Decision Support System for the Management and Maintenance of Sewer Networks

Authors: A. Bouamrane, M. T. Bouziane, K. Boutebba, Y. Djebbar

Abstract: This paper aims to develop a decision support tool to provide solutions to the problems of sewer networks management/maintenance in order to assist the manager to sort sections upon priority of intervention by taking account of the technical, economic, social and environmental standards as well as the managers' strategy. This solution uses the Analytic Network Process (ANP) developed by Thomas Saaty, coupled with a set of tools for modelling and collecting integrated data from a geographic information system (GIS). It provides to the decision maker a tool adapted to the reality on the ground and effective in usage compared to the means and objectives of the manager.

Keywords: multi-criteria decision support, maintenance, Geographic Information System, modelling **Conference Title:** ICCAE 2015: International Conference on Civil Society and Architectural Engineering

Conference Location : Jeddah, Saudi Arabia **Conference Dates :** January 26-27, 2015