Education Council Meeting at
ITE Annual Meeting

The executive committee of the Education Council will be meeting on Monday, August 5 from 11:00 a.m. to 12:30 p.m. in Room 304, Level 3 of the convention center. The meeting location is subject to change, so please verify location upon your arrival in Seattle. All members of the Education Council are welcome to participate in the meeting.

Education-Related Topics at
ITE Annual Meeting

Two of the 66 sessions at the ITE 2003 Annual Meeting and Exhibit may be of particular interest to members of the Education Council:

Session 9: Building an Enlightened Traffic Engineer
Monday, 2:30 p.m.–4:00 p.m.

- What a Public Works Director Wants from His Traffic Engineer, Robert Wunderlich, City of Garland, TX
- What the Mayor and Council Want From Their Traffic Engineer, John Mason, SAIC Corp.
- Developing More Than Technical Skills in a Traffic Engineer, Daniel Turner, University of Alabama
- Transportation Planning Professional Capacity Building for Engineers and Planners, Sherry Ways, U.S. DOT

Session 18: Building Better Leaders
Monday, 4:30 p.m.–6:00 p.m.

- The Value of Undertaking Multiple Roles and Responsibilities in Your Job, Don Frascinella, City of Hayward, CA
- Training Today’s Professional, Robert Seyfried, Northwestern University Center for Public Safety, Evanston, IL
- High Performance Teams, Don Schulz, City of San Jose, CA
- Development of Highway Safety Training for Local Highway Departments, James Mearkle, Cornell Local Roads Program
Student Chapter and Student Paper Awards Recipients

Each year, the Education Council participates in the selection of the recipients of ITE’s annual Student Chapter and Student Paper Awards. This year’s Student Chapter Award recipient is Montana State University, Ms. Joey Paskey, president and Dr. Jodi Carson, student chapter advisor. Chapters are judged on their organization, activities and involvement with ITE’s districts, sections and chapters.

The council extends its congratulations to the other student chapters that were nominated by their districts as finalists in this competition. Those chapters include: The University of Massachusetts at Amherst; Purdue University; Iowa State University; Auburn University; University of Waterloo; Texas A&M University, and Florida International University.

The Daniel B. Fambro Student Paper Award recipient is Vikki Ngan of the University of British Columbia for her paper entitled “A Comprehensive Strategy for Transit Signal Priority.” Students’ papers are judged based on originality, significance, validity, scope and format and applicability.

The council extends its congratulations to the other student authors that were nominated by their districts as finalists in this competition. Those students include: Ranjit Bhave, University of Arkansas-Fayetteville; Lauren Waesche, Clemson University; Lin Zhang, University of Hawaii-Manoa; Rajeev Seetharam, BMS College of Engineering; Grant Schultz, Texas A&M University; and Thobias Sando, Florida A&M University/Florida State University.

Award recipients will be recognized at the awards banquet at ITE’s 2003 Annual Meeting and Exhibit in Seattle. The Education Council congratulates this year’s award recipients and extends its thanks to those Council members that participate in the judging process.

Mentoring At Different Career Stages—Life Changes, Career Changes and Skills Maintenance

By Marsha A. Bomar, Dr. Christine Branche, and Sharon Marshall

Editor’s Note: This article is the second excerpt from a more comprehensive paper on mentoring by the authors (see the Fall 2002 issue for part one). The entire paper is on the CD-ROM of preprints from the 2003 Transportation Research Board’s (TRB) Annual Meeting. It is printed here with permission from the authors.

One of the fundamental ideas of this paper is that a mentoring program can extend through stages of a career. Mentoring is a method of passing information and skills from generation to generation. Skills can be lost in professions if they are not preserved and retained for the use of future generations. Why remember skills from different generations? A good example is that if a road is designed by one group of professionals then it must be maintained in the future by another group of professionals. If these skills are lost along the way then what will become of this road in the future? Sometimes modern techniques or new technologies cannot be used to preserve roads used in historic preservation or to reconstruct the materials used in an obsolete road design.

The first stage of mentoring is from university studies to the first 2 years of practice. The text “Advisor, Teacher, Role Model, Friend,” uses the example of a new hire at a university. “When a department hires a new assistant professor, it has invested one of its most valuable resources: a tenure-track position. And yet, new faculty are left to fend for themselves amid the turmoil of professional and personal change: new courses to teach, a laboratory empty of both equipment and students, unknown department politics, conflicting demands on one’s time, an unfamiliar living environment.” This stage is critical to development and can be instructive for the young professional through his or her career. Learn something of their interests. Do not be afraid to learn trends and dynamics of younger generations. Many interests and intellectual fields are open to all. Knowledge is a wonderful method of transcending generation gaps and age barriers.

Perhaps the “last frontier” of our society is the age barrier. Mentors should not be uncomfortable with students and young professionals of different ages. If work projects are to progress then firms and organizations must rely on students and young professionals. These participants in the work environment must have the same personal standing as an older professional. If you are comfortable with adults outside of the work environment, for example in a religious organization or on a community sports field, then you should be comfortable with students and young pro-
professionals in the work place. The individuals have cares and concerns as pertinent as your own. Be sensitive to power relationships and realize that while young students and professionals may not have as much work experience as you, the insight and knowledge of youth is just as powerful. Young minds can perceive the future and give you a perspective of upcoming trends in the field of transportation. What would an office be like with young people knowledgeable of current events and willing to try new experiences?

The second stage of the working professional mentoring relationship is the 2 to 5 years of professional practice stage. This stage is often a stage of growth and change. Many professionals become established or accept more responsibility in the work environment. This stage can be especially critical for young women ready to start families or women ready to move to new regions. The second stage may involve leaving an established mentor or continuing with the same firm with broader horizons and a new work pace. A young professional may decide that it is time to become a mentor once they are established in the transportation profession for a few years.

A mid-career professional has begun to join and contribute to community organizations. The woman choosing a mid-stage career in transportation can expect to reap great rewards as they benefit from the knowledge of the upcoming younger generation of professionals. These professionals can develop discussion panels and research teams to great levels of detail and refinement because they have experience in transportation. They are no longer in the early learning phase or the phase where they need guidance at all times. There are new challenges to face as responsibilities develop alongside knowledge patterns.

As the mid-level professional earns a larger salary and has more time to devote to outside organizations, then they should also be willing to give more back. They must remember that others helped them and that they should return the favor for the future of transportation. A professional should not accept mentoring without agreeing to be a mentor for others. But, do not look on mentoring as a chore. Mentoring can be fun and exciting. Plans trips to the local mall or choose activities that you both like to do outside of the office that you feel you usually don’t get to experience. Maybe an exhibit at the local science and technology museum or a new park needs to be explored. The mid-level professional stage must be a stage that is maintained in mentoring to ensure that as many professionals as possible progress to the senior professional stage.

The senior professional stage should be an honored position in a transportation profession’s career. These professionals have the most knowledge and have experienced a lifetime of challenges, successes and personal experiences. They have the capacity to influence so many young professionals that they should enjoy having students and young professionals to mentor. If the burden is not too great, then they should take on two or three young professionals. All of their skills are valuable and they have so many professionals in the workforce to guide and support through their generosity, intellects and good will. Senior-level professionals should be a strong example of survival in the field of transportation. They should not be afraid to tell old stories or to pass down information that others might find useful. Someone will find it useful and put it to good use for their support system. If the same ideas are repeated and new ideas are never put to the test then there is no progression in transportation.

Democracy requires challenges and freedom of speech. Use your intellect and reach out and express your opinion. Develop speeches or a catalog of your knowledge. Tell about past experiences or tell about a design you appreciated. All information or mentoring sessions do not have to be personal. Write an advice column in a professional journal if you need to travel or put your energy into developing new policy and procedures. All of your skills are important, so use them and know that others appreciate the freedom of expression. Expressing your opinions can open doors for others. Others will learn that they should never fear to speak out and voice their opinion. Develop new relationships between the old and the young and teach individuals that these relationships are essential.

Use your wisdom and experience to ensure the quality of the work environment for all employees. These employees look up to you for guidance and acceptance and appreciate you. Encourage them to be strong and make intelligent choices. Encourage them to fully accept that they are equal in all areas of the economy and not to think of themselves as a small part of the transportation field. The transportation field is full of highly skilled professionals who are both men and women and who must work together every day.

One of the best strategies is to getting to know the student or professional on a personal level, as well as on the mentoring level. The more you know about the young professional, the more you can advise. Knowing some personal characteristics about the students or professionals that you are mentoring can help start your relationship. Do not try to learn everything in a day or one mentoring session. Allow yourself time to find many things in common beyond the things you know about each other in the beginning.

Encourage the student in all ways possible. Keep the relationship open, honest and candid. Using this methodology, your student will go forward with courage and self-confidence. Do not falsely encourage, but rather, highlight the positive areas. And stress independence as well.

continued on page 4
Students must learn to think for themselves and make their own decisions. You are a guide only. Make sure that you know your student well enough to feel comfortable writing letters of recommendation for him or her. These are necessary for entry into some degree programs, internships and job applications.

In order to sell students on the study of transportation and its various permutations, a mentor should make them aware of the various issues that are dealt with in this field of study. Be ready to share your knowledge and express your opinions. Know that any discussion topics can lead students and professionals to a better understanding of the field we all work in each day.

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ITE to Host One-Day Project Management Seminar

ITE is hosting a one-day seminar on “Managing High Technology Projects in Transportation” during the ITE Annual Meeting in Seattle, WA. It is being held on Thursday, August 28 from 8:30 a.m.–4:30 p.m. The seminar is a one-day version of a new two-day course being offered by the National Highway Institute (NHI).

Course Description:
The successful implementation of high technology projects incorporating software and elements of information technology is a challenging undertaking. Such projects include implementations of ITS systems, simulation program applications, enhancements and expansions of traffic signal systems and development or use of specialized analysis software. This one-day course is intended to provide public and private sector professionals with an understanding of the principles for managing high technology projects. The course describes the necessary steps for successful project completion including planning, analysis, design, implementation and testing. It also discusses procurement techniques, staffing requirements, cost estimation and methods for project control. Importantly, the course emphasizes the differences between project management for high technology projects and the procedures typically used for construction projects.

This course will help professionals learn about:

- Fundamental principles and practices of good project management;
- Steps to be taken for the planning, design and implementation of transportation systems projects;
- Types of project management tools available for managing these projects; and
- Basic skills required of a good project manager.

The fee for this one-day seminar is $50 for ITE members and nonmembers. Registration is limited and is done through ITE Annual Meeting registration.

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CITE Releases Traffic Signal Timing Course

The Consortium for ITS Training and Education (CITE) has released a new Web-based course, “Traffic Signal Timing”, that will provide students with an understanding of both the theory and practice of traffic signal timing and its impact on traffic operations.

This course gives students an overview of the terms associated with signal timing; discusses the concepts of cycle length, split, offset, mid-block friction, phase sequences, signal timing process and signal timing optimization; and looks at the types of actuated controllers, passage time, extension and the coordination of actuated and pre-timed controllers. It also discusses the development of timing plans, explores types of signal control (first generation control and advanced techniques, including Rhodes, RT-TRACS, SCAT and SCOOT) and investigates the relationship of signal timing to ITS: regional and system/design considerations. A detailed outline of the course is available at www.citeconsortium.org.

CITE eliminates the inconvenience of attending courses away from the office by providing an interactive Web-based format. All of CITE’s courses are accessible 24 hours a day, 7 days a week. The courses provide student interactivity through a stimulating mix of participatory activities, such as simulations, self-study quizzes, drag-and-drop pages, crossword puzzles and jeopardy games. These activities help support and reinforce the text-based information and keep students engaged and active in the learning process. Upon completion, students will receive a certificate and continuing education units (CEUs) from the University of Maryland.

For more information, visit www.citeconsortium.org or contact Kathleen Frankle, CITE Program Manager, kfrankle@umd.edu or 410-414-2925.

This course was developed by Philip Tarnoff and Fred Lees of the University of Maryland. ITE named Philip Tarnoff as the recipient of the 2002 Theodore M. Matson Memorial Award and Fred Lees as the recipient of the 2002 Theodore M. Matson Memorial Award at the Transportation Research Board’s Annual Meeting in January 2003. The Theodore M. Matson Memorial Award honors outstanding contributions in the field of traffic engineering, including practical application of traffic engineering techniques or principles, valuable contributions through research, successful adaptation of research finding to a practical traffic situation and the advancement of the profession through training or administration.
New NHI Project Management Course Available

The National Highway Institute (NHI) has released a new project management course called “Managing High Technology Projects in Transportation.” This particular course is available in two different formats, instructor-led and Web-based.

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the FHWA ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to URL: www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

The course is designed to improve project management skills of both public and private sector personnel who are responsible for managing the implementation of technology-intensive transportation projects. The course provides training related to: the fundamental principles and practices of good project management; the steps to be taken for the planning, design and implementation of transportation systems projects; the types of project management tools available for managing transportation systems projects; and the basic skills required to be a good project manager.

This course covers project management techniques associated with all phases of system acquisition, from planning through acceptance. The skills required for the ongoing operation and maintenance of systems that are somewhat different are not explicitly covered in this course.

For more information about how to schedule the instructor-led version or how to register for the Web-based version, please visit the course catalog on the NHI Web site at: www.nhi.fhwa.dot.gov/.

ITE Receives “Best of ITS” Award from ITS-America

At the recent ITS-America Annual Meeting in Minneapolis, MN, ITE and its partners received the first place award in the category of education and training for their Standards Outreach, Education and Training (OET) program, conducting ITS courses nationwide for transportation planners and public safety officials.

The ITE Standards OET program plays a pivotal and strategic role that directly assists agencies in understanding the key issues associated with ITS standards. The program elements are carefully providing participants with the guidance they need based upon short timeframes, limited budgets and institutional barriers. During 2002, more than 29 multiple sessions were conducted at various locations across the United States and Puerto Rico. The four course modules included in the program were taught to 2325 students. This represented more than 1027 different stakeholders during the year 2002. The impact of this training program has been very significant, particularly in dynamic message sign (DMS) procurement and integration with traffic management centers across the United States. As a result, most procurements of DMS in the United States are now NTCIP standards based and in compliance with the standards testing methodology. This is a major accomplishment of ITS standards program.

Mr. James M. Cheeks, Jr. is the standards development manager at ITE. The OET program has a cadre of some 25 instructors, most of whom are ITE members.
Trends in Engineering Education

ACT, the college-entrance testing organization, recently released a report on the declining pool of qualified engineering students, which, the organization asserts, “may threaten America’s position as a world leader in engineering.” The report expresses concern about the decreasing numbers of students choosing to enter the engineering field, the lack of preparation prior to entering undergraduate engineering programs and the decline in females and other minority groups pursuing the field. The study provides several recommendations to reverse these trends. As summarized in an ACT media release:

- School districts should provide challenging science and math courses that are aligned with college requirements no later than middle school;
- School districts and parents should specifically encourage females and minorities to consider and plan for a broad range of careers, especially those in science and engineering;
- Colleges and universities should work with school districts to strengthen middle school and high school math and science courses;
- Professional engineering organizations should use a variety of media to provide students and their families with stimulating information about engineering careers and increase collaborations with informal education networks (e.g. community organizations, after-school programs);
- Policymakers should fund and implement programs that foster student interest in and preparation for engineering careers;
- Policymakers should bring together various constituencies to address issues such as enhanced academic standards in science and technology; and

To access the report, go to: www.act.org/research/policy/index.html.

10-Year Anniversary of Summer Institutes

The Federal Highway Administration (FHWA) recently announced the 10th anniversary of the National Summer Transportation Institutes (NSTI) Program. To coincide with the anniversary, Secretary Mineta rolled out new goals for the program. Over the next 5 years, the administration will work to establish NSTIs in every state and introduce 10,000 students to careers in the transportation industry.

NSTI is a 4-week academic enrichment program, held on university campuses, that introduces secondary students to all modes and careers in transportation. Over the last 10 years, the program has served 4,652 students in 26 states, the District of Columbia and Puerto Rico.
Selected Publications
Available from the Institute of Transportation Engineers

**Trip Generation, Sixth Edition**
The sixth edition of Trip Generation includes significant changes in format and content. To facilitate use of the document, the overall publication has been repackaged into three volumes: Volumes 1 and 2, containing land use descriptions and data plots, and a User's Guide, containing the general introductory, instructional and appendix material. A significant amount of new data has been collected since the publication of the fifth edition. Data from more than 750 new studies have been added to the existing database for a combined total of more than 3,750 individual trip generation studies.

Publication No. IR-016D $250 ($200)

**Traffic Engineering Handbook, Fifth Edition**
The new edition, devoted entirely to the practice of traffic engineering, provides a current, updated source of information for people entering the practice and for those already practicing. While not written as a textbook, the education community uses this publication as a reference for state-of-the-art of established traffic engineering practice. It is one of the primary reference sources for study to become certified as a Professional Traffic Operations Engineer. It provides a convenient desk reference, in all one source, of the principles and proven techniques in traffic engineering. Where appropriate, reference is made to significant traffic engineering practice outside North America. Each chapter was written by notable and experienced authors, and reviewed and edited by a distinguished panel of traffic engineering experts.

Edited by James L. Pline.

*ITE, 1999, 728 pp., ISBN No: 0-935403-32-9*  
Publication No. TB-010A $110 ($90)

**Transportation and Land Development**
This is a basic reference for practicing transportation and planning professionals. It is especially valuable to engineers and urban planners responsible for the development and administration of local land development codes; consulting engineers, planners and architects who prepare site development plans; developers; loan officers of lending institutions that provide long-term financing; state department of transportation employees involved in the issuance of permits for access to state roadways; and others involved in land development or investment decisions. This edition consists of fourteen chapters compared to eight chapters in the 1988 edition. It provides new and expanded information on such topics as site planning, traffic impact analysis, functional circulation systems, intersection design, driveway location and design, parking lot layout and on-site circulation. The incorporation of pedestrians and bicyclists in a safe and efficient circulation system is addressed. New chapters include the development of small tracts, safety design of residential areas and how to mitigate existing safety and operational problems. Photographs and graphs are used extensively to illustrate access, site circulation and development practices.

*ITE, 2002, 700 pp., ISBN No: 0-935403-68-X.*  
Publication No. TB-015 $100 ($80)

**Smart Growth Transportation Guidelines: An ITE Recommended Practice**

Smart Growth Transportation Guidelines: An ITE Recommended Practice provides transportation professionals with needed guidance on the types of transportation systems that support and are most efficient with smart growth development and how to best meet these new transportation needs. The report provides information and suggestions as to how to support smart growth objectives and concepts with transportation facilities and services. The information in the report provides the basis for planning and implementing smart growth transportation concepts, consistent with local objectives and policies, in both developing and redeveloping areas to aid in improving existing urban quality-of-life and mobility.

Publication No. RP-032 $38 ($30)

**ITE 2003 Technical Conference Compendium of Papers—Transportation's Role in Successful Communities**


Publication No. CD-020 $50 ($40)

**Principios de ingeniería de tránsito**
Esta obra está destinada a proporcionar conocimientos básicos sobre el mecanismo del tránsito en vías terrestres. Aunque se basa en parte en tecnología elaborada en los Estados Unidos, está orientada hacia la aplicación de esa tecnología a los países de habla hispana. No está escrita como libro de texto, pero desarrolla sus explicaciones lógicamente, partiendo de conceptos elementales bien conocidos por ingenieros y estudiantes de ingeniería.


Los "Principios" serán de base a la obra en preparación "Aplicaciones de la ingeniería de tránsito".

Publication No. TB-016 $85 ($65)

**Neighborhood Street Design Guidelines—An ITE Proposed Recommended Practice**

This ITE Proposed Recommended Practice (PRP) is to provide guidance in the overall layout and design of transportation elements for new neighborhood developments, where neighborhoods can comprise both residential and mixed residential/commercial subdivision development. The report presents design criteria that will encourage appropriate behavior on the part of motorists, pedestrians and bicyclists, as well as providing for a reasonably safe and accessible street network.

*ITE, 2003, 72 pp., ISBN No: 0-935403-77-9*  
Publication No. RP-033 $40 ($30)

**Making Intersections Safer: A Toolbox of Engineering Countermeasures to Reduce Red-Light Running**

This ITE Informational Report identifies engineering features at an intersection that should be considered to discourage red-light running. The report addresses design and operational features that may need to be upgraded as necessary. It provides a background of the characteristics of the red-light running problem; identifies how various engineering measures can be implemented to address this problem; suggests a procedure for selecting the appropriate engineering measures; and provides guidance on when enforcement measures, including red-light cameras, may be appropriate.

Publication No. IR-115 $32 ($25)

ITE member prices in parenthesis; see reverse for order form

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