building communities | serving the NNI

The NCN's mission is to serve the nanotechnology community—its web site, is becoming the 'first stop' for students, educators, and researchers in academia and industry seeking resources in nanoelectronics, NEMS, and nano-bio devices:

- On-line simulation services
- On-line courses, course modules
- Short courses and seminars
- Discussions, debates, forums, and collaborative services

nanoHUB.org

partners in accomplishment

industrial | gain a close connection to NCN students, staff, and faculty while participating in and helping shape NCN programs

academic | collaborate on research and education and broaden the scope of NCN

about us

The Network for Computational Nanotechnology has a mission to connect theory, experiment, and computation in a way that moves nanoscience to nanotechnology. In the process, NCN researchers produce new algorithms, approaches, and software tools with capabilities not yet available in the market. As part of the NSF's infrastructure for the National Nanotechnology Initiative, the NCN engages the community through workshops, seminars, and novel educational approaches. Its Web site, **nanoHUB.org**, is a source of on-line resources including a unique Web-based capability that put nanotechnology simulation one mouse click away.

contacts

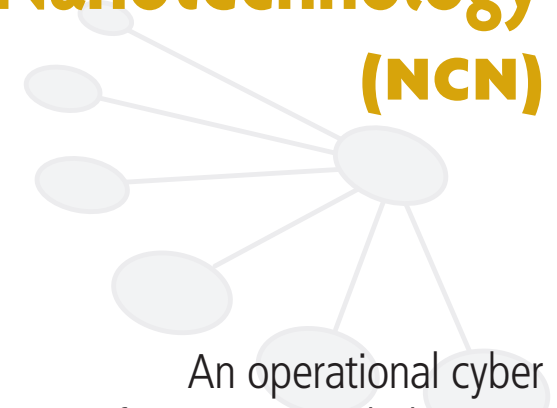|	
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Network for Computational Nanotechnology (NCN)

An operational cyber infrastructure to help move **nanoelectronics NEMS nano-bio** from nanoscience to nanotechnology

Purdue University
Morgan State University
Northwestern University
Stanford University
University of Florida
University of Illinois at Urbana-Champaign
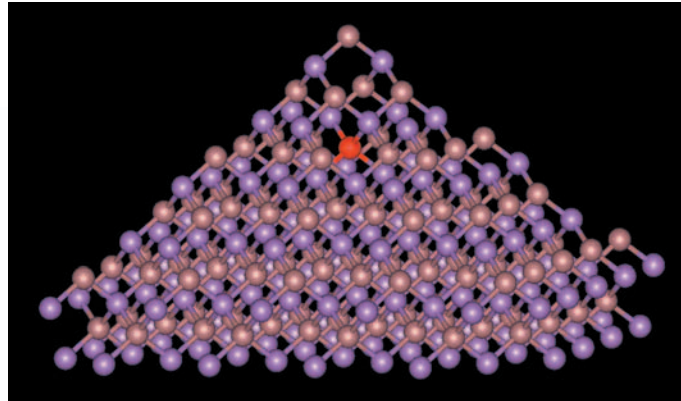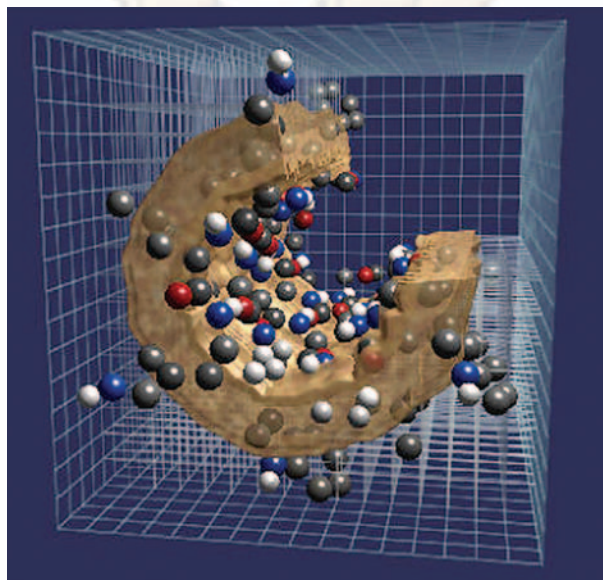University of Texas at El Paso

nanoHUB.org

mission | vision

The Network for Computational Nanotechnology is a multi-university, NSF-funded initiative with a vision to be the "place" where theory, experiment, and computation meet and move nanoscience to nanotechnology.

The NCN has a mission to serve the U.S. National Nanotechnology Initiative through:

- Research that moves nanoscience to nanotechnology
- Innovative, 'bottom-up' approaches to education
- Leadership through meetings, workshops, discussions, and debates
- Software tools that address new challenges
- A unique cyber infrastructure that connects people, facilitates education, and delivers simulation services on-line without requiring any software installation.

research

The NCN is an example of how theory and simulation can accelerate progress in:

nanoelectronics | Reinventing electronics from the bottom up while exploring applications in computing, communications, sensing, energy conversion, etc.

nano-electromechanical systems (NEMS) | Making NEMS an engineering discipline by developing design principles and CAD tools while exploring applications in metrology, switching, sensing and actuation.

nano-bio devices and systems | Exploring applications of nanoelectronics and NEMS to biology and medicine.

computation and software | Connecting computer scientists and applied mathematicians to problem-driven scientists and engineers to address large-scale problems and develop community codes for nanotechnology.

education | outreach

The NCN captures the interest of young people and prepares them to turn the promise of nanoscience into real nanotechnologies through:

- an innovative "nanocurriculum" that teaches engineers from the bottom-up
- a Summer Undergraduate Research Institute (SURI) that introduces students to nanotechnology through participation in cutting edge research
- a summer school on computational nanotechnology for graduate students and professionals
- a software bootcamp to provide students with a basic proficiency in software practices and numerical analysis.