

Fall 2015 Newsletter

WELCOME FROM THE CHAIR

Dear Friends of Civil & Environmental Engineering,

While our nation is facing unprecedented economic, technological, political, cultural and infrastructure challenges, the students, staff, faculty, alumni and advisory board of the John A. Reif, Jr. Department of Civil and Environmental Engineering (CEE) have been busy refining and implementing academic, research and service strategic initiatives that are placing our department, NCE and NJIT on the world map. We have well exceeded our 2015 strategic Key Performance Indicator (KPI) goals supporting our commitment to NJIT's strategic plan, *2020 Vision*. Our enrollment in both undergraduate and graduate programs is at an all-time high, exceeding 900 students this fall. Our family of alumni ambassadors is growing at record highs, with the most recent American Society of Engineering Education (ASEE) data ranking us 15th in the nation for the number of civil engineering bachelor's degrees awarded annually. Our excellence in scholarly and research activities continues at an outstanding rate. For this past fiscal year, ending June 30, 2015, our faculty-led research expenditures reached \$5.5 million or about one-fifth of the Institute's.

Our Steel Bridge Team learning community achieved two milestones this year: an unbroken decade of first-place honors at the regional competition with a decisive win, followed by a thrilling sixth-place finish at nationals that earned the team its highest national ranking since entering the competition 20 years ago. Our Concrete Canoe Team also brought home glory, winning first place at regionals with the formidable Valhalla.

I invite you to read over some of our recent news through this CEE Fall 2015 Newsletter. As always, I sincerely appreciate and welcome your support to our Department's academic and service programs and initiatives.

Sincerely,



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**Taha F. Marhaba, Ph.D., P.E., F.
ASCE**

IN THIS ISSUE

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ANNOUNCEMENTS

Every Tuesday-Fall 2015
NCE Math Help Sessions
6pm-9pm
Central King Building 214

Sunday, October 18
NCE Undergraduate Open House
10am-4pm

STUDENTS

With Brains and Brawn, NJIT Paddles to a First in the Concrete Canoe Regional Competition



NJIT placed first overall in the metropolitan regional round of the Concrete Canoe National Competition, winning categories ranging from design presentation to the men's sprint in a closely contested match against six other universities, including NYU-Polytechnic School of Engineering, CCNY, and

Rutgers University. The team also posted high marks for its design paper and

Multiple locations

Friday, October 30

[NCE Career Day](#)

8:30am-1:30pm

Campus Center

Wednesday, November 11

Discussion Forum Topic: "Some Anomalies Connected with the Collapse of WTC Building 7 During 9/11"

Guest Speaker: Tony Szamboti

2:30pm-4pm

Campus Center - Ballroom A

Sunday, November 22

[NCE Undergraduate Open House](#)

10am-4pm

Multiple locations

Friday, December 4th

[NCE Career Day](#)

8:30am-1:30pm

Campus Center

INDUSTRY RECOGNITION

[ASCE North Jersey Branch Chapter](#)

Young Civil Engineer of the Year

Brian T. Felber, P.E., HNTB

Educator of the Year

Methi Wecharatana Ph.D., P.E.

National Outstanding Researcher of the Year - Thailand

Chad Jaturapitakkul, Ph. D.

ADVISORY BOARD

The CEE Industrial Advisory Board represents a diverse cross-section of civil and environmental engineering professionals, including design consultants, construction managers, contractors and attorneys.

Jerome F. Gallagher, Jr., Esq. '80

Chair

Norris, McLaughlin, Marcus, PA

Ted Cassera, P.E., '72

Omland Engineering Associates

Anthony Castillo, P.E., '95 '02

SESI Consulting Engineers

Stephen Dilts

HNTB

David Good, P.E., '78, '92

Mueser Rutledge Consulting Engineers

Andre Grebenstein, LEED AP '95

The Martin Group

Gregory Kelly, P.E.

Parsons Brinckerhoff

final product - a light, sturdy and flexible craft constructed from a concrete mix of 56.8 lbs. per cubic foot.

The win at Cook's Pond in Denville advanced the team of civil engineering students - and their 20-foot Viking-inspired boat, Valhalla - to the Canoe Nationals at Clemson University in South Carolina in June. While they didn't



take away a prize, they competed fiercely and vowed to roar back.

Special thanks to the generous assistance of our Corporate Partners ACI NJ, D'Annunzio & Sons, Inc.,

HNTB, Lapatka Associates Inc., Salomone Redi-Mix, T&M Associates, Turner Construction and Wilentz, Goldman & Spitzer PA, as well as our Corporate Sponsors Dewberry, French & Parello Associates, Greenman-Pedersen Inc., Kelly Engineering, PS&S LLC, Renaissance Properties and Silverite Construction. Also, thanks to the dedicated CEE department faculty and alumni for their support.

NJIT Scores Dramatic Win in the Regional Round of the 2015 National Student Steel Bridge Competition



With strategic innovations and nimble construction, NJIT placed sixth overall in the 2015 ASCE National Student Steel Bridge Competition this past May in Kansas City, Mo., earning Highlander civil engineers their highest national ranking since they entered the contest for the first time

20 years ago. NJIT's student bridge team achieved high marks for construction economy and efficiency, as well as lightness and durability. The team's advisors praised the students for their "incredible teamwork and dedication by every member," while pointing to standout performances such as the "smoking" 12.92-minute bridge construction time posted by builders Oscar Chaves '16, of Newark, and Devin Berniz '15, of Budd Lake. In other noteworthy achievements, the team placed second for lightness with a 95-pound structure capable of supporting a load of 2,500 pounds over a clear span of 19 feet, fifth for construction economy and ninth for structural efficiency.

In April, the team swept all technical scoring categories in the regional round to achieve first place overall for the tenth year in a row, before heading on to nationals where the Highlanders bested large schools such as Penn State, Clemson, Virginia Tech, and Texas A&M to secure the team its top-ten ranking.

This success has been made possible through the support of our dedicated Corporate Partners Schiavone Constructors & Engineers, Acrow Bridge and Milton Steel as well as our Corporate Sponsors ASCE North Jersey Branch, CIAPNJ, EE Cruz, French and Parello Associates, Hatch Mott MacDonald, Mueser Rutledge, Partner Engineering & Science, PECNJ, PS&S LLC, Silverite Construction, Turner Construction, T&M Associates, The Martin Group, and UTCA NJ Branch. Also, thanks to the CEE department faculty and alumni for their dedication and support.

NJIT Strengthens International Collaborations with Thailand

Gareth Middleton P.E., '93 '04
Tishman Construcion, an AECOM
Company

Rocco Palmieri, P.E, P.P., PLS '72,
'77
Partner Engineering and Science

Maurice Rached, P.E.
Maser Consulting

Joseph Stanley, P.E., P.P., '78, '85
Hatch Mott MacDonald

Wei Wang, P.E., '95
Urban Tech

Michael Wright, P.E., P.P., PMP '79
Arora and Associates, P.C.

CEE is on Twitter!

Follow Us!

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Writers/Editors/Graphics/Design:

Bridget Hill

Tracey Regan

Special Thanks:

**NJIT Office of Strategic
Communications**

**NJIT Office of Alumni Relations
CEE Faculty/Staff, Students &
Alumni**



In June, an NJIT Team headed by President Joel Bloom that included Dr. Taha Marhaba and Dr. Methi Wecharatana met in Bangkok with Thai industrial and academic stakeholders.

The purpose of the visit was to strengthen ties with some of Thailand's

most innovative and productive companies and researchers, expanding the university's existing relationship with Siam Cement Group (SCG), one of the country's leading industrial conglomerates, and signing an agreement with Chulalongkorn University, its oldest university, to exchange students and faculty and collaborate on research.

A memorandum of understanding (MOU) that NJIT signed with the Thai Center of Excellence on Hazardous Substance Management (HSM) at Chulalongkorn reaffirmed and expanded the two universities' commitment to academic cooperation, including the offering of joint doctoral degrees, the exchange of graduate students, visiting faculty and research fellows, and additional cooperative research opportunities. HSM is a consortium of four major Thai universities focused on protecting the environment and public safety, and is one of 11 centers of excellence designated by the Thai government.

Manaskorn Rachakornkij, a CEE alumni, is the Center's deputy executive

director.
NJIT Vice
Provost for
Research Atam
Dhawan said of
the agreement,
"The Center at
Chulalongkorn
was established



with NJIT collaboration, in 2000. NJIT faculty were involved in developing coursework and laboratories as well as co-advising M.S. and Ph.D. theses. It has been a great global collaboration and graduate student exchange program between NJIT and Chulalongkorn University."

Professor Moshe Kam, Dean of Newark College of Engineering, noted that the collaboration between NJIT and the consortium led by Chulalongkorn University "will provide both partners with access to new technologies, management techniques, best practices, vast amounts of useful data and user experience."

The SCG Center of Excellence, established last year in CEE, will pursue interdisciplinary research and technology development in a growing number of areas of common interest following the recent visit. They include sustainable and resilient building materials, innovative construction methods and technologies, the development of nanomaterials and polymers that maintain the beauty and integrity of infrastructure, the remediation of environmental contamination and advanced waste treatment of pulp and paper byproducts, among others. In addition to scholarships and research funds, the partnership with SCG may also include future joint ventures designed to advance promising technologies.

"The relationship is mutually beneficial as it helps SCG tap into state-of-the-art education and training of its future workforce in areas directly related to its business areas, while bringing NJIT opportunities to advance research in critical areas and recognition for the university's role in catalyzing economic development around the globe," said Marhaba. SCG's financial support includes up to \$50,000 per year in research dollars for each student's doctoral advisor in addition to their tuition and stipend support.

Capstone Students Help a Newark Neighborhood Design its Future



At a bustling intersection in Newark's Fairmount Heights neighborhood lies a large, empty lot that is central to residents' aspirations: for innovative schools, community centers, a vibrant mix of new businesses and housing and open space. Late last year, community leaders reached a compromise with Public Service Electric and Gas over the size and location of a new switching station slated for the lot that left them room to pursue these priorities.

And that is where an NJIT civil engineering capstone class enters the picture.

And that is where an NJIT civil engineering capstone class

Shortly after the deal was reached, the Urban League of Essex County, one of the parties to the settlement, reached out to Taha Marhaba, chairman of CEE, with a proposal: Invite a group of ambitious, project-ready engineering students to take a crack at designing the four-acre space. His answer was a resounding "Yes!"



Six teams of students in Diogo Santos's Civil Engineering Design One class quickly took up the challenge, working for several weeks earlier this year on zoning research and concept design before presenting their development plans to the Urban League. As the project moves ahead, they have been assured that creative and sustainable solutions for storm water runoff, for example, will inform the final development plans.

The students began with a wish-list - a STEM-focused charter school, a community center with a pool, residential and commercial buildings and a small park - and were instructed to translate it into a buildable plan. And that meant also taking into consideration the infrastructure -pedestrian accessibility, streetscapes, lighting, storm water management systems and both surface and subsurface parking improvements - that would support redevelopment of the lot, which is bounded by Central Ave. and West Market St. to the north and Littleton Ave. to the east.

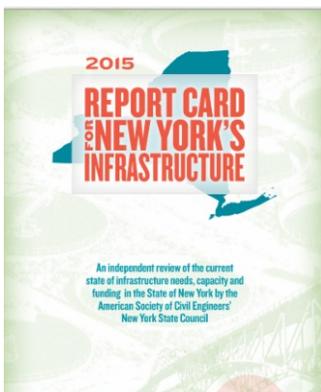
"The class divided into teams and each one took a different approach to the project that also showcased unique strengths. One group emphasized open space and pedestrian connectivity to the adjoining Liberty Park, for example, while another focused on the buildings' function, connecting the community center to programs at the school, such as night-classes," said Santos, an adjunct professor of civil engineering at NJIT and a project manager for Fairfield - based Petry Engineering. "Another had a great storm water management plan, with a well-conceived sustainable rainwater harvesting system for collecting storm water runoff for recycling and reuse within the building which would decrease the site's dependence on the municipal water system."

One team used Building Information Modeling (BIM) software to create a 3D model of their plan, giving the community a virtual tour of the site.

"This was an empty piece of property - a blank canvas - and the students helped us sharpen our vision for it," said Vivian Cox Fraser, president of the Urban League of Essex County.

"Water runoff is a big problem in Newark and the students came up with several creative ways to manage it, including the construction of green walls and bioswales and the reuse of gray water," she added. "We definitely intend to use some of these ideas. In fact, we would like to incorporate some of their design concepts throughout the neighborhood."

ASCE National Report Card for America's Infrastructure



Thomas Jaworski, CEE academic advisor and director of undergraduate retention, was the committee chairman and co-author for the ASCE Report Card for New York's Infrastructure for Bridges. The New York Report Card followed the methodology of ASCE National's Report Card for America's Infrastructure. The Report Card used a grading format similar to a school's report card. It provided a comprehensive assessment of current infrastructure conditions and needs, both assigning grades and making recommendations for how to raise the grades. The categories reported in the NYS Report Card are: aviation, bridges, dams, drinking water, roads, solid waste, transit, and wastewater.

The results of this Report Card were revealed during several news conferences on September 29, 2015 in Rochester, Albany, Syracuse, and New York City. The results will also be presented at the ASCE Convention in New York City in early October.

NJIT NSPE Student Chapter Organizes Fundamentals of Engineering Exam (FE) Study Sessions

The NJIT NSPE Student Chapter, established in the CEE Department last year, is running FE review sessions open to all engineering students. These sessions, held in Colton Hall, typically start at the beginning of the semester and are held every week for six to seven weeks until all the topics are covered.

Upcoming Review Sessions: 10/14, 10/21, 10/28, 11/5 & 11/12

For Further Information Contact: cr238@njit.edu

NJIT Student Chapter



2015 CEE STUDENT AWARD RECIPIENTS

Each year, CEE students are recognized for their outstanding academic performance, leadership and service to the academic community at the CEE annual graduation and award ceremony. The 2015 recipients were:

First-Year Student Award: **Kiera Nissen**
Sophomore Excellence Award: **Kenneth Yanga**
Junior Excellence Award: **Stefanie Pacifico**
Senior Excellence Award: **Gladis Oseguera**
Student Leadership Awards: **Kevin Alvernaz & Mateusz**

Tchorz

Award: **Anthony Dezenzo**

Doctoral Excellence Award: **Michael Agbakpe**

Young Alumni Award: **Diego Deveyga**

Master Excellence



Kiera Nissen



Kenneth Yanga



Stefanie Pacifico



Gladis Oseguera



Kevin Alvernaz &
Mateusz Tchorz



Anthony Dezenzo



Diego Deveyga



Michael Agbakpe

FACULTY/STAFF

Meet CEE's Two Newest Assistant Professors

Matthew P. Adams joins NJIT from Oregon State University, where he recently completed his Ph.D. in Civil Engineering, specializing in the development and testing of innovative cement-based construction materials. Previously he received his M.S.C.E. from Oregon State University in 2012, and his B.S.C.E. from University of New Hampshire in 2006.

Prior to beginning his graduate work, Dr. Adams worked as a structural designer for a multi-discipline engineering and design firm in Cambridge, Massachusetts. Dr. Adams focuses on the link between the chemistry of concrete materials



and their long-term durability and resiliency. He is an internationally recognized expert on the use of recycled concrete as a replacement for natural aggregate in new concrete, an eco-friendly alternative that conserves natural resources and can reduce greenhouse gas emissions associated with construction.

While completing his Ph.D., he developed a new test for determining the long-term strength of concrete made with a specialty cement known as calcium aluminate cement. That work led to a better understanding of the role aggregates play in the chemical reaction that occurs when cement and water are mixed together and their impact on long-term concrete strength and durability. Dr. Adams was recently awarded the 2015 Young Member Award for Professional Achievement from the American Concrete Institute.

Achievement from the American Concrete Institute.



Matthew Bandelt recently completed his Ph.D. in Civil and Environmental Engineering at Stanford University, where he specialized in structural engineering and studied applications of emerging construction materials used in bridges, buildings, and infrastructure.

Dr. Bandelt's prior research focused on cement-based composites which incorporate small polymeric and steel fibers to improve the structural performance and durability of reinforced concrete structures.

He has developed specifications to design structures using these composites, as well as computational modeling tools to predict their behavior under earthquake loading. He is currently exploring the use of these composites, and other novel cement-based materials, to improve infrastructure durability against harsh environmental conditions, and to decrease construction times and project delays.

Dr. Bandelt is a recipient of the prestigious National Science Foundation Graduation Research Fellowship (NSF-GRF), and has published research in journals such as *Materials and Structures*.

Please join us in welcoming both Matt Adams and Matt Bandelt to CEE.

Summer of STEM: Brazilian Student Scholars Hone Their Research Skills at NJIT



Teaming up with Prof. Jay Meegoda of CEE, Bezerra de Souza and 19 other Brazilian students spent 10 weeks this past summer developing plans to help small businesses in four different sectors reduce their toxic emissions, curb waste and cut costs. Their work did not stop there, however: the students took their models to paint, auto body, repair and beauty shops in Jersey City and Newark's Ironbound district and offered to help them implement it. Sixteen businesses took them up on the proposal.

Bezerra de Souza and his team were among 35 students on campus this summer taking part in their country's Brazil Scientific Mobility Program (BSMP), an ambitious government-funded initiative to send undergraduate and graduate students in STEM fields to top colleges and universities in the United States and throughout the world. Other members of the pollution prevention group undertook a similarly holistic review of nail salon operations, offering a range of suggestions to protect the health of workers and clients, while also improving the bottom line.

For its part, NJIT has been steadily "internationalizing" its research enterprise by forming alliances with elite universities and scholars across the globe and "integrating top foreign students" both at the graduate and undergraduate level into the academic and cultural life of the campus, said NJIT Provost Fadi Deek.

Ten students who won spots in the Brazilian STEM program arrived at NJIT for the entire academic year. Two master's students are already on campus. The program is administered by the Institute of International Education (IIE), the nearly century-old non-profit education and training organization that also runs the Fulbright Program.

Coastal Engineering Resilience Industry/University Panel Discussion Co-Sponsored by Hatch Mott



MacDonald

This past May, Hatch Mott MacDonald (HMM) and CEE sponsored the Coastal Engineering Resilience Industry/University Panel Discussion on campus. Professors Michel Boufadel and Fadi Karaa served as speakers and panelists together with Hatch Mott MacDonald speakers. The panel discussion was led by industry leaders from Hatch Mott MacDonald, including the moderator Patrick Natale, Vice President of Business Strategies and

former Executive Director of ASCE, who moderated. Michel Boufadel presented "An Integrated Approach for Evaluating Coastal Resilience: Combining Surface Water and Groundwater Hydraulics with Water Quality." Fadi Karaa discussed "Planning, Evaluation and Risk Analysis of Integrated Regional Coastal Resilience Strategies; Structural and Non-Structural Infrastructure Solutions for Flood Protection and Mitigation in the Meadowlands." The panel discussion was attended by NJIT faculty and students.

Update on EWB Projects



The NJIT Engineers without Borders (NJIT-EWB) student chapter has made great progress on its two current projects, both of which are based in the chapter's host village of Milot, Haiti.

The Clay Pot Filter Group has been working diligently to develop a prototype water filter system utilizing materials found in Milot. Most recently, team members analyzed the composition of clay soil accessible to residents of Milot and replicated it here at NJIT. Currently, the group is working to determine the correct ratio of clay and sawdust, keeping in mind both the strength of the filter and filtration efficiency. Additionally, EWB-NJIT recently had the pleasure of hosting Bruno Bezerra, an international student from Brazil, who continued the group's work over the summer as part of an undergraduate research project. Bezerra formed test disks of varying clay and sawdust ratios to

determine the optimal mixture. With a recent grant from the U.S. Environmental Protection Agency (EPA), the student chapter will expand the project to Sri Lanka to provide safe drinking water to prevent Chronic Kidney Disease CKD. A report published by the World Health Organization two years ago found CKD in 15 percent of adults across three affected districts.

The Light Cycle Group is hard at work developing a working prototype of their system to generate electricity from bicycles. The city of Milot is not connected to the national grid but most of the residents of Milot have cell phones. So charging of cell phones is a major challenge. The team's current design does not easily work on regular bicycles. Hence they are redesigning the system to correct this issue. Additional changes include correcting insufficient contact between the motor and roller for a more rigid point of contact, allowing for greater energy efficiency, and the creation of a more durable housing for electrical parts.

Faculty Achievement



We are proud to announce that Professor Methi Wecharatana, associate chairman for graduate studies in CEE, was named Educator of the Year by ASCE's North Jersey Branch in September. He was recognized for his commitment to education and for introducing and inspiring students in civil engineering over the years. Wecharatana's expertise and research interests are in the areas of Structures and Concrete Materials, Fracture Mechanics, High Strength and High Performance Concrete, Fiber Reinforced Concrete, Fly Ash Concrete, and Non-destructive Tests. He received four patents from his research on the beneficial utilization of fly ash in concrete. He has published more than 140 publications and received numerous research grants from various U.S. and International Research funding agencies, such as NSF, NOAA, USAID, USAEP, USDOE, EPA, USDOD, ADB (Asian Development Bank), ACI (American Concrete Institute), TRF (Thailand Research Fund), NSTDA (National Science and Technology Development Agency of Thailand), and PSE&G. Professionally, he is a member of ASCE, ACI, GIN, and ATPAC.

During his tenure at NJIT, Dr. Wecharatana received numerous awards and honors. Among them are the Dow Outstanding Young Faculty Award from ASEE (American Society for Engineering Education) in 1984, the James Robin Outstanding Teaching Award from Chi Epsilon in 1985, the Excellence in Teaching Award (Upper Division) from NJIT in 2006, Master Teacher Designate from NJIT in 2008, and the Robert W. Van Houten Teaching Excellence Award from NJIT Alumni Association in 2011. In 2001, he received an Honorary doctoral degree in Environmental Engineering and Hazardous Waste Management from Khon Kaen University of Thailand, and in 2002, he was awarded the First Technologist of the Year Award by the Science and Technology Foundation of Thailand for his work on fly ash concrete that led to complete utilization of all fly ash generated in Thailand. In 2012, he received a Royal Decoration, the Benjama Direkkhunabhorn, from the King of Thailand for his years of contributions to improve Thai higher education and research of Thailand.

The Department Welcomes Two New Staff Members

We are pleased to announce that we have two new staff members joining the CEE department: Alan Slaughter and Bridget Hill.

Alan Slaughter has accepted the position of Graduate Academic Advisor. He has spent over 40 years in the civil

engineering profession, as a project design manager for a variety of projects, a resident engineer, a construction manager, a quality control engineer and quality control manager for tunnels, as well as an inspection manager for tunnels.

Slaughter has worked on projects such as the 2nd Avenue subway, Water Tunnel #3 in Manhattan, the Elizabeth River immersed tube tunnels in Virginia, and a 15-mile inspection of all six Penn Station Tunnels in New York City. In addition, he has managed bridge, highway, historic preservation and commercial projects. Slaughter has worked on projects in 10 different states. In addition, he has served as an adjunct professor at NJIT since 2003, teaching both undergraduate and graduate courses. He holds a P.E. in Michigan, New Jersey and New York.

Bridget Hill assumes the position of Principal Clerical Assistant in CEE. She holds a Master of Science degree in Publishing from Pace University and a Bachelor of Arts in Media Studies from Catholic University in Washington, D.C. Hill has worked in higher education for the past two years, both at Essex County College and at NJIT. While at Essex County College, she worked as a clerk in the purchasing department.

Hill first joined NJIT in January of 2014. She has worked as a temporary administrative employee in the following departments: Purchasing, Strategic Communications and the Center for Pre-College Programs. Prior to working at NJIT, Bridget worked as an admissions representative for the Pace University RuffaloCODY LLC program.

Please join us in welcoming both Alan and Bridget to CEE.

RESEARCH

Nanomaterials for Sustainable Energy and Environmental Applications



Professor Wen Zhang of CEE has been leading major innovative efforts in the sustainable design of visible light-driven photocatalytic systems for harnessing solar energy, hydrogen evolution and efficient degradation of emerging water contaminants. He is developing novel multifunctional nanomaterials for antimicrobial applications, microalgae harvesting for biofuel production. "Solar-to-fuel" photocatalysis aims to transform solar energy into chemical fuels that can lower our dependencies on fossil fuels. Wen Zhang's new findings lay the groundwork for the design of sustainable and efficient hybrid photocatalytic materials for renewable energy harvesting. Novel visible

light responsive materials made with earth-abundant elements are expected to play a key role in antimicrobial applications, as well as the degradation of pathogens and the removal of recalcitrant water contaminants.

There is no doubt that the work being carried out by Zhang and his team in CEE fully embraces the NJIT mission of broadening research and education in sustainability.

CEE Transportation Group Integrated Corridor Management (study and workshop)



The Intelligent Transportation Systems (ITS) Resource Center, headed by Professor Lazar Spasovic of CEE, hosted a two-day, peer-to-peer workshop on the NJIT campus this September entitled "ICM-495 and New Jersey Northeast Corridor Integrated Corridor Management (ICM) Concept of Operations Development." The vision of Integrated Corridor Management (ICM) is based on the principle that transportation networks will achieve significant improvements in the efficient movement of people and goods by supporting institutional collaboration and proactive integration of the existing infrastructure along major transportation

corridors.

The workshop participants were welcomed by Dr. Atam Dhawan, NJIT's vice provost for research, who expressed the university's commitment to providing technical support and assistance to the stakeholders tasked with analyzing and documenting the ICM requirements, concepts, and strategies through the ITS Resource Center.

The workshop brought together transportation professionals from the New Jersey and New York State Departments of Transportation, Metropolitan Planning Organizations, and other State Highway and Transit authorities. One of the major goals of the workshop called for these transportation leaders to employ a spirit of cooperation and collaboration among the various agencies and jurisdictions to identify workable strategies to support effective planning and oversight in corridor management and transportation systems operations. The invited peers from around the country all share expertise in ICM planning and deployment, and this common ground provided the driving force behind the subject-focused roundtable discussions held during the event. The work performed during the workshop sessions provided a critical first step towards the development of the ICM Concept of Operations documents for the corridor management project.

ACADEMICS

Curriculum Updates

FED 101: Fundamentals of Engineering Design. Course description changed Fall 2015

The curriculum has been redeveloped to transform a mishmash of educational goals into a coherent "blended learning" model. Through the use of blended learning, which combines class lectures, demonstrations and student participation, students can experience how engineering problems can be analyzed and solved with the use of engineering principles, science and technology. AutoCAD has been removed from FED 101 and refocused in a new course offering, CE 101 (Civil Engineering Computer Aided Design), which is taken as a co-requisite with FED101.

In the new FED, students are offered the opportunity to participate in a research project. This program has been established for the purpose of supporting the CEE Department goals of bringing academics into the practice of engineering by linking engineering principles with technology. This provides each student an opportunity to grow and develop professionally and improve interpersonal skills by working as a team member in a cohesive group.

CE 101: CE Computer Aided Design (CAD) - 1 credit. Course added Fall 2015.

Corequisite FED 101.

Description: CE-CAD is a course that will introduce students to the basics of Computer Aided Design utilizing software to produce engineering designs. The course will provide an overview of the different disciplines in Civil Engineering, including structural, geotechnical, water resources, environmental, and transportation engineering, among others.

CE 260: Civil Engineering Methods. Course prerequisites changed Fall 2015.

Prerequisites changed to HUM101, CE200/200A and CE 101.

ALUMNI

Recent Alumni Graduates

Special congratulations are extended to the following: **Michael K. Agbakpe** (Civil Engineering), **Cecilia Kelnhofer-Feeley** (Transportation), **Albert Forde** (Transportation), **Aliasghar Ghadimkhani** (Environmental Engineering), **Frank L. Golon** (Civil Engineering), **Yang He** (Transportation) **Victoria Ann Scala** (Civil Engineering), and **Vatsal A. Shah** (Civil Engineering) for their accomplishments on receiving a Doctor of Philosophy from NJIT.

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