THE CONSORTIUM FOR ITS TRAINING AND EDUCATION (CITE) AND THE
WORLD BANK'S GLOBAL DEVELOPMENT LEARNING NETWORK (GDLN) PRESENT...

A SERIES OF ADVANCED TRANSPORTATION TRAINING COURSES FOR LATIN AMERICAN STUDENTS AND PRACTITIONERS

Success of Pilot Course

In November 2002, The Consortium for ITS Training and Education (CITE) and the Global Development Learning Network (GDLN) presented an introductory Intelligent Transportation Systems (ITS) course to over 160 students in four Latin American countries. The course combined CITE's on-line distance learning resources with the GDLN's in country Distance Learning Centers in Latin America to provide a hybrid presentation that included video conference classroom participation and e-learning through CITE's internet curriculum.

COURSE FORMAT

> Three two-hour video-conferences set over a period of a week and a half. Panel members for the video sessions included Philip Tarnoff, course instructor and director of the Center for ITS Training and Education (CITE) and the Center for Advanced Transportation Technology (CATT), Kathleen Frankle, CITE Program Manager; and Debra Beattie, Education Specialist for the World Bank Institute's Distance Learning Unit.

> Group discussions at the local level debating questions such as "Would ITS be applicable to your country?" Summaries of these local discussions were shared with the other participating sites during the video-conferences. This was a significant element of the course as it gave participants the ability to exchange information with others facing similar challenges in other parts of the world. Students were also given plenty of opportunity to ask questions of the local facilitator during their face-to-face group sessions.

> Student review of CITE's on-line Spanish-language course "Introduction to ITS." Students were given many opportunities to ask questions of the instructor following review of the on-line material.

A student from Ecuador commented, *"Knowing that these technologies and advanced systems exist, now we could use these tools to solve transportation/transit problems."*

Bari Rabin, World Bank Operations Analyst for the Knowledge Management and Learning Team for Latin America and the Caribbean Region, summed up the courses success; *"One of the GDLN's value-added benefits is its ability to bring together the relevant participants from across the countries to form learning communities that have a developmental impact. We established contact and obtained their interest through this course. Now, we need to build on that."*

Philip Tarnoff, CITE Director and course instructor, *"Having been involved in the transportation business for over 30 years, I have long recognized that advanced transportation technologies are important to Latin America. We are thrilled with the opportunity to provide CITE's courses to the Latin American community through our agreement with the World Bank's Global Development Learning Network."*

Future Course Offerings

Due to the program's success and strong attendee feedback, plans are now being made to produce additional Spanish-language ITS courses for Latin America. Over the next three years, CITE and the GDLN would like to offer the courses listed below. Course offerings will be contingent upon obtaining the appropriate funding.

The Tools of Advanced Transportation Management Systems (ATMS)

The basic building block of ITS, advanced transportation management systems (ATMS) consist of detection, communications, and control functions. This course describes the tools or technologies that can be implemented according to the problems, objectives, desired functions and architecture of a given system. Particular emphasis is placed on the technologies used for detection (detectors, image processing systems, probes) and dynamic message signs applications.

Introduction to Intelligent Transportation Systems (ITS)

This introductory course aims to familiarize students with the broad objectives, historical background and evolutionary process of ITS. Topics discussed include ITS programs in the world, ITS user service bundles and user services, the National ITS Architecture, and crosscutting issues in ITS deployments. Several case studies are provided to illustrate the subjects addressed in the course.

Introduction to Telecommunications Technology

The need for communications between advanced transportation management information systems components has become crucial. This course is a primer for students and professionals with little or no formal telecommunications training. Emphasis is placed on the fundamentals of voice, data, and video transmission (modes, signal properties) and the key concepts of networks, protocols and standards.

Transportation Management

Many ITS professionals are involved in the design and/or operation processes of transportation management systems; understanding the essential functions performed by these systems is a prerequisite to define functional requirements for the procurement or design of the system. The four "core" functions are at the heart of this course, and are addressed through a discussion of two basic classes of transportation management systems: traffic signal systems and freeway management systems.

Project Management

This course emphasizes the project management issues associated with ITS implementations. Following an introduction to the project management context, the discussion takes the student through the phases of the project, addressing a multitude of topics along the way. Software testing and evaluation are discussed at length, as are project documentation and maintenance.
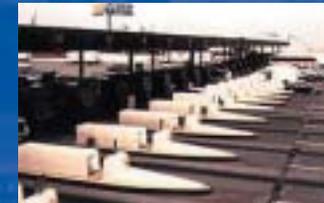
Incident and Emergency Management

The impact of incidents grows by the day, and the quick detection and response to incidents are of growing importance, This course describes the array of technologies and strategies applicable to incident detection, emergency response, site management, and allocation of resources. Case-studies of incident management programs illustrate the material covered in the discussion.

Transit Management

This overview of ITS applications in public transit management and operations focuses on three facets of transit management: Public Transportation Operations, Traveler Information Systems for Transit, and Traffic Signal Priority for Transit. Students are introduced to the range of technologies used to deploy these applications. The use of ITS applications in each of the areas covered is explored through case-studies.

Electronic Payment Systems

Three aspects of Electronic Payment Systems (EPS) are addressed in this course: Applications in public transit, road tolling, parking, and multipurpose EPS; EPS architecture/components and electronic media characteristics; and the major types of EPS media. Examples of EPS deployments illustrate the subjects covered with emphasis on the technologies used and effectiveness in reaching their respective objectives.

Signal Timing

Traffic Signal Systems are associated with one of the more dynamic technologies in traffic control devices. After an introduction to the terms used in signal timing fundamentals, this course takes the student through all facets of traffic signal systems.

About the Partners

The Consortium for ITS Training and Education (CITE) is a unique organization of more than 85 universities worldwide and many industry partners focused on providing comprehensive advanced transportation training and education through distance learning. CITE has developed over a dozen interactive courses with an additional twelve to be released in 2003. CITE's courses target both college students and current practitioners. Many of CITE's courses have been translated into Spanish for colleges and individuals who might not otherwise have access to this type of training and education. For more information on CITE visit: http://www.citeconsortium.org.

The Global Development Learning Network (GLDN) seeks to create opportunities for knowledge sharing and capacity building in development topics, between and across countries. Through its network of in-country Distance Learning Centers, hosted by partners from the public and private sectors and non-governmental organizations, GDLN utilizes the latest technologies to enable peers from around the world to connect for live interactive learning events. By integrating a mix of online, local and videoconferencing sessions, local participants can see, speak to and learn from their peers in other countries - content originating from whichever country the expertise resides - while enabling them to immediately apply what they have learned to the local context. Through exchange of lessons, experience and best practice, the GDLN can respond to local learning needs among decisionmakers who can impact national development. For more information on GDLN, its programming and Network partners, please visit http://www.gdln.org

Intelligent Transportation Society of America (ITS America) was established in 1991 to coordinate the development and deployment of intelligent transportation systems in the United States. Their belief is that ITS professionals worldwide need opportunities to expand their knowledge to grow along with the industry. ITS America can call on a wide range of resources as dynamic change continues throughout the industry. For further information, visit http://www.itsa.org.

For more information about CITE, contact Kathleen Frankle at (410) 414-2925 or kfrankle@umd.edu

For more information about participating in future courses in your country, contact you local Distance Learning Center found at http://www.worldbank.org/gdlnlac