western Kentucky University was joined this year by the University of Kentucky in those chapter scholarships. The University of Kentucky now offers a four-year, full-tuition scholarship to the top scoring student at the chapter competition. Western Kentucky also offers to second place a $1,500, four-year scholarship and to third place a $500, four-year scholarship. Kentucky MATHCOUNTS is in a league of its own with all that we offer. We are proud of the partnerships we have with these Universities and the passion they have for our mathletes – thank you to those Universities for all that they do for us and the future of engineering!

Out of a group of 161 mathletes, four stood at the end to claim spots on Kentucky’s National MATHCOUNTS team. It is our honor to introduce those four outstanding students and the coaches who will be leading them at the National Competition May 8th through the 11th in Orlando, Florida.

Coming in first place this year at the state competition was Austin Li. Austin is a 7th grader from Winburn Middle School. When asked what his favorite experience with MATHCOUNTS was, Austin replied, “This year when I surpassed my expectations and got first at state.” Austin had only first experienced MATHCOUNTS last year as a 6th grader and managed to get first in his second attempt. Outside of math, Austin enjoys playing soccer and plays for the Lexington Youth Soccer Association. He says that he enjoys math because he can use it the rest of his life. As far as a college major is concerned, engineering is his choice. He hopes to attend MIT. He plans to continue working hard in proceeding on with his MATHCOUNTS journey and the opportunity to compete at Nationals.

Our second place finisher this year was Tuan Nguyen. Tuan is an 8th grader from the Louisville Collegiate School. He placed 7th last year as a 7th grader and said that was his fondest experience with MATHCOUNTS because “he didn’t expect to place.” It’s amazing what a difference a year makes. Considering Tuan is an 8th grader, he told us that his favorite experience with MATHCOUNTS was, “This year, placing 2nd at state, because it was my last year and I wanted to make Nationals.” Beyond math, Tuan enjoys playing basketball and doing Taekwondo. He’s not particular yet on which...
college or university he would like to attend in the future but is considering engineering as his major because he considers math and science his strongest subjects. Every day after school, Tuan practices math for an hour and a half, by himself or with his father. He has enjoyed participating in MATHCOUNTS and the excitement of competing.

One of our returning National team members from the 2013 team placed third this year at State. Cici Mao made her way onto the National team again this year. Cici is an 8th grader this year, from Winburn Middle School, and really enjoys playing video games, computer games and sleeping. She also participates on the Academic team. When asked what her fondest experience was with MATHCOUNTS, she responded, “Last year, the food at the Awards Ceremony at Nationals was really good. Plus, we had a lot of fun there too.” She also really enjoyed the pin exchange at Nationals. As far as why math interests Cici, “Math is kind of like a puzzle. If you can do it, it’s fun, but there are still times when you want to blow it up.” As far as college is concerned, Cici is hoping to get into botany because of her interest in plants and she is shooting for Harvard or MIT. What is her strategy for the National competition this year? Cici said, “I don’t have a strategy, except just to not eat as much bacon as I did last year.”

Our second returning National team member from the 2013 team to place fourth at this year’s State competition was David Ma, an 8th grader from Winburn Middle School. David enjoys playing violin and has been playing for eight and a half years. He recently participated in a festival where he received a distinguished recognition. He also participates in science fair and although a new interest for David, this year he won 1st at District, 2nd at regionals and his state competition was coming up. David, too, like Cici, was very fond of the banquet at Nationals and “especially the creamed dessert.” When asked what his favorite part of the competition was, he responded, “My favorite part of the competition is the team round – the collaboration between players yield an unmatched productivity.” When discussing college majors, David says he is currently look at math and science related majors but is undetermined. He would like to attend college in the Northeast or Europe. We asked David to summarize his thoughts about MATHCOUNTS, “MATHCOUNTS is a very important and fun event; I feel that without it, I would not be who I am. MATHCOUNTS has positively affected my life, as I am sure it greatly impacted others’ lives. It gives opportunities that could have never been realized or even possible. MATHCOUNTS has provided an exciting and memorable conglomerate of memories that I will cherish forever.”

Leading these four outstanding individuals to the National Competition for Kentucky are Paula Mlinar and Robert Fryman, both who coach for Winburn Middle School. Although unable to make the trip to Nationals, Robert is helping prepare the team alongside Paula. Paula has taught at Winburn for ten years and her first experience with MATHCOUNTS was last year, 2013. When asked why she became involved in MATHCOUNTS, her response, “To support my students.” She enjoys how incredibly well organized and exciting the Chapter competition can be, and finds the State competition to be intense but so fun to see and hear the kids debate answers and methods. In explaining her favorite experience with MATHCOUNTS, Paula said, “The mathematical discourse between the kids and the excitement they have for math!” As far as how she feels MATHCOUNTS has benefited her and her students, she said she feels like MATHCOUNTS drives the kids’ enthusiasm for math. When comparing MATHCOUNTS to similar competitions, what she likes about MATHCOUNTS
is the teamwork and the individual components that mesh at the competition. When summarizing her thoughts about MATHCOUNTS, she said, “MATHCOUNTS encourages kids to discuss and debate math in a fun, competitive atmosphere.” When we first talked to Paula after she learned she would be going to Nationals, she said that she saw no problem with setting a goal of first place at Nationals this year for the Kentucky team. It will be exciting to see how well our students do this year. Our second Nationals coach, Robert Fryman, also teaches at Winburn and has been there for twelve years. In regards to his experience with MATHCOUNTS, he said, “Students from all schools seem to have a common bond or thread through mathematics. To observe their interaction is priceless.” He decided to become a MATHCOUNTS coach simply because of his love of math. His favorite part of the competition is “the countdown round….for the excitement of the buzzer.” As far as how he feels MATHCOUNTS has benefited his students, he says, “Their self-confidence.” Robert’s first experience with MATHCOUNTS was in 2013, as well. Congratulations to all of our students and coaches for a job well done this year!

It is amazing to see all these wonderful minds being brought together by MATHCOUNTS and we cannot wait to see their performance in May. We have many hopes for this team, but we absolutely hope that they have fun and enjoy their moments together. This year has been so great, as have all of our past years. MATHCOUNTS would not be possible without those who believe in this program. We have so many volunteers who devote so much time and effort into making everything happen; we could not do it without them. Thank you! Without our sponsors, our competitions would not be possible, so we would like to thank all of those who contributed to this year’s competition – you’re support is absolutely appreciated! We cannot thank you enough!

Next year’s competition is now less than a year away and we hope to see many familiar faces. If you are interested in volunteering at a Chapter competition or want to get involved at State, please let the staff at the Kentucky Engineering Center know; we would love to have you! The dates have been set for next year’s competitions so mark your calendars. The Chapter competitions will be held on February 14, 2015 and the State competition will be held March 20 – 21. We will see you next year!

Photos left and below are from the Team Round at the Kentucky State Competition held March 22nd in Louisville.
Kentucky Society of Professional Engineers
Society of American Military Engineers
American Council of Engineering Companies of Kentucky
Zoeller Pump Company
Toyota Motor Manufacturing, Kentucky, Inc.
Stantec Consulting Services, Inc.
Western Kentucky University
University of Kentucky
University of Louisville
Strand Associates
Palmer Engineering Company
Kentucky American Water
Cornerstone Engineering
Integrated Engineering
HMB Professional Engineers
Dunaway Engineering
Mindel, Scott & Associates
HDR Engineering
EA Partners, PLC
Photo Science
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GRW Engineers
Mason & Hanger
Hazen & Sawyer
Farmers Bank & Capital Trust
Heritage Engineering
Shield Environmental
Marco M. Rajkovich, Jr.
Parsons Brinckerhoff
MPD, Inc.
Russ Renaud
Harrod & Associates
The Porter Paint Foundation
Marilyn Lewis
Robert Hawley
Mike Harris
Bottoms Engineering
Steven Nicaise
MAC Construction & Excavating
Louisville Water Company
Horn & Associates
Thelen Associates
WMB, Inc.
Staggs & Fisher
CAD Productivity
Judy Construction
Professional Engineers in Mining
Chuck Anderson
Andrea Rogers

THANKS ITS SPONSORS!!!!!
Leadership P.E. is a leadership development program designed to encourage, strengthen and build the professional careers and the civic involvement of entry- and mid- to upper-level engineers. This will be accomplished through organized career-training sessions and networking with business and community contacts and peers, as well as interactive meetings with community decision makers. It will involve a cross-section of leaders or potential leaders who are active in business, education, the arts, religion, government, community-based organizations and ethnic and minority groups. It will reflect the diversity of the professional engineering community. This unique and positive image- and career-building program is design specifically to benefit persons in the engineering profession. Participation in Leadership P.E. is limited to a maximum of fifteen individuals. Participants must be either EITs or PEs. They will be selected to participate in eight specially designed leadership experiences over an eight-month period. The charter class was selected in the summer of 1998. Leadership P.E. follows the concepts developed by Leadership KY and other similar leadership programs. Leadership P.E. is the first of its kind to focus on professional engineers. As such, Leadership P.E. was designed, organized and implemented by members of the Kentucky Society of Professional Engineers (KSPE), the American Council of Engineering Companies of Kentucky (ACEC-KY) and the Kentuckiana Post of the Society of American Military Engineers (KP-SAME).