

## ***ABSTRACT***

An industrial estate is an area to carry out industrial activities supported by facilities and infrastructure managed by Industrial Estate Companies that already have a business license at that location. The research location chosen is Majalengka Regency which is currently being developed as a new industrial area with various infrastructure supports such as West Java International Airport (BIJB), Cikopo Palimanan Toll Road, and Cisumdawu Toll Road. In choosing the right industrial location, several considerations are needed so that the industrial location can be located in an area that can provide low total production costs and provide maximum profits. Currently, changes are being made to the Spatial and Regional Plan of Majalengka Regency with the development of the Tambourine Area, so that the existing industrial locations in Majalengka Regency need to be reviewed. The purpose of this study is to determine the weight of criteria for selecting potential industrial estate locations in Majalengka Regency using AHP, mapping and classification criteria for selecting industrial sites in Majalengka Regency, mapping and assessing the potential of industrial estate areas in Majalengka Regency with the help of GIS (Geographic Information System), calculating the area of industrial land that is very potential in Majalengka Regency, mapping and assessing industrial estate areas in accordance with the Regional Spatial Plan (RTRW) of Majalengka Regency 2011-2031 using GIS (Geographic Information System), and designing potential locations of industrial estates in Majalengka Regency based on score calculations. In considering the potential location of industrial estates in Majalengka Regency, seven criteria are used, namely land slope, soil type, land use and utilities as well as electricity infrastructure, telecommunications, clean water networks, availability of raw materials and also market area coverage. In determining the weight of the level of importance, the AHP (Analytical Hierarchy Process) method was used with the help of five expert respondents consisting of Industrial Estate Managers, Urban Area Planning Experts, Industrial Engineering Experts, Regional Infrastructure Management Center of the Ministry of PUPR, and GIS experts. AHP is a theory of measurement used in determining the ratio scale of discrete and continuous pairs, comparisons (Hadianti & Mubarak, 2017). Meanwhile, in visualizing the location of industrial potential, the Geographic Information System method is used with the help of QGIS software. Based on the results of the study, the importance of each criterion was obtained, for slope a percentage of 6.20%, road access distance was obtained a percentage of 17.75%, river access distance was obtained a percentage of 17.05%, electricity infrastructure was obtained a percentage of 15.63%, telecommunications

infrastructure was obtained a percentage of 11.92%, market networks were obtained a percentage of 12.33% and for raw material networks had the most percentage large, which is 19.13%. Based on the results of research using the Geographic Information System (GIS) method, the area that is very suitable to be used as an industrial designation area in Majalengka Regency is 1465,8063 Ha or about 1,05% where the location is located in Rajagaluh District, District Kasokandel, District Sindangwangi, District Sukahaji, District Kadipaten, District Jatiwangi, District Leuwimunding, District Jatitujuh, District Dawuan dan District Panyingkiran. Based on the General Plan and Spatial Planning of Majalengka Regency 2011-2031, the suitable area to be used as an industrial designation area is 471,195 Ha or around 40.61% located in Kertajati District. This research is expected to provide benefits for the Majalengka Regency Government to make decisions and policies in building industrial estates and can provide information to investors and industry players about the location of potential industrial areas.

**Keywords — Industrial estate, GIS, AHP, Majalengka Regency, Regional Spatial Plan (RTRW).**