



ITS Georgia Scholarship Committee
c/o Kristin C. Turner, ME, PE
ARCADIS
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Suite 400
Atlanta, GA 30339
Phone: 770-431-8666
fax: 770-435-2666
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:	Carlos Campo	Major:	Civil Engineering
Address:	1117B McMillan St NW	Overall GPA:	3.90
	Atlanta, GA 30318	Major GPA:	3.90
		Anticipated Degree:	MSCE
Phone:	(404)734-8106	Graduation Date:	May 2010
Email:	carloscampo@gatech.edu	Student at:	Georgia Tech

Honors that you have received in high school or college:

Honor	Description
National Honor Society	Recognition for leadership and academic record in High School.
Scholarship by the National University of Colombia	Recognition for 1 st place in admissions exam. For 1 st semester, continuation based on academic performance. Top 2 CE school.
Top ECAES list	14 th place in EIT-equivalent exam in Colombia at national level. (out of all CE senior students in the country)

Positions and memberships in engineering organizations:

Organization	Position
COPNIA	Licensed Engineer with the National Professional Engineering Council of Colombia. Department of Cundinamarca & Bogota DC.
ITE	International Member
TRB	Student Member

Positions and memberships in campus/community organizations:

Organization	Position
GAITE GT Student Chapter	Membership Chair
SHPE GT Student Chapter	Member
WTS GT Student Chapter	Member

Your three most recent employment positions:

Employer: Georgia Tech	Dates: 08/08-TD	Position: Graduate Research Assistant
Description:		
Research support for urban transportation planning related projects under Dr. Michael Meyer, including working on identifying determinants for international applicability of BRT systems, within a context-based transportation planning framework.		

ABSTRACT

METRO ATLANTA IS UNIQUE WITHIN NORTH AMERICAN CITIES AND THEREFORE NEEDS UNIQUE SHORT AND LONG TERM SOLUTIONS TO ADDRESS CONGESTION. FOCUSING ON THE LONG TERM SCENARIO, A FRAMEWORK FOR ACHIEVING MAXIMUM CAPACITY CONGESTION WAS DEVELOPED WITH THE ADDITIONAL DEGREE OF FREEDOM OF HAVING UNLIMITED FUNDS. THIS CONDITION ALLOWED CONSIDERING THREE MAJOR STRATEGIES FORMULATED THROUGH THE PROCESS OF BACKCASTING, SETTING A MINIMUM CONGESTION TARGET BY 2050 AND A NNET/FZLOG/HEURISTICS SYSTEM DYNAMICS SOFTWARE TO HELP MODEL POLICIES. THEN, TECHNICAL AND POLITICAL FEASIBILITY; SOCIAL AND ENVIRONMENTAL IMPACTS, WERE DETERMINED FOR EACH. A MCDM METHOD WAS USED TO CREATE A COMPOSITE FEASIBILITY/SUSTAINABILITY INDEX (SUFIX), OF WHICH THE LARGEST NUMBER WOULD DETERMINE THE BETTER APPROACH. THE SCENARIOS CONSIDERED WERE: INDUCED DENSIFICATION BASED ON LAND SUBSIDIES AND SMART GROWTH POLICY (“SMART DEMAND”), WITH ENCOURAGED SMALL ZERO CARBON CAR AND SCOOTER SHARING WITH TECHNOLOGICAL SUCH AS PORTABLE BICYCLES, MOVABLE SIDEWALKS, INTRABUILDING EFFICIENT MOBILITY, PEDESTRIAN SIGNAL PRIORITY AND CONGESTION MANAGEMENT (PCM/PSP) ; THE SECOND APPROACH WOULD BE MORE INFRASTRUCTURE INTENSIVE, WITH OPERATIONAL AND CAPACITY IMPROVEMENTS USING EXPANDABLE AND AUTOMATED GUIDEWAYS RAPIDLY BUILT WITH A SELF FORMING POLYURETHANE REINFORCED WITH NEW GRAPHITE. ALSO, VEHICLES MAXIMIZING INTERIOR/EXTERIOR VOLUME AND MINIMIZING WEIGHT/RESISTANCE (MAXIMINI), LANE SEGREGATION AND, AND INSTRUMENTED REAL TIME PASSENGER INFORMATION SYSTEMS (RETIPIIS), ALL CALLED ‘SMART SUPPLY; A THIRD ONE, WHICH COMBINES SOME OF THE TWO AND FOCUSES ON A MARKET APPROACH, TAKING ADVANTAGE OF THE SYNERGIES OF CONVERGENCE FROM THE ADVANTAGES OF INDIVIDUAL AND MASS TRANSPORTATION TRAVEL: FLEXIBILITY AND CAPACITY, MAKING THE USE OF BRT-METROS WITH ONE DRIVER AND UP TO 500 PAX/VEH, REDUCING OR EXPANDING SIZE DEPENDING ON STATE OF THE ART DEMAND MONITORING, AND COMPLETELY COMPATIBLE WITH SPECIAL TRANSIT ORIENTED PERSONAL VEHICLES (TORV), BEING CALLED ‘SMART CONVERGENCE’. THIS PAPER SETS THE THEORETICAL FOUNDATIONS, AND AN ONGOING STUDY WOULD EXAMINE THE RESULTS FROM THE MODELING AND COMPREHENSIVE ANALYSIS.