

# Clustering and Fitting

NAME : ANJANA JOSHY

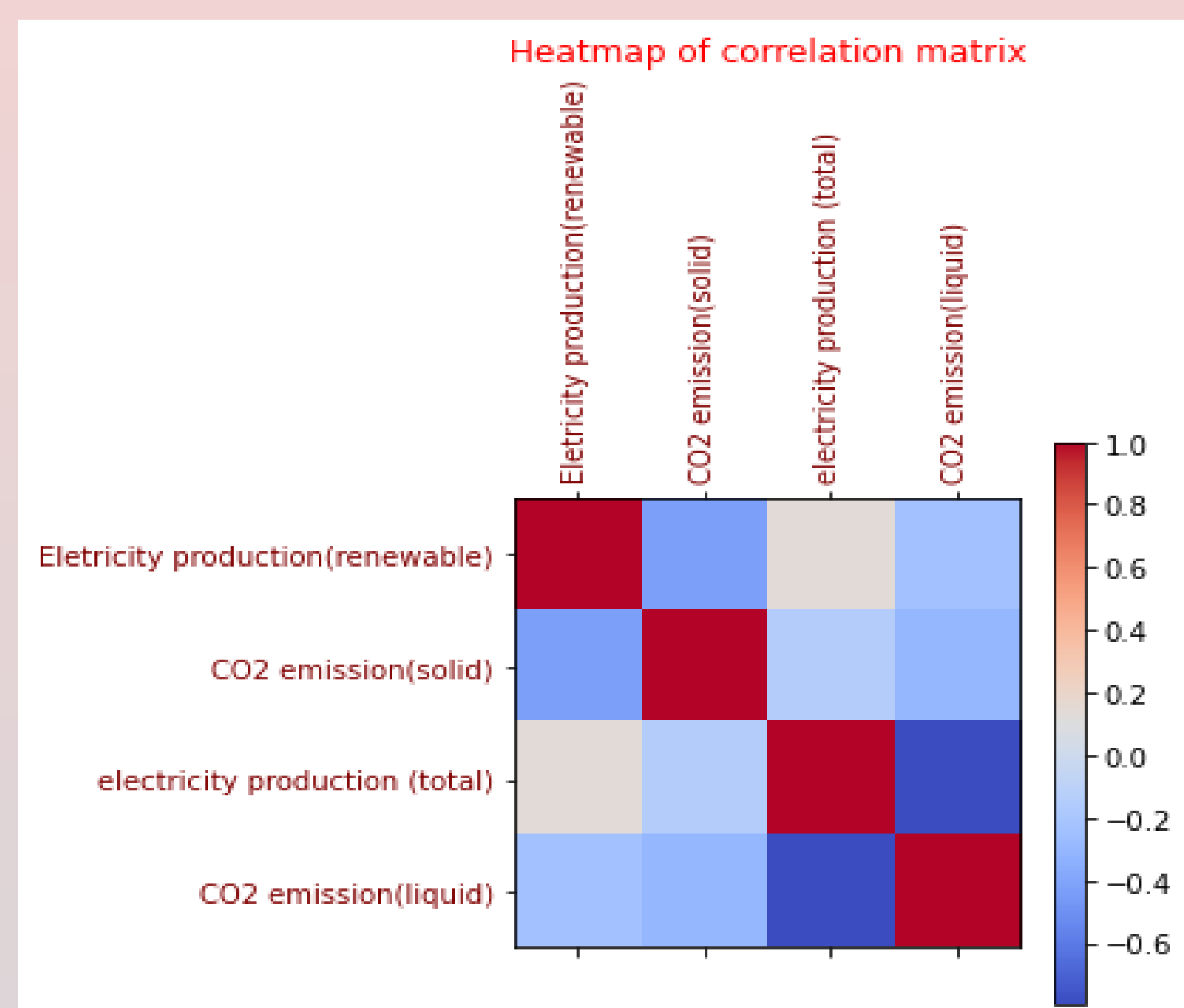
STUDENT ID: 22022447

## Introduction

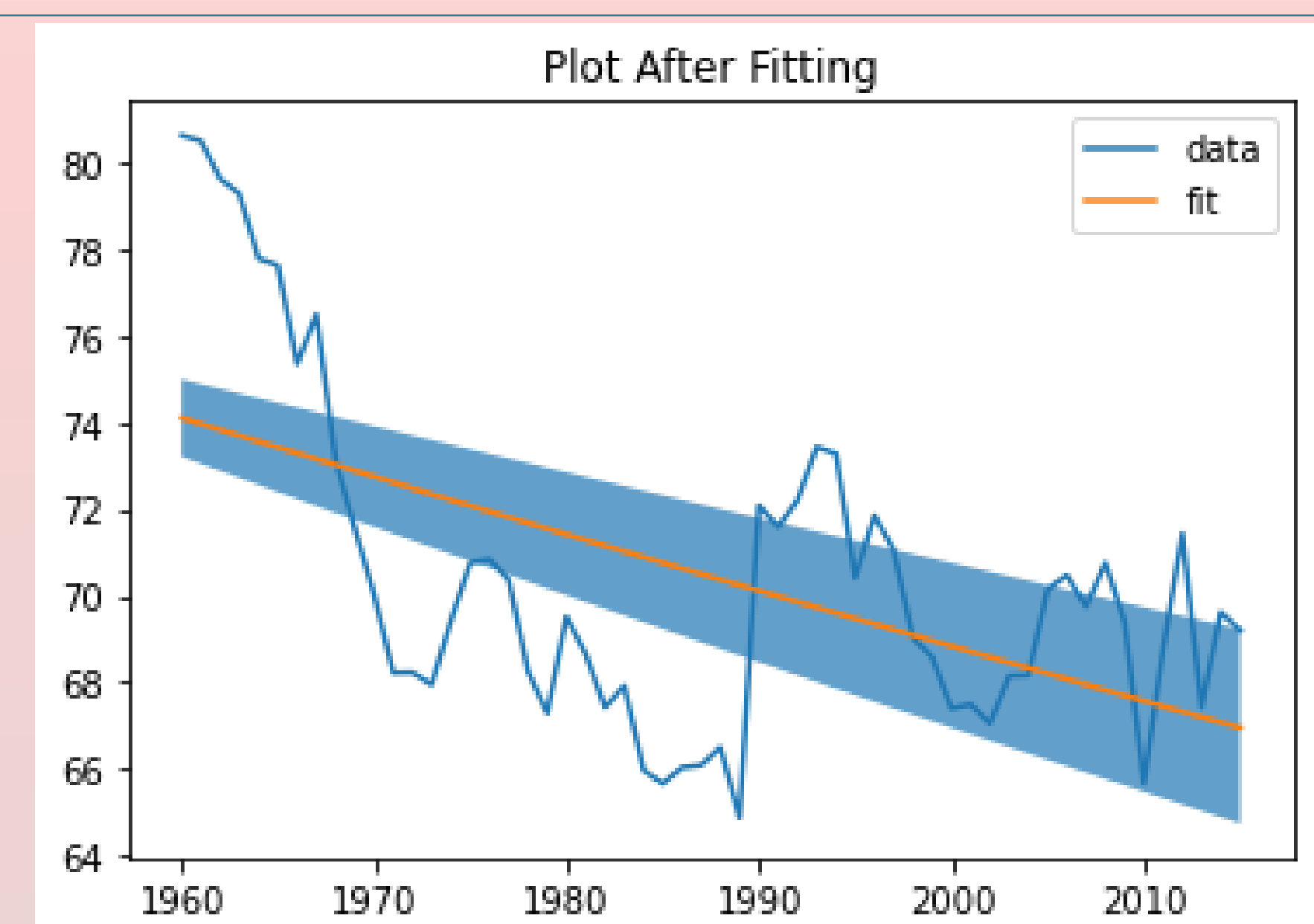
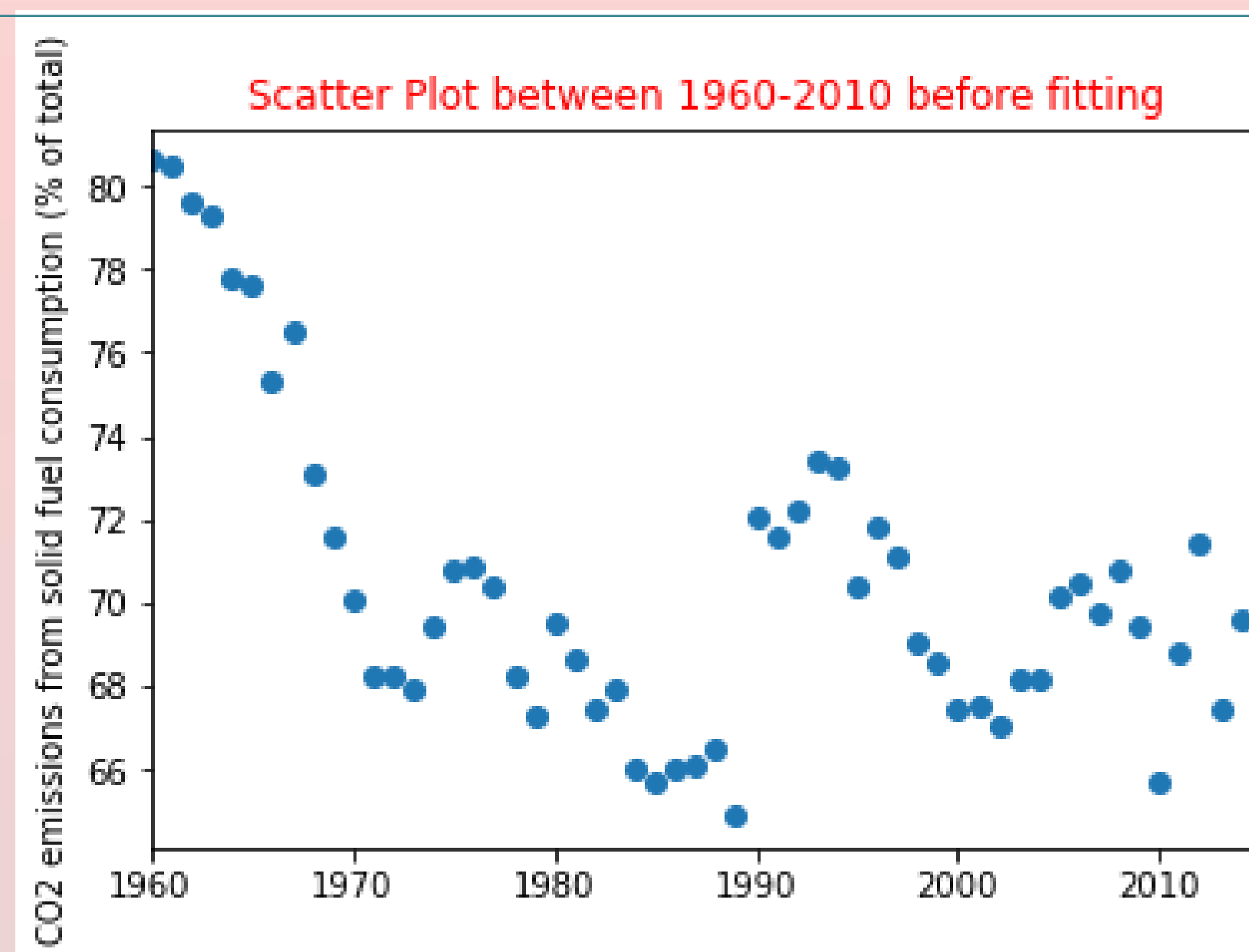
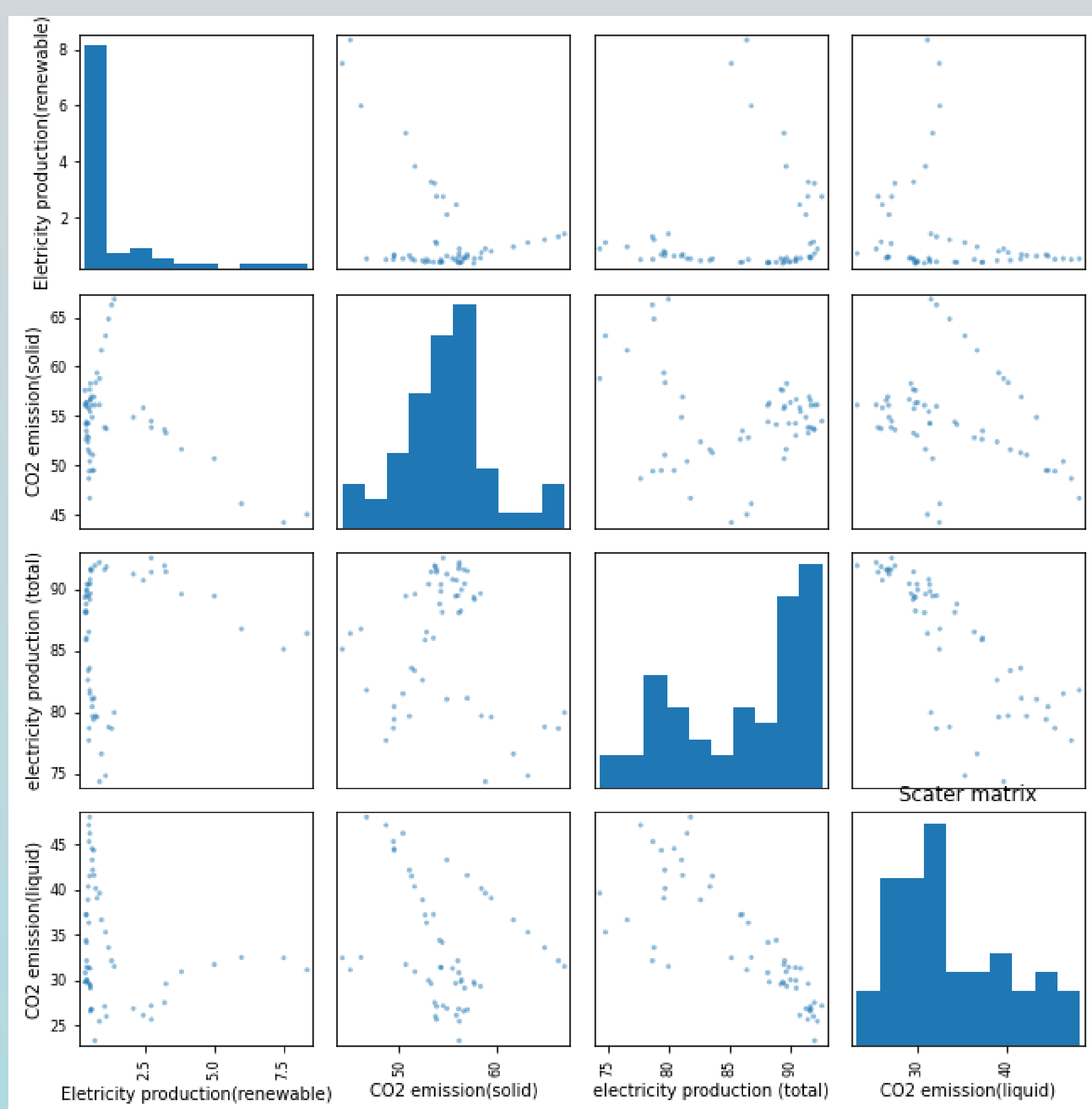
The main goal of the poster is to investigate Australia's environmental condition from 1960 to 2015 using various types of indicators such as electricity production from renewable sources and from sources of oil, gas and coal, CO2 emission from liquid fuel consumption, solid fuel consumption and other sources.

## Abstract:

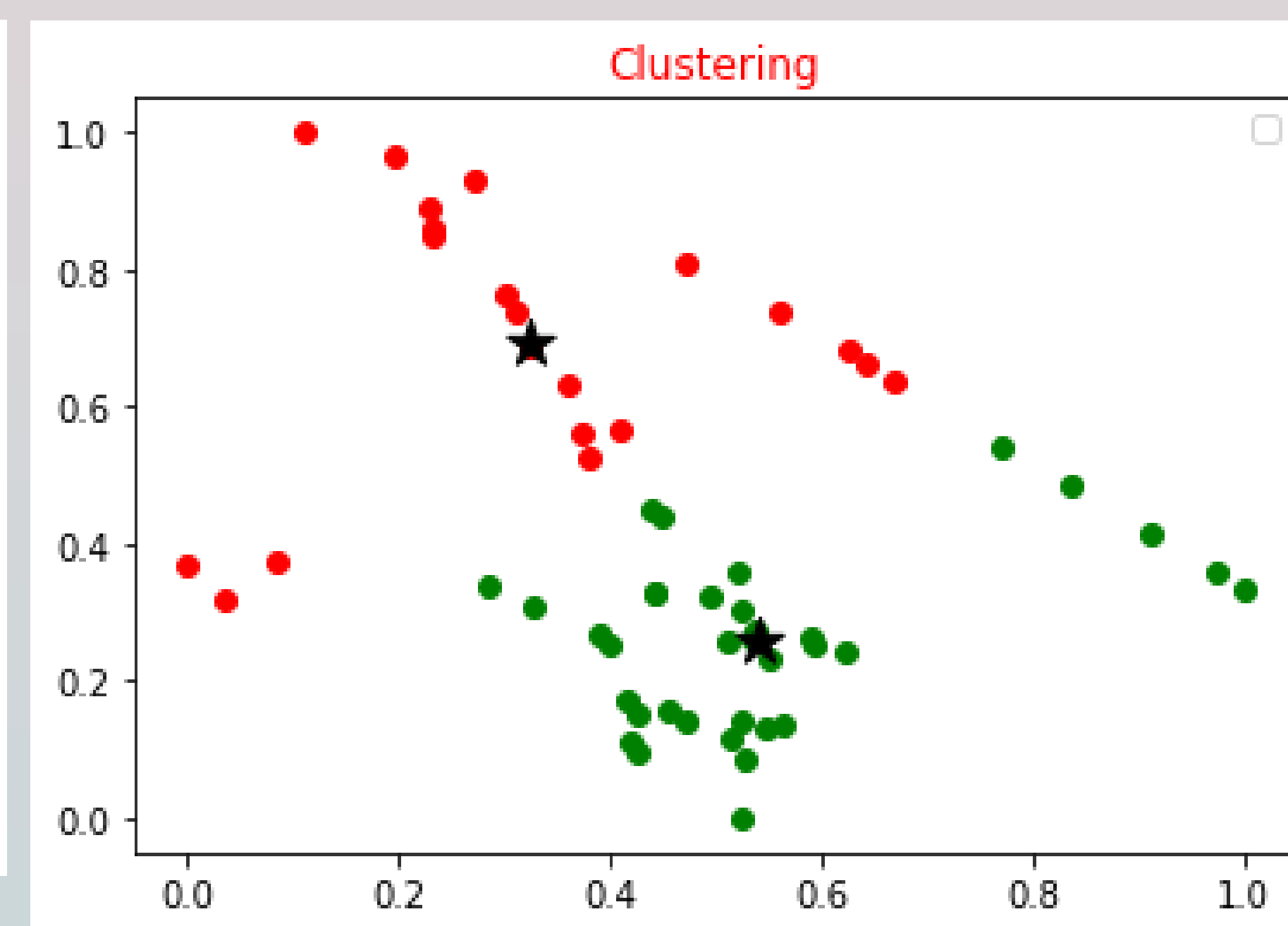
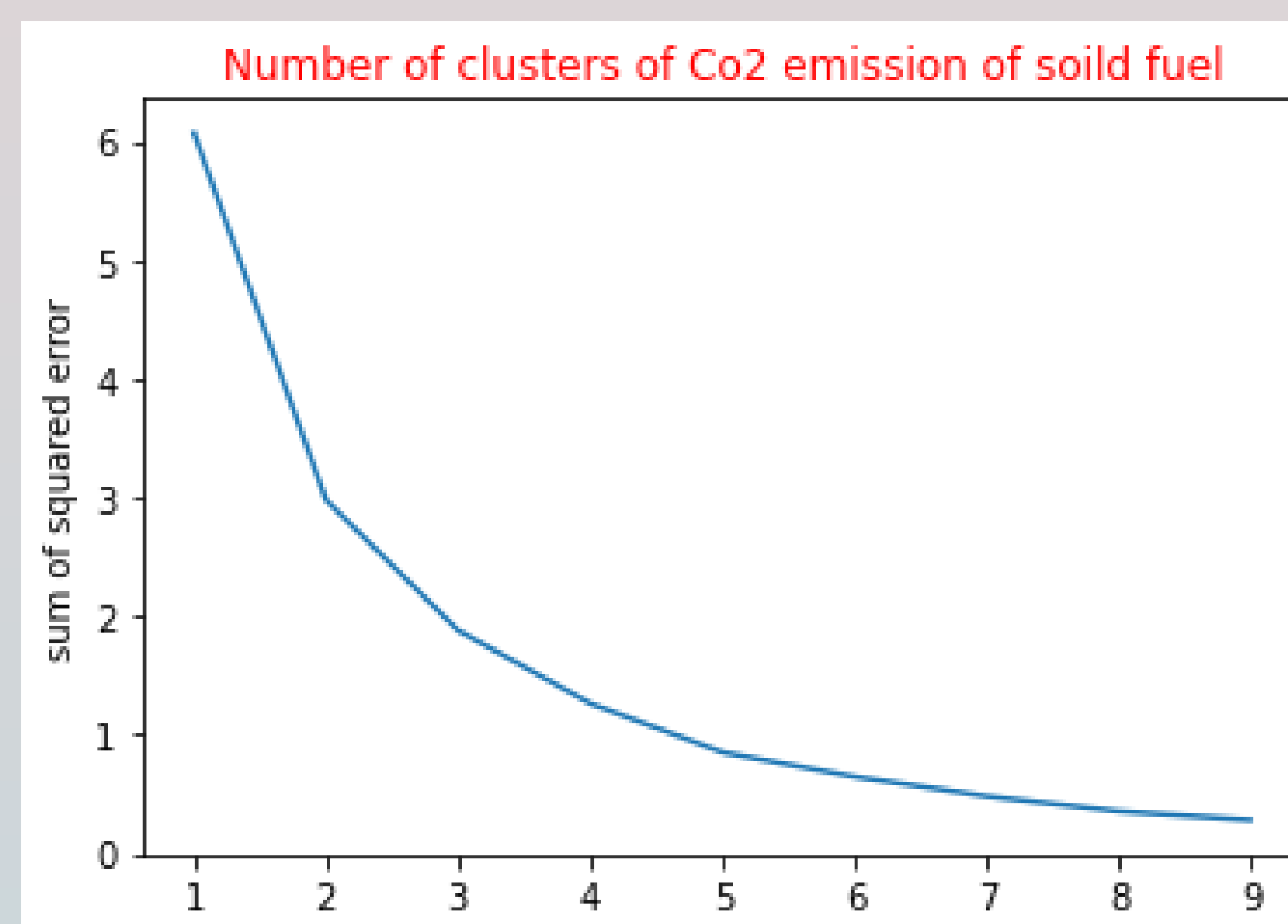
- Finding the correlation between different indicators
- Setting the scatter plot for data before and after fitting
- Plotting the graph of clustering using a particular indicator and finding the future trend



The heat map shows the relationship between four variables and it concludes that there is a strong association between the amount of CO2 emitted by burning liquid fuel and the amount of power generated by other sources.



The scatter plot depicts the trajectory of CO2 emission from solid fuel consumption between 1960 – 2010, showed a declining trend in Australia. By contrast, emissions are expected to increase by up to 67% in 2030 and later decline to around 61% in 2040.



Clustering CO2 emission from solid fuel which involves the grouping of points according to their values, and the number of clusters used is 2.

## Conclusion

In conclusion the production of power from fossil fuels results in an increase in carbon dioxide emissions. However, emissions from fuel consumption are declining and are expected to increase in the future.

GitHub Link : <https://github.com/anjanajoshy/Clustering-and-fitting.git>