

ABSTRACTS

MOVING UP THE RANKS

#1 nationally among
**AMERICA'S GREAT
WORKING-CLASS
COLLEGES**

- *The New York Times*



#87 among the
**NATION'S TOP
GRADUATE
SCHOOLS FOR
ENGINEERING**

- *U.S. News & World Report*



#38 among the
**BEST ONLINE
GRADUATE
COMPUTER
INFORMATION TECHNOLOGY
PROGRAMS** offered by universities throughout
the country - *U.S. News & World Report*



**One of the
BEST 10 COLLEGES
with great career services**

- *MONEY Magazine*



NJIT continues to be celebrated for both its online learning and campus-based programs—and the upward mobility of its students.

A recent report from *The New York Times* ranked NJIT #1 nationally for colleges with the highest percentage of students from the bottom fifth of the income distribution who end up in the top three-fifths. The study is based on new data analysis by The Equality of Opportunity Project, which compares the financial status of a student's family before they enter college and the graduate's earnings after college.

"Our students know that an NJIT degree is both affordable and a catalyst for career success," said NJIT President Joel S. Bloom. "The fact that our students graduate with an average of nearly three job offers in hand and starting salaries almost 20 percent above the national average shows that they will receive an immediate and lasting return on their educational investment."

MONEY Magazine named NJIT

as one of the top 10 colleges in the nation with great career services. The university ranked fourth among public institutions with a strong combination of well-staffed career centers and young alumni who go on to earn higher-than-average early salaries.

College Factual, a leading source of college data analytics and insights ranked NJIT's information systems (IS) program the best in the country. The program, which recently moved into the newly formed Department of Informatics housed within Ying Wu College of Computing, was ranked #1 out of 333 nationwide and #1 out of 14 in New Jersey, making it the best IS program in the state and the country for the second year in a row.

With a strong emphasis on technical application, the department offers data-intensive research, undergraduate and graduate degree programs that focus on the integration, design, deployment and management

of computing and networking resources and services.

"We are very excited about this newest achievement," says Yi-Fang Brook Wu, associate professor and chair of the informatics department. "With the field of information systems advancing so rapidly, our faculty and degree programs strive to stay current with the latest industry standards. We couldn't have achieved the #1 ranking without the wonderful students, staff and faculty. This honor belongs to everyone."

U.S. News & World Report has ranked NJIT's graduate computer information technology programs 38th among the "Best Online Programs" offered by universities throughout the country.

NJIT also offers other online programs that were mentioned by the report, such as the MBA and graduate programs in engineering. In 2016, BestColleges.com included NJIT among the 25 "Best Online Master's in Engineering Programs."

"We are very pleased to be

included in *U.S. News & World Report's* list of the country's best online higher education programs," said Sotirios G. Ziavras, associate provost for graduate studies and dean of the graduate faculty at NJIT, where students receive innovative and immediately applicable skill-building instruction through 32 advanced online programs. NJIT offers an online MBA, 12 online master's degree programs and 19 online graduate certificate programs in emerging fields such as data mining, network security and information assurance, which culminate in a stand-alone credential and can be applied toward a related master's degree.

"The value of graduate degrees, as well as graduate certificates, cannot be underestimated when it comes to career advancement," added Ziavras. "Not only are they often essential for landing well-paying positions, they help cultivate leadership qualities and contribute to personal growth as well." ■

TWEEN TECH TOURNAMENT

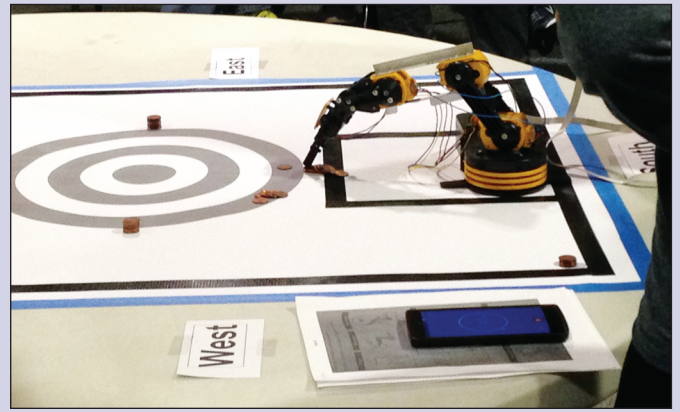
More than 700 New Jersey elementary, middle and high school students hunkered together to test their anatomy and physiology knowledge, launch bottle rockets and maneuver homebuilt electric vehicles at the 2017 New Jersey Regional Science Olympiad (NJSO), hosted by NJIT in January.

The students competed in more than 20 hands-on science competitions that took place in various locations across the NJIT campus, after they prepared for many months with coaching from their science teachers. All the competitions, called “events,” involved teamwork and problem-solving and encouraged STEM learning.

“The Science Olympiad brings together hundreds of students interested in STEM for a fun day of team competitions,” said Suzanne Berliner-Heyman, director for program operations and outreach at the Center for Pre-College Programs, which coordinates the NJSO. “It also exposes the students

to NJIT, a top-ranked national university, and its prominent professors, which we hope further spurs their interest in STEM.”

The university has hosted the regional gathering since 2007. NJIT professors and student volunteers, along with representatives from UPS, PSE&G and Northrop Grumman Corp. supervised some of this year’s events. The top-scoring teams – which included Montville High School and Thomas Edison EnergySmart Charter Middle School (first place), Bergen County Academies Team #1 and Montgomery Upper Middle School (second place), and Livingston High School Team #2 and Alpine Middle School



A robotic arm picks up pennies at the 2017 New Jersey Science Olympiad, hosted at NJIT.

(third place) – will go on to compete in the statewide Science Olympiad.

“This type of event is incredibly important for the advancement of STEM, because it sparks an interest in our students early on, encourages collaboration and provides students with a memorable experience,” offered Steven Romero ‘12 (M.S. in information technology administration and security), who coached the team from HoLa Hoboken Dual Language Charter School, where he is the STEM teacher.

“The competition at NJIT was fierce. While we may have only placed in one event this year, we gained valuable insight through observing other groups on how to approach some of the building events that we struggled with. My students loved the experience and, being the resilient bunch that they are, are already looking forward to next year’s Olympiad and are going back to the drawing board, studying more and reworking designs for devices.” ■

TOY STORY



Krystal Persaud, an adjunct faculty member in the School of Art + Design, and the director of product design at littleBits Electronics, Inc. produced an award-winning tech toy that encourages interactive invention.

The “Rule Your Room Kit” was named one of the top 30 toys for 2016 by *Good*

Housekeeping, one of the top toys of 2016 by *Parents Magazine*, and one of the top 2016 holiday educational STEM toys by *Toys, Tots, Pets & More*. It also received a 2016 Parents’ Choice Gold Award.

The kit is designed to empower children, ages 8 to 13, to “master their domain by transforming everyday objects into awesome touch-activated contraptions.” The product includes a step-by-step guide to create eight touch-activated inventions – like using a banana to move a computer cursor – with countless opportunities for expansion and creativity.

The product, along with other littleBits kits, is designed to introduce children “to the kind of 21st-century skills they will need to succeed in higher education and STEAM (Science, Technology, Engineering, Art, and Mathematics) careers.”

The product is available online directly at littleBits as well as Amazon, Macy’s, Barnes & Noble, Marbles and Microsoft stores. ■



ABSTRACTS



PRESIDENT BLOOM NAMED EDUCATOR OF THE YEAR

NJIT President Joel S. Bloom was named Educator of the Year by the American Council of Engineering Companies of New Jersey (ACECNJ), the leading advocate for New Jersey's consulting engineering profession, which strives to enhance the business practices of professional engineering companies in the planning, design and construction industry. The honor was bestowed at ACECNJ's 46th Engineering Excellence Awards Banquet March 15, 2017.

Each year ACECNJ hosts the Engineering Excellence Awards, a program that celebrates and

recognizes recent accomplishments of New Jersey's engineering industry and contributions that members and member firms have made to society and to their local communities through exceptional engineering design and construction.

Of the award, President Bloom said, "I am very grateful for this recognition, because it is the result of partnerships that NJIT has fostered with industry to both advance innovation and to prepare our students for extraordinary career success upon and long after graduation." ■

END NOTES

NIRWAN ANSARI, distinguished professor in the Helen and John C. Hartmann Department of Electrical and Computer Engineering, led three of his doctoral advisees to attend and present four papers at IEEE GLOBECOM 2016, the flagship conference of the IEEE Communications Society, held in Washington, D.C., Dec. 4-8, 2016. One of the papers, "Optimizing Uplink Resource Allocation for D2D Overlaying Cellular Networks with Power Control," won an IEEE GLOBECOM 2016 Best Paper Award, and Professor Ansari was also honored with the 2016 Technical Recognition Award, the prestigious annual award given by the IEEE Communications Society Ad Hoc and Sensor Networks Technical Committee, with the citation, "for advancing the field of ad hoc and sensor networks."

CESAR BANDERA AND ELLEN THOMAS, assistant professor and associate professor, respectively, in NJIT's Martin Tuchman School of Management, received the Best Research Paper Award for their work on business incubation titled "Social Capital, Density, and Startup Survival" from the United States Association for Small Business and Entrepreneurship® (USASBE) at its annual conference in Philadelphia, Jan. 19-22, 2017.

Professor of Mathematics, **HORACIO G. ROTSTEIN**, was honored by the government of Argentina with a "Premio Raices,"

an award recognizing significant contributions to promoting international collaboration in science and technology. Honorees, who are nominated by their peers and academic institutions, are selected by Argentina's National Directorate of International Relations and Ministry of Science.

KAMALESH SIRKAR, who is a distinguished professor of chemical engineering, acclaimed for his innovations in industrial membrane technology used to separate and purify air, water and waste streams and to improve the quality of manufactured products such as pharmaceuticals, solvents and nanoparticles, has been named a 2016 Fellow of the National Academy of Inventors. He joined more than 750 inventors representing 229 research universities, government agencies and nonprofit research institutions who, in the words of the Academy, "have demonstrated a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society."

DIANA WALSH, senior university lecturer in NJIT's Martin Tuchman School of Management, presented a paper at the USASBE Annual Conference in Philadelphia, Jan. 19-22, 2017. The USASBE is the largest independent, professional, academic organization in the world dedicated to advancing the discipline of entrepreneurship.