

K-12 is Turning Some Korners

K-12 Korner—Connecting Engineers with Kids

By James J. "Jim" Kunard, PE, FES Palm Beach Chapter President

The 2008-2009 K-12 Committee, led by Jennifer E.C. Porter, PE, was determined to keep the yellow bus of engineering advocacy on the road, and shifted into a higher gear at the FES/FICE Annual Summer Conference. For the second year in a row, a breakout session for engineer volunteers, K-12 committee chairs, school district administrators, career specialists and teachers was held. The event welcomed over 35 attendees.



The agenda was replete with determination and optimism. Engineer Porter introduced the first speaker, past chair of the K-12 Committee John Hall, PE, FNSPE (shown above during the annual conference general session). He shared some insight on how FES is engaging the Florida Department of Education to increase the quantity and quality of engineering in the state's curricula—a goal inspired by Dr. Ioannis Miaoulis. John's intent is to modify Florida's system of education to include engineering at early levels and sustain it through secondary education.



Our second speaker, Laura Sessions, PhD of the South Florida Science Museum (SFSM), has worked

interactively with the School District of Palm Beach County (SDPBC) with the A²Sci project to increase success in science topics related to the FCAT for 4th and 5th graders. The Palm Beach Chapter has a growing relationship with the SFSM, and we were delighted when she agreed to talk about the museum's educational outreach efforts. The SFSM and other Florida museums support the Engineering is Elementary (EiE) program which "Teaches the Teachers" in the application of science to everyday uses. The SFSM also provided an example of an EiE hands-on event for the children of the conference and the K-12 meeting attendees.



The meeting continued with the return of the conference's keynote speaker, Director of the Boston Science Museum Ioannis Miaoulis. He inspired us to increase STEM

student achievements in our schools. One of the keys is grabbing their interest early and then keeping it—and to do that, you have to go where they are—in our schools. Dr. Miaoulis said that our efforts will truly unlock our undiscovered national talents, and advance so many desirable goals which includes more high-paying careers for our children, better technological advancement for our country, and greater business opportunities on the global market. We can also break through the stereotypes we often saddle ourselves and our children with, and open greater success in science and engineering to girls, who are as inquisitive and creative as our boys but historically are under-represented in the industry.

To wrap up the meeting, I shared the Palm Beach Chapter's K-12 program successes and goals. This included over 500 man-hours of our members' time donated to education in the 2008-09 school year. The chapter is aiming for a higher number this

year. The chapter has also decided to support an already active and healthy SDPBC efforts with the SECME and Project Lead The Way (PLTW). FES greatly appreciates the school board's direction and commitment to applied science—opening the way to high-paying engineering careers for our progeny. Special thanks to SDPBC Specialist/Career Education Jim Politis, for attending the meeting. We are very proud of our school district. SECME is a grade 3 through 12 afterschool program that culminates in the annual Olympiads. At the Olympiads, the students compete with the balsa bridges, mousetrap cars, and pressurized soda bottle rockets that they created during the year, and also engage in math and science competitions. Poster and banner judging heightens the fun and anticipation, and builds teamwork. K-12 offers support with guest speakers, hands-on afterschool activities, and judges for the competitions.

PLTW is a national program that includes a middle school component called Gateway to Technology. It is a solid career path for students here that FES really needs to support everywhere it exists in Florida. Participants in PLTW are provided with tools to be successful students in college, and can even receive college credits. FES K-12 brings help in the form of a variety of speakers from all engineering disciplines. Not only do we hope to include more man-hours, we hope to include FES Florida Atlantic University student-chapter college students as mentors. Our chapter goal is to increase the number of all types of students in Palm Beach County heading toward engineering careers, while keeping an eye out for students who are girls and minorities by aligning them with our professional women and minority engineers wherever possible.

Despite all the motivating information, and our successes, we still feel like we're still near the bottom of the "K-12 Kurve"—with lots of room to grow. We're ready for the challenge. ■

