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## PLANNING TRIPOLI METRO NETWORK BY THE USE OF REMOTE SENSING IMAGERY

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**Abstract.** Tripoli, the capital city of Libya is going through significant and integrated development process, this development is expected to continue in the next few decades. The Libyan authorities have put it as their goal to develop Tripoli to an important metropolis in North Africa. To achieve this goal, they identified goals for the city's future development in all human, economic, cultural, touristic, and nonetheless infrastructure levels. On the infrastructure development level, among other things, they have identified the development of public transportation as one of the important development priorities.

At present, public transportation in Tripoli is carried out by a limited capacity bus network alongside of individual transportation. However, movement in the city is characterized mainly by individual transportation with all its disadvantages such as traffic jams, significant air pollution with both carbon monoxide and dust, and lack of parking space.

The Libyan authorities wisely opted for an efficient, modern, and environment friendly solution for public transportation, this was to plan a complex Metro Network as the backbone of public transportation in the city, and to develop and integrate the bus network and other means of transportation to be in harmony with the planned Metro network. The Metro network is planned to provide convenient connections to Tripoli International Airport and to the planned Railway station. They plan to build a system of Park and Ride (P+R) facilities at suitable locations along the Metro lines.

This paper will present in details the planned Metro Network, some of the applied technological solutions, the importance of applying remote sensing and GIS technologies in different planning phases, and problems and benefits associated with the use of multi-temporal-, multi-format spatial data in the whole network planning phase.

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