

Transportation Tidbits



Greetings!

Welcome to the June issue of the Transportation Tidbits Newsletter. In this issue of the newsletter you can find information on graduate school news and recent/upcoming happenings in the transportation field. This issue also includes a variety of upcoming transportation conferences, workshops, and webinars you may be interested in. Please feel free to [let us know](#) if you have any questions or comments. Enjoy!

Important Dates for NDSU Students

6/1: Last day to Withdraw to Zero Credits @ 50% refund (4-week session classes only)
No refunds issued for withdraw to zero credits after this date.

6/3: Last day to submit requests to Audit, Pass/Fail for full 12-week session

6/4: Last day to Drop standard 4-week classes with 'W' record*

6/12: Last day of 4-



Student Profile: Raj Bridgelall

Raj Bridgelall is a doctoral student in the Transportation and Logistics program at NDSU. He started his graduate program in 2011 and will earn his PhD by the end of summer 2015. Previously, Raj attended Stony Brook University where he received his bachelor's and master's degree in Electrical Engineering. Raj currently works for the UGPTI as the program director for the [Center for Surface Mobility Applications & Real-Time Simulation environments](#) (SMARTSeSM). As a technology executive and product innovator, he has more than 140 patents issued or pending in the areas of advanced sensing, wireless communications, mobile computing, and decision support platforms, including their applications in Intelligent Transportation Systems (ITS).

At an early age, Raj was always fascinated with trains, planes, and automobiles. He saw the field of transportation as an opportunity to apply technology and innovations to help improve safety and efficiency on a broad scale. For the first 20 years of his career, Raj focused on technology and product development for a world of transportation and logistics that involves barcode, RFID, wireless, and mobile computing technologies. He helped his organizations win major contracts with some of the world's largest retailers that rely heavily on

week session classes

6/12: Graduate student Summer Intent to Graduate forms due

6/15: Last day to Withdraw to Zero Credits @ 75% refund (full 12-week session classes only)

6/16: Classes begin for 8-week session

6/16: Undergraduate/ Professional Summer Degree Application due

6/18: Last day for Wait Lists to run for 8-week session

6/19: Last day to Add classes via Campus Connection for 8-week session*

6/19: Last day for no-record Drop of 8-week session classes @ 100% refund*

6/19: Attempted credits calculated for financial aid SAP (11:59 p.m.)**

6/19: Eligible Pell/TEACH Grants based on enrollment at 11:59 p.m.

6/24: Financial aid applied to student accounts

6/24: Last day to submit requests to Audit, Pass/Fail for 8-

such technologies and products. With his transition to academia, he endeavors to apply those field experiences and his formal technical training in engineering to advance the field of intelligent transportation systems.

Before attending NDSU, Raj worked for Alien Technology, a company that manufactured RFID tags in Fargo. Raj held the position of Vice President of Research and Development. Prior to that, Raj served as Chief Technologist at Motorola Corporation. During his tenure with those corporations, Raj visited with several NDSU colleagues frequently, which led to helping UGPTI with various initiatives. Consequently, the previous director of UGPTI strongly encouraged Raj to join NDSU. However, a fast growing Texas company recruited Raj at that time to lead the development of a port security system for Caribbean island nations where the first installation would protect President Obama during his visit. Raj had the credentials to develop the core technology. He accepted the position as Vice President and Chief Technology Officer. After designing the microchip, and with continued encouragement, Raj eventually resigned to join UGPTI on the premise that he could not physically relocate. He also decided to pursue the Ph.D. in Transportation and Logistics to add value for the long-term.

Throughout his 25-year career, Raj has received numerous honors and awards. Several of his prior industry assignments recognized his innovations of new technology products. While at UGPTI, he won the Best of Sensors award in 2014. In addition to being members of the Eta Kappa Nu and Tau Beta Pi engineering honor societies, the Phi Kappa Phi honor society inducted him as a member upon conclusion of his coursework in 2015 with a GPA of 4.0.

While at NDSU, Raj's research has focused primarily on the development of mathematical transforms and algorithms that enable a method of using connected vehicles to quantify and rank the condition of roadways automatically and continuously. This approach breaks through long-standing barriers to characterize the condition of all facilities and to increase the frequency of their performance evaluations. Transportation agencies will use this method to reduce the cost and increase the accuracy of identifying roadway anomalies that could pose hazards to the traveling public, to forecast maintenance needs, and to evaluate the effectiveness of repairs. Raj's additional research interests include data analytics and decision-support cloud computing platforms, signal processing and mathematical modeling of transportation systems, radio-frequency identification (RFID), real-time locating systems (RTLS) and energy harvesting and massive scale autonomous wireless sensor networks.

Upon completion of his degree, Raj plans to continue his exciting and innovative work to help UGPTI achieve excellence as the premier University Transportation Center. Raj will continue to pursue grant opportunities by collaborating with colleagues, other NDSU departments, and other institutions and organizations worldwide. His goal is to help the UGPTI achieve and maintain recognition as a

week session

6/26: Payments due for NDSU Summer account balances*

Recent News Updates

[Transit industry works together to reduce bus idling](#)

[FHWA introduces Separated Bike Lane Planning and Design Guide](#)

[TSI measures more than the number of trucks on the road](#)

[FAA teams with industry for safe next steps in UAS operations](#)

[With new projects, America's Marine Highways help us prepare for the future](#)

[New Final Rule offers improved rail safety](#)

UGPTI in the Spotlight

[Monthly Grain Industry Reports Updated](#)

[2014 City and County Crash Fact Reports](#)

[Employment Opportunity - Associate Director TLN](#)

reputable research organization by publishing high quality articles in journals, presenting at conferences, and applying for patents. He also plans to pursue interdepartmental and interdisciplinary initiatives to develop new curricula in intelligent transportation systems that incorporate emerging topics such as connected vehicles, autonomous vehicles, and remote sensing.

Raj is excited about the various opportunities work with his UGPTI colleagues across many disciplines. He is passionate about incorporating technology and innovation to solve transportation problems, and to leverage his industry background for sustainable success. He encourages his UGPTI colleagues to continue reaching out when opportunities to collaborate arises.

Webinars

Check out this list of upcoming [webinars](#) offered by the Transportation Research Board. All participants must register at least 24 hours in advance of the webinar. If you missed a webinar and would like to know more about it [click here](#) for further instructions.

- **June 1, 2015** - [20 Years of Advancements in Roundabout Design, Roundabout Construction Sequencing and the Case for Illumination of Roundabouts](#)
- **June 3, 2015** - [Mechanistic-Empirical Design and Details for Continuously Reinforced Concrete Pavement \(CRCP\)](#)
- **June 11, 2015** - [Tools for Analysis of Capacity and Efficient Flow for Roundabout Design: Part II](#)
- **June 17, 2015** - [Case Studies in Performance Based Analysis of Geometric Design](#)
- **June 18, 2015** - [Business Planning Approaches for Disruptive or Irregular Airport Operations](#)
- **June 24, 2015** - [Materials for Unbound Granular Pavement Layers](#)
- **July 14, 2015** - [Tools for Analysis of Capacity and Efficient Flow for Roundabout Design: Part III](#)
- **July 28, 2015** - [Resources for Evaluating Airport Sustainability Practices](#)
- **July 29, 2015** - [Using Winter Severity Indices for Winter Maintenance Performance Management](#)

Upcoming Conferences

- **North American Transportation Statistics Interchange 2015**

[Employment Opportunity - Associate Research Fellow](#)

[MPC's 2014 Annual Report Posted](#)

[Graduate Research Assistant Presents Research at Transportation Symposium](#)

[Basic Sign Installation and Maintenance On-Site Training](#)

[Safety Talk - Radon](#)

(Invitation Only)

- [June 2015](#)
- [Washington, D.C.](#)
- **2015 TRB's 5th International Conference on Transportation Systems Performance Measurement and Data**
 - [June 1-2, 2015](#)
 - [Denver, CO](#)
- **American Society of Civil Engineers (ASCE) 2015 Airfield and Highway Pavements Conference**
 - [June 7-10, 2015](#)
 - [Miami, Florida](#)
- **Waste Management and Resource Efficiency in Transportation Summer Conference**
 - [June 7-10, 2015](#)
 - [Los Angeles, CA](#)
- **32nd International Bridge Conference (IBC 2015)**
 - [June 7-11, 2015](#)
 - [Pittsburgh, Pennsylvania](#)
- **6th International Conference on Bituminous Mixtures and Pavements**
 - [June 10-12, 2015](#)
 - [Thessaloniki, Greece](#)
- **Southern African Transportation Conference (SATC)**
 - [July 6-9, 2015](#)
 - [Pretoria, South Africa](#)
- **Historic and Archeological Preservation in Transportation Committee Summer Conference 2015**
 - [July 12-15, 2015](#)
 - [Richmond, Virginia](#)
- **11th International Conference on Low-Volume Roads**
 - [July 12-15, 2015](#)
 - [Pittsburgh, Pennsylvania](#)
- **14th AASHTO/TRB Conference on Transportation Infrastructure Maintenance and Operations**
 - [July 19-23, 2015](#)
 - [Des Moines, Iowa](#)
- **NASA Unmanned Aircraft Systems (UAS) Traffic Management (UTM) Convention**
 - [July 28-30, 2015](#)

- Moffett Field, CA
- **TRANSED 2015: 14th International Conference on Mobility and Transport for Elderly and Disabled People**
 - July 28-31, 2015
 - Lisbon, Portugal
- **44th Annual International Congress and Exposition on Noise Control Engineering (Inter-Noise)**
 - August 9-12, 2015
 - San Francisco, California
- **9th International Conference on Road and Airfield Pavement Technology**
 - August 9-13, 2015
 - Dalian, China
- **8th New York City Bridge Conference**
 - August 24-25, 2015
 - New York City
- **Transit GIS Conference**
 - September 1-3, 2015.
 - Washington, D.C.

Workshops/ Meetings

- **Workshop on 2015 Highway Capacity Manual Update**
 - June 2015
 - Little Rock, Arkansas
- **5th International Symposium on Highway Geometric Design**
 - June 22-24, 2015
 - Vancouver, British Columbia, Canada
- **2015 Summer Meeting and Conference of the Freight Systems and Marine Committees**
 - June 24-26, 2015
 - Washington, D.C.
- **Air Traffic Control: A Symposium on Organizational Reform Options**
 - July 7, 2015
 - Washington, D.C.
- **54th Annual Workshop on Transportation Law**
 - July 19-22, 2015
 - Chicago, Illinois
- **Automated Vehicles Symposium 2015**

- July 20-24, 2015
- Ann Arbor, Michigan

- **International Symposium on Systematic Approaches to Environmental Sustainability in Transportation**

- August 2-5, 2015
- Fairbanks, Alaska

New Student Bios



Yuan Xu is a graduate student working towards her PhD in transportation and logistics. Previously Xu attended Dalian Maritime University where she earned her bachelor's degree. Xu's research interests are in supply chain management. In her spare time Xu enjoys reading and drawing. Xu has a great passion to become an economist. She aims to be an outstanding researcher who can offer advice to leaders on important social and

economic issues and offer entrepreneurs maximize their business potential.

Nicole (Serafin) Berthiaume earned her BS in civil engineering at Northeastern University in Boston, Massachusetts. She is currently pursuing a master's degree in transportation and urban systems. In Berthiaume's spare time she enjoys hiking, geochaching, and photography. Her future goals and plans are to further her education in transportation and use her skills to better the community.



Shaping the Future of Urban Mobility with the Connected Vehicle



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The connected vehicles of tomorrow will feature a range of pathways from short to long range communications, enabling payment for services for things like parking, tolling, and public transit.

NDSU UPPER GREAT PLAINS
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If you have items you would like to submit for our next monthly tidbits newsletter, please email Jody Wendt at jody.wendt@ndsu.edu by the 15th of the month.