KTH Architecture and the Built Environment

Institution of Transport Science

Division of Traffic and logistics **2010-08-24**

Advanced Traveler Information Systems FAH3003, 7,5 Credits

Examiner of the course: Professor Haris N. Koutsopoulos

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1. Aim

The course will examine the state of the art and state of practice of traveler information systems. The focus will be on a) addressing the main technological and implementation challenges associated with traveler information systems, b) synthesize findings from the literature and experience from around the world, and c) propose alternative future designs.

2. Course objectives

After the course the participants should be able to:

- describe typical traveler information services and applications
- discuss technical aspects of traveler information systems
- describe potential and limitations of existing approaches
- develop and evaluate alternative system designs and business models

3. Main content

Provision of traffic information is one of the earliest applications of ITS. A number of systems and demonstration projects have been proposed and demonstrated (e.g. TRAVTEK, ADVANCE, AUTOGUITE, ALISCOUT, VICS, EASYWAY, WISETRIP, IN-TIME, MOBITRANS, etc.

Important topics related to these systems that will be covered through presentations, reviews, guest lecturers, and group work include:

1. Introduction to traveler information systems, history and current status
2. Models and algorithms for generation of reliable traffic information
3. Data Collection Technologies
4. Information dissemination technologies
5. Detailed review of systems and their principles
6. User acceptance and related issues
7. Business models and implementation
8. Trends and future directions in traveler information systems

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4. **Course literature**

Related literature will be distributed during the meetings.

5. Target group

The main target group is the PhD-students in the National Postgraduate School of ITS. Other students with an interest in ITS are also welcome.

6. Prerequisites

The main target group is the PhD-students in the National Postgraduate School of ITS. Other students with an interest in ITS are also welcome.

7. Examination

Grading will be on the pass/not pass scale. The participants will be assessed based on the following elements:

- final report (technical aspects, organization and structure, completeness)
- presentation, and
- attendance and active participation in discussions during all meetings

Passing all elements above is mandatory for receiving an overall “pass” grade in the course.

The main activity of the course is a group project. The project will aim at a critical assessment of current approaches to traveler information systems and development of alternative strategies based on existing and emerging mobile technologies and services. Each group will consist of 3 to 4 students.

8. Schedule

September 28, 2010, 13:30 kick-off seminar,
ToL Seminar room, Teknikringen 72, Stockholm
January xx, 2011 final seminar
4 meetings (other times TBD)