Center for Nanotechnology Education and Utilization Monthly Bulletin – September 2004

The Penn State Center for Nanotechnology Education and Utilization (CNEU) is the home of the Pennsylvania Nanofabrication Manufacturing Technology (NMT) Partnership, the Advanced Technology Education (ATE) Center for nanofabrication manufacturing education. 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 Mission:
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 K-12 education, into post-secondary education, and into industry applications.

CNEU – Highlights of Upcoming Activities:

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 Career and Educational Pathways. Industry perspectives, academic pathway models, and NMT alumni work and educational experiences will be highlighted. This promises to be a very valuable venue for industry representatives and prospective students to come together and learn about the opportunities that the NMT program provides. For further information on this event, please contact Ms. Lisa Daub at 814-865-9635 or ldaub@engr.psu.edu.

Nanofabrication Workshop for Educators: Registration is continuing for this three-day workshop to be held November 10-12. 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 clean rooms of the Penn State Nanofabrication Facility. For further information on the workshop please contact Bob Ehrmann at rke2@psu.edu. To register for the workshop please contact Ms. Lisa Daub at 814-865-9635 or ldaub@engr.psu.edu.

Fall 2004 NMT Class Update: The Fall 2004 semester began on August 31. This semester there are 19 students from 12 partner institutions who are fully engaged in this semester’s lab and lecture activities. The class attended the Penn State Career Fair on September 23rd.

CNEU Program Highlights for August and September 2004

NNIN Research Experience for Undergraduates (REU) Program Convocation: The NSF REU Convocation for the entire nation-wide NNIN was held August 11-14 at Penn State. This Convocation program brought together 72 select undergraduate students from 59 colleges and universities from across the nation. These students performed their summer research experience at one of the 13 NNIN partner institutions. Concurrent presentation sessions were held at 2 PSU campus locations. The entire event was web-cast.

Nanotechnology Learning Tools Development Workshop for Educators: Nineteen secondary science educators (Biology, Chemistry, and Physics) from all across Pennsylvania attended a three-day workshop held August 25-27 at the CNEU facilities in University Park. This was a “working” event where secondary level kits (nanotechnology learning tools) were piloted and evaluated. The Pennsylvania Academic Standards for Science and Technology was used as a guiding resource for workshop participants to evaluate these learning tool packages. As a result of the feedback attained at this workshop, science education experts have been added to the development team and the learning tools are currently in the revision stage. The overall objective is to continue to explore the feasibility of utilizing these nanotechnology learning tools to enhance, update, and reinforce the teaching of fundamental secondary science curricula.

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

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