



# The NTC Today

The Biannual Newsletter for the Morgan State University National Center for Transportation Management, Research & Development

2 Director's Message

4 Students in the Spotlight

7 New Research & a New Researcher

8 Remembering Dr. J



## NTC Retreat: Is the Center Headed in the Right Direction?

On Oct. 8, the NTC's staff, advisory committee members, and researchers met at Baltimore's Engineers Club to develop a new strategic plan for the center. Many expect that the reauthorized UTC program will involve fewer centers and more competition. While no plan was finalized, the attendees evaluated current efforts and considered long-term opportunities that could move the center forward.

### *Local and National Picture*

The event began with presentations from three of Maryland's transportation

policy makers: Don Halligan, the director of the Maryland Department of Transportation's Office of Planning & Capital Programming; Allison Hardt, the research division chief for the Maryland State Highway Administration's Office of Policy & Research; and Ricky DeGraffenreid, the Maryland Transit Administration's director of Service Quality.

Each speaker highlighted the trends and research needs of their respective agencies. The recurring topics were

- communicating with the public (e.g., combating community resistance, using social media

- to connect with transit users, marketing to specific demographics),
- sustainability and the environment (e.g., infrastructure preservation, transit-oriented development, storm water management, strategies for reducing carbon emissions that have statewide applicability),
- policy research (e.g., the continuing economic benefits of completed public works projects),
- transit (e.g., employer-based

**CONTINUED ON PAGE 3**

# A Message from the NTC Director

DR. ANDREW FARKAS

Strategic planning is very much on my mind these days as a result of the NTC Advisory Committee Retreat in October 2010 and from being appointed to the university's strategic planning steering committee. Morgan State University's new president, Dr. David Wilson, rightfully wants to move the university forward, and strategic planning is the proper mechanism for deciding where and how to move and for getting stakeholders on board. The advisory committee's retreat also started a process for evaluating where the NTC has been and where it should go in anticipation of different circumstances under SAFETEA-LU's successor.

The fiscal environment that we find ourselves in is definitely making us think of new ways to leverage more resources and to do more with the resources we have. NTC has focused on more grants writing, collaborating with faculty in various disciplines and other universities, cooperating with state modal administrations, and investing in the transportation research infrastructure. As an integral part of this effort, we hired and thus welcome Dr. Hyeon-Shic Shin to our staff. He is featured in this newsletter.

On a sad note, Dr. Robert Johnson, the principal investigator on the maturity meter study, unexpectedly died over the recent semester break. Dr. J., as many of us called him, started with the School of Engineering in 1984. I frequently experienced his joy and enthusiasm. His students loved him, because he was devoted to them and their education.

Dr. Johnson graciously took over the maturity meter study when the first PI became seriously ill. He came up with a new scope of work and a research process that gained buy-in from various stakeholders. He will be missed greatly, but he left us in good stead. We are at the point of writing the final report, so we expect to complete it this year.

We hope you gain much from this newsletter and we look forward to your comments.

## Dr. Andrew Farkas

Director  
National Transportation Center



## About the Center

The National Transportation Center (NTC) at Morgan State University is committed to transportation research and education that support the well-being and economic development of communities.

## Staff

Dr. Andrew Farkas  
*Director*

Anita Jones  
*Administrative Assistant*

Dr. Hyeon-Shic Shin  
*Assistant Research Professor*

Erica Johnson  
*Communications Manager/Editor*

Valencia Baker  
*Education Coordinator*

Sonia McDonald  
*Secretary*

## Contact Information

National Transportation Center  
Morgan State University  
1700 E. Cold Spring Lane  
Montebello Complex, Rm D206  
Baltimore, MD 21251

Web: [www.morgan.edu/soe/ntc](http://www.morgan.edu/soe/ntc)

Phone: 443-885-3666

Fax: 443-885-8275

**Questions?** Story ideas? Please submit them to [erica.n.johnson1@morgan.edu](mailto:erica.n.johnson1@morgan.edu)

## Clip Art

Cover: ©iStockphoto.com/urbancow

Pg 2 (street sign): ©iStockphoto.com/AustinArtist

Pg 7 (road): ©iStockphoto.com/acilo

Pg 8 (helmet): ©iStockphoto.com/ErickN

## NTC Retreat Recap *continued from cover*

subsidies for public transportation, queue jumping, streamlining bus stops),

- transportation funding, and
- safety (e.g., identifying accident patterns, reducing fatalities).

Moges Ayele, the Federal Highway Administration's senior liaison for higher education, also outlined the U.S. DOT's education and training initiatives for students and professionals.

### *Committee Response*

The NTC's current areas of focus are transportation and traffic modeling, safety, economics and equity, transportation funding, and infrastructure's effect on aquatic life.

Based on the presentations, various committee members suggested expanding further into transit and urban research (particularly in the campus' surrounding community). As committee member Adiele Nwankwo noted, economic development depends on mobility and access. An urban

research focus would also fit President Wilson's plan to increase the university's presence in Baltimore. Morgan's location is also an asset for transit and highway research. Transportation finance is a national issue, and continued focus on that issue could garner private and interdisciplinary support.

The committee overwhelmingly supported a conference on transportation funding. Other possible outreach events include a professional development symposium and a management-training conference.

**UPDATE:** At the Feb. 4 advisory committee meeting, the attendees settled on a preliminary theme for the transportation funding conference: the urban implications of alternative funding measures. The conference's scope, date, participants, and structure will be finalized before the next committee meeting on May 6.

## Advisory Committee Additions

The newest members to join the NTC Advisory Committee are Dr. Moges Ayele, Ricky DeGraffenreid, and Khalil A. Zaied.

Dr. Ayele is the Federal Highway Administration's senior liaison for higher education. His previous position was the director of the National Highway Institute. Dr. Ayele, a Morgan alumnus, has taught and lectured at several universities, including Morgan where he was instrumental in establishing the Center for Transportation Studies (now the Department of Transportation and Urban Infrastructure Studies).

Ricky DeGraffenreid is the Maryland Transit Administration's director of service quality. Mr. DeGraffenreid directs and manages the safe and efficient operation of the MTA's bus, Metro, and Light Rail systems.

Khalil A. Zaied is the director of the Baltimore City Department of Transportation. Mr. Zaied is responsible for all of the transportation infrastructure within a 91-square mile radius of the Baltimore City limits.

The three join a committee that includes **Elizabeth Baker**, regional administrator for the National Highway Traffic Safety Administration; **Nathan Beil**, president of KCI Technologies; **Nelson Castellanos**, division administrator for the Federal Highway Administration; **Ronald L. Freeland**, vice president of T.Y. Lin International; **Bob Garrett**, executive assistant of the Bureau of



Ayele



DeGraffenreid



Zaied

Municipal Services for the Pennsylvania Department of Transportation; **Gail McFadden-Roberts**, community planner (Region 3) for the Federal Transit Administration; **Adiele Nwankwo**, senior vice president & GM (Central Region) for PB Americas; **Edward H. Power**, senior vice president of HDR Engineering, Inc.; and **Richard Y. Woo**, the director of the Office of Policy & Research for the Maryland State Highway Administration (SHA).

Ending their tenure with the committee are Alfred H. Foxx, Mr. Zaied's predecessor; Clyde Pyers, the retired and former director of policy & planning for the SHA; Jay P. Watkins, CEO of Construction Management; and Paul J. Wiedefeld, the administrator of the MTA.

# THE FAB FIVE

With the NTC's support, these driven students have found success in transportation.

## JO'EL HALL AND STACEY ORIAIFO: SHA'S MOST VALUABLE INTERNS?



**Jo'el Hall**

Jo'el Hall and Stacey Oriaifo are graduating seniors whose 10-week internships with the SHA have been extended into 11 months of paid, portfolio-building work. The internships started in June 2010 and will continue through May 2011.

"An extension is a sign that the internship is going well and that there is a mutual desire between SHA and the student to continue working together," said Allison Hardt, the research division chief for SHA's Office of Policy & Research.

Ms. Hall and Ms. Oriaifo work for the Noise Abatement program in the SHA's Office of Highway Development (OHD). The Noise Abatement program studies and implements measures to reduce highway noise, and the interns' work is being put into action.

"Jo'el has concentrated on researching best practices for structural inspection of noise walls and has participated in field inspections. This has helped OHD pilot a structural inspection process," said Barry Kiedrowski, their internship supervisor. "Stacey has focused on noise customer issues which have included researching environmental documents and preparing correspondence, along with the development of a new web page. OHD anticipates that the new page will be implemented with our new policy by July 2011."

*"My experience at SHA has actually made me recognize my capabilities even more and has encouraged me to realize my dreams." —Stacey Oriaifo*

As Mr. Kiedrowski explained, "An intern adds the same type of value that any new employee does, from the standpoint that they bring new perspectives to the organization and offer new ways of solving problems." That is certainly true of Ms. Hall and Ms. Oriaifo: While most of the OHD's work is related to civil engineering, neither majors in the discipline.

"I did not know what to expect from the internship," said Ms. Hall, an industrial engineering major. "Knowing that I was not a civil engineering major, I was nervous about what I would be doing. However, the great thing about industrial engineering is that it is applicable in every field. I have performed tasks that have incorporated things that I have learned in the classroom, from engineering economy to system analysis and design. Also, I have had the opportunity to bring up ideas that I feel



**Stacey Oriaifo**

have been appreciated. This experience has been a great one."

The experience exceeded Ms. Oriaifo's expectations as well. "Unlike my other internships opportunities, I am allowed the freedom to participate in as many projects as possible with the noise abatement team," the electrical and computer engineering major said. "Also, I know that the work I do is not just a project, but is very useful to the team and beneficial to Maryland residents."

The internship program is an ongoing collaborative effort between the NTC and the SHA to support promising students and to promote industry careers.

"Over the years SHA has had internship programs with other universities but because of budget challenges, we have had to suspend most of them," Ms. Hardt said. "The program with Morgan State has been able to survive because the NTC is a co-sponsor. SHA pays half the cost and the NTC pays half the cost. As a result of the partnership we have been able to keep costs low and continue the program."

"I have had three internships: IBM, Pepco, and SHA," said Ms. Hall. "My job at IBM was to test software. At Pepco, I had more interactive tasks like feeder balancing and some field work. However, interning at SHA has been the most well rounded experience. I have had the academic side while I performed research. I have had the field experience while going on the road with the different crews. And lastly, I have gotten the chance to share my ideas through my main project."

### **GHOLAMHOSSEIN MAZLOOMDOOST: NTC'S STUDENT OF THE YEAR**

Two years ago, Gholamhossein "Hooman" Mazloomdoost "barely could speak English." Within the past two years he has become proficient in the language and achieved so much more.

On January 22, Mr. Mazloomdoost was recognized as the NTC's Student of the Year at the 14th annual Council of University Transportation Centers' Awards Banquet in Washington, D.C.

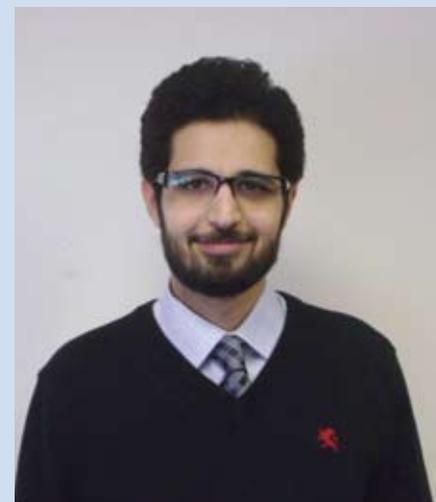
The honor not only validated the quality of his work, but also helped build his list of achievements in the United States.

"All I had on my resume were things I did in Iran, and nobody [in the U.S.] knows about them," Mr. Mazloomdoost said. "So, it's really good to have something that people around here know and recognize and appreciate."

Born and raised in Iran, Mr. Mazloomdoost earned his degree in industrial engineering from Islamic Azad University in Shiraz, Iran. He became interested in systems analysis and planning during his sophomore year when he developed a distribution system for a production group in Shiraz. He later developed a transportation model for Shiraz. Although it was designed for product distribution, the model was applied to other purposes and won a regional award.

Since January 2009, Mr. Mazloomdoost has been pursuing a Master of Science in the Department of Transportation and Urban Infrastructure Studies. He is the recipient of an Eisenhower fellowship, and he has served as research assistant on two NTC projects.

The CUTC awards banquet is one of many events connected to



**Gholamhossein Mazloomdoost**

the TRB Annual Meeting, and Mr. Mazloomdoost attended most of them. One exhibit gave him useful insight into the safety implications of roadside advertising, information that he could apply to an upcoming project with Dr. Mansoureh Jeihani. However, his personal highlight from the conference was networking with his peers.

"The most useful thing for me was the Eisenhower poster session because they were [done by] people my age, and I was talking to them and I could understand the projects," he said. "They were so excited about it, and I now have their business cards and they have mine."



**Anita Narh-Dometey**

**ANITA NARH-DOMETEY: TRB  
MINORITY FELLOW**

Only four students received the Transportation Research Board's 2010-11 Minority Student Fellowship, and Anita Narh-Dometey, a doctoral student in civil engineering, was one of them.

Designed to promote minority participation in transportation and in TRB, the fellowship covers travel, lodging, and incidental expenses so that selected students can attend and present a poster or paper at TRB's Annual Meeting.

Ms. Narh-Dometey presented a poster on January 24 during the session on innovations in statewide planning. Her paper,

entitled "Cumulative Impact of Developments on Surrounding Roadways Traffic," examined ways to decrease the gap between traffic impact studies and travel demand modeling.

"I had a lot of feedback especially from people who work in the industry, and they made it seem like it was really an important topic to research," Ms. Narh-Dometey said. "And they were really excited about the fact that we were looking into the problem, so it was good."

Ms. Narh-Dometey's paper can be found in the TRB's online database of papers from the annual meeting at [amonline.trb.org](http://amonline.trb.org).

*"There are many times when we as students hold ourselves back believing that we cannot get the required work done or we are not good enough for a wonderful opportunity like this. Going through this process, I have gained an appreciation for myself... We all have it in us to work hard and be good at what we know and do."—Anita Narh-Dometey*

**AKEEM BRYANT: APTF SCHOLARSHIP WINNER**

Akeem Bryant, a junior who is majoring in transportation systems and urban infrastructure, won the American Public Transportation Foundation's 2010 Parsons Brinckerhoff-Jim Lammie Scholarship.

The scholarship is awarded to an undergraduate (or graduate) student who intends to pursue a career in public transportation engineering. For Bryant, the \$4,000 award arrived at the perfect time.

"The scholarship came right around the time that I was considering my options to pay for school," Bryant said. "After what I had saved over the summer, combined with what my parents agreed to pay, I had just enough to pay half of my tuition. The scholarship award was equal to that [remaining] half."

Bryant was able to apply for the award because the NTC is a member of the American Public Transportation Association, the parent organization for the APTF. Including the Parsons Brinckerhoff-Jim Lammie Scholarship, the APTF awards at least nine scholarships of at least \$2,500 each year. Applications for the 2011 academic year will soon be available on the APTF's website at [www.aptf.org](http://www.aptf.org).



**Akeem Bryant**

## NEW PROJECT

### Alternative Alignments Development and Evaluation for the US 220 Project's Maryland Section

Principal Investigators: Dr. Manoj K. Jha and Dr. Min Wook Kang

This project will apply the research team's highway alignment optimization model for alternative alignments development and evaluation to the US 220 Project's Maryland section. The project will find and develop the best fit alignments (BFAs) within the 4,000-foot-wide buffer between I-68 (near Lavale, Md.) and the West Virginia state line (near McCoole, Md.), a distance of approximately 18.7 miles.

The project will also analyze and evaluate alternative alignments within the study area at a planning level. Final deliverables will include concept plans for the BFAs' basic sections; sensitivity analysis results of the alignment optimization approach; and a companion report that summarizes environmental impacts, construction costs, and user costs.

Subjects: Highways, environmental impact analysis

A full project description can be found online at [http://www.morgan.edu/School\\_of\\_Engineering/Research\\_Centers/National\\_Transportation\\_Center/Research/New\\_Projects.html](http://www.morgan.edu/School_of_Engineering/Research_Centers/National_Transportation_Center/Research/New_Projects.html).

## Meet Dr. Hyeon-Shic Shin

### The NTC's New Assistant Research Professor



*Dr. Shin's office is in Montebello, room D210B. He can be reached at 443-885-1041 or [hyeonshic.shin@morgan.edu](mailto:hyeonshic.shin@morgan.edu).*

Since August 25, Dr. Hyeon-Shic Shin has been writing proposals, forming collaborations, and budgeting resources for the NTC. He taught one class during the fall semester and he is scheduled to teach two more in fall 2011.

Dr. Shin is a transportation planner whose research interests include freight data and demand management, logistics, environmental justice, and safety. Before joining the NTC, he was a research scientist with New York University's Wagner Rudin Center for Transportation Policy and Management.

Dr. Shin graduated from Dankook University in Seoul, South Korea, with a B.A. in Public Administration. He received his master's in Urban Planning from the University of Akron, and Ph.D. in Public Policy Analysis from the University of Illinois at Chicago.

He lives in Towson with his wife and two sons.

**How he got interested in transportation:** "It was my senior year in college when I got really interested in transportation planning. The instructor, who later became the director of the Korea Transportation Institute (which is similar in scope to USDOT's Volpe Center), changed my thoughts about transportation from something granted for free to the blood line of our daily life that should be effectively maintained. While he asked for one paragraph of feedback about his class every week, I used to write several pages with questions about what he taught. One day he came to me and gave me a graduate school application for a U.S. university."

**What drew him to the NTC:** "I liked the warm and welcoming environment."

**Plans for 2011:** "The most important responsibility of this job is to get funded research. While working with faculty members in the School of Engineering and other departments at Morgan, I will also try to collaborate with researchers and practitioners outside Morgan. For example, a proposal I am writing will involve a faculty member from Morgan's Department of Sociology, a faculty member from the Department of Public Health at the University of Maryland, College Park, and private firms."

**Favorite Book:** "Jonathan Livingstone Seagull by Richard Bach. Since I read this book when I was 12, I don't remember

**CONTINUED ON BACK**

# In Memoriam: Dr. Robert Johnson, 1941-2010

Dr. Robert Johnson, a registered professional engineer and the principal investigator for the NTC project *Implementation of the Concrete Maturity Meter for Maryland*, died on December 30. Dr. Johnson was a lecturer in Morgan's Department of Civil Engineering for 24 years, and the public Facebook memorial page created by his family is filled with heartfelt tributes from current and former students who treasured him as a mentor, supporter, and friend.

"Integrity. Always be accountable for what you're doing. Give your best effort. I learned a lot [from him]," said Akyiaa Hosten, a graduating senior and civil engineering major. Dr.

Johnson was Ms. Hosten's advisor, and she was working with him on the maturity meter study as her senior project. The project was near completion, and Ms. Hosten will finish it. Hanging on the wall in the NTC office where she works is the program from Dr. Johnson's funeral service. Ms. Hosten always knew that she wanted to work in transportation, but struggled to find an area of focus. She credits Dr. Johnson with sparking her interest in the



geotechnical side of transportation. "He was a great teacher and he made sure that everybody in class knew what was going on. He was the same way as an advisor," she said.

Dr. Johnson's resume is filled with examples of his professional zeal. He served Morgan on seven different committees and was a member of seven professional organizations, including the American Society of Civil Engineers, TRB, and the American Institute of Constructors. Prior to Morgan, he taught at Rensselaer Polytechnic Institute, Purdue University, and the University of Notre Dame.

Morgan's School of Engineering is planning a campus memorial service for Dr. Johnson. He is survived by two daughters, a granddaughter, a son-in-law, a brother, a sister-in-law, and many nieces and nephews. In lieu of flowers, the family asks that donations be made to the American Heart Association in Dr. Johnson's honor. An online donation page can be found at <http://honor.americanheart.org/goto/drrobertjohnson>.

## Introducing Dr. Shin

CONTINUED FROM PAGE 7

any impressive phrases. But, as I recall, I liked Jonathan's personality. He is not a particularly smart seagull, but he keeps trying to find something meaningful beyond the status quo, while others are reluctant to or ignorant about what they can do beyond their monotonous daily life."

**Hidden talent:** "I can play traditional Korean instruments quite well, and I performed several dozen times in my college years at many events."

## COMPLETED PROJECT

### A Comprehensive Engineering Analysis of Motorcycle Crashes in Maryland

Authors: Dr. Mansoureh Jeihani, Gholamhossein Mazloomdoost, and Keivan Ghoseiri

Summary: Of the motorcycle crashes in Maryland from 1998 to 2007, most occurred on state roads with no access control and speed limits of 40-55 mph. These roads—which can be classified as urban other-principal arterials, urban minor arterials, or urban collectors—had good or fair surfaces. They were mostly undivided, two-way roads with two through marked lanes and no auxiliary lanes. The crashes usually happened during the day when weather conditions were sunny or cloudy and the road surface was dry. The crashes, which were most often single-vehicle collisions, occurred when the motorcycle was moving straight at a constant speed far from an intersection. The majority of motorcycle drivers were male.

The full report can be found at [http://www.morgan.edu/Documents/ACADEMICS/SOE/ntc/AComprehensive\\_Jeihani\\_1011.pdf](http://www.morgan.edu/Documents/ACADEMICS/SOE/ntc/AComprehensive_Jeihani_1011.pdf).

