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Designing Optimized Traffic Signals and Systems
Using *Visual* TEAPAC, PASSER, TRANSYT, and CORSIM

November 5 – 7, 2007
New Orleans, LA

Designing Optimized Traffic Signals and Systems

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LSU CONTINUING EDUCATION

The Program

Designing Optimized Traffic Signals and Systems Using *Visual* TEAPAC, PASSER, TRANSYT, and CORSIM

Updated with Visual TEAPAC Ver 7.8 and the most recent versions of SIGNAL2000 (Ver 2), PRENOSTOP, NOSTOP, PREPASSR, PASSER II-02, PRETRANSYT, TRANSYT-7F, PRETSPPD, TS/PP-DRAFT, PRENETSIM, NETSIM/CORSIM and SCENARIO

Optimal timing plans are essential to the proper evaluation of traffic signal planning, design and operation efforts to assure efficient traffic movement on streets. Several nationally recognized traffic signal timing programs are available to assist the analyst in this regard. These include *Visual* TEAPAC, PASSER, TRANSYT and CORSIM. The goal of this course is to provide participants with a basic understanding of how to use these programs, both mechanically and procedurally, for signal evaluation and optimization efforts consisting of a wide range of signal control conditions, including individual signals and coordinated systems.

The course consists of lectures and hands-on use of microcomputers. Lectures cover the basics of traffic signal analysis and optimization techniques, demonstrations of the software and details of recommended procedures. Realistic numerical examples and hands-on exercise problems supplement the lectures, and the use of specific computer software provides participants with an opportunity to learn and understand the programs and procedures.

Prerequisite: Participants should have some basic knowledge of traffic engineering. Experience with microcomputers or the specific software is not required.

Instructor: Dennis Strong is President of Strong Concepts, Northbrook, Illinois. The firm's primary area of practice is in the development of integrated traffic engineering software and related training. Mr. Strong is a recognized expert in the analysis, evaluation, and operational design of traffic signals and systems and in the development and use of computer software related to this field. He has over 30 years of professional experience in these areas, and is the developer of the following *Visual* TEAPAC software used in the course: SIGNAL2000, NOSTOP, PRENOSTOP, PREPASSR, PRETRANSYT and PRENETSIM. Mr. Strong is a registered Professional Engineer (P.E.) in Illinois and is a registered Professional Traffic Operations Engineer (PTOE). He is also the past chairman of the Signalized Intersection Subcommittee of the TRB Highway Capacity and Quality of Service Committee, which authors the Highway Capacity Manual.

Major topics to be presented include:

Timing Individual Intersections

2000 HCM Capacity Analysis; SIGNAL2000 Discussion and Demo; SIGNAL2000 Hands-on Exercise; Recommended Procedures

Simulation and Animation for Signalized Intersections

NETSIM/CORSIM Discussion and Demo; PRENETSIM Discussion and Demo; PRENETSIM/NETSIM Hands-on Exercise; Recommended Procedures

Simplified Arterial Bandwidth Optimization

Bandwidth Optimization; NOSTOP Discussion and Demo; NOSTOP Hands-on Exercise; Recommended Procedures

Complete Arterial Bandwidth Optimization

PASSER-II Discussion and Demo; PREPASSR Discussion and Demo; PREPASSR/PASSER Hands-on Exercise; Recommended Procedures

Comprehensive Arterial Optimization, Simulation and Animation

Bandwidth Limitations; TRANSYT-7F Discussion and Demo; PRETRANSYT Discussion and Demo; PRETRANSYT/TRANSYT Hands-on Exercise; Recommended Procedures

Special Optimization Situations

Recommended Procedures; Summary and Course Evaluation

Software Used in the Course:

SIGNAL2000/TEAPAC (Strong Concepts) performs capacity analyses which duplicate the worksheet calculations of Chapter 16 of the latest version of the Highway Capacity Manual, the 2000 HCM, as well as provides optimization of green split timings, cycle length and phasings for the signal based on these 2000 HCM capacity analyses.

NOSTOP/TEAPAC (Strong Concepts) provides simplified arterial bandwidth progression solutions, optimizing both system cycle length and offsets for two-way, prioritized progression.

PASSER II (state-sponsored program from Texas) optimizes offsets and green splits for arterial progression over a range of cycle lengths.

PREPASSR/TEAPAC (Strong Concepts) prepares input for PASSER-II in a simplified format and analyzes the results in a clear and concise manner. Input for PREPASSR can come directly from SIGNAL2000, PRETRANSYT or PRENETSIM, if desired, allowing transfer of input and results between these four programs.

TRANSYT-7F (federally-sponsored program from McTrans) optimizes offsets, green splits and system cycles for arterial or network signal systems.

PRETRANSYT/TEAPAC (Strong Concepts) prepares input for TRANSYT in a simplified format and analyzes the results in a clear and concise manner. Input for PRETRANSYT can come directly from SIGNAL2000, PREPASSR or PRENETSIM, if desired, allowing transfer of input and results between these four programs.

TRAF-NETSIM/CORSIM (federally-sponsored program from FHWA) performs microscopic, stochastic simulation and animation of a signalized network.

PRENETSIM/TEAPAC (Strong Concepts) prepares input for NETSIM/CORSIM in a simplified format. Input for PRENETSIM can come directly from SIGNAL2000, PREPASSR or PRETRANSYT, if desired, allowing transfer of input and results between these four programs.

Reserve Your Space Today!

November 5 – 7, 2007

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344 Camp Street
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1-800-265-1856 **[specify the LSU Continuing Education Group to receive $99/night rate.]**
www.queencrescenthotel.com

Schedule: Monday-Wednesday; 8:30 A.M.– 5 P.M. each day.

CEUs: 2.1 (21 PDH)

Fee: $995 (includes comprehensive course materials, refreshment breaks and certificate; it does not include hotel accommodations or meals)

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Using Visa, MasterCard, or American Express, register day or night at our Web site: www.outreach.lsu.edu

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Using Visa, MasterCard, or American Express, call between 8 A.M.– 4:30 P.M. (Central Time)
Phone: 225-578-6325

Registration and Fees

Early registration is recommended. Payment is due at the time of registration.

Refund and Cancellation Policies

Please let us know as soon as possible if your plans change. There are no penalties for substitution or cancellation prior to the first class meeting. No cancellations will be accepted after a course begins.

LSU reserves the right to cancel or make changes in courses. If a course is cancelled, the entire fee is refunded.

Further Information

For more information about registration, course location and hotel accommodations, contact Thad Laiche at 225/578-6327 or tlaiche@doce.lsu.edu.