Partnering to Promote Workforce Development for the Transportation Profession

Raghava Kommalapati, Judy Perkins, William Stockton, Robert Benz and Deborah Jasek

Performing Organization
University Transportation Center for Mobility
Texas Transportation Institute
The Texas A&M University System
College Station, TX

Sponsoring Agency
Department of Transportation
Research and Innovative Technology Administration
Washington, DC

UTCM Project #07-05
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3135 TAMU
College Station, TX 77843-3135

Department of Transportation
Research and Innovative Technology Administration
400 7th Street, SW
Washington, DC 20590

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The objective of this multi-university/agency partnership among Prairie View A&M University, (PVAMU), Texas Transportation Institute (TTI) and Texas A&M University (TAMU) is to produce high quality transportation professionals from underrepresented groups. This partnership strengthens the existing pipeline program (Federal Highway Administration sponsored Summer Transportation Institute (STI)) between local high schools and PVAMU by attracting bright young minds for summer experiences during their last two summers before graduation from high school. One program is the current STI and the second is a new program for returning STI participants called STI Scholars. The more challenging STI Scholars curriculum allows Scholars to mentor first-year STI participants, while gaining valuable real world experience by observing and participating in projects conducted by transportation professionals at TTI. Scholars are then encouraged to pursue an undergraduate degree in the existing four-year Civil Engineering program at PVAMU. As part of this project, an advisory board for STI consisting of school teachers and counselors was established to increase the outreach of our programs to schools. A database containing more than 1,000 school teachers and counselors at more than 150 schools across Texas was developed and used to communicate the news about the 2008 STI program. A database of past STI participants was updated and communication links were established. A MySpace web page was created for STI and current and past STI participants were invited to join and network with each other. The preparatory work to establish the STI Scholars program was completed as part of this grant and the first STI Scholars program was conducted in June, 2008 utilizing the funds from the continuing UTCM grant.
Partnering to Promote Workforce Development for the Transportation Profession

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Final Report

Submitted to
University Center for Transportation Mobility
Texas Transportation Institute
College Station, TX 77843-3135

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Executive Summary
The objective of this multi-university/agency partnership among Prairie View A&M University, (PVAMU), Texas Transportation Institute (TTI) and Texas A&M University (TAMU) is to produce high quality transportation professionals from underrepresented groups. This partnership strengthens the existing pipeline program (Federal Highway Administration sponsored Summer Transportation Institute (STI)) between local high schools and PVAMU by attracting bright young minds for summer experiences during their last two summers before graduation from high school. One program is the current STI and the second is a new program for returning STI participants called STI Scholars. The more challenging STI Scholars curriculum allows Scholars to mentor first-year STI participants, while gaining valuable real world experience by observing and participating in projects conducted by transportation professionals at TTI. Scholars are then encouraged to pursue an undergraduate degree in the existing four-year Civil Engineering program at PVAMU. During their undergraduate studies these individuals will be provided with a unique combination of mentoring and real world experiences through TTI, TAMU and our other partnerships with governmental agencies and private and public corporations. Some of the other opportunities currently available in the department such as Eisenhower transportation fellowships for juniors and seniors will be leveraged to increase the quantity and quality of experiences for participants.

The goals of this program are being achieved through a series of tasks that will be carried out over a two to six year period. The current project provided initial funding to start work on these long term goals with the anticipation of further funding, part of which we have already received from the University Transportation Center for Mobility (UTCM).

As part of this project, an advisory board for STI consisting of school teachers and counselors was established to increase the outreach of our programs to schools. A database containing more than 1,000 school teachers and counselors at more than 160 schools across Texas was developed and used to communicate the news about the 2008 STI program. A database of past STI participants was updated and communication links were established. A MySpace web page was created for STI, and current and past STI participants were invited to join and network with each other. The preparatory work to establish the STI Scholars program was completed as part of this
grant and was conducted in June, 2008 utilizing the funds received from the continuing grant (UTCM grant 08-45-07). The other long term goals of this project will also be continued through this UTCM grant.
Introduction
According to US Department of Transportation statistics in 2000, one in three new jobs created in this country will be transportation related and strong efforts are needed to develop the workforce to meet this demand, particularly from underrepresented groups. One such program is the Federal Highway Administration (FHWA) sponsored National Summer Transportation Institute (NSTI). Though this program was focused on the broader transportation profession, the transportation/civil engineering workforce plays a major part. This program is now offered at over 50 universities across the country, including Prairie View A&M University (PVAMU) and Texas Transportation Institute (TTI). The goal of the program is to increase the awareness of various transportation careers among secondary school students and motivate them to consider education paths that will lead to the transportation industry. Prairie View A&M University started its Summer Transportation Institute (STI) in 2000 through the Department of Civil and Environmental Engineering. In addition to the FHWA goal of increasing awareness of transportation careers among secondary school students, the STI at PVAMU is also intended to serve as a pipeline program for PVAMU’s Civil Engineering undergraduate program and thus increase the number of civil engineers from underrepresented groups. Over the last eight years, the highly successful STI program at PVAMU graduated an average of 16-18 participants each year. Moreover, it provided access to and awareness of PVAMU and our civil engineering program at many of the schools through our student ambassadors. The participants came from various high schools across Texas and other states. As PVAMU’s STI program approaches its 10 year anniversary, we wanted to strengthen the program with newer partnerships with a major research agency, TTI and a major university, Texas A&M University (TAMU) with the ultimate goal of producing transportation professionals with engineering degrees and real world transportation engineering experiences. This seed grant from University Transportation Center for Mobility (UTCM) is aimed at this goal of developing a strong pipeline program.
Objective(s)

The overall objective of this multi-university/agency partnership is to produce high quality transportation engineers from underrepresented groups with possibly graduate degrees and research and other real world experiences. This objective will be met through a series of tasks that will be carried out over multiple projects over a two to six year period. The tasks identified for this initial phase of funding are:

1. Develop the new paradigm (academic path with relevant connectors) with the two summer programs during high school and the subsequent undergraduate and graduate experiences before entering the transportation engineering workforce.
2. Create a database of all STI participants who graduated from PVAMU in the last eight years and establish communications links.
3. Prepare marketing materials (video, brochure, other promotional material) and first semi-annual newsletter utilizing our partnership with TTI.
4. Review/develop admission criteria, identify the potential high schools to target including magnet schools and charter schools, and recruit four to six teachers/counselors from the identified schools to work with this program in advisory roles.
5. Seek corporate partners to work with PVAMU and TTI on this long term effort. Our relationship with TTI should help in attracting major sponsors that have established connections to TTI.

After consultations with the project team, the following performance measures were set for this project.

1. The number of high schools solicited for participation in the program will increase from 100 to 110.
2. The number of applications received for new STI students will increase from 30 to 35.
3. Two STI students will apply to return to the STI program for a second year. (Currently, the program does not provide for multiple years of participation).
Methodology

In the following pages, each of the project tasks is explained in detail and the specific performance measures addressed.

Task 1: Develop the new paradigm (academic path with relevant connectors) with the two summer programs during high school and the subsequent undergraduate and graduate experiences before entering the transportation engineering workforce.

The proposed partnership among PVAMU, TTI and TAMU is intended to strengthen the existing pipeline (through STI) between local high schools and PVAMU. The current STI program has been extended to include a second year experience called STI Scholars. This second-year program provides a more challenging combination of education, exposure to research and other real world experiences. STI Scholars will then feed into the existing four-year undergraduate Civil Engineering program at PVAMU where these students will be provided with a unique combination of mentoring and real world experiences through TTI, TAMU and our other partnerships with governmental agencies and private and public corporations. Students will be encouraged to pursue creative employment opportunities and summer internships with our partnering institutions and corporate sponsors (Task 5). Other programs such as Eisenhower transportation fellowships for juniors and seniors will be leveraged to increase the quantity and quality of experiences for participants. Upon successful completion of the four-year Civil Engineering degree, graduates will be encouraged to pursue graduate education at TAMU with research assistantships through TTI or pursue careers in the transportation field.

The conceptual pipeline diagram of this proposed long term program is presented in Figure 1. The majority of the components identified in this diagram (marked in blue) exist already (example, STI, BSCE at PVAMU, graduate programs at TAMU, etc.). This current project and the second UTCM project develop the STI Scholars program and establish relationships with TTI and other private and public entities (marked in red) involved in the transportation field to provide internship opportunities in research and real world experiences. Both these projects will also help develop strong relationships with many high schools in Texas and other states. The
structured path line (marked in green) is being established as part of the two projects. As can be seen from this chart, our high school outreach program can potentially attract a high school junior and guide him/her through an undergraduate education and into a graduate program and/or the transportation workforce.

Figure 1. Concept Diagram for the Proposed Pipeline Program

**Task 2:** Create a database of all PVAMU STI program graduates from the last eight years and establish communications links.

We called all student participants of the PVAMU STI programs from 2000 through 2007. We asked students to update contact information and for their willingness to complete a follow-up survey. The purpose of the survey is (i) to gain feedback on the value of the STI program for the participants, (ii) determine what career choices the participants had made after STI and thus determine if STI is achieving its goal. A past participant follow-up survey matrix was developed in Microsoft Excel and populated with addresses, phone numbers and other personal information for each participant. The following table (Table 1) shows the number of participants for whom we updated the contact information and the number of participants that agreed to complete a follow-up survey.
Past participants were asked to communicate regularly with STI via an Internet communication portal (www.MySpace.com). We created a MySpace web page for STI to encourage on-going efforts to communicate, update contact information, conduct "success" interviews, and become a source of networking for employment and professional organizations related to transportation and engineering. The details of the STI MySpace web page are given in Figure 2 below. The former and current students of STI were informed of this site.

<table>
<thead>
<tr>
<th>STI Participating Year</th>
<th>Provided Updated Contact Information</th>
<th>Agreed to Complete Follow-Up Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2001</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2002</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>2003</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>2004</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>2005</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>2006</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Totals</td>
<td>22</td>
<td>88</td>
</tr>
</tbody>
</table>

Table 1. Past STI Participants Contact Update Results

Your new username is: pvamu_sti
Your MySpace URL is: http://www.myspace.com/pvamu_sti
Your Real Name is: Raghava Kommalapati
Your Display Name is: PVAMU_STI

Figure 2. STI MySpace Page Login Details
**Task 3:** Prepare marketing materials (video, brochure, other promotional material) and first semi-annual newsletter utilizing our partnership with TTI.

We collaborated with the Communications Department at TTI to prepare marketing materials. It was agreed that PVAMU would provide the content (e.g., pictures, presentations and text) and TTI Communications would develop the final deliverables (e.g., logo, CD-ROM, brochures and other promotional items).

The first meeting of the PVAMU Team with TTI Communications was held on the campus of Prairie View A&M University on November 13, 2007. The group discussed several marketing options. Some of the issues discussed include the size of the audience STI is attempting to reach with the promotional items; recruitment aids and focus of recruitment for the promotional items; sources to help aid STI outreach campaign; possible corporate sponsors and donations; use of Internet blogs and communication web sites (e.g., www.MySpace.com) to reach more people and generate more interest in STI; filming videos of past STI participants and allowing them to tell their success stories on the web; having a reunion for past STI participants during PVAMU’s Homecoming; creating brochures (one for parents/teachers and a separate one for students); creating a postcard; creating an Interactive CD-ROM for STI recruitment and outreach; fundraising via web site; and allowing for online completion of STI applications. The group decided to forego a traditional newsletter and instead create a web page dedicated to the PVAMU STI on www.MySpace.com and recruit students to join the web page. STI would provide updates on the program and take comments and suggestions from the visitors to the web page.

Our second team meeting with TTI was on the TTI campus on December 3, 2007. TTI officials delivered a PowerPoint presentation. Some of the items presented include, Development of a new PVAMU STI Logo and “Identity”; TTI officials surveying current PVAMU students in a focus group to gain their opinions on recruitment tools; recruitment language to use when seeking corporate sponsors; STI staff visiting local schools (e.g., Houston, Dallas, Pearland, etc.) in Texas to deliver marketing materials and give presentations on STI.
After these two very productive meetings, TTI Communications developed a logo and a rough draft of the brochures for PVAMU STI program. First drafts of materials were given to us on January 17, 2008 (brochure), February 11, 2008 (logo) and February 14, 2008 (postcard). We surveyed current PVAMU students (about six dozen) in a focus group to gain their opinions on the rough drafts of the postcards and brochures. We incorporated their opinions into the final drafts. TTI Communications delivered the final drafts in late February, 2008 (logo) and early April, 2008 (postcard, student brochure, and parent/teacher brochure). We printed about 2,250 color parent/teacher brochures and student brochures and 2,000 color postcards in late April, 2008. These brochures and postcards are provided in Appendix A. TTI also developed the content for the STI MySpace web page. TTI personnel also visited the 2008 PVAMU STI program to photograph students during scheduled activities for the development of the PVAMU STI web site and possible CD-ROM.

Task 4: Review/Develop admission criteria, identify the potential high schools to target, including magnet schools and charter schools, and recruit four to six teachers/counselors from the identified schools to work with this program in advisory roles.

STI staff reviewed the current admission criteria for the STI program with all the team members and we felt that the existing application package did not highlight the cost of the program, giving the impression that this is a free program like so many other summer programs. We therefore edited the 2008 application package and changed some of the requirements. (See Appendix B for updated application package.) Students are now required to have at least one parent, teacher, or counselor nominate them for the PVAMU STI program. The wording was also changed on the application to highlight the monetary value of the program for each student (e.g., “Approximately 18 students will receive a scholarship which will cover the cost for participating in the PVAMU STI program. The cost for participation is approximately $2,500 and the scholarship covers the entire cost, thus making the program free for the selected participants.”).

STI staff researched every high school in Texas and decided to reduce the recruitment list to only
high schools (including magnet schools and charter schools) within about 200 miles of Prairie View A&M University and also to place more emphasis on inner cities of major metropolitan cities in Texas. A database was developed utilizing the data from Texas Educational Agency (TEA). The database contains the name, address, telephone number, and county for about 150 schools. Approximately two math teachers, two science teachers, and two counselors were identified for each school and placed in the database. With few exceptions, an e-mail address is listed for each contact. We also utilized the information from the recruiter’s office in the College of Engineering regarding the schools which typically send students to engineering. A list of 12 schools was developed and added to the database, primarily from the Houston and Dallas Metropolitan areas.

We also identified several schools, science and math teachers and counselors to serve on the PVAMU STI Advisory Board. We sent out invitation emails to approximately 1,000 math teachers, science teachers, and counselors in March, 2008. From the responses received, approximately 12 teachers and counselors from 10 schools were targeted for their enthusiastic replies and interest. We requested the resumes of these 12 individuals, reviewed them carefully, and selected six candidates for the STI Advisory Board. These six individuals (Table 2 below) were sent a congratulatory letter with a list of their duties and responsibilities as a PVAMU STI Advisory Board Member for years 2008-2010. They were also asked to complete time-sensitive paperwork to receive their $500 honorarium. The first face to face meeting of the Advisory Board is expected in the fall of 2008 on the PVAMU campus.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>High School</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheryl Craven</td>
<td>Math Teacher, Head Swim Coach, Assistant Varsity Softball Coach</td>
<td>Thurgood Marshall HS</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>Bertha Cedillo Valle</td>
<td>Chemistry Teacher</td>
<td>Memorial HS</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>Jimia L. Baker</td>
<td>Counselor</td>
<td>Pearland HS</td>
<td>Pearland, TX</td>
</tr>
<tr>
<td>Brandy Dean</td>
<td>Chemistry Teacher</td>
<td>Clifton J. Ozen Magnet HS</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>Yolanda D. Foster</td>
<td>Magnet Coordinator</td>
<td>James Madison HS</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>Shaniquwa Finley-Carter</td>
<td>Counselor</td>
<td>Forest Brook HS</td>
<td>Houston, TX</td>
</tr>
</tbody>
</table>

Table 2. PVAMU STI Advisory Board Member for years 2008-2010
**Task 5:** Seek corporate partners to work with PVAMU and TTI on this long-term effort. Our relationship with TTI should help in attracting major sponsors that have established connections to TTI.

STI staff started the research with internet search engines with queries to engineering and transportation-related corporations/organizations/foundations. A database of approximately 120 organizations/companies/corporations was created. A separate database with the same descriptors was created for seven foundations that are potential donors to engineering and/or transportation education related programs like our STI program. The goal of this task was to start collecting information on potential donors and utilize our relationship with TTI to initiate communications with these potential donors.

TTI Communications suggested creating a web page with information specifically targeted for philanthropists/corporate sponsors/donors. In the second phase of this project we will work with TTI in developing the network of donors.

**Curriculum Development**

While curriculum enhancement for the STI and STI Scholars programs was not originally part of this project, we developed and implemented some new modules in the 2008 STI and STI Scholars programs. We recruited Dr. Chris Hunter, a transportation faculty member from the University of Rhode Island to develop a few modules. Some of the new modules developed are given below.

1. Introduction to transportation and transportation engineering- Transportation challenges and transportation jeopardy.
2. How fast are you? Reaction time and how it links to transportation
3. How long should the yellow light last?
4. Signalized intersection data capture and reduction: What is really happening?
5. Does the signal timing really meet your approval?
6. Freeway capacity and how well does it operate? Give it a grade
7. Transportation safety issues – Red light running, speeding, introducing traffic
   programming logic
8. Demonstrating the impact of thicker beams – Interactive lecture
9. Building the most efficient truss bridge through simulation
10. Building a bridge (balsa wood)
11. Testing a bridge
12. Building the most cost effective rigid pavements for roads
13. Roadway sample testing
14. Roadway layout: A look at alignment and elevation changes
15. Making your bus route effective
16. Providing the end point: Creating a great parking lot
17. Water ferry service
18. Airport runway capacity

Performance Measures

- The main objective of this seed grant was to advance and expand the Summer Transportation
  Institute (STI) at PVAMU.
  - We developed an academic pathway in which a student who attends the STI after
    completing 10th grade will be brought back to attend the STI Scholars program after
    the 11th grade and join PVAMU Civil Engineering after graduation from high school.
    Students are mentored and provided transportation engineering exposure along with
    transportation internship opportunities. Students are encouraged to pursue graduate
    degrees in transportation.

- The number of high schools solicited for participation in the program will increase from 100 to 110.
  - Finalized two brochures, one for the students, and the other for teachers and parents
    along with a post card that provides information on the STI program (Appendix A).
  - Developed “MySpace” web page to promote STI among youth (Appendix C).
  - Updated the web page for STI (www.pvamu.edu/sti) (Appendix C).
- Contacted 160 schools, exceeding the goal of 110.
- Emailed 1,000 school teachers and counselors from the above listed 160 schools informing them of the STI program and directing them to the STI web site.
- Formed the STI Advisory Board consisting of six teachers and counselors from high schools in Texas.

- The number of applications received for new STI students will increase from 30 to 35.
  - Received 54 applications, exceeding the goal of 35 by 19.
- Two STI students will apply to return to the STI Scholars program for a second year. (Currently, the program does not provide for multiple years of participation.)
  - Although we were not scheduled to offer the second year experience (STI Scholars program) until summer 2009, we recruited two students from 2007 STI participants and offered the STI Scholars program a year ahead of schedule in June, 2008. Details on this program will be provided in our report for the next project. STI Scholars program ran concurrently with 2008 STI program. This program is expected to be offered in summer 2009 and hopefully beyond.
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Appendix A
STI Post Card (1 page)
STI Brochure for Students (2 pages)
STI Brochure for Parents/Counselors (2 pages)
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Science & Math Teachers
Application Deadline: May 1, 2008

Your best students—in intelligent, curious, with a bright future ahead of them. A future that’s already in their hands.

Help put the future in their heads. The Summer Transportation Institute (STI) at Prairie View A&M University is a month-long program teaching students about careers in transportation. Scholarships valued at $2,500 cover room, board, supervision, field trips, and mentoring by transportation professionals. Slots are limited, so recommend your best student today!

When: STI runs June 8 – July 3, 2008
Where: Prairie View A&M University

For more information and application materials visit:
http://www.pvamu.edu/sti

Be the spark that ignites a passion…
STI Brochure for Students

Apply to STI
(This looks like a lot. It’s not, just check out the website.)
We need
• the completed application form (two pages);
• a copy of the student’s high school transcript
  and other standardized test scores;
• a typed essay of 250 words or less describing
  “Why you want to attend the STI at PVAMU?”;
• the completed recommendation form from a
  math/science teacher and
• a letter of nomination from the parent, teacher
  or counselor.

Get the application and instructions
for submitting it at:
http://www.pvamu.edu/sti
You can also contact:

We’ll help fund your future. Seriously.
You might think we’re crazy. Maybe we are. But for
a month we’re awarding you a scholarship worth
$2,500 just to take a look around the world of
transportation. The scholarship covers a place to
live, food, field trips like you’ve never seen before
and a whole lot of free ideas about a future you’ve
probably never thought about—or no out-of-pocket
cost to you.

Spend a month like no other with the Summer
Transportation Institute (STI) at Prairie View A&M
University. You’ll live in a university dorm with
10th and 11th graders just like you. You’ll design
a dream car and learn how transportation affects
every aspect of your life from—cars to clothes, and
cell phones to…maybe even your career. A career in
transportation? Yeah.

Free food, field trips, friendships &
your future.
Ready for the month that
will change your life?

Dr. Raghava R. Komandlapati, Director
st@pvamu.edu
(936) 261-1665

PRAIRIE VIEW A&M UNIVERSITY
SUMMER TRANSPORTATION INSTITUTE
THE FACTS

• 1 in 7 American jobs are in transportation.
• Public transportation alone is a $43-billion industry. That’s billion with a “b.” Not impressed? Transportation as a whole is worth $1.75 trillion.
• The average American drives 15,000 miles per year.
• More than 2 million lives have been saved by 40 years of roadway safety improvements.

Will you play a part in shaping the future?

We need bright minds like yours to design, build and preserve the transportation network of tomorrow. More drivers, more airplane flights every year and more cargo traffic mean our challenges are greater than ever before. There is a career ahead for you. Let STI show you the road to your future.

The 4-1-1 on STI

It’s a 4-week program at Prairie View A&M University. You’ll:
• be supervised and live in university dorms;
• take field trips to some awesome transportation-related places, maybe even be trained to steer a cargo ship;
• hear from leaders who can tell you what these jobs are like;
• spend some downtime bowling, hanging out and socializing with other scholarship recipients; and
• celebrate the month you spent with us at an award/ recognition ceremony.

Here’s what we need from you

30 days to move the World. You ready?

If you want to learn more about a career that literally moves millions of people throughout their lives every day, you
• need to have finished the 10th or 11th grade by May (meaning you would be a Junior or a Senior in the next school year);
• need a grade point average of at least 2.25, and
• should be at least a little interested in Math, Science or Engineering.
STI Brochure for Parents

How can you be the spark? (Help them apply.)

We need:
- the completed application form (two pages);
- a copy of the student’s high school transcript and other standardized test scores;
- a typed essay of 250 words (or less) from the student describing “Why you want to attend the STI at PVAMU?”;
- the recommendation form from a math/science teacher; and
- a letter of nomination from the parent, teacher or counselor.

Get the application and instructions for submitting it from our website at:
http://www.pvamu.edu/sti

Whose passion?

 theirs.

What if you could get a teenager to:
- Consider a career with built-in job security;
- Kick start their college education;
- Experience a cool & unlimited world of math and engineering; and
- Think about a future beyond just today?

You can.

Presenting the Summer Transportation Institute (STI) at Prairie View A&M University.

Parents, Teachers.

Be the spark that ignites a passion.

You can also contact:
Dr. Ragbaa P. Komandapati, Director:
sti@pvamu.edu
(936) 261-1665
Wanted: high school juniors and seniors with bright minds & free time this summer

Know any?

The STI is a month-long program where students experience a career path they’ve probably never thought about—transportation. Fourteen percent of American jobs are in transportation, the lifeblood of commerce in the USA. The opportunities for employment will only grow as international trade opportunities expand the global economy.

What sort of careers is it?

Consider civil engineering (CE), only one of the many fields in transportation:

- Average starting salary (BS degree) in 2007 was $48,000.
- Median salary for established civil engineers in 2006 was $68,000.
- CE is expected to experience 11 percent employment growth faster than the average for all occupations.

*source: http://www.bls.gov/oco/ocos087.htm

We’re offering...

Your high school junior or senior receives a scholarship worth $2,500 covering all program expenses including:

- Cost of instruction;
- Full supervision, day and night;
- Room and board on the campus of Prairie View A&M University;
- Field trips that pack some “wow” power;
- An introduction to industry professionals who mentor students; and
- A recognition ceremony at the end to highlight learning and achievement.

What’s required?

Students with an interest in their future. We’ll help with the rest.

Students need to have:

- Finished the 10th or 11th grade by May (meaning, they would be classified as a Junior or Senior in the next school year);
- A grade point average of at least 2.25 on a 4.0 scale; and
- An interest in Math, Science, or Engineering.
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Appendix B
New STI Application Package
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Dear Prospective Student/ Nominating Parent/ Nominating Teacher/ Nominating Counselor:

Prairie View A&M University (PVAMU) is pleased to announce its “2008 Summer Transportation Institute” (STI) for rising 11th and 12th grade students. Sponsored by the Federal Highway Administration (FHWA) through the Texas Department of Transportation (TXDOT) and designed by PVAMU, STI is a four-week, on-campus, learning opportunity for a diverse group of high school students. The program provides experiences for these students to enhance their awareness of career opportunities that exist in the transportation industry. The curriculum exposes students to new frontiers and adventures such as highway design, the transportation of people and cargo, intermodal (involving more than one form) transportation, safety, environmental issues and related career opportunities.

The 2008 PVAMU STI is scheduled to start on Sunday, June 8, 2008, and conclude on Thursday, July 3, 2008.

Approximately 18 students will receive a scholarship which will cover the cost for participating in the PVAMU STI program. The cost for participation is approximately $2,500 and the scholarship covers the entire cost thus making the program free for the selected participants. The participants will be selected through a competitive process based on the criteria listed in the application package. A parent, teacher, or counselor must nominate the student for the PVAMU STI program.

The $2500 scholarship that is provided for each program participant covers the participant’s room and board, field trips and hands-on activities, recreational activities, educational activities, project materials, laboratory time, computer facilities, and the end-of-program award presentation. Classes, labs and seminars are held on the university campus. Students and their adult peer counselors/tutors are housed in the University College Dormitory with males and females residing in separate wings. The library, game rooms, and exercise facilities are also open to STI students under adult supervision. Please see the attached brochure for additional details.

The enclosed application (2 pages) and recommendation form must be completed and submitted by May 1, 2008 along with a nomination letter from a parent/teacher/counselor. Also please include academic transcripts, copies of standardized test scores, and an essay describing why the student would like to participate in the STI program.

We solicit your support in informing potential participants about the PVAMU STI program and encourage their participation. If you have questions or need additional information, please contact Mrs. Sharon Gentry or me at the numbers listed above or email us at sti@pvamu.edu and visit our website http://www.pvamu.edu/pages/1128.asp.

Sincerely,

Raghava Kommalapati, Ph.D., P. E.
STI Director and Associate Professor

cc: Dr. Judy Perkins, Department Head, Department of Civil & Environmental Engineering
    Dr. Kendall Harris, Dean, College of Engineering
Name: ___________________________________ SS# ___________________ Gender ___ M ___ F
(Please Print Clearly)
Address: ___________________________________ City _____________ State _____Zip_________
Email:__________________________________

Parents/Guardian: _____________________________________________________________________________
Address (if different): ___________________________________________ State _______ Zip_______________
Telephone: (Home) _________________ (Work or Cell) ________________ Email:  ______________________
Emergency Contact: ______________________________________  Phone: ___________________________
Ethnicity:  __African American  __ American Indian  __ Hispanic   __ Caucasian  __ Asian American  __ Other
Other information that you would like us to know about you __________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________

School Attending Next Fall: ___________________________________________________________________
School Address:___________________________________City_______________ State ______Zip__________
Guidance Counselor/Teacher’s Name: ________________________________________________________
Telephone____________________  Fax___________________    E-mail_______________________________
Awards/Achievements/Organizations: ____________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________

During the next school year I will be in the: (Check One)   ___ 11th Grade __ 12th Grade __Other (list)
Standardized Test Scores: ______________    Grade Point Average: ____out of____      Rank ___ out of ____
List your math and science classes for next school year   Math ________________ Science _______________
PRAIRIE VIEW A&M UNIVERSITY
A Member of the Texas A&M University System
Summer Transportation Institute

Office: (936) 261 –1665/ 1660  Email: sti@pvamu.edu http://www.pvamu.edu/sti  FAX: (936) 261-1662

Career Interest

Career Interest (You must Check One at least)
☐ Accounting  ☐ Transportation  ☐ Engineering  ☐ Other _________
☐ Architecture  ☐ Environmental  ☐ Civil Enging
☐ Business  ☐ Law  ☐ Other Enging
☐ Criminal Justice  ☐ Marketing  ☐ Technology
☐ Computer Science  ☐ Scientific Research  ☐ Construction

Required Essay

Describe your career objectives, your interest in transportation, and how the Summer Transportation Institute can assist you in reaching your goals. Your essay must be typed, and may not be more than one (1) page.

Additional Information

Please complete and submit this application (2 pages) with the required signatures, Teacher/Counselor recommendation form signed by your school counselor or teacher, a nomination letter, a copy of standardized test scores, academic transcript, and an essay describing why you want to participate in the STI program to the following address. Applications will not be processed with incomplete information.

Submit Inquiries and/or Materials to : STI
Department of Civil & Environmental Engineering
P.O. Box 519, Mail Stop 2510
Prairie View A&M University
Prairie View, Texas 77446-0519

Participant Signature

I reviewed all the program details with my parents and counselors and if selected to attend STI, I pledge to attend all scheduled activities, classes and events and abide by PVAMU and STI rules.

__________________________  _________________________
Student Applicant Signature  Date

Parent/Guardian Signature

I reviewed the STI program details and application material with my son/daughter and if selected, I will authorize my son/daughter to attend STI at PVAMU. I also understand that the participants are not allowed to stay away from the activities (including night and weekend activities) during the four-week period.

__________________________  _________________________
Parent/Guardian Signature  Date
Teacher or Counselor – Please complete the form and either give it to the student or mail to Director, STI, Dept. of Civil & Environmental Engineering P.O. Box 519, Mail Stop 2510, Prairie View A&M University, Prairie View, TX 77446. Please be precise with your comments and evaluation on any disciplinary issues with the student.

Name of Student _______________________________________________  SS# __________________

Student’s GPA is _______ on a _________ scale           Rank No. _______ in class of ________

Please complete if information is available.

<table>
<thead>
<tr>
<th>Test Scores</th>
<th>Raw Scores</th>
<th>Percentile Rank</th>
<th>Date Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAAS Texas Resident only</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Please evaluate this student compared with his/her peers.

<table>
<thead>
<tr>
<th>Intellectual Ability</th>
<th>Good</th>
<th>Excellent Top 25%</th>
<th>Outstanding Top 10%</th>
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<tbody>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Conduct</td>
<td></td>
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<tr>
<td>Emotional Maturity</td>
<td></td>
<td></td>
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</tbody>
</table>

Please provide additional comments on applicant (particularly their academic skills and conduct):

Name (print): ___________________________________________ Title _________________________

School: ___________________________________________ Address: _________________________

City: ______________________________ State: ____ Zip: ______________

Phone: __________________ Fax: ___________________ Email: _________________________

Subjects you teach/title: ______________________________

_________________________________________  __________________________________
Signature         Date

Your recommendation form will be handled in a CONFIDENTIAL manner when requested.
Sample Nomination Letter: To be prepared by nominating person (parent, relative, teacher or counselor). This is a sample letter only. Please type your own letter and attach it with the application package.

Date_______

To
Director, Summer Transportations Institute (STI)
Department of Civil and Environmental Engineering
PO Box 519, Mail Stop 2510
Prairie View A&M University
Prairie View, TX 77446

Dear Dr. Kommalapati:

I wish to nominate ————(name of nominee) to the Summer Transportation Institute program at Prairie View A&M University. I am listing some of the reasons why I believe ___________deserves to be considered for a scholarship with the STI program.

(list as many as you wish)

I have known ———— (name of nominee) for ___ months/years and have known him/her to be ___________________.

Please do not hesitate to contact me if I can provide any additional information.

Sincerely,

Nominator’s Name   Nominee’s Name
Complete address, phone number, and email    Complete address, phone number, and e-mail
Relationship to Nominee
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Appendix C

STI Web Site
STI MySpace Web Page
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Summer Transportation Institute

Thanks to all STI and STI program Participants and their Families for successfully completing the program. We look forward to offering these programs again in summer of 2009. We will update the site again in February/March of 2009. The deadline for applications for the 2009 STI and STI scholars program will be May 1, 2009. The mean time you can look up and join us on our Myspace page (use keyword PVAMU STI).

Department of Civil and Environmental Engineering at Prairie View A&M University has been hosting Summer Transportation Institute (STI) since 2000. STI is a 4-week residential program for rising 11th and 12th grade students. STI is sponsored by Federal Highway Administration (FHWA) through Texas Department of Transportation. STI recruits 15-20 bright students and exposes them to various exciting activities and field trips that provide them an understanding of the transportation industry and the careers. The students selected for this program will be offered a scholarship of $2500, which will cover all the expenses for the program. This program has no out of pocket expenses for the participants. The program includes class room lectures, hands on activities, educational and recreational field trips in addition to evening and weekend enhancement and recreational activities. The participants will develop professional skills, experience college life, interact with like-minded peers and learn the college admission and financial aid procedures. The participants will also receive a certificate of completion in addition to other merit awards during the closing ceremony for which the parents and family are invited.

Typically STI starts in the first week of June and the application deadline is May 1. To apply for admission, download the application package. Discuss the program with your parents/guardian and your science or math teacher and counselor. Parents or teacher/counselors must nominate the student for this program. Students must complete the application materials and attach the required documentation (two page application, teacher recommendation form, letter of nomination, essay, school transcript and other standardized test scores if available) and send us to us before the deadline.

Contact:

STI
Department of Civil & Environmental Engineering
P. O. Box 519, Mail Stop 5503
Prairie View A&M University
Prairie View, TX 77446
Ph. (936) 261-5665/5660
Fax: (936) 261-3152
Email: sti@pvamu.edu

Director: Bajbura R. Keesoman, Ph.D., P.E.
STI Page on MySpace

PYAMU_STI

"The 4-1-1 on STI"
Female
100 years old
PRAIRIE VIEW, Texas
United States

View My: Pies
Videos

PYAMU_STI Details
Status: Single
Here for: Networking, Friends
Hometown: PRAIRIE VIEW
Zodiac Sign: Leo
Educational: In college
Occupation: CIVIL ENGINEERING
Income: $25,000 and Higher

PYAMU_STI's Latest Blog Entry
STI Summer 2008...fabulous! (view more)
WELCOME 2008 PYAMU STI PARTICIPANTS! (view more)

PYAMU_STI's Blanks
About me:
Check this out high school juniors and seniors
We've got free food, field trips, friendships, and your future right here.

You like to drive, right?
Planes, cars, boats, roads, bridges...how does all that stuff come together and work?
We can show you. Ready for the month that will change your life?

Well this math is simple enough: the average starting salary for engineers right out of college is about $48,000. The field is growing faster than almost anything else out there right now. That means your time is right now.

The Summer Transportation Institute at Prairie View A&M University
If you qualify, we'll award you a scholarship worth $2,500 just to look around the world of transportation. Spend a month with the Summer Transportation Institute (STI) at Prairie View A&M University.

The whole summer?
Nah. Just a month. During the 4-week program at Prairie View A&M University, you'll

- Live in a supervised university dorm (room and board paid by the scholarship);
- Take some awesome field trips, and maybe even steer a 03/09 IPA;
- Hear from leaders in the field who can tell you what those jobs are like;
- Spend some downtime bowling, hanging out and socializing with your peers; and
- Celebrate the month you spent with us at an award/recognition ceremony.

Want to talk with someone who's been there?
No problem. We'll put you in touch with someone who spent a summer with us.

Come find out more. It's worth it.

For more information about the STI, visit our website or contact Dr. Raphael R. Komolafe, Director. Email: tilie-251-6655

Who I'd like to meet: