Smart Mobility in Smart Cities: Emerging Challenges, Recent Advances and Future Directions

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Abstract

The world is witnessing a vivid race towards developing advanced solutions to enable smart, fast, affordable and environment friendly mobility for Smart Cities inhabitants. This led to the emergence of the Smart Mobility concept, attracting significant attention from major actors in the mobility sector including policy makers and traffic authorities. Therefore, this survey paper presents an overview of Smart Mobility and discusses the main challenges associated with its key building blocks, parking and traffic management, traffic routing in addition to emissions and road safety implications. Then, the most important works that attempted to address these challenges are presented, and their strengths and limitations are analysed. Finally, the lessons learned from this study and the most promising future directions to tackle these challenges are presented.

1   Keywords

Smart Mobility, Smart Cities, Intelligent Transportation Systems, Traffic Management System.