

## **ABSTRACT**

*Developing countries such as Indonesia have the ambition to carry out structural transformations in order to increase their economic growth. The structural transformation of the economy from low-productivity agriculture to high-productivity industrialization is seen as a prerequisite for achieving sustainable economic growth, but there are concerns about the impact of industrialization on the environment, especially in the context of carbon emissions and climate change.*

*This study aims to analyze the effect of industrialization on long-term and short-term CO<sub>2</sub> emissions in Indonesia, using the Vector Error Correction Model (VECM) method on time series data in Indonesia for the period 1974-2016. The variables used in this study are CO<sub>2</sub> emissions, carbon intensity, energy intensity, Gross Domestic Product (GDP) and industrial value added, where the CO<sub>2</sub> emission variable is the endogenous variable and the industrial value added variable is a proxy for industrialization. The other variables refer to the rich identity theory which describes the similarity of the relationship between human activities and the environment.*

*The results showed that there was a significant positive effect of carbon intensity and energy intensity on CO<sub>2</sub> emissions in Indonesia in the long term, while industrialization and GDP per capita did not show a significant effect. Meanwhile, industrialization has a weak significant negative effect on CO<sub>2</sub> emissions in the short term, furthermore other variables do not show a significant effect.*

**Key Word** : *Industrialization, CO<sub>2</sub> Emissions, Structural Transformation, Vector Error Correction Model (VECM), Granger Causality Test*