



Arabian Institute For Training

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# Traffic Impact Analysis

## INTRODUCTION

- This Traffic Impact Analysis training course will provide a comprehensive understanding of the overall purpose, benefits, components of a traffic impact analysis, in addition to guidelines and the latest techniques utilized in data preparation and assessment processes.
- Traffic Impact Analysis (TIA) is implemented to assess and evaluate the interaction between existing transport infrastructure and proposed land development projects. Development projects that would generate significant additional traffic require comprehensive Traffic Impact Analysis (TIA). Without a clear picture of the type of traffic movements or their scale, timing, and location, there is a high risk of the traffic movements to lead to unforeseen traffic congestion and safety concerns where the development connects to the roadway network. Preparing a Traffic Impact Analysis (TIA) report is a complex process.
- The participants will have a thorough understanding of the gravity of a development project from the transportation perspective and will be able to conduct an in-depth Traffic Impact Analysis (TIA).

### This training course will highlight:

- Purpose and the need for a Traffic Impact Analysis
- Overall Traffic Impact Analysis Framework
- Step-by-Step Operational and Safety Analysis
- Data Collection and Processing Tools, Techniques, for Historical Trends and Forecasting

## OBJECTIVES

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

- Develop a solid base of knowledge in traffic impact analysis for types of a development project
  - Evaluate the existing traffic and transportation conditions on different scales of networks
  - Understand the overall framework of a Traffic Impact Analysis Study
  - Identify potential adverse impacts on the current transportation system and to proposed development projects
  - Evaluate the traffic conditions in the future year
  - Recommend traffic improvement schemes to mitigate any deficiencies identified within the study area
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## TRAINING METHODOLOGY

- This Traffic Impact Analysis training course will have topics utilizing a variety of proven adult learning techniques, focused on case studies and best practices. This will include active participation in class practice cases, followed by active group sessions, video materials and tabletop activities.

## ORGANISATIONAL IMPACT

- The organization will benefit from understanding the guidelines and critical aspects of a Traffic Impact Analysis Study. This will guide and manage to reduce costs and enhance their organizations' workflow through the proper documentation of a Traffic Impact Analysis.

Impact on the organisation from delegates attending this Traffic Impact Analysis training course includes the following benefits:

- Adopt an organized and planned way of Traffic Impact Analysis (TIA) Documentation
- Establish a solid foundation of their team in transport and land use interaction
- Reduce labor costs in Traffic Impact Analysis (TIA) documentation and reporting via enhancing the participants' efficiency
- Enhance the operational processes, policies and workflows
- Advance their comprehension in dealing with robust cases in traffic impact assessment
- Improve their public image

## PERSONAL IMPACT

This training course will personally benefit the participants to gain or enhance their understanding and knowledge by the following:

- Evaluate and assess the impact of any scale development project's impact on transportation
  - Solid understanding of the framework, and each step of the methodologies
  - Learn the latest data analytics techniques to process historical information and forecast future traffic of each transport mode
  - Expertly integrate historical data/information, justify choices, and communicate results
  - Confidence in making recommendations regarding the necessary improvements to the transportation authorities
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## WHO SHOULD ATTEND?

- This Traffic Impact Analysis training course will significantly benefit to those who are involved in traffic and transportation engineering concepts, urban planning development, land use development, traffic management centers, and road infrastructure.

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

- Traffic & Transportation Engineers and Professionals
- Professionals in Urban Planning and Development
- Project Managers in Infrastructure Solutions Consulting
- Data Analysts, Technicians in Traffic Management Centers
- Practitioners in Traffic and Transport Engineering
- Highway and Roadway Design Engineers
- Researchers and Consultants

## Course Outline

### Introduction to Traffic Impact Analysis and Studies

- Purpose of Traffic Impact Analysis
- Need for Traffic Impact Analysis
- Sustainable Transport Objectives
- Policy Context
- Methodology Meeting

### Operational Analysis 1

- Traffic Impact Analysis Framework
- Identify Key Locations and Scenarios
- Analysis of Existing Conditions
- Physical Characteristics and Data Collection
- Traffic Volumes
- Capacity / Level-of-Service

### Operational Analysis 2

- Projected Traffic
  - Trip Generation
  - Directional Orientation (Trip Distribution)
  - Evaluation of Other Modes (Modal Split)
  - Traffic Assignment
  - Traffic Forecasting
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## Safety Analysis

- Crash History and Data Collection
- Data Analysis
- Conflict Analysis
- Intersection Sight Distance
- Signal Warrants
- Horizontal and Vertical Geometry
- Truck Movements

## Overall Traffic Impact Assessment Process

- Traffic and Improvement Analysis
- Seasonal Variations
- Regional Demand Model vs. Growth Rates
- Overall Traffic Impact Assessment Process



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