



23rd Meeting of the COMCEC TCWG

DEVELOPING INTELLIGENT TRANSPORT
SYSTEMS
IN OIC MEMBER COUNTRIES

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01 Introduction

Intelligent Transportation Systems - ITS

ITS provide solutions for :

- people's growing mobility demands
- enhance the quality of transportation and logistics supply chain
- keep the connection active and running



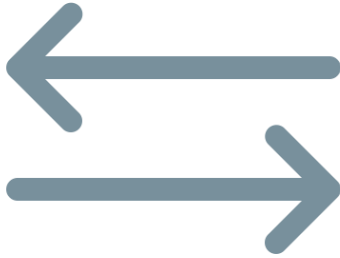
Intelligent Transportation Systems - ITS



Poor transport system can lead to:

- Traffic congestion, delays
- Accidents
- Pollution
- High-energy consumption
- Low productivity
- Inefficient usage of resources
- Community severances
- Inadequate access to services

Information and Communication Technologies - ICT



multi-directional data exchange between users, vehicles, infrastructure and hubs



monitoring, measurement, analysis and control mechanisms

New Technologies in ICT

Internet of Things (IoT)

Artificial intelligence (AI)

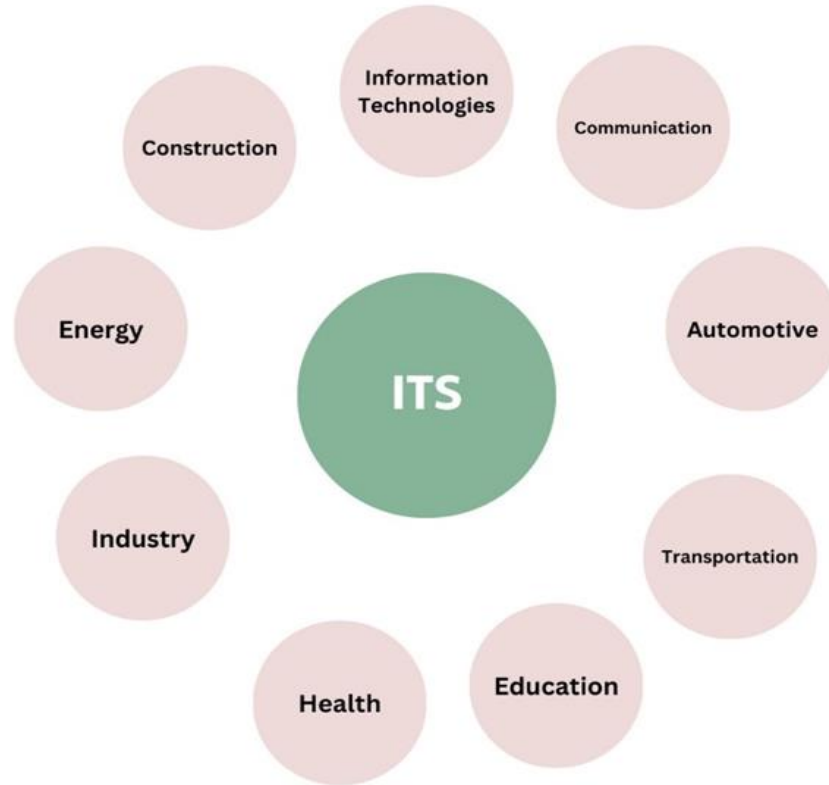
Machine learning

Cloud computing

Virtual and augmented reality



Sectors and disciplines which are in integration with ITS



ITS Applications

INTELLIGENT VEHICLES

- Navigation Systems
- Driver Support Systems
- Automated Parking Systems
- Autonomous Vehicles

INTELLIGENT ROADS

- Intelligent Intersections
- Traffic Management ITS equipments
- Cameras
- Sensory Systems

SMART CITIES

- Emergency Management
- Public Transportation
- Fleet Management
- Smart Parking Systems
- Transportation Safety

ECONOMY AND ENVIRONMENT

- Intelligent Energy Systems
- Electric Vehicles
- Environment Friendly Transportation Infrastructures
- Economical Benefits of ITS
- Human Factor

INTEGRATION SYSTEMS

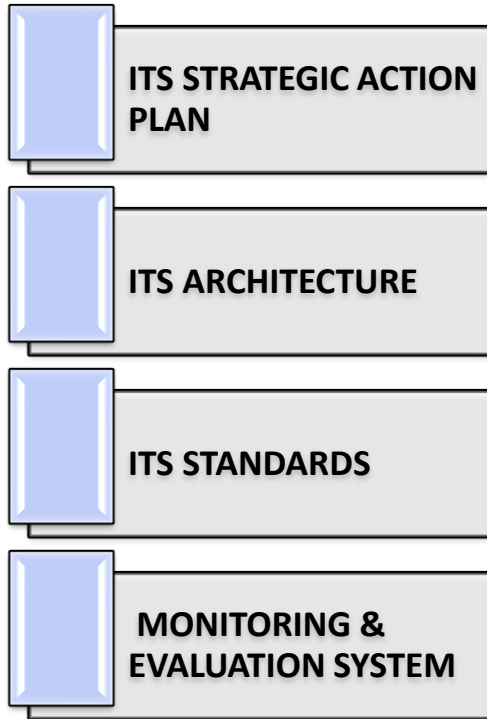
- Integration of All Transportation Modes
- Transportation Control Centres
- Cooperative ITS Structure
- Single Fee Payment System for All Mobility

IT AND SECURITY

- Big Data
- Data Security and Open Data
- Cybersecurity
- Communication Systems

Components of Well Structured ITS

01



ITS Strategic Action Plan

Strategic framework for:

- Ensuring the compatibility and interoperability of systems developed within the ITS framework
- Facilitating the continuity and accessibility of ITS services for society
- Promoting more sustainable transportation



ITS Architecture



- Defines the interactions between the physical components of transportation systems, including travelers, vehicles, roadside devices, and control centres
- Specifies the necessary functions assigned to system elements to ensure interoperability, seamless information flow, and standardization of equipment within the ITS ecosystem

ITS Standards

These standards define the interconnectivity, data-sharing protocols, and service delivery mechanisms for systems, devices, and products

- ITS standards are the technical specifications that facilitate communication between different ITS components, enabling them to function cohesively
- Through a common communications interface, ITS standards enable direct data exchange and interpretation between similar and dissimilar ITS devices and equipment



ITS Monitoring and Evaluation System

Determines whether ITS applications are being utilized in alignment with the defined goals and objectives

Identifies the reasons for any deviations

Valuable for decision makers, providing ideas about actions to be taken in the future



Sustainable & Safe Transportation with ITS

01

Increasing number of mega cities and people living in cities

Rising urban and intercity mobility

Migration of the population to cities from rural areas

NEED FOR FORMULATION OF NEW POLICIES LIKE ITS TO ENHANCE URBAN SUSTAINABILITY



Sustainable & Safe Transportation with ITS

- In order to minimize environmental impacts, sustainable smart mobility can be achieved through the adoption and widespread use of ITS
- Reducing environmental pollution and carbon emissions is achievable by mitigating traffic congestion through ITS applications
- Promoting alternative vehicles such as electric vehicles and public transportation will make significant contributions to sustainable mobility



Social Inclusion of Disadvantaged Groups with ITS

ITS provide solutions for the use of safe, comfortable, affordable and accessible transportation systems for all people including disadvantaged groups



ITS Applications among OIC Member Countries

Current Situation

- Varies according to the level of development and financial means of the countries
- Ineffective use of ITS systems
- Negatively affects trade

Possible Solutions:

- Capacity building
- Public awareness
- Qualified technical staff



02 Project Objectives & Outputs

Project Objectives

- Conduct a comprehensive literature review on Intelligent Transportation Systems (ITS) in Road Transport
- Provide a current overview of the ITS domain
- Address ITS applications and services in the field of road transport, including their interfaces with other transportation modes
- Collect information on successful ITS implementations through desk-based research and field visits, and also highlight and analyze the best practices in both OIC and non-OIC Countries.
- Provide policy options for consideration by policymakers

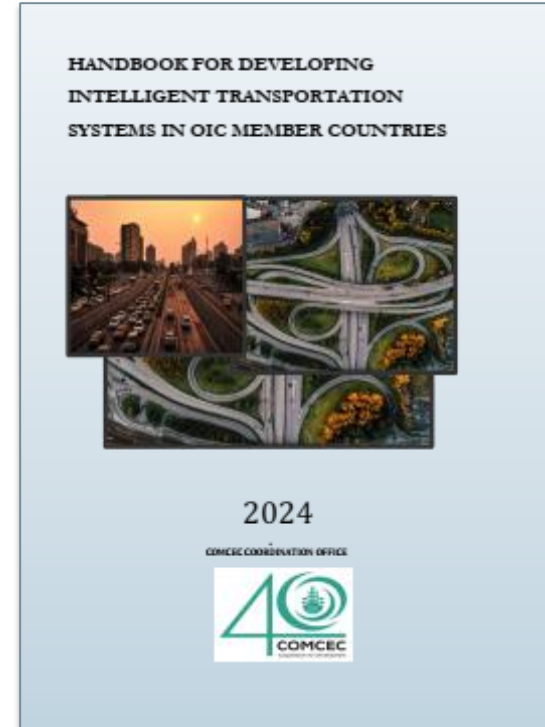
Project Outputs

The Handbook will cover :

An up-to-date overview of the ITS field

Current ITS applications and services in road transport with case countries

Guiding Principles and Recommended Practices





03 Project Components

Project Components

03

Desk-based comprehensive literature review

01

Field Visits

02

Case Countries

- Desk-based research within OIC : Türkiye and Iraq
- Desk-based research, example of best practice, non-OIC : the US
- Field Visit: Malaysia and The Gambia

03

Case Study Selection Criteria

Main criterias applied in selection of five case countries that will represent:

OIC Member Countries and one non-OIC Country

Different geographic regions (according to official three Regional Groups of the OIC Member Countries)

Different economic and social conditions

From OIC

- Iraq
- Malaysia (Field Visit)
- The Gambia (Field Visit)
- Türkiye

Non-OIC

- The United States of America

Field Visit – Malaysia



Field Visit – The Gambia



Thank You

Do you have any questions?

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