

# Jordan University of Science and Technology

## A spatial analysis of public transit routes in Amman, Jordan

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**Abstract:** Public transport is a basic service that must be provided to any society. An effective public transport system is the system that can provide adequate service coverage to all community groups, especially the low-income group, the elderly and the disabled. For performance evaluation, performance metrics are widely implemented; for this purpose transit accessibility is used in this study as it reflects the ease of reaching transit service and its convenience as a mode choice. This study aims to assess transit accessibility in Wadi Al-Seer, one of the main districts in Amman. Accessibility was measured on the basis of the percentage of service coverage area and served population. The analytical framework included the use of geographic information systems (GIS) software, through the creation of buffer areas representing the limits of pedestrians walking distance to public transit stations. The results shows that the overall accessibility is significant, but concentrated in the center of the district, while the outskirt is not properly served, in addition to a high percentage of overlapping routes. Thus improvements on the route distribution and increasing its numbers in low access areas are required.