

# **Intelligent Cities: Technologies, Architectures and Governance of the Digital Space**

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## **Abstract**

This thesis researches the technologies, architectures and governance of the Intelligent Cities' Digital Space. The research aims to introduce a universal model for planning and governance of the Digital Space of Intelligent Cities. The term "Intelligent City" is used to describe how information and communication technologies can contribute to the overall function of the cities by enhancing their effectiveness, improving their competitiveness, and providing solutions in order them to address inequalities, unemployment, social exclusion, and to improve the urban environment. The Intelligent City emerges from the combination of three fundamental components: "City", "Innovation and Knowledge Management System" and "Digital Space". The Digital Space, in turn, consists of broadband networks, web and mobile applications, and online services that are made available to residents, visitors, companies and other organizations in the city. The review of literature, technologies and applications regarding Intelligent Cities is applied in the Municipality of Thermi, Greece. In the City of Thermi a Digital Space, which includes online services related to transportation, commerce, recreation, and tourism, is created to support city's commercial centre. The thesis concludes with the presentation of a universal model for planning and governance of the Digital Space of Intelligent Cities. This model includes a roadmap for the creation of Intelligent Cities and a number of fundamental open source applications that can be used for the rapid creation of the digital space.