

3rd INTERNATIONAL CONFERENCE ON SUSTAINABLE CONSTRUCTION AND PROJECT MANAGEMENT

June 20-22, 2021

3rd workshop: Management of Smart transportation systems (*Tentative date on Tuesday 22 June 2021*)

Coordinator/Moderator: Eng. Sami Abou zeid , Prof. Tarek Yousry

Workshop outlines	<ul style="list-style-type: none"> • Intelligent Transportation Systems (ITS)
Objectives	<p>the Intelligent Transportation System should help:</p> <ol style="list-style-type: none"> 1. Assist in driving vehicles and positioning 2. Improving safety for road transport by: <ul style="list-style-type: none"> - Facilitate and reduce traffic congestion by controlling traffic with traffic lights - Emergency event management - Managing mobility demand and improving transportation efficiency 3. Increasing the energy efficiency and operational efficiency of the road transport by: <ul style="list-style-type: none"> - Increase speed and reduce latency -Reducing delays at transfer points between modes of transport -Significant reduction in the cost associated with congestion -Increasing the carrying capacity of road users by encouraging an increase in the average vehicle capacity -Reducing the operational cost of the infrastructure - The increase in the number of people and goods that can be transported on existing facilities 4. Improving mobility and comfort levels for commuters by: <ul style="list-style-type: none"> - Improving access to land transportation systems for all levels of income and ages -Reduce flight time, increase reliability and reduce cost - Reducing the level of effort associated with the trip 5. Minimizing the impacts of road transport on the environment and energy by: <ul style="list-style-type: none"> -Reducing vehicle exhaust emissions - Reducing wasted fuel due to congestion and failure to choose the appropriate road -Reduce noise pollution -Reducing the consumption of materials harmful to the environment 6. Optimizing the operation of commercial vehicles by: <ul style="list-style-type: none"> - Improving the safety and efficiency of commercial vehicles (trucks and buses) -Improving the movement of goods transport and reducing the transport time and cost -Maintaining the security and safety of movables - Achieving safety by following up on dangerous transported materials 7. Vehicle control and safety to achieve the following: <ul style="list-style-type: none"> - Avoid longitudinal collision

	<ul style="list-style-type: none"> - Avoid side collision -Warning and control of collisions at intersections - Warning of disabilities at accident sites <p>8. Strengthen the development of related industries</p>
<p>Potential Guests</p>	<ul style="list-style-type: none"> • Presentations names Dr. Tarek Yousry - Professor of Transportation and Traffic - College of Urban Planning Engineer / Sami Abu Zeid - Advisor to the Minister of Housing for Roads and Transport • Guest speakers Engineer / Mohsen Badawi - Transportation Systems Consultant - Private Sector Dr. Hisham Taha - President of Mowasalat Misr - Private Sector Operator
	<ul style="list-style-type: none"> • Draft Program for the session <ul style="list-style-type: none"> • 1- Intelligent Transportation • The ITS must include a number of technology-based systems. These systems are divided into smart infrastructure systems and smart vehicle systems • First: Intelligent Infrastructure Systems • Arterial and main roads management system • Mass Transportation Management System • Incident Management System • Emergency Management System • Electronic payment system and pricing • Passenger Information System • Information Management System • Safety Management System and Accident Reduction • Road Operation and Maintenance Management System نظام • Road weather management system • Heavy Transport Vehicle Operation Management System • Multimodal Freight Management System • Second: Intelligent Vehicle Systems • Collision Avoidance System • Driver Guidance System • Collision Alert System <p>The main areas of application of intelligent transportation systems Advanced Traffic Management Systems (ATMS) must detect traffic conditions, transmit them to the control center via the telecom network, and then develop traffic control strategies by closely monitoring all types of traffic information. Traffic management systems</p> <p>The main areas of the ITS include several main systems, the most important of which are: 1. Advanced Traveler Information System (ATIS) to use advanced communication technology for road users to access real-time information whether in the car, at home,</p>

	<p>in the office or in open areas as a reference for selecting transportation, commuting trips and road routes</p> <p>2. Advanced Vehicle Control and Safety System (AVCSS) systems that help drivers control vehicles in order to reduce accidents and improve traffic safety</p> <p>3. The Intelligent Vehicle Initiative (IVI) integrates and integrates information and driver guidance system in order to achieve safety for all cars. The smart car initiative should use fast and efficient collision avoidance systems based on radar or sonar technology. These systems detect objects that the vehicle may collide with.</p> <p>4. Commercial Vehicle Operations (CVO) systems whose objective is to speed up the operations of freight, transport and inspection of commercial vehicles such as trucks, buses, taxis and ambulances in order to improve efficiency and safety.</p> <p>5. The Advanced Public Transportation System (APTS) All technologies of safety systems and passenger information should be applied to mass transportation in order to improve service quality, increase efficiency and encourage the number of people using mass transportation. The system must include an automated vehicle monitoring system, vehicle locating, computer scheduling, and E- Tickets</p>
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