

## ABSTRACT

In developing the development of region infrastructure is based on the idea that there are coherences between the element of Art Printing lay out and transportation in the attempt of developing a region. The Implementation of printing lay out which fits in plans needs supporting by the program of transportation infrastructure development, particularly the road infrastructure. Department of Public Operation has function to commit a training to the local governance, either province or regency, in developing road. To give a solution about various problems in road handling and integrate it, then it takes an information system that gives final result that road handling system (improvement, routine maintenance, periodical maintenance, and new road development) of which priority based on the achievement of target of Art Printing lay out and the efficiency of road handling in gheographical-based so that it helps Department of Public Operation in handling its program.

The system made uses spatial data and attribute data related to road object. The processed data so that system can obtain the decision to road handling and the visualization to the existing road so that it can give the information about the condition of road in Bandung., and can be used easily by society.

The design of this system uses the software of *Professional MapInfo 8.0* which is able to process spatial and attribute data. While to show the visualization of decision taking and road condition, also system interface is used *Visual Basic 6.0*. In using this application, the user can choose road based on region and input weight that fits in available criteria to be processed by the system so that it results in road handling decision based on its priority sequence. The User Interface is completed with complete road data to make user easier in making analysis of the existing road which has been represented in the map.

From the explanation above, it can concluded that this application based on the initial purpose that has been decided before with Multi Criteria Analysis. First, knowing the affecting parameters in the road handling. Second, it can determine the priority scale of road handling. Third, knowing what kind of criteria to be the basic of taking decision in road handling. And the last is the system which is based on geographical and level system-used in taking the decision will make easier for users to obtain benefits of the system.

Key word : Geographic Information System, Multi Criteria Analysis, Road Handling