



Arabian Institute For Training

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# Traffic Project - From Idea to Construction

## INTRODUCTION

- All over the developed world, cities are growing, and traffic is growing immediately after. In human nature is to move, and one of the issues in determining whether we enjoy everyday life is how fast we can get or how much time we spend in traffic. Planning the traffic is necessary to apply technological knowledge as well as an understanding of the economic, political and social factors because the quality of mobility is also integral to many other issues we care about. If we want to improve our lives, we need to improve traffic. Improving traffic at the beginning of the problems means to know how to plan, managing and design a traffic project.
- This “Traffic Project – From Idea to Construction!” training course is focused on planning, managing and designing traffic in traffic projects for rural and urban areas that are existing or being developed. This is designed to present the delegate's problems and possible solutions for some of the traffic problems such as route optimization on long-distance roads, network connections, time travel, congestion in the cities and more.

This training course will highlight:

- Planning the Road Long-distance Traffic
- Planning the Traffic through Urban Areas
- Traffic Matrix
- Traffic Management and Control
- Network Congestion and Possible Solutions
- Traffic Designs and Construction
- New Technologies and Trends

## OBJECTIVES

- The participant will get adequate knowledge of the issues regarding traffic planning, managing and design traffic and traffic project within the rural and urban development and the solutions of the issues which the existing cities are facing.

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

- How to plan the road traffic route through the country
  - Understand the road planning and design principles
  - Design horizontal and vertical traffic signalization
  - Build traffic simulations
  - Learn about more techniques of traffic management worldwide that they can implement successfully
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## TRAINING METHODOLOGY

- This “Traffic Project – From Idea to Construction!” training course will use proven adult learning techniques, with the focus on exercise and case studies and solving actual problems. Using guided examples, videos, photos, and questioning, all learners can have the best possible chance of comprehending the required knowledge and skills.

## ORGANISATIONAL IMPACT

- The organization will benefit from understanding the guiding principles of urban mobility and traffic sector improvement, as the delays in traffic and transportation are the ones that create a ripple effects on the industry as a whole.
- This will provide the participants with integrated information about the planning, managing and designing traffic projects in a way to collaborative urban planners, traffic and civil engineers. With this course, delegates will have unified knowledge of all the areas as mentioned earlier.

The participants on this “Traffic Project – From Idea to Construction!” training course, will:

- Develop a better understanding of preparing traffic project from the beginning to the end
- Learn basic road planning and design principles that lead to the better road network
- Improve their knowledge and easier cooperation on traffic road projects
- Adopt the best project and traffic solutions
- Improving traffic safety impact in daily life through traffic projects
- Reduce costs and time required for traffic engineering projects

## PERSONAL IMPACT

- The participants will obtain fundamental theoretical and practical knowledge as well as integrated information about the planning, managing and designing traffic projects in a way to collaborative urban planners, traffic and civil engineers. With this course, delegates will have a unified knowledge of all the areas above. They will assess inter-dependencies between traffic, urban and regional planning following requirements of sustainable mobility.

This training course will improve the participant’s understanding of Traffic Project, by:

- Understand the issues of traffic projects
  - Better knowledge about “whole picture” and not just the segments of the problems
  - Learning how to address urban mobility problems (parking, bus routes, bicycle route, intersections, traffic control, congestion and others)
  - Adopt an adequate traffic project for cooperative urban systems
  - Learn about new technologies in the traffic projects
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## WHO SHOULD ATTEND?

- This “Traffic Project – From Idea to Construction!” training course is designed for all decision-makers and planners within the political, technical, transport and environmental sectors, as well as urban development, traffic and transport planning and organization.
- Urban Planners
- Architects involved in Urban Planning and Design
- Project Managers
- Traffic and Transport Engineers
- Strategic Development Personnel in Government
- Engineering Technologist and Project Managers working for Local Government, or State / Federal Agencies, Consultants and Contractors
- People who are involved in Civil, Traffic and Transport Planning and Organization
- Researchers, Consultants and all practitioners in Traffic Engineering, involved in Management, Analytics, Optimization, Project Management and Traffic Optimization

## Course Outline

### Planning the Long-distance Traffic

- Introduction
- How we Plan the Traffic and Why?
- Planning the Main routes through the Countries:
- Urban Planning
- Data Analysis, Forecast and Predictions
- Feasibility Study

### Planning the Traffic through Urban Areas

- Traffic Matrix - Planning the Routes: Roads, Streets and Paths
  - Planning the Elements of the Roads in the Function of Traffic
  - Traffic Intersections
  - Street Widths
  - Vehicle Lane
  - Bicycle Paths
  - Parking Spaces
  - Pedestrian Paths
  - Planning the Traffic Elements:
  - Defining Type of Street Intersections
  - Traffic Volume
  - Traffic Speed
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## Traffic Management and Control

- Traffic Flow Theory, Simulation and Real Traffic
- Principles and Techniques of Traffic Regulation and Management
- Network Congestion and Possible Solutions
- Traffic Regulations Methods and Technologies:
- Traffic Monitoring Technologies
- Vehicle Identification and Navigation Technologies
- Traffic Control Center

## Traffic Designs and Construction

- Traffic Signs and Marking Layouts and Installation
- Variable Message Signs
- Temporary Traffic Management during Construction
- Design of Traffic Signal Operations
- Supervising Constructions Works

## New Technologies and Trends

- Information Systems:
  - Information to Controllers and Response Services
  - Information to Users
  - Intelligent Traffic Systems
  - Use of Mobility Data for Urban Planning and Development
  - Social Media and Traffic
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