**Prediction & Real time monitoring of CO2 emissions-Global warming-Fossil-Renewable Energy Consumption vs Population Growth by Machine learning on Cloud Computing.**

Problem & Solving

1. CO2 emissions
2. Global Warming

3.How to know fossil energy consumption and renewable energy consumption in current situation and 2030 & 2050.

4. Machine learning by python can be computed by prediction for CO2 emissions, Global warming, fossil and renewable energy consumption vs population growth.

5. Cloud computing by Oracle, Raspberry Pi, Dockers, PostgreSQL, Grafana can be shown for real time operating and monitoring.

Machine learning & Cloud computing Objection

1. ML can be real time predicted and monitored by web services on Cloud computing.
2. Prediction Total CO2 emissions & Global warming in 2030 & 2050 vs population growth.
3. Prediction Real time CO2 emissions vs population growth.
4. Prediction Annual fossil & renewable energy consumption in 2030 & 2050 vs population growth.
5. To realize the climate changed situation for environmental sustainability in future.

Conclusion

1. The accuracy of machine learning using by random forest and polynomial regression model are all both higher than 90%.
2. Population growth can be the main reason for increasing total CO2 emissions, global warming, annual fossil and renewable energy consumption.
3. The prediction resultants can be monitored real time by web service on cloud computing for supporting organizations can improve their understanding of CO2 emissions, global warming, fossil and renewable energy consumption and develop more effective strategies for combating climate change and can be long term planned and considered for sustainability management.