**Relationship between Regional Economic Development and Ecological Environment Based on Spatial Data Mining**

**ABSTRACT**

In order to understand the relationship between economy and environment under the point-axis development model, spatial data mining methods and spatial analysis software were used to analyze the spatial distribution of GDP in the Heilongjiang Province industrial corridor in 2018. In addition, the spatial correlation of GDP levels is analyzed. The results show that GDP of each county in this period is positively correlated in spatial correlation, and the correlation coefficient is small. The spatial distribution of GDP shows the spatial clustering among similar values. The spatial distribution of GDP and ecological environmental factors shows a significant positive correlation, indicating that the economic development activities of industrial corridor have a greater impact on the ecological environment. Through the analysis of the correlation between GDP and population quantity of each county in Harbin, it is found that the spatial influence of GDP on population is also positively correlated. The correlation between the GDP of the county of Harbin and the number of graduates of ordinary high schools was further analyzed. It was found that the two were negatively correlated. The current state of education cannot meet the needs of economic development very well. Therefore, the Heilongjiang Province industrial corridor shows that labor-intensive and resource-intensive companies are suitable for low-knowledge labor concentration. The law of technology-intensive enterprises, capital-intensive enterprises and high-tech labor-intensive correlations indicates that the Heilongjiang Province industrial corridor is still in a higher stage of industrialization.

**Existing System**

In order to understand the relationship between economy and environment under the point-axis development model, spatial data mining methods and spatial analysis software were used to analyze the spatial distribution of GDP in the Heilongjiang Province industrial corridor in 2018. In addition, the spatial correlation of GDP levels is analyzed. The results show that GDP of each county in this period is positively correlated in spatial correlation, and the correlation coefficient is small. The spatial distribution of GDP shows the spatial clustering among similar values.

**Disadvantages**

1. Less maintenance
2. Indirect Tampering of information

**Proposed System**

This method is conducive to transforming the regional dual structure and promoting the development of rural economy around the town, so as to better coordinate the economic development between the city and the region and between regions. Secondly, through the combination of the two elements of “point” and “axis”, the spatial structure appears a pattern from point to axis and from axis to plane. A three-dimensional structure and grid situation is presented, which has great advantages for the horizontal flow of information and the horizontal connection of economy. In addition, it will help to maximize the optimal allocation of resources, avoid the irrational flow of resources, eliminate regional market barriers, and promote the formation of a unified national market (Beltramomartin et al. 2018).

**Advantages**

1. This method is conducive to transforming the regional dual structure and promoting the development of rural economy around the town, so as to better coordinate the economic development between the city and the region and between regions.
2. It will help to maximize the optimal allocation of resources, avoid the irrational flow of resources,

# Hardware Requirements:

# Processor - Pentium –IV

* Speed - 1.1 GHz
* Ram - 256 MB
* Hard Disk - 20 GB
* Key Board - Standard Windows Keyboard
* Mouse - Two or Three Button Mouse
* Monitor - SVGA

**Software Requirements:**

* Operating System - Windows XP
* Coding Language - java