

REVIEW
for syllabus of “Fundamental of ITS”
by Dr Jacek Oskarbski

The syllabus which developed by Dr Jacek Oskarbski is very useful and well-created. This syllabus of lecture provides students with basic knowledge in the field of Fundamentals of ITS. The purpose of this subject is to introduce students to the basic elements of intelligent transportation systems (ITS) focus on technological, systems and practical aspects. This syllabus of “Fundamental of ITS” guides students through the fundamentals that are essential for planning and operations. The concept and application of Intelligent Transportation systems. Students will receive themselves development of New Technologies for ITS Collection and processing of traffic data and information.

The main objectives of this lecture are following:

This course familiarizes students with the intelligent techniques and their applications in transportation systems. Within the module students will be introduced to some of the basic concepts of Intelligent Transport Systems in road and railway transportation as well as in supply chain networks. The course will enable students to understand the potential of key technologies (information and communication technologies) in the acquisition, collection, processing and transfer of data for transport process management purposes. Students will be familiarized with different approaches within ITS architectures as well as with the functional structure and the needs of transport process users (ITS services), the logical and physical structure of ITS. Examples of ITS applications in road transport, railway transport and in the supply chain will be presented. Students will be familiarized with tools for planning ITS architecture.

Overall, the lecture provides to students a solid background in the ITS architecture planning. The backgrounds gained by students are further applied in real-world scenarios selected in the road and railway transportation as well as in supply chain networks.

The general expectation regarding the knowledge to be provided/acquired is as follows:

- To explain the need for intelligent techniques in transport systems
- To identify the basic design problems of Intelligent Transport Systems
- Mastering the tools/instruments for planning the ITS architecture, taking into account the needs of transport process users and the services that can be provided to them (Tutorials/exercises - ITS architecture creating with the FRAME Architecture tools)
- To familiarise students with the basic principles of using ICT technology and the possibilities of using technology in ITS services.
- To familiarize students with the possibilities and methods of acquisition and processing data from sensors.

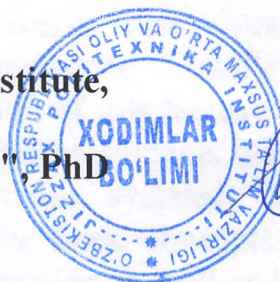
- To familiarize students with the structures of databases in Traffic Management Centres/Train Operation Management Centres and for what purpose are used data from sensors on the road and data from connected vehicle positioning and vehicle identification systems.

We advise to add the following books for syllabus:

Prof. Sadco Madzuka, PhD Fundamentals of Intelligent Transportation Systems. Courses materials, University of Zagreb, May, 2011.

In general, this syllabus which is created by Dr Jacek Oskarbski meets all the requirements for the master's courses and I recommend this syllabus for the implementation of the "ITS for Ground Transport, Logistics and Automotive" master course.

**Jizzakh Polytechnic Institute,
Head of department
"Logistics and service", PhD**



S.Djiyanbaev