The Impact of AI on Smart Cities in the Areas of Road, Transport, Traffic & Security

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Abstract

Statement of the Problem: A smart city is a safe & secure city for all its inhabitants. A vibrant and dynamic city is full of life and activities on its roads, streets & highways. Also, its residents require security in their homes, and workplaces. Applying AI technologies such as machine learning and deep learning on data generated from the city, such as road data, vehicles on the road, road lanes, and with the use of high precision devices such as LiDAR sensor technology and vehicle perception systems can result in powerful capabilities that capture these raw data and transform it to extremely valuable information and data that cities, road companies, enforcement authorities and municipalities can use to learn details about road conditions, utilization, accidents and events, traffic violations, driver behaviors, and much more. Likewise, in the area of physical security, by applying AI with LiDAR sensors and people perception systems, the system can gather raw data from locations requiring high levels of security such as airports, prisons, international borders, military installations, critical infrastructures, and others leading to applications such as: perimeter protection, exit/entrance monitoring, gate access control, restricted zone enforcement, people counting, precise crowd counting, crowd management and much more. Sensor fusion between LiDAR sensors and cameras can only enhance the outcome and provide critical visual evidence of violations, intrusion, and other alert generating incidents which can also be live streamed as well as video recorded on demand.

Biography

Mohamed Sadek is currently CEO/Founder COM-IoT Technologies in Dubai, UAE based AI Company. Previously he is working as Managing Director of SES_O3B Networks in the MECA region. Upon completing his Masters of Science degree in Computer Science from the University of Illinois in Chicago in 1989 Mohamed Sadek joined AT&T Bell Labs in Naperville, IL, Where he led a team of software developers working on feature development for AT&T.

In 1997 he completed his MBA from the Wharton School of Business, University of Pennsylvania and led Lucent Technologies in Saudi Arabia until the end of 2000 where he achieved sales of over $1.3 B. In January 2001 He became MD for Nortel Networks in the Middle East until 2005 where he rejoined Lucent Technologies in Abu Dhabi as head of Sales for Middle East & North Africa. In 2009 Mr. Sadek joined Norconsult in Saudi as VP, International Projects and in April 2013 he joined O3B Networks.