



The Pittsburgh Professional Engineer
<http://www.PittsburghPE.Org>
E-mail PSPE@PittsburghPE.Org

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President's Message

I want to thank the Pittsburgh Chapter for letting me serve as your president for the up coming term. My goal is to increase participation in PSPE activities by soliciting the help of all the membership for program ideas and encouraging all members to attend the upcoming events. One of our most precious future resources is the engineering students currently enrolled in the area universities. I believe that PSPE has many opportunities for networking with other professional engineers and the professional engineering community. I look forward to offering leadership to PSPE to achieve the goals to be outlined on September 14 in the first Board of Direction meeting held this term. The Board of Direction normally meets at 5:30 the second Thursday of each month at ESWP and all members are welcome to attend these meetings.

PSPE Pittsburgh Chapter President - Darryl Brogan, P.E.

Editorial

We're starting a new year of Chapter activities, and everybody is invited to participate. The first Board of Direction meeting will be held on Thursday, September 14. It will be devoted to planning for the coming year. This is not a dinner meeting and there will be no program— it is a working meeting. You are invited to attend and to take an active part in the discussion.

The Calendar appears elsewhere, and notes the dates and subjects of membership meetings. At the October meeting, the Beaver County Chapter will join us for a presentation by the U. S. Army Corps of Engineers on Katrina and New Orleans. Mark your calendar now.

Two pages of this issue are devoted to a survey by PSPE. The Pittsburgh Chapter, the State and National societies all need your input. Don't be a part of the "silent majority"— use your noggan and let us know what YOU consider to be important, what YOU want from the Society. Your leaders are looking for guidance. Help them.

The response to e-mailed copies has been less than overwhelming. Please take time **TODAY** to complete the survey **ON LINE**. The closing date of September 4 has been extended to 4:00 PM September 11 for **ON LINE** submittal. The complete survey is included in this Newsletter to emphasize its importance and to acquaint you with the items considered. Please respond **TODAY**. You can find the **ON LINE** version at www.pspe.org, on the right side of the page.

Revman R. Branting, P.E., Acting Editor

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MATHCOUNTS objectives are to elevate the prestige associated with achievement in mathematics, to increase awareness of the importance of mathematics among parents, educators, and the general public, and to bring about improvements in mathematics curricula and instruction in 6th, 7th and 8th grades.

MATHCOUNTS is organized and administered by the National Society of Professional Engineers (NSPE) and Pennsylvania Society of Professional Engineers (PSPE) state and local chapters. This year's competition will be held on February 10, 2007. In previous years, approximately 225 students from 32 schools participated. We will need many volunteers to help proctor the exams or grade the tests. If you are able to help as either a GRADER or a PROCTOR please let us know via. email as soon as possible.

If you have a preference, GRADER or PROCTOR, please be sure to specify this in your reply. If you have a friend or brother / sister, etc. who would also like to help please feel to include them as well. Volunteering is not limited to engineering students-- anyone is welcome and encouraged to volunteer. Please include the full name and email address for each volunteer.

Volunteers will be provided brief instructions from one of the Pittsburgh Chapter members upon arrival. It's not difficult or complicated and it's lot's of fun !! Coffee, tea and donuts will be provided in the lobby upon arrival and lunch will also be provided to all volunteers at the completion the test.

This will be the Pittsburgh Chapter's 23^d MATHCOUNTS Program. It offers local students the opportunity to interact and compete with their fellow MATHLETES. The first MATHCOUNTS Program occurred in the 1984-1985 season when twelve schools participated. We're proud to be involved with such a worthwhile program that encourages mathematics and engineering. If you may be interested in joining the MATHCOUNTS Committee or volunteering for the February 10, 2007 Competition, please contact Michel Sadaka, P.E. via e-mail Michel@Sadaka.Net, Home phone: 724-234-2850, Work phone: 724-234-2805, Cell

FE / PE Refresher Courses

The Pittsburgh Chapter sponsors a refresher course twice yearly for both the Engineer in Training (EIT/FE) and Professional Engineer exams. Courses meet one evening per week to complement the semiannual examinations administered in the Commonwealth of Pennsylvania. Starting this year, the classes will be held at the Gateway Engineers office at 1011 Alcon Street, Pittsburgh, PA 15220. This office is located off of Greentree Road, just past Parkway Center Mall. A minimum enrollment of 8 students is required. A tuition fee of \$300 is charged for each course, payable to Pittsburgh Chapter, PSPE. The Fall 2006 Refresher Courses has been canceled and registrants advised to register for the spring course. Time and dates will be provided later.

. Each course provides 22 hours of instruction. The PE Review class typically runs on Mondays and the EIT/FE class is held on Tuesdays. The first class for both courses, however, is a combined class on engineering economics. Both classes are scheduled from 6:30 PM to 9:00 PM. For more information and registration materials for future sessions, please check the Chapter web-site <http://www.PittsburghPE.org> or contact the Chapter office at 412-391-0615. Feel free to contact the instructor, Steven Musial, P.E., at 412-956-6448 for additional class topic information.

We've Lost Two Friends

On July 10, 2006, **Gene Edward Geiger**, P.E., Ph.D., passed away. He was a long time active member of the Pittsburgh Chapter, PSPE. Among his other positions, he served as President of the Pittsburgh Chapter, PSPE. For many years he provided a refresher course for practicing engineers striving to become licensed in Pennsylvania.

Gene was a Mechanical Engineer who earned his BS at Carnegie Tech, and his MS and Ph.D. at the University of Pittsburgh. He was a member of the Pitt faculty – Professor of Mechanical Engineering– and served at various times as well as the Associate Chair of the Mechanical Engineering Department, Coordinator of Graduate Studies, Coordinator of Undergraduate Studies, and Supervisor of the Cooperative Engineering Program.

He held industrial positions with Babcock & Wilcox, Boeing, Westinghouse and Joy Manufacturing and as a consultant in numerous legal cases involving engineering accidents and claims. In retirement, he devoted much time researching the conversion of biomass to fuel. For his many accomplishments, he received numerous awards from the professional societies.

We extend our sympathies to his wife, Virginia, and their children and grandchildren.

Donald C. Peters, P.E., passed away on August 26, 2006, in Lancaster Ohio. He was a guiding presence for many years in PSPE and in the Pittsburgh Chapter. He served as President of the Pittsburgh Chapter and later as President of PSPE. As a PE, Don served on the Pennsylvania Registration Board for Professional Engineers for 20 years and was a lifetime Fellow of ASCE.

President of Mellon Stuart Construction Company from 1951 until retirement in 1981, he still found time to serve on many boards and head several organizations in the construction industry, including the Construction Industry Advancement Program and Pittsburgh Builders Exchange. Civic activities included Trustee and Board Chairman of La Roche College, Chairman of Pine Township Supervisors, Chairman of the Pittsburgh Chamber of Commerce and Board member of Passavant Hospital.

During his tenure, Mellon Stuart became a major factor in Pittsburgh area construction, with offices in other states as well. A significant number of the engineers in the construction industry received valuable experience working for Don.

Twila, his wife of 64 years, preceded Don in death. We extend our sympathies to his family.

Apprenticeship Group Visit to Astorino. Article by Lydia Pagliari & Robert Durso

Upon entering Astorino, we knew that the company had a substantial reputation in architecture, but we were there to learn about the engineering aspect of the company. Astorino has worked on various projects all over the country and even the world. Some of their projects begin from scratch with a blank piece of land, but the more common project is renovations to existing structures. Astorino is an all encompassing firm that has employees for every step of a bu The first stop in our journey was the engineering conference room, where we meet John Leonard, a structural engineer. He introduced us to the project we would be looking at in depth with him as well as some of the other designers. The project was the Laurel Highlands prison. ild. They employ architects, engineers, interior designers, construction, and corporate. As soon as you walk in the door, you can tell they do it all. The building that the company is housed in was absolutely beautiful. As a older building the architecture was unique and every detail of the interior was in placed; each room and area had its individual style and purpose. We were there not to admire the scenery, but learn about the engineering behind it all.

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Apprenticeship Group Visit to Astorino, continued from previous page

The first stop in our journey was the engineering conference room, where we meet John Leonard, a structural engineer. He introduced us to the project we would be looking at in depth with him as well as some of the other designers. The project was the Laurel Highlands prison. This prison was meant for aging prisoners that need medical attention. He showed us the complete blue prints for the structure and went through it very systematically for us to understand. Logically, he began with the foundation of the building. The prison required a deep foundation since there had been strip mines in the area; this required reinforced concrete columns drilled into rock. On the foundation, a precast floor was laid. Walls were added and decking was added to make the next floors. The cells of the prison come pre made and just need to be fitted together in the building. For the roof steel joists are used to span large areas and create open rooms. John stressed that in the purpose of the structure had to be kept in mind even in structural engineering. In the prison, none of the walls or ceilings can have anything to hold on to and the common rooms need to be large with clear sight lines. He talked about how all the engineers use CAD as the common system to tie all the components together.

We remained in the engineering conference room and Don Ditter, a fire protection and plumbing designer, joined us. His jobs include water, storm water, sanitary waste, gas, and fire protection. His job includes not only dealing with what kind of facility it is and where everything will go, but also the utility authorities; is their enough water, gas, etc. for the building? For the sanitary and storm water pipes, they begin small and slowly get larger as the waste is removed from the building. Water pipes are just the opposite; they begin large at the source and slowly get smaller to be applied to different application. The hot water is set on a loop, so the water is always warm. The drainage for all aspects needs to be sloped. Fire protection is a little less standard than plumbing for all the projects; even different sprinkler heads are used for different project. All possibilities need to be taken into account and a specific system design for that.

The next stop on our trip was to the architectural conference, a room at the top of the building with a beautiful view of downtown Pittsburgh. There we were joined by Chris Conroy, a mechanical engineer, who specialized in heating, ventilation, and air conditioning. He began the presentation by explaining a flow chart that detailed the process of a building. It began with the owner's needs and ended with the final product. Chris moved on to talk specifically about heating, ventilation, and air conditioning. Ventilation was stressed as the most important aspect of his job; the air quality of a building needs to be right. Beyond that, heat is lost in the winter through floors, roofs, windows, etc. and heat is gained in the summer through these same methods. Heating and cooling systems are used to stabilize the air temperature. The power sources can come for a variety of sources, gas, oil, propane, electricity, depending on the situation. He did not work directly on the Laurel Highlands prison, but told us about another project he worked on replacing boilers and dampers in an older building.

Our next stop shows Chris Conroy's work in action. He took our group down to the boiler room of Astorino. He gave us a laser temperature measuring device and we got to aim the device at various parts of the boiler room and see if they were hot or cold. Then, he explained how the whole system worked together to heat, cool, and give fresh air to the entire building, even aspects of the plumbing were found in the boiler room.

After the visit to the basement boiler room, the final sessions of the tour remained in Astorino's basement. An engineer in the electrical department, Nick DeJames, brought with him the formal Principal and Head of the Electrical Department, Dick Curry. They broke down their part in planning the electric circuitry for the Laurel Highlands prison. Every aspect of the electrical components of the prison was in their hands and must be completed accurately, ranging from lighting to nurse requesting systems. They had to follow a specific code system, given to them by the NEC in a book updated about every three years. Using sketch designs they must be able to accurately follow the guidelines and be able to implement them into the prison.

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Apprenticeship Group Visit to Astorino, continued from previous page

Following that, DeJames and Curry led the group to meet Dennis Scarfoe at their light testing room. Numerous form of lighting systems used in all kinds of Astorino projects lied about the room. It was even mentioned that one of the systems in the room was used in the lighting configurations for Keystone Oaks High School. They especially emphasized two systems they were currently likened to: LED and LiteTouch. LED dealt with luminescent lighting, especially in delivering color, which would apply to most bright signs as seen in cities and such. LiteTouch plans to be the lighting system of the future as it can allow a person to plan exactly how their lights system should perform with such aspects as brightness and timing, and be able to run programs for the day.

Leaving the testing room, the final presentation was done by John, a telecom designer. Astorino's telecommunication system was not presently working with the prison, so John instead talked about their project with Children's Hospital in Pittsburgh. Being the last part placed in the construction of structures, telecommunications dealt with every aspect of communicating within a building. There must be a planned layout to deal with contacting within and out of the building.

After all the presentations, there was a lunch questionnaire session with the presenters of the day. The group was able to personally ask the presenters about their educational, reasons for joining their field, and other career questions. The presenters were friendly and willing to answer any question that was brought up. All in all, Astorino presented a well-done production of what their company does and the importance of every aspect of architecture.

Dear Engineer,

"The engineer's seal is a commodity..."

"Engineering school faculty no longer endorse licensure..."

"The value of the PE license is reduced..."

Conversations including phrases like these were abundant at the PSPE Strategic Planning session in June. From the discussions during the planning session, PSPE developed a list of issues they believe are critical and need action.

Developing a Strategic Plan for PSPE

This process began in June when each PSPE Chapter was invited to participate in a Strategic Planning session. The session included PSPE board members, chapter presidents, chapter past presidents and practice division leaders. The session was facilitated by Jim Dalton, CAE, a past Deputy Executive Director of NSPE and who has helped several other State Societies begin their strategic planning. Members identified several strategic issues. Some issues are related to Professional Engineers and others affect PSPE as an organization.

Terminology; The classic definition of a "strategic issue" is as follows: **The interaction of two variables impacting each other in a way that demands attention.**

A strategic issue is expressed in a single sentence and is framed to highlight the tension that exists between the two variables.

PSPE developed an opinion survey and mailed it to 1770 members (all the members with email addresses on file). The closing date of September 4 has been extended to 4:00 PM September 11 for **ON LINE** submittal. Please submit **TODAY**.

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Developing a Strategic Plan for PSPE, continued from previous page

In this survey, members were first asked to rate each issue as critical, important, bothersome(somewhat important), or not important (i.e., PSPE should not spend resources addressing “not important” issues.)

Then the members were asked to indicate the three issues most important and the three issues least important to them.

Finally, and most importantly, members were asked to list issues they believe should be included on the final list.

At the end of the survey, members were asked to provide general demographic information.

Survey questions

Strategic Issues Challenge Professional Engineers

Please rate each of the following statements.

	Crit	Imp	Bot	Not
Remember: Strategic issues within the framework of associations, one, will have the greatest impact on the association’s membership and, two, are within the association’s ability to act upon effectively.				
The value of the PE license is reduced by fading public awareness of the need to protect public safety through engineering licensure.				
The value of the PE license is reduced by a prevailing impression of the PE as a narrowly focused commodity (i.e., merely a seal).				
Lack of endorsement for engineering licensure by engineering school faculty reduces the value of the PE license.				
Engineering services are increasingly seen as a commodity due to pricing of engineering services on an hourly basis.				
Engineering services are increasingly seen as a commodity due to the influence of technology on client assumptions regarding engineering services.				
Engineering services are increasingly seen as a commodity due to private sector clients who select engineering services on low bid but with high expectations.				
The industrial exemption reduces the value of the PE license.				
The public’s changing expectation for sustainable environments will change the role of the PE in ways that are not yet fully appreciated.				
The ability to transfer engineering work electronically from one location to another is increasing competitive pressures and challenging licensing provisions regarding oversight by an engineer of record.				
Global engineering services are changing professional practices with respect to productivity requirements, communications skills, quality assurance and the need to deal with cultural variations in ethical standards.				
The appeal of an engineering career is adversely affected by poor public understanding of what engineers actually do.				
Expectations of employers and career expectations of recent graduates are increasingly out of sync in ways that hinder organizational productivity and professional development.				

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Developing a Strategic Plan for PSPE, continued from previous page

Please rate the following as they impact the focus of PSPE.

	Cri	Imp	Bot	No
The introduction of CPC in Pennsylvania offers potential to grow PSPE membership.				
The perceived reduction in the value of licensure adversely affects the perceived value of membership in PSPE.				
Membership in PSPE is not required to gain benefits of its legislative efforts.				
ROI for employee participation in PSPE is not adequately understood or appreciated by companies.				
The prospect that NSPE may disassociate from MATHCOUNTS raises questions for state society and local chapter participation in this popular program.				
Time demands on the PE from many other sources limits traditional participation in PSPE.				
Membership requirement to maintain certification from some associations gives them competitive advantage.				

Final ranking; Indicate the TOP three issue (1-3) on which you believe PSPE needs to focus resources - 1 being most critical; conversely, indicate the BOTTOM three issues choices (1719) on which PSPE should spend no resources at this time. (Only six issues can be tallied in this ranking.)

Global engineering services are changing professional practices with respect to productivity requirements, communications skills, quality assurance and the need to deal with cultural variations in ethical standards.
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The appeal of an engineering career is adversely affected by poor public understanding of what engineers actually do.
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ROI for employee participation in PSPE is not adequately understood or appreciated by companies.
The industrial exemption reduces the value of the PE license.
The value of the PE license is reduced by fading public awareness of the need to protect public safety through engineering licensure.
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	Engineering services are increasingly seen as a commodity due to pricing of engineering services on an hourly basis.
	Time demands on the PE from many other sources limits traditional participation in PSPE.
	Membership requirement to maintain certification from some associations gives them competitive advantage.
	Expectations of employers and career expectations of recent graduates are increasingly out of sync in ways that hinder organizational productivity and professional development.

The above survey was emailed to 1770 members (all the members with email addresses on file), and as of August 27, 2006 a total of 268 members responded. If you are reading this article and the survey is still ongoing, we strongly urge you to participate, if you already participated, THANK YOU.

Please contact PSPE President, Harve Hnatiuk, P.E., F.NSPE (harvehnat@aol.com) or Jennifer Summers (jennifer@wannerassoc.com) with comments or questions about this survey.

Pa Society of Professional Engineers
908 N. Second Street
Harrisburg PA 17102
717.441.6051
www.pspe.org

June Chapter Meeting

On June 13, a Chapter meeting was held at the Engineers Society of Western Pennsylvania building. Chapter officers for the coming year were installed in a brief ceremony. They are listed elsewhere in the Newsletter.

Guests honored at the meeting were representatives of many of the host organizations for the Engineering Apprenticeship. As a gesture of appreciation for their hospitality and their time in providing prospective engineers with a glimpse of “real world” engineering, each was given a six months complimentary membership in the National Society of Professional Engineers. This, of course, includes membership in the Pennsylvania Society and the Pittsburgh Chapter.

Hosts and their representatives were –

GAI – Cathy Bazan-Arias, Ph.D. Pgh. Mat ’l Technology – Bal Patil Ph.D.
Medrad – Mohan Budidha DMJM Harris – Matt Pierce
PPG – Shirl Conard

Astorino –Chris Conroy
Allegheny County Dept. of Public Works – Steve Hrvoich
HDR - Joe Garlicki

The U. S. Army Corps of Engineers was recognized for holding open house for the Engineering Apprentices and all other interested high school students in Allegheny County. Unfortunately, regulations did not permit the District Engineer, Col. Steven Hill, to accept a complimentary membership.

Bruce E. Konsugar, P.E., was presented the President’s Dedicated Service award of the state society by David Briskey, P.E., Pittsburgh Chapter State Director. Mr. Konsugar was not a member of the Board of Direction, but he stepped up to become involved in a professional issue without being asked. He attended several meetings with then State President Harry Garmin and the Pennsylvania Society of Land Surveyors. The result of these meetings was that on March 24, 2006 the issues were resolved. The May Newsletter carried a full report on the matter.

Mr. Konsugar was unable to attend the State Conference in May. Mr. Briskey accepted the award there on his behalf, and passed it on in June.

A Day at the Pittsburgh Office of DMJM Harris

Report by Brandon Heide

On March 31, 2005, several students from around the North Hills area took a day off of school to visit the office of DMJM Harris Inc. and enhance their knowledge of engineering. Within ten minutes of our arrival at Four Gateway Center, we had already discovered that not all elevators are optimized to travel up to the 20th floor and were on our way up to their office.

We were handed name tags on our way in and followed a secretary back to a nicely furnished conference room where we briefly introduced ourselves to some engineers who would be showing us what DMJM Harris Inc. does on a daily basis. John Prizner, Vice President of DMJM Harris, played a short video and briefly explained some information about the company and what they do. He had well planned out packets with more in depth information and a fairly rigid schedule for the day to keep us on track.

After Mr. Prizner's short presentation, he handed the show over to Mr. David Veights. David Veights specialized in transportation planning. He worked backwards to explain how planning is so important using the North Shore Connector LRT (Light Rail Transit) System as an example. With the North Shore Connector LRT System, they had to research similar mass transit systems placed in other cities to calculate how many people it would need to move in a certain amount of time in order to prove effective. At the end of David's presentation, he introduced Anthony Castellone.

Anthony Castellone was the project manager of the Wabash Tunnel reconstruction and renovation; a project known to many as a pure waste of federal funds. Mr. Castellone explained how there was originally supposed to be a bridge built across from the tunnel parallel to the liberty tubes, so the predicted number of cars per day was 4,000 while it actually only gets about 40. Anthony explained the importance of documenting everything and how important it is to agree on payment dates, especially for smaller companies that can't spare a month without pay. At the end of Anthony Castellone's presentation, there was supposed to be a break, but since we had run well over schedule already, we skipped it and continued onto Susan Korvink and Tracy Borne and structural engineering.

While structural engineering is one of the broadest fields of engineering, we focused mainly on the concepts of bridges. Although I had already learned most of the information presented in systems engineering class at Pine-Richland, it was still interesting to see how they applied these concepts to bridges. They pointed out all these concepts in various bridges throughout the world, even a bridge right out the back window of the conference room. After a couple interesting demonstrations showing the strength of various shapes and designs, they passed the spotlight over to Michael Douglas.

Michael Douglas is a Civil Engineer, but he focused mainly on Computer Aided Design and Drafting. He brought up a CAD demonstration on the projector and showed us how critical it is for an engineer to have a background in CAD. He explained how they use GPS satellites to measure the ground height and import it through a process into a CAD document that they can work with. I personally have never worked with CAD, and enjoyed obtaining a brief introduction on the program.

Soon afterwards pizza had arrived and we all ate while conversing with the engineers about various odds and ends we were curious about. Although there was an office tour following the tasty lunch, I and the other student from Pine-Richland were not able to attend the tour due to transportation issues.

Complete with beautiful weather several oversized city pigeons, my trip to DMJM Harris was a wonderful and very informative day.

Sample Math Counts Problem – for 6th, 7th & 8th graders. How do you rate?

The Providence Bridge Pedal is an annual event held in August in Portland, Oregon to promote bicycle safety and healthy living. The Willamette River runs south to north. There are two streets each running parallel to the river: one to the west of the river and one to the east of the river. There are then 10 bridges that each connect the two streets mentioned above. The names of the bridges, when naming them from south to north, are: Sellwood, Ross Island, Marquam, Hawthorne, Morrison, Burnside, Steel, Broadway, Fremont, and St. Johns.

On the Sunday morning of the event the bridges are closed to automobile traffic and 18,000 bicyclists follow a route that allows them to ride their bicycles over each bridge once even though they may ride the same street more than once. Draw a map of the streets and bridges and then show a route that allows you to start and finish at the west end of the Morrison Bridge and crosses each bridge exactly once.

Bananas and water are available at each of the three rest stops. Organizers are planning that each of the 18,000 riders will eat a banana and drink a 16 oz bottle of water at each rest stop. There are about 5 bananas to a pound. How many pounds of bananas should be ordered? There are 24 bottles of water to a case. How many cases of water should be ordered? Express your answer to the nearest hundred.

There are different starting times for the 36 mile ride to help spread out the riders. The starting time for express riders is 6:30 am. They are expected to average at least 15 mph. What is the latest time express riders should cross the finish line? The latest start time is 7:45 am. How many miles per hour must bicycle riders average if they start at 7:45 am and want to finish by noon? Express your answer as a decimal to the nearest tenth.

Engineering Apprenticeship Program Round up meeting report

By Ryan Hays

On Wednesday, April 19th, 2006 the participants of the Engineering Apprenticeship program had our last meeting. It took place at the Engineers Society of Western Pennsylvania in downtown Pittsburgh. We started off by telling the other groups what our favorite visits were and what people left the greatest impression. My personal favorite was my group's visit to the airport. I enjoyed it because we got to see everything that makes the airport function that one wouldn't think about. We also were driven down a runway. We then gave suggestions that we thought would improve the program. The two most frequent suggestions were to have more visits and to see more diverse focuses in engineering. After that we split up into 4 groups and were given problems to solve. 3 of the groups each designed a package that would protect a dropped egg. They were given straws and scotch tape. The other group had to figure out a way to consistently catapult grapes into a box. They were given two catapults and two boxes. After we had presented our solutions, a relatively young civil engineer talked to us about what to expect in college and what we should learn in order to be successful. Then we ate lunch and thanked Mr. Branting for setting up the visits. I would like to thank everyone who helped with the program and the companies that were willing to show us what they do. It was educational and a lot of fun for all of the students that participated.

2006-2007 Chapter Officers

President - Darryl Brogan, P.E.	Executive Secretary - Kevin Wiley, P.E.
President Elect – Virginia Dailey, P.E.	Treasurer - John A. Broschious, P.E.
Vice President – Tom Weber, P.E.	Financial Secretary - Reyman R. Branting, P.E.
State Director - David Briskey, P.E. 2005-2008	Immediate Past President - Mohan Budidha,

2006-2007 Chapter Directors

Brain Schull, P.E. 2006-2009	Moe Rayan, E.I.T. 2005-2008
Hal Dietrick, P.E., 2006-2009	Michel Sadaka, P.E. 2005-2007
Jeff Mazza, P.E. 2005-2008	Dave Samek, P.E. 2004-2007

Apprenticeship Program

On September 13, 2006, several PSPE members will volunteer their time for half a day to meet with 40 students from 26 local high schools and discuss their experiences as professional engineers. The members will work in conjunction with the Allegheny Intermediate Unit (AIU) to arrange visits to several local engineering companies and job sites. During the initial orientation, the students are separated into five groups. After getting to know the other students in their group, each member will introduce a fellow member to everyone in attendance. The PSPE members then lead several exercises that encourage socialization and require analytical thinking. The first exercise requires each apprentice to select a career from three randomly assigned professions that range from Lion tamer, to Astronaut to Poker Player. The students have to explain what quality they possess that would make them successful at the chosen career. The next is to build the strongest bridge between two tables using only gumdrops and spaghetti. Typically, each group approaches the problem in a slightly different way. In prior years, some of the strongest structures used engineering principles while other strong structures demonstrated an understanding of the materials on hand. You could say the students used their "noodle." The object of the final problem is for each Apprentice to shake hands with every other Apprentice in the shortest time possible. Each group has to verbally convey their ideas to the other students and then direct the groups to work in unison. For some reason, no group attempts the "Three Musketeer" all-for-one-one-for-all approach. I guess they are too young to know that old story.

During the course of the orientation, the PSPE members provide a discussion of the fields of engineering and types of work an engineer might perform. The roles of the Licensed Professional Engineer and the NSPE, PSPE and Pittsburgh Chapter are covered along with the networking opportunities from associating with members of professional societies. The Engineering Guidance Counselor and several students from the University of Pittsburgh also volunteer their time to tell students what college life is all about. They give the apprentices a good idea about engineering classes and what preparation they can do while in high school.

Companies that volunteer their time and office space to show students what engineers do during a typical day have been the Port Authority, PPG, Bombardier, P. J. Dick, Pittsburgh Materials Technology, HDR, Medrad, DMJM+Harris, L.D. Astorino, GAI, U.S. Army Corp of Engineers, KTA-Tator, Airport Authority, Allegheny County Dept. of Engineering and Construction, UPMC Alcosan and MS Consultants. Red Zone expressed their willingness to get involved last year during the national competition of driverless cars but was unable to due time demands. Hopefully they can be involved this year. Due to the desire to give the students a variety of engineering experiences, additional host companies are encouraged and welcomed.

After each visit, two students jointly write a report about the host company so everyone benefits. The students may also visit University of Pittsburgh to get a feel for what college life is like.

In April the students will meet again with the PSPE members at the Engineers Society of Western Pennsylvania to discuss their experiences and get another dose of analytical thinking. Each of the five groups will be allowed to choose between an egg drop problem and a catapult problem.

The Pittsburgh Chapter takes great pride in our Apprenticeship Program. In 2006, we won PSPE's Special Projects Award during the Annual Conference in Philadelphia. We want to continue our excellent program and encourage other Chapters to clone our program.

Talking with the students is always a rewarding experience. If you are personally interested in helping out this year, please contact Dave Briskey (412-275-2190, djbriskey@dickcorp.com) or Reyman Branting (bernardi11@comcast.net). The visits to engineering companies are made in October, November, December, February and March. We still need a few more Engineering companies to volunteer their office for a visit. It's a great way to stay in touch with the future.

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2006-2007 CALENDAR

MEMBERSHIP EVENTS & MEETINGS

Date	Time	Description	Location
Sept 13, 2006	9:00 AM	Apprenticeship Program Orientation Meeting	AIU Bldg, Waterworks
Oct 12, 2006		Corps of Engineers - Katrina and New Orleans	ESWP Building
Nov 9, 2007		Ethics	ESWP Building
Dec 2, 2006	TBD	Holiday Party	
Jan 11, 2007		Open	
Feb. 10, 2007	8:00 AM	Local Mathcounts Competition	University of Pittsburgh
Feb. 24, 2007	TBD	Engineer's Week Banquet	TBD*
Mar 8, 2007		American Bridge Engineers	
Apr 12, 2007		Open	
May 10, 2007		Open	

BOARD OF DIRECTION MEETINGS WILL BE HELD ON: Sept. 14, 2007, Oct. 12, 2006, Nov. 9, 2006, Jan. 11, 2007, Feb. 8, 2007, Mar. 8, 2007, Apr. 12, 2007, May 10, 2007 and June 14, 2007

All BOD meeting are to held @ 5:30PM @ the ESWP Building pending further notice.