New Organization – New Bulletin:

On February 18, 2004 Penn State University announced the formation of the Penn State Center for Nanotechnology Education and Utilization (CNEU). CNEU is now the home of the Pennsylvania Nanofabrication Manufacturing Technology (NMT) Partnership and its NSF-sponsored regional Advanced Technology Education (ATE) Center. It is also the PSU home of the NSF National Nanofabrication Infrastructure Network (NNIN), the national NSF nanotechnology resource for enabling academic and industry R&D. This newly created center is directed by Dr. Stephen Fonash, Kunkle Chair Professor of Engineering Science.

The CNEU is dedicated to research, development, and education across all aspects of micro- and nanotechnology. This new Center now has the resources to address the incorporation of nanotechnology into K-16 education, graduate education, and industry applications. As CNEU addresses these missions, we will keep you apprised of our activities with this CNEU Bulletin.

CNEU – Highlights of Upcoming Activities:

NSF National ATE Center for Nanofabrication Manufacturing Education Planning Meeting: In 2003, the CNEU was awarded a planning grant by the NSF to study the feasibility of a National ATE Center on Micro- and Nanomanufacturing Education, focused on associate degree level technical education. To ensure participation in the planning process by private industry, community and technical colleges, universities, and other interested organizations and individuals, a series of fly-in meetings are now being held. All community and technical colleges, universities private companies and others with interest are encouraged to attend one or more of the fly-in meetings. A very successful first meeting was held Tuesday, April 13, 2004 in Chicago at the Hyatt Regency O’Hare. Future meetings to be announced.

ATE Center Exhibit: The ATE Center will be an exhibitor at the forthcoming American Association for Community Colleges Conference (AACC) to be held in Minneapolis, MN from April 24-27, 2004.

Hands-on Nanofabrication Workshop for Educators: Register now for this May 5-7, 2004 workshop. Participants will learn about the growing applications of nanotechnology in many industries including the biotechnology, MEMs, optoelectronics, chemical and electronics 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. For further information on the workshop please contact Bill Mahoney at bmahoney@engr.psu.edu. To register for the workshop please contact Ms. Lisa Daub at 814-865-9635 or ldaub@engr.psu.edu.

Nanotech Camps: There is one remaining three-day Nanotechnology Introduction Camp available for Summer 2004 (June 23-25). These camps, for students in 9th grade and above, are a great opportunity to learn about nanotechnology and nanofabrication. Careers are explored and educational pathways to nanofabrication careers are discussed. The last two three-day Nanotech Veterans Camps for this summer are also available (July 26-28, and 28-30), and will be tailored for students who are veterans of previous three-day camps. For further information on Nanotech Camps, please contact Ms. Lisa Daub at 814-865-9635 or ldaub@engr.psu.edu.

CNEU Program Highlights for February and March 2004

NMT Partners / NSF National Visiting Committee Meeting: The NMT Partners / NSF National Visiting Committee Meeting was held March 8-9, 2004 at the Penn Stater Conference Center. The theme of the meeting was strengthening science, technology, engineering, and mathematics (STEM) teaching and learning through nanotechnology. There were over 65 people in attendance at the meeting, from Partner Institutions across the commonwealth, the NVC guest members, out-of-state guests from Ohio, Michigan, Wisconsin, and Colorado, and a representative from the Institute on Education and the Economy/Community College Research Center at Columbia University.

ATE Center Exhibit: Feb 29-Mar 3: The ATE Regional Center exhibited at the League for Innovation’s – 2004 Innovation Conference held in San Francisco, CA.

NMT Partnership Outreach Presentations:
Representatives from the Bureau of Career and Technical Education, Bethlehem Area Vocational Technical School, Northampton County Area Community College, Penn State CNEU presented on February 24 at the Pennsylvania Educational Technology conference in Hershey, PA. The title of the presentation was Nanotechnology 2+2+2 Workforce Pipeline.

NMT Partnership Outreach Tours:
The following groups made a visit to CNEU / the Nanofab facility to learn about nanotechnology, NMT programs and to tour the facility:

- Penn College K-12 outreach – February 10 - 22 high school teachers and administrators involved in the 2+2+2 program
- Global Knowledge Exchange Organization members – February 10
- Butler County Community College – March 2 – 20 attendees
- Penns Valley High School – March 5 – 140 attendees
- Luzerne County Community College – March 18 – attended by students and educators from the surrounding area.
- Harrisburg Area Community College – March 23 – 6 attendees
- Penn College – March 24 – 9 attendees

For Further Information on these Highlights or the NMT Partnership, contact:

- Bob Ehrmann  814-865-7558  rke2@psu.edu
- Lisa Daub  814-865-9635  ldaub@engr.psu.edu