Intelligent Transportation Systems Architecture, Engineering Processes & Standards

INTRODUCTION

- This Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards training course is specifically designed for the stakeholders in Intelligent Transportation System (ITS) or Transport System as a whole to understand the way to use Intelligent Transportation System (ITS) enabling technologies as the heterogeneous but unified system.
- As the world introduced multiple IT'S THE decision-makers need to integrate Intelligent Transportation System (ITS) enabling technologies so that they can work together as a system, for the benefit of all involved or using the system. It is important to secure the necessary performance levels of the component systems individually, as well as it is paramount to ensure that they interface with one another effectively.
- Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards is, therefore, a formal framework that defines the functionality, communication, interoperability, scalability, hardware and software maintenance and connectivity as well as the roles and responsibilities of different stakeholders in the system.

This training course will highlight:

- Principles and methods of Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards development and application
- What functions are to be performed by the Intelligent Transportation System (ITS) deployment
- What are the user services in Intelligent Transportation System (ITS)?
- Different physical components that deliver these functions
- Interfaces and communications necessary for the exchange of data and information
- Defining stakeholders' and their roles with the Intelligent Transportation System (ITS) deployment

OBJECTIVES

By the end of this training course, participants will be able to:

- Identify the stakeholders and their functions in the Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards
- Learn the way to implement an Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards with existing and new components
- Acquire an understanding of physical and virtual layers in the Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards
- Learn the costs and benefits of Intelligent Transportation System (ITS) implementation
- Adopt the Intelligent Transportation System (ITS) deployment plan as the basis for ITS implementation
- Use the inter-dependencies of components to simplify the data exchange

TRAINING METHODOLOGY

- The participants on this to this Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards training course will receive a thorough training on the topics covered and utilizing a variety of proven adult learning teaching and facilitation techniques, includes, active participation of the delegates, performing the Intelligent Transportation System (ITS) deployment plan creation, as well as introduction to new technologies and virtualization techniques used to merge legacy and future systems.

ORGANISATIONAL IMPACT

- The organization will benefit from identifying the underlying principles of Intelligent Transportation System (ITS) and the importance of having the adequate Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards framework to be able to build, manage, upgrade and change its Intelligent Transportation System (ITS) with ease and without the need to remove its legacy systems.

This training course is suitable for a wide range of professionals but will significantly benefit:

- Enhance their shared vision of Intelligent Transportation System (ITS)
- Learn how to adapt and introduce the Intelligent Transportation System (ITS) standards
- Be able to fully benefit from the Intelligent Transportation System (ITS) implementation
- Introduce commercial benefits of Intelligent Transportation System (ITS)
- Improve the transport planning linking it to Intelligent Transportation System (ITS)
- Perform the Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards framework development
- The organization will be able to define the framework for future development

PERSONAL IMPACT

This training course will personally benefit the participants to gain or enhance their understanding of Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards, as well as identify their future roles in Intelligent Transportation System (ITS), by:

- Identifying the Intelligent Transportation System (ITS) services that are existing or can be easily introduced
- Learning to identify the Intelligent Transportation System (ITS) functions
- Understanding the logic of the Intelligent Transportation System (ITS)
- Learn the virtual and physical layers of the Intelligent Transportation System (ITS)
- Understand the virtualization concepts
- Apply new technologies over the legacy systems
- Recognize costs and benefits of Intelligent Transportation System (ITS) implementation
- Prepare for carrier advancement in the Intelligent Transportation System (ITS) field

WHO SHOULD ATTEND?

- This Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards is designed for all the people involved in urban development, traffic and transport planning and organization, traffic planners, multimodal transport integrators, IT experts, as well as researchers and consultants involved into management, analytics, optimization, project management and transport optimization.

This training course is suitable for a wide range of professionals but will significantly benefit:

- Researchers and Practitioners in Traffic Engineering
- Intelligent Transportation System (ITS) Stakeholders
- Multimodal Transport Integrators
- Professionals in Urban Planning
- Architects involved in Urban Design
- Project Managers
- Technology Engineers
- Strategic Development Personnel
- Transport and Traffic Engineers

Course Outline

Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards

- Introduction
- Intelligent Transportation System (ITS) Architecture History
- Intelligent Transportation System (ITS) Service Selection
- Intelligent Transportation System (ITS) Architecture Benefits and Risks of Not Having One

Intelligent Transportation System (ITS) Architecture and System Engineering

- Introduction to Systems Engineering
- Parallels to Enterprise Architecture
- Using The Open Group Architecture Framework (TOGAF) for Intelligent Transportation System (ITS)
- Other Available Intelligent Transportation System (ITS) Architecture, Engineering Processes & Standards Frameworks
- Intelligent Transportation System (ITS) Configurations

Intelligent Transportation System (ITS) Standards

- The Need for Standardization in Intelligent Transportation System (ITS)
- Intelligent Transportation System (ITS) Standards Development
- Intelligent Transportation System (ITS) Telecommunication Infrastructure
- V2V
- V2I
- Intelligent Transportation System (ITS) Standards in Data Exchange

Importance of Virtualization in Intelligent Transportation System (ITS)

- Introduction to Virtualization
- Layers of Intelligent Transportation System (ITS) Infrastructure
- Modeling and Simulation in Intelligent Transportation System (ITS) Design
- New Concepts in Virtualization

Intelligent Transportation System (ITS) Architecture Design within the Transportation System

- Intelligent Transportation System (ITS) as a Part of Transportation Planning
- Intelligent Transportation System (ITS) Performance Assessment
- Intelligent Transportation System (ITS) Management in Emergency Cases

Intelligent Transportation System (ITS) of the Future-multimodal Transport Systems