ITS Georgia Scholarship Committee
c/o Kristin C. Turner, ME, PE
ARCADIS
2849 Paces Ferry Road
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Atlanta, GA 30339
Phone: 770-431-8666
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Kristin.Turner@arcadis-us.com

2009 ITS Georgia Engineering Scholarship

The attached application is your chance to compete for a scholarship from ITS Georgia. The Georgia Section encourages student involvement in our profession, and hopes to develop future Georgia ITS Engineers through this scholarship program.

The ITS Georgia Engineering Scholarship is in the amount of $1,500. Applications for the 2009 ITS Georgia Engineering Scholarship are evaluated based upon the following criteria:

1. Students must be enrolled in an ABET accredited university in Georgia.
2. Each applicant shall submit a transcript for any college coursework completed (an unofficial transcript is acceptable). A GPA of 3.0 or higher is required.
3. The candidate should be currently enrolled in an undergraduate or graduate degree program in a transportation related field, computer engineering or electrical engineering.
4. Applicants are asked to submit an abstract (maximum of 300 words) in response to the following essay question:

   > If money were no object, develop an innovative ITS plan to address congestion issues in metro Atlanta. Don't be afraid to incorporate enhancements to existing technologies as part of your analysis or even include technologies that don't currently exist.

The ITS Georgia Scholarship Committee will select the top three abstracts. The students with the top three abstracts will be awarded attendance to the ITS Georgia Annual Meeting, which will be held from October 4th - 6th, 2009 at the Brasstown Valley Resort & Spa in Young Harris, Georgia. They will present their responses to the essay question at the ITS Georgia Monthly meeting held on October 29, 2009. The top abstract winner will be awarded a $1,500 scholarship towards a trip to the ITS America Conference in Houston, Texas which will be held May 3rd – 5th, 2010. The top abstract winner must attend the ITS Georgia Annual Meeting and the 2010 ITS America Conference.

Please complete the 3-page application and return to Kristin Turner no later than noon Friday, September 11, 2009. The last page must be faxed (or scanned and emailed) with appropriate signatures before the deadline. It is not necessary to send this cover page.

Attach additional sheets if necessary, but **information not specifically requested in the application form will be discarded.**

Scholarship recipients will be contacted before September 21, 2009. Scholarships will be awarded at the ITS Georgia monthly meeting on October 29, 2009. Please call me or Ronald Boodhoo if you have any questions.

Sincerely,

Kristin C. Turner, ME, P.E.
2009 ITS Georgia Scholarship Chair
ARCADIS
Phone: 770-431-8666
Email: Kristin.Turner@arcadis-us.com

Ronald Boodhoo, MSCE, MBA, P.E.
ITS Georgia – Director
Georgia Department of Transportation
Phone: 404-635-8008
Email: rboodhoo@dot.ga.gov

ITS Georgia Engineering Scholarship Application

Name:	Yanzhi (Ann) Xu	**Major:**	Transportation
Address:	213 16th St Unit 2	**Overall GPA:**	3.9
	Atlanta, GA 30363	**Major GPA:**	3.9
		Anticipated Degree:	PhD
Phone:	404-723-0543	**Graduation Date:**	May 2010
Email:	Yanzhi.xu@gatech.edu	**Student at:**	Georgia Tech

Honors that you have received in high school or college:

Honor	Description
Summa Cum Laude, Peking University Class 2006	President Bill Clinton recognized Peking University as the "Harvard of China" when he visited China. Each year the university only awards less than 5% of the class as *summa cum laude*.
Zhou Yu-Kang Scholarship, Peking University	One out of 600 students in the department, for excellence in both academic performance and social work.
National Scholarship for Distinguished College Students - twice	Three out of 600 students in the department, for excellence in both academic performance and social work.
Outstanding Social Work, Peking U.	One out of 120 students in Class 2002.
Best High School Graduate of the Year	Two out of 80,000 high school graduates of year 2002 in Sichuan Province, China, for excellent academic performance.

Positions and memberships in engineering organizations:

Organization	Position
ITE International	Member
WTS Atlanta	Active member

Positions and memberships in campus/community organizations:

Organization	Position
ITE Georgia Tech	Past vice president, active member
WTS Georgia Tech	Past president, active member

Your three most recent employment positions:

Employer: Kittelson & Associates, Inc	**Dates:** Summer 2008	**Position:** Intern
Description:		
Evaluated system performance of the Washington Metropolitan Area Transit Authority service area for transit signal priority implementation.		
Evaluated parking pricing options for Central City Transportation Management Plan of Portland, surveyed and analyzed parking capacity and public acceptance.		
Acted as an analyst for various planning, traffic operations and development projects.		

Planned and organized several social activities for the firm with teaming partners and clients; attended WTS Portland Chapter meetings; actively networked with professionals from the City of Portland, Portland State University, the City of Gresham, and Portland Metro.

Employer: Georgia Institute of Technology	**Dates:** Fall 2006--present	**Position:** Research Assistant

Description:
Presentations on Commute Atlanta Value Pricing Project Case Studies at the 2008 and 2009 Transportation Research Board Annual Meetings.
Principle analyst of Commute Atlanta, a multi-year pricing project, utilizing statistical and Geographic Information System software to analyze about 1.8 million vehicle trips.
Designed an innovative case-study approach to examine the household behavioral response to the pricing scheme and demographic changes.

Your career objectives:

My long term objective in transportation research is to help communities achieve a paradigm shift in urban transportation and land-use policies and investments toward the promotion of public and non-motorized transportation, modes that are less energy intensive and polluting than those fostered by current urban land-use planning and transportation systems. Atlanta has long suffered air quality problems. I aspire to continuously make the air cleaner, through innovative policies instead of forceful regulations. My current research at Georgia Institute of Technology focuses on one such innovation—the use of vehicle monitoring technologies in value pricing. GPS technologies, combined with web-based applications and electronic gantries, provide unprecedented opportunities for the implementation of High Occupancy Toll lanes, mileage-based fees, and enhanced travel demand surveying and modeling. This is a cutting-edge research that can help the transportation sector put into practice the principles of economic, financial, social and environmental sustainability.
Upon graduation I would like to apply my knowledge and skills to the public arena. Particularly, I hope to work for agencies such MARTA and Atlanta Regional Commission, to dedicate myself to building sustainable transportation systems. I am motivated to contribute to the solutions with passion and professionalism.

Your commitment to transportation engineering in Georgia and why this scholarship would further your commitment to the transportation field:

My doctoral research has been focusing on congestion alleviation in Atlanta. The Commute Atlanta Value Pricing Study I have been working on assesses the impact of congestion pricing on household travel behavior. As a principle analyst, I have evaluated the sample household in Metro Atlanta on a case-by-case basis and submitted the "Commute Atlanta Value Pricing Phase II Case Study Report" to Georgia Department of Transportation. The papers on the results from this study have been recommended for presentation on the 2008 and 2009 Transportation Research Board Annual Meetings.
In order to prepare myself for a transportation career in Georgia, I seize every opportunity to learn, collaborate and communicate. I actively attend meetings organized by ITS Georgia, WTS, and ITE Georgia Section, to network with professionals and learn from their experiences.
I was also one of the very few female international officers of the ITE Georgia Tech Section. I have served on the Board of Directors of the WTS Student Chapter for the past

two years and was the past president. I am also an active member of the WTS Atlanta Chapter.
The ITS Georgia Scholarship will further my commitment to the transportation field in many aspects. First, the scholarship will help me attend the ITS annual meeting, and therefore broaden my horizons and deepen my understanding of the role of ITS in congestion relief. I will dedicate such knowledge that I gain through the experience to the planning processes in public agencies in Georgia. Second, the scholarship will greatly encourage in the advancement of my career and constantly remind me to work hard towards a sustainable transportation system.

Applicant:
Yanzhi (Ann) Xu

Name _____ Signature: _____ Date: _____

Recommended by (Faculty advisor):

Name _____ Signature: _____ Date: _____

THIS PAGE MUST BE RECEIVED – WITH APPROPRIATE SIGNATURES – BEFORE NOON, FRIDAY, SEPTEMBER 11, 2009 VIA US MAIL, FAX, OR EMAIL.

Abstract in response to the essay question

The next generation ITS system for Atlanta should be completely multimodal, integrating travel time estimates for transit, highways, bicycle and pedestrian modes. Ideally, a traveler should be able to log on to a website, or access the system from their mobile or in vehicle device to get directions and real-time travel estimates from point A to B for a variety of modal alternatives. For example, a traveler from Gwinnett county to downtown Atlanta could be given the information on routes and departure/arrival times whether he/she wishes to drive on I-85 in single occupant vehicle lanes, drive on I-85 with another passenger in the HOT lane, drive on arterial routes parallel to I-85, park and ride by taking a GRTA express bus, or drive to the Doraville station and take the MARTA rail. The travel time and total cost (including gasoline, parking, and transit fares) should be included for each alternative so the traveler can make an informed travel decision. This will require investments in additional ITS infrastructure investment and coordination by a number of agencies including GDOT, SRTA, MARTA, GRTA, other regional transit agencies, along with municipal and county governments. Automatic vehicle location (AVL) systems should be present on all public transportation to provide accurate arrival/departure times. Traffic signals should provide transit signal priority. Highway agencies should be able to differentiate travel times on HOV/HOT lanes from general purpose lanes. Also, significant ITS infrastructure is necessary on arterial roadways.