



# DOS PUEBLOS ENGINEERING ACADEMY FOUNDATION

*"Supporting engineering education on the South Coast"*

*DPEAF Newsletter for Friends, Supporters, and Alumni – Fall 2011*

## Elings Center For Engineering Education Dedicated!



### **Hundreds of Supporters Gather to Celebrate the Opening of the New \$6 Million Complex at October 1st Ribbon Cutting**

Dr. Virgil Elings, who donated \$1 million to the Dos Pueblos Engineering Academy, cut the ceremonial ribbon at 4 p.m. on Saturday, October 1 at Dos Pueblos High School, signaling

completion of the \$6 million facility, built by Schipper Construction, and kicking off the long-awaited opening of Elings Center for Engineering Education. Hundreds of supporters were there to celebrate. Funding of \$3 million came from a 2007 state grant and a matching amount of \$3 million was raised in a capital campaign spearheaded by the Dos Pueblos Engineering Academy Foundation.

An enthusiastic Amir Abo-Shaeer said, "The new facility will give the Engineering Academy the equipment and space to make four-year project-based education a reality. The DPEAF will be a model for the future of education and we will use the Elings Center for community outreach and teacher training. I can't wait to get in there and start working! This could not have happened without all the volunteers, parents, friends, corporate sponsors, and district and county supporters who have been with me through this intense and exciting period!"



Dr. David Cash, superintendent of Santa Barbara Unified School District, added, "I am very proud of what the students and staff have accomplished. The program makes a statement for relevant curriculum to get students engaged with real 'contextualized learning.' The nice new facility says to students and the community that the program is important. What happens inside the building will excite students." He went on to say: "We are very proud of the amazing student outcomes Mr. Abo-Shaeer has been able to accomplish with the academy to date, and we are confident this new facility will vastly expand opportunities for student learning, which is the bottom line for all of us."

Dos Pueblos Principal Shawn Carey said, "We are so thrilled to be opening the Elings Center for Engineering Education in order to accommodate the expanding Dos Pueblos High School Engineering Academy. The Academy offers students a transformative educational experience based on a vision of integrated, project-based learning that equips students with the skills they need to pursue success in a variety of 21st-century careers. The new facility is not only expressly designed to meet the needs of the Academy students, but will allow us to extend the benefits of the Academy experience to more than 400 students over the next four years. I am confident we can expect even stronger learning outcomes, community partnerships, and program diversity as a result."



The new facility, named in honor of Dr. Virgil Elings, reflects his belief in creative learning opportunities. Asked why he chose to support the Engineering Academy in such a big way, Dr. Elings said, "Life is about opportunities and taking advantage of them. I am trying to help make opportunities come true. The Engineering Academy is all about that. Amir [Abo-Shaeer] knows his students have to take a lot of tests, and that's reality. But outside of that, he makes sure they actually get educated. 'Educated' is not passing a test."

His advice to students: "Learn more math. It is the one kind of book learning that I believe in because it is useful in so many areas like engineering, physics, and everyday life. Amir and the Engineering Academy understand this." Dr. Elings is a local UCSB Professor Emeritus, inventor, businessman, and community leader. He founded Digital Instruments, a company focused on developing and manufacturing custom electronic applications.

## Elings Center for Engineering Education Capital Campaign Wrapping Up!

It's not too late to get your name on the wall of the new Elings Center for Engineering Education! \$5,000 will get you a 4 x 12 inch plaque, and there are a limited number of naming opportunities remaining for rooms and equipment. Please see <http://www.dpeaf.org/capital.php> for details.

A full listing of our generous supporters for the capital campaign can be found at <http://www.dpeaf.org/donations.php>. The largest donors are Dr. Virgil Elings, the Change Happens Foundation, Jeff Elings, Raytheon Company, TABASGO Foundation, Anne and Michael Towbes, Women's Fund of Santa Barbara, The Robert T. Hubbard Fund, Diana and Simon Raab, The Outhwaite Foundation of Santa Barbara, and some anonymous individuals.

## DPEA Seniors Tutor Elementary and Junior High Students

This fall seven volunteer DPEA seniors are tutoring younger students as part of the academy's community outreach program.

Three seniors are helping coach the FIRST Lego League robotics team at Hollister Elementary School, with two focusing on teaching students new to the program and the third focused on helping the more experienced students prepare for their November competition.



Four other DPEA seniors are tutoring science and math to students enrolled in the AVID program at Goleta Valley and La Colina Junior High Schools.

AVID targets students in the academic middle who have the desire to go to college and the willingness to work hard. Typically, they will be the first in their families to attend college, and many are from low-income or underrepresented minority families.

The DPEA is committed to service learning. Opportunities such as these permit high-achieving academy seniors to share their passion for learning with younger students interested in math and science, and serve as academic role models. Additionally, the experience helps the seniors learn how to become effective teachers. Finally, with the help of a grant awarded by the Lounsbery Foundation, these activities help provide financial credit towards robotics competition travel expenses. Plans are underway to expand these opportunities next year.

## DPEA Expansion Begins With Class of 2015

Heretofore training 32 students per year, this year the DPEA began its planned expansion by enrolling 108 freshmen this fall. The Academy will thus phase in its full complement of 400 students over the next 3 years, substantially enhancing the breadth and overall educational impact of the program.

## Alumni Corner

The DPEA has thus far graduated 6 classes of D’Penguineers for a total of 187 alumni! Academy graduates have an excellent track record of college entry, including a broad selection of top universities. A listing of the colleges attended by program alumni and their major fields of study can be viewed at [www.dpeaf.org/alumni.php](http://www.dpeaf.org/alumni.php).

With the ongoing expansion of the Academy from 32 to 100 positions per year, the cumulative number of graduates will rapidly increase. The Foundation is currently working to update its database of alumni with hopes of ultimately establishing a formal alumni association.



## Alumni Network With DPEA Seniors To Provide College Advice

Eighty-nine DPEA alumni have kindly agreed to provide advice about their colleges and major fields of study to current DPEA seniors. This is an impressive 94% of the alumni we have thus far been able to contact! We are very excited about this program, as it permits program seniors to gain insider perspectives on the strengths and opportunities at various colleges and universities – all from someone with their same DPEA background. We thank our alumni for this generous use of their time to benefit DPEA students.

### Alumnus Profile: Karisa Daniels Works for Google

Karisa Daniels (DPEA class of 2007) came to Dos Pueblos fully expecting her primary focus to be theater. As a freshman, she took physics with Mr. Shaer and absolutely loved the new hands on approach he brought to the subject. At this time the engineering academy didn’t even yet exist. Karisa later took AP Physics and was asked by Mr. Shaer to join Robotics. As a senior she was responsible for keeping all of the sub teams on track, and actively participated in several including apparel, panel building, and presentation. Her theater experience provided her poise for the robotics team’s frequent public presentations.

The DPEA had a profound impact upon her educational course. “I didn’t really think about engineering as an option until the Academy. It really



opened my eyes to what I was capable of.” She subsequently was accepted at UC Berkeley as a major in Engineering Physics. During each of her four years there she also participated in UC Choral Ensembles. “I think it’s really important to have a well balanced life. I could not have made it through four tough years of physics and engineering if I hadn’t been singing every other day.”

While at UC Berkeley Karisa worked in their Information Services and Technology division. Upon graduation she was hired at Google, where she now works as a Technical Services Associate for their DoubleClick AdExchange program. In this role she works with publishers to optimize their website revenues. “I love my work environment. Not only is Google one of the greatest places to work of all time, but everyone on my team is phenomenal.” She credits her experience with DPEA as enhancing her business skills and her communications confidence.

Her advice for current DPEA students? “Work dynamically. Have the flexibility to adjust your process. Give constructive feedback to others.”

*Condensed with permission from a student newsletter article by Erendiz Tarakci, DPEA class of 2013.*

## **DPEA Sponsors**

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