The CNEU Mission:

The Penn State Center for Nanotechnology Education and Utilization (CNEU) is the home of the Pennsylvania Nanofabrication Manufacturing Technology (NMT) Partnership and its NSF-sponsored regional Advanced Technology Education (ATE) Center. It is also the Penn State home of the NSF National Nanofabrication Infrastructure Network (NNIN), the national NSF nanotechnology resource for enabling academic and industry R&D. The CNEU is dedicated to research, development, and education across all aspects of micro- and nanotechnology. The Center resources are focused on addressing the incorporation of nanotechnology into secondary education, into graduate education, and into industry applications.

CNEU – Highlights of Upcoming Activities:

NSF National Center for Manufacturing Education in Nanofabrication 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 in Chicago on April 13, 2004. The second meeting was held June 8, 2004 in Los Angeles, California. The final planning meeting is scheduled for June 29, 2004 in Orlando, Florida from noon to 4PM at the Hyatt Regency Orlando International Airport. There is no fee to attend these fly-in meetings. For more information and to register for this meeting, please contact Ms. Tina Crosson at 814-863-2955 or tcrosson@engr.psu.edu.

Nanotech Camps: There are presently two remaining three-day Nanotechnology Introduction Camps available for summer 2004 (June 23-25 and July 26-28). 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. A Nanotech Veterans Camp will be piloted at the end of July. This camp 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.

Nanotechnology Learning Tools Development Workshop for Educators: A three-day workshop will be held August 25-27, 2004 at the CNEU facilities in University Park. This will be a “working” event where secondary level kits (learning tools) will be piloted and will be further developed by high school educators. The Pennsylvania Academic Standards for Science and Technology will be a guiding resource for workshop participants to complete these learning tool packages. These learning tools will then be offered to science teachers statewide to enhance, update, and reinforce their teaching of fundamental secondary science curricula. For more information or to enroll in this workshop, please contact Lisa Daub at 814-865-9635 or ldaub@engr.psu.edu.

2004 Annual Fall NMT Conference: The Annual Fall NMT Conference will be held October 7 & 8, 2004 at the Penn Stater Conference Center. The theme of the conference is student outreach. For further information on this event, please contact Ms. Lisa Daub at 814-865-9635 or ldaub@engr.psu.edu.

CNEU Program Highlights for April and May 2004

Pennsylvania Nanotechnology Conference, May 25-27: Center personnel and many representatives from partner organizations attended the 2nd Annual Pennsylvania Nanotechnology Conference in Philadelphia, PA. Penn State and NMT partner personnel represented the NMT partnership on several very successful discussion panels. The Center also had a tabletop exhibit throughout the conference highlighting CNEU activities. The Conference was well attended by over 450 people who came from the education community, industry, and the investment community.

Hands-on Nanofabrication Workshop for Educators: This workshop was held from May 5th to May 7th. Twenty-four (24) participants learned 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 were covered and practiced through hands-on processing labs in the class 10 clean rooms of the Penn State Nanofabrication Facility.

ATE Center Exhibit, April 24-27: The ATE Regional Center exhibited at the League American Association for Community Colleges Conference (AACC) held in Minneapolis, Minnesota.

NMT Partnership Outreach Presentations: Center representatives presented an introduction to Nanotechnology and Nanotechnology Careers to over 300 prospective students and faculty at Penn State Wilkes Barre on April 6, Penn State Berks on April 19, and at the Pittsburgh International Science and Technology Festival on April 22.

University Day: Center representatives and several NMT students attended a University Day at Fairchild Industries in Mountaintop, PA on March 26, 2004. Fairchild is in the planning stages of a large expansion for which NMT graduates would be good potential employees.

NMT Partnership Outreach Tours: Since the release of the previous newsletter, the center has received visits by 220 people from 20 organizations (9 high schools, 4 community colleges, 2 universities, and 5 professional organizations).

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

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