

Afternoon Workshops: May 2nd, 2008

Workshop One - *FLATE Center* (Jodi Sutton, FLATE Curriculum Coordinator, FLATE)

Description: Knowledge and technology in today's advanced manufacturing world changes at a speed faster than the time it takes to actualize school curricula and textbooks. In response, FLATE has designed a collection of instructional and student resources ("Made in Florida" Learning Challenges) for middle and high school students and teachers. These resources provide teachers the opportunity to engage their students with relevant, authentic, and sometimes unresolved challenges faced by manufacturing companies today. This workshop will explore the "Made in Florida" Learning Challenges and discuss how you can use them in your classroom to enhance your lessons and expand your students' awareness of the high-tech world of manufacturing. FLATE "Made in Florida" Learning Challenges are aligned with Florida's Sunshine State Standard for Science and Mathematics and the Curriculum Frameworks for Technology Education.

Workshop Two - "*Engage in Engineering!*" (Michele Crowl, EiE Program Coordinator, South Florida Science Museum)

Description: Engaging hands-on experiences will help you explore what technology and engineering education is all about, and what it can look like in the elementary classroom. This workshop will introduce key content and themes that are part of engineering and technology education at the elementary level. It will focus on activities that teachers can instantly implement in their classrooms. These lessons are designed to easily integrate with the science already being taught. Throughout the workshop, participants will take part in hands-on design challenges and discuss strategies of inquiry-based facilitation.

Workshop Three - "*Aspire: SWE Middle School Outreach*" (Dr. Deb Hall, Tracey Whaley, PE and Kathleen Ruvarac, PE)

Description: Engineering is innovation....it's invention...it's one of the most exciting and essential fields there is. In order to help engineering thrive and remain diverse, we need to share the excitement with girls in grades 6-9. At the Society of Women Engineers (SWE) we strive to diversify the field by encouraging girls in grades 6-9 to capture the spirit of innovation and open their eyes and minds to a rewarding multi-faceted profession. That's what we aspire to. There is no better time than now to show girls that engineering and technology are exciting and opportunity-rich careers. And meaningful—they could work in important areas such as the environment, product safety, mass transportation, and medical devices. This workshop will provide you with curriculum and learning resources, special outreach programs for girls, and ideas that you can immediately put to use to inspire girls to be part of the world of engineering.

Workshop Four - "*An Engineering Rocketry Workshop*" (Leslie Gold, KSC – PA State University)

Description: This will be a hands-on workshop that encompasses rocketry. It will include a demonstration of Newton's Laws of Motion, construction of simple rockets and tracking the rockets. Appropriate engineering principles will be discussed.

Workshop Five - *"West Coast IEEE Chapter Presentation on their teacher in-service program and a hands-on workshop on designing/building a robotic arm."* (Sean Denny, IEEE FWCS TISP Chairman)

Description: The workshop will open with an overview of the IEEE teacher in-service program that will include 2005 pictures of teachers / students working on robotic arms. The workshop will then continue as we go to our site (via the web) and work as teams on how to design a robotic arm.

Workshop Six - *"UCF-CECS Engineering Outreach Overview and discussion about plans for the 2009 Florida Engineering Education Conference"* (Bruce Furino, Director, CECS Outreach, UCF)

Description: There will be a brief overview of our Outreach programs (to include the ISTF, Engineering Road Show, SECME Regional and Community of Tomorrow. We will then discuss plans for a possible two-day engineering conference in 2009. Suggestions will be welcomed regarding themes, speakers and workshops.