Program Highlights for the Month of March 2003

NSF Research Experience for Teachers (RET) Project
This NSF RET project provided a three-day hands-on nanotechnology training and research experience for 12 high school science teachers from Virginia at the Penn State Nanofabrication Facility on March 19-21. Under the auspices of the NSF, this project took the educators professional development concepts of the NMT Partnership beyond the boundaries of Pennsylvania through an alliance with the Initiative for Nanotechnology in Virginia (INanoVA). INanoVA is a statewide Virginia initiative involving higher education, national laboratories, state and local education, economic development organizations and private industry. The teachers were from Northern, Central, Southwestern, and Southern regions of Virginia along with the Richmond area.

Some NMT Partnership Activities:
- Butler County Community College made three separate visits on March 4th, 6th, and 11th to the Nanofab with 27 BCCC students and faculty. The students came to learn about the NMT program and tour the facility.
- Ms. Phi-Oanh Pham gave a presentation on the “World of Nanotechnology” to 150 Penns Valley Area Middle School students from Centre County on March 7th. The students window toured the Nanofab and other laboratories in the MRI building.
- The NMT Partnership participated at the Penn College of Technology’s Career Day on March 10th with over 100 students visiting the nanofabrication session.
- Luzerne County Community College visited the Nanofab with 11 LCCC students and local high school teachers on March 14th to learn about the NMT program and tour the facility. Montgomery County Community College also visited the same day with 4 MCCC students.
- Students attending the PA Junior Science & Humanity Symposium toured the Nanofab on March 24th.
- Harrisburg Area Community College visited the Nanofab with 16 high school students from the Harrisburg area. The students came to learn about nanotechnology, the NMT program, and to tour the facility.

Up-coming Activities

May 5-7
Hands-on Nanofabrication Workshop for Educators
This workshop will be a “hands-on” exploration of the world of nanotechnology. Participants will learn about the growing applications of nanotechnology in many industries including the biotechnology, MEMS, optoelectronics, chemical, and nanoelectronics industries. The fundamentals of nanofabrication processes and tools will be covered and practiced through hands-on processing labs in the class 10 cleanrooms of the Penn State Nanofabrication Facility. This three-day workshop is broken down to daily morning lectures by nationally recognized Penn State researchers and engineering staff and afternoon lab sessions in nanofabrication. Further information and registration are available on the website link http://www.nanofab.psu.edu/events/default.htm

Nanotech Camps
Nanotech Camps are opportunities for secondary school students to learn about nanotechnology and nanofabrication. Students participate in classroom and cleanroom lab activities exploring the aspects of nanotechnology including nano-electronics, nanobiotechnology, and nano-optics. Students are introduced to the nanofabrication processes and to the tools used in these processes in the Penn State Nanofabrication Facility. Career opportunities are explored, and educational pathways to nanofabrication careers are discussed.

There are one-day Nanotech Camp opportunities for students in 7th grade and above throughout the year. These one-day camps are focused on introducing nanotechnology to students and on increasing student awareness of the impact of this technology and its career opportunities. There are also three-day Nanotech Camp opportunities only offered during the summer for 9th grade and above students. The three-day camps are focused on a more detailed look at nanotechnology, nanofabrication, career opportunities and educational pathways. Further information is available at the website link http://www.nanofab.psu.edu/ATE/Education_Programs/k12.prog.htm.

For further information on these Highlights or the NMT Partnership, contact:
- Phi-Oanh Pham (814) 865-6962 ppham@engr.psu.edu
- Doug Fenwick (717) 866-9659 dfenwick@engr.psu.edu
- Lisa Daub (814) 865-9635 ldaub@engr.psu.edu