

NJIT



New Jersey's Science &  
Technology University

*THE EDGE IN KNOWLEDGE*



# Efforts in Trenton

## NJIT FY 2007 Budget Priorities

- **Operating Support: \$1.8 million** The investment, 3.5% of the NJIT base appropriation, is essential to support inflationary increases and maintain general operations without significantly increasing the financial burden on the students and their families.
- **Salary Program: \$5.1 million** Collective bargaining agreements have been accepted by all unions consistent with the State-wide pattern for across-the-board salary increases. Eligible employees also participate in a merit program. Full funding for the FY07 salary program is especially important in view of the fact that the FY06 salary program was under funded by \$2.3 million.
- **Homeland Security: \$1.0 million** Currently, there is little to insure that technology purchased by local, county, state and federal levels will lend itself to integrated usage to create a comprehensive web of protection from terrorist attacks. To address this issue, Executive Order No. 111 created the Homeland Security Technology Systems Center at NJIT in June, 2004. The Center's focus is to leverage New Jersey's core research strengths and to develop partnerships to insure basic standards of performance and inter-operability of technologies.
- **The New Jersey Center in Newark for Science, Technology, Engineering and Mathematics Education: \$1.5 million** NJIT proposes to acquire and renovate Newark's Central High School, which is being replaced by a new facility opening in the fall of 2007, to serve as the location for the State's flagship center for science, technology, engineering and mathematics (S&T) education, "New Jersey's S&T Education Center in Newark," to assist in improving the quality of all levels of pre-college teaching and learning in New Jersey's school systems. NJIT, as the State's science and technology research university, is uniquely positioned and qualified to serve as the State's leader in this area. NJIT will acquire Central High School with its own funds, but will require additional funding to renovate the structure and will work with Treasury, NJDEA, and NJEFA to develop a complete financing plan for this purpose. \$1.5 million is requested in FY07 to begin the design and development of specific plans for the building.
- **Institute for Entrepreneurial Leadership (IFEL): \$1.0 million** IFEL is an independent, not-for-profit organization housed in and supported by the NJIT technology business incubators that supports inner city economic development through entrepreneurship. State funding would allow incubation services to women and minority owned businesses, IFEL's focus, to create economic opportunities for local community residents regardless of whether the business is technology focused or not.

## *THE NEW JERSEY CENTER IN NEWARK FOR SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (S&T) EDUCATION*

**Proposal:** NJIT proposes to acquire and renovate Newark's Central High School, which is being replaced by a new facility opening in the fall of 2007, to serve as the location for the State's flagship center for science, technology, engineering and mathematics (S&T) education, "New Jersey's S&T Education Center in Newark," to assist in improving the quality of all levels of pre-college teaching and learning in New Jersey's school systems. NJIT, as the State's science and technology research university, is uniquely



qualified to serve as the State's leader in this area. NJIT will acquire Central High School with its own funds, but will require funding to renovate the structure and will work with Treasury, NJDEA, and NJEFA to develop a complete financing plan for this purpose.

### Rationale (Benefits to New Jersey)

- New Jersey's economy is undergoing a dramatic transformation to an economy driven by technology industries and the application of technology to traditional industries. Our young people must have advanced understandings of S&T subjects, complex problem-solving skills, and the capacity to integrate and apply their knowledge and skills in new situations. These are also the keys to economic opportunity for disadvantaged students whose success is critical for New Jersey meeting its future workforce needs.
- In order to attract and retain new high-tech businesses to the State, New Jersey's educational system must have a world-class reputation for providing a broad spectrum of its citizens with advanced S&T literacy.
- There is a direct correlation between the quality of S&T teaching in public schools and the quality of a state's high-tech workforce. To prepare New Jersey's students for the World Class Economy, we must significantly increase the number of highly qualified S&T teachers in the state.

### Goals

- Develop, integrate, and evaluate curriculum, practices and tools that support S&T teaching for all students;
- Offer professional development programs for teachers and administrators in the learning and teaching of S&T subjects;
- Partner with urban, local, and state organizations to develop effective policies concerning the learning and teaching of S&T subjects;
- Encourage students within minority groups to attain excellence in the S&T fields.

# FY07 Federal Appropriation Requests

## ■ Defense

- Advanced Cluster Energetics (\$5M)
  - Nanotechnology; Particle Processing; *Picatinny*
- Disruptive Technology Acceleration (\$5M)
  - Homeland Security; Nanotechnology; *Picatinny*
- Reactive Nanocomposites (\$2M)
  - Nanotechnology; Particle Processing; *Picatinny*
- Homeland Defense Communications Interoperability (\$5M)
  - Wireless Communications; Homeland Security; *Ft. Dix*

## ■ Commerce, Justice, State

- Child Safe Personalized Weapons (\$2M)

## ■ Transportation

- Port Security (\$2M)

# FY07 Federal Appropriation Partnerships

## ■ Defense

- Active Coatings Technology (\$2M)
  - Watts - Clemson; *Picatinny*
- Electro-hydrodynamic Filtration (\$3M)
  - Khusid - Impact Technology; *Office of Naval Research*
- MEMS Inertial Measurement Unit (\$2M)
  - Carr - Curtiss Wright Controls; *Office of Naval Research*
- Fuel Cell (\$2.3M)
  - Iqbal - NanoDiscovery, Inc.; *Picatinny*
- Advanced Photovoltaics for LTAVs (\$5M)
  - Grebel - Auxilia, Inc; Daystar, Inc.; Albany Nanotech; *Air Force Research Lab*

## ■ Energy (TBD)

- Hydrogen Powered Vehicles
  - Watts - American Wind Power & Hydrogen; PANYNJ

Enrollment/Years	$\Delta$ 1996 to 2001	$\Delta$ 2001 to 2005
Beginning Enrollment	7,865	8,854
$\Delta$ CCS-UG only	799	-310
$\Delta$ Mt. Laurel-UG only	135	-135
$\Delta$ Grad	321	-366
$\Delta$ other UG programs	-266	15
Ending Enrollment	8,854	8,058

- GUR “flexibility”
- Broader program offerings
- Campus appearance/neighborhood development