

CENTER OF EXCELLENT GEOPOLYMER & GREEN TECHNOLOGY

CEGEOGIECH

APP© AIR POLLUTANT PREDICTION SOFTWARE



INVENTORS

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PROBLEM STATEMENT

Air pollution is the introduction of particulates, biological molecules, or other harmful materials into the earth's atmosphere, possibly causing disease, death to humans, damage to other living organisms such as food crops, or the natural or built environment. Hence, more attention had been given to monitor the air pollutant, thus proper mitigation or public awareness can be done.

A lot of studies were conducted to model or predict the air pollutant from a point source (pollution from stack). However, nowadays, most of the air pollution recorded in Southeast Asia is merely from haze that was transported across the boundaries. Therefore, this software can be used to predict the concentration of few pollutants namely particulate matter (PM10) and ozone (the most prevailing pollutant in Malaysia) according to the classified area i.e. urban, suburban and industrial.



DESCRIPTION OF PRODUCT

APP© is a statistical software that is equipped with easy application of General User Interface (GUI). This software is able to model or predict the concentration of air pollutant for suburban, urban and industrial area in Malaysia. The statistical models used in this software are from comprehensive studies done exclusively by the team. Hence, the predictions of desire air pollutant are reliable and precise.



NOVELTY/INVENTION

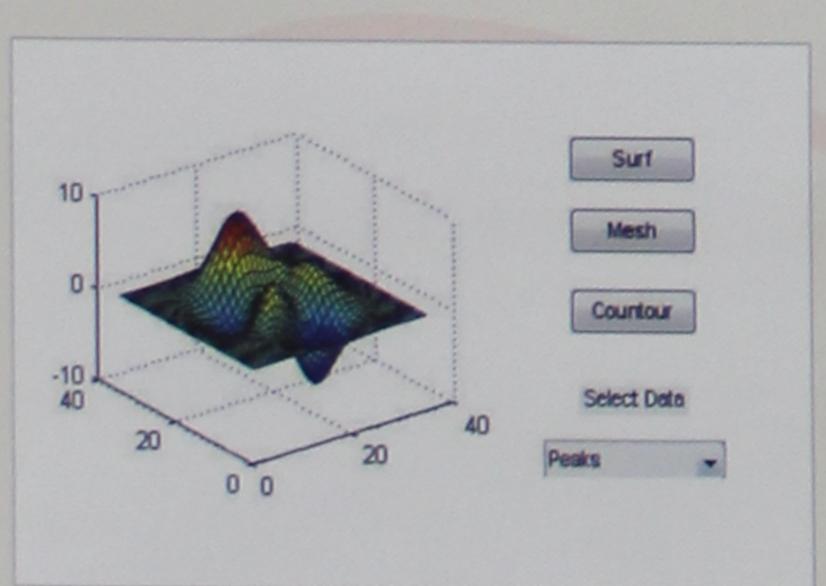
- The first software that used to predict the air pollutant concentration using statistical software.
- Uses the best model for specified area such as urban, suburban and industrialized area in Malaysia.
- Simple applications and precise prediction.

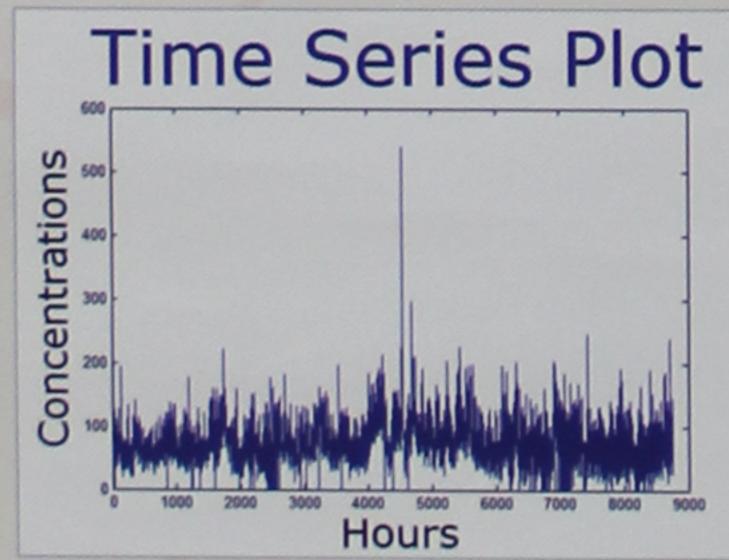


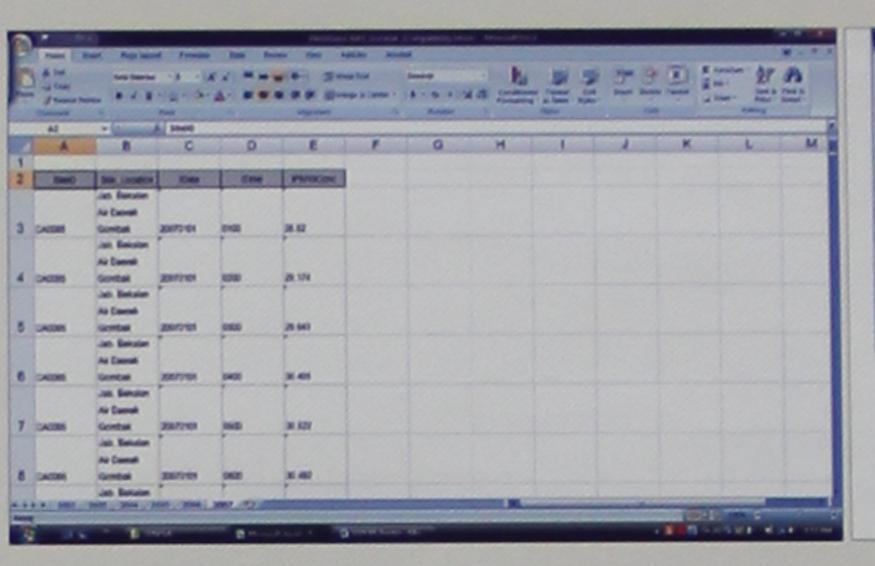
COMMERCIAL POTENTIAL

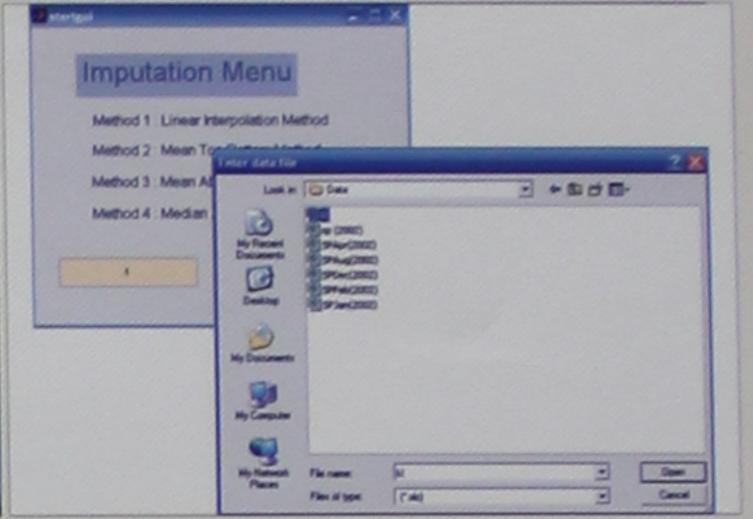
APP© can be marketed to:-

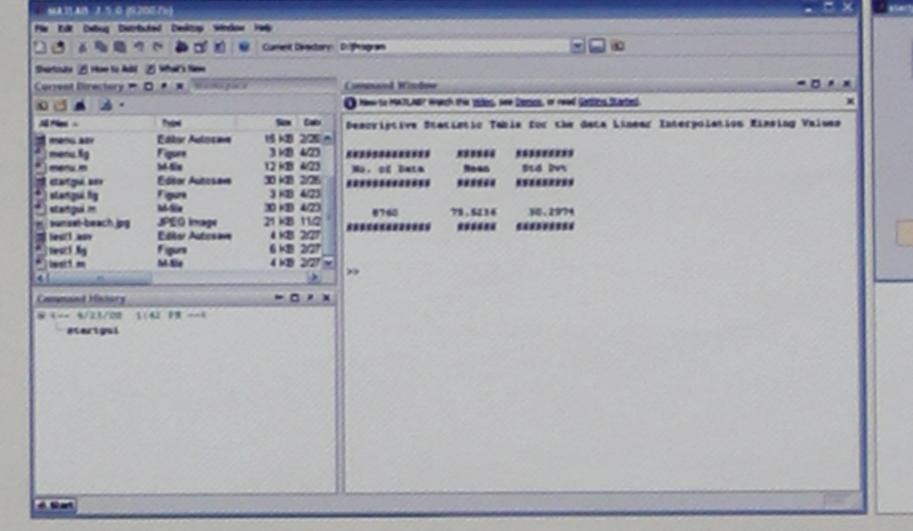
- Researchers
- Government bodies especially Department of Environment.
- Government bo
 Private sectors

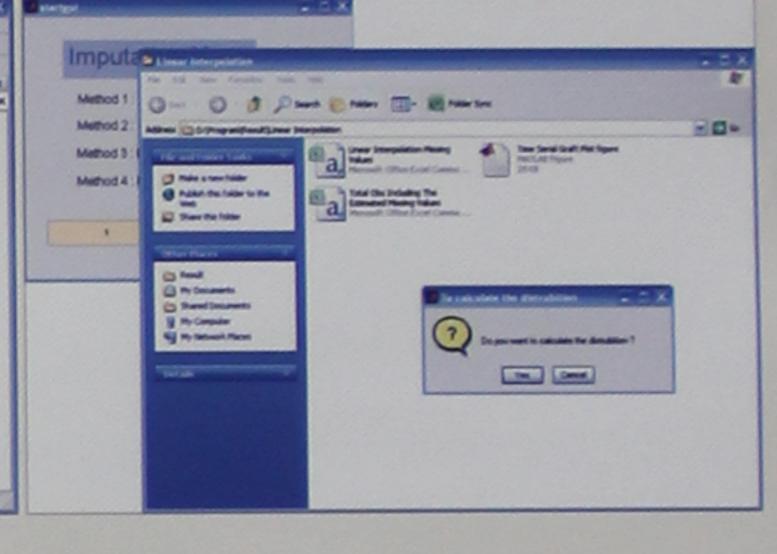


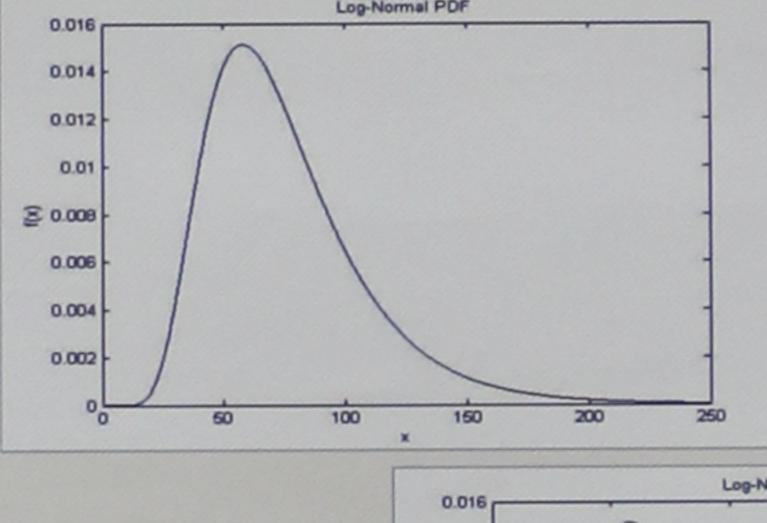


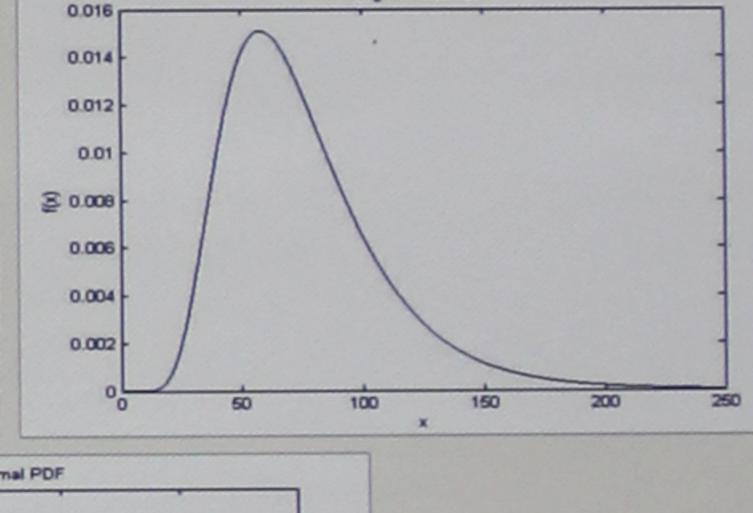


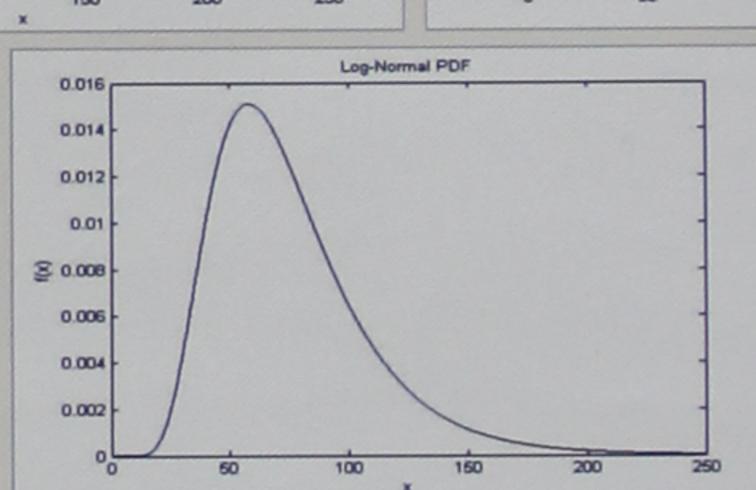


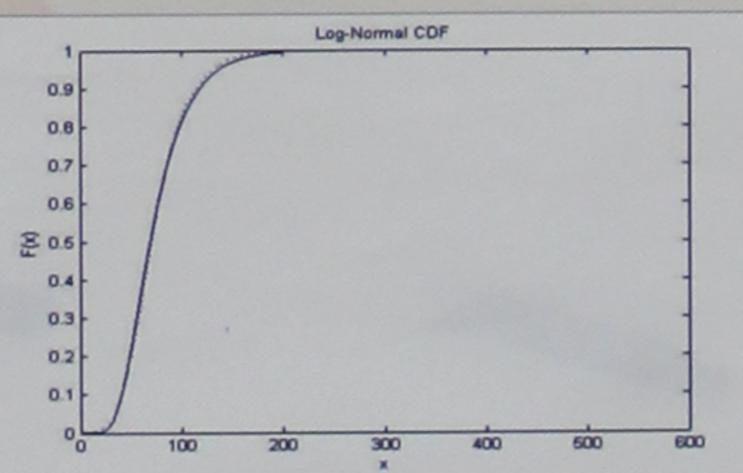


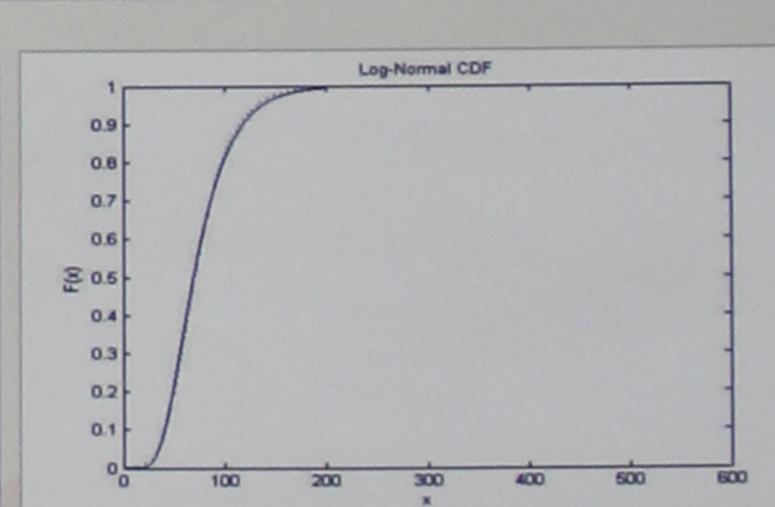


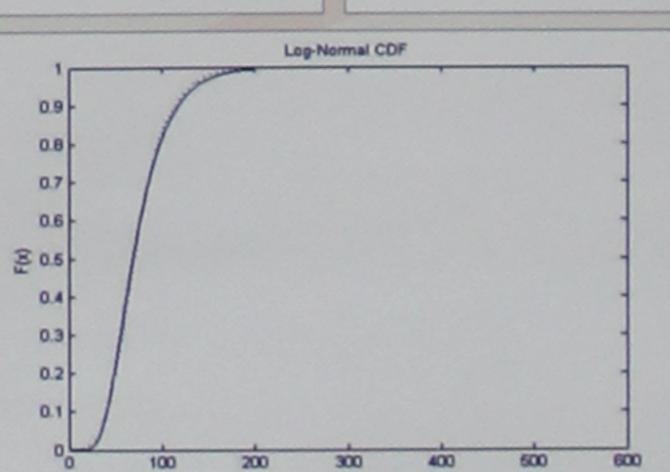












Collaboration with:



UNIVERSIT SAINS MALAYSIA

PUBLICATIONS

- 1. Noor, N.M., Al Bakri Abdullah, M.M., Yahaya, A.S., Ramli, N.A. Comparison of linear interpolation method and mean method to replace the missing values in environmental data set (2015) Materials Science Forum, 803, pp. 278-281.

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- 2. Noor, M.N., Yahaya, A.S., Ramli, N.A., Bakri, A.M.M.A. Filling missing data using interpolation methods: Study on the effect of fitting distribution (2014) Key Engineering Materials, 594-595, pp. 889-895.

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- 4. Norazian Ramli, M.N., Yahaya, A.S., Ramli, N.A., Yusof, N.F.F.M., Abdullah, M.M.A. Roles of imputation methods for filling the missing values: A review (2013) Advances in Environmental Biology, 7 (SPEC. ISSUE 12), pp. 3861-3869.
- Sara, Y.Y., Rashid, M., Chuah, T.G., Suhaimi, M., Mohamed, N.N. Characteristics of airborne Pm2.5 and Pm2.5-10 in the urban environment of kuala lumpur (2013) Advanced Materials Research, 620, pp. 502-510. Cited 1 time.
 Norazian Mohamed, N., Abdullah, M.M.A., Tan, C.-Y., Ramli, N.A., Yahay, A.S., Fitri, N.F.M.Y. Modelling of PM 10 concentration for industrialized area in Malaysia: A case study in Shah Alam (2011) Physics Procedia, 22, pp. 318-324. Cited 3 times.
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 8. Norazian, M.N., Shukri, Y.A., Azam, R.N., Al Bakri, A.M.M. Estimation of missing values in air pollution data using single imputation techniques (2008) ScienceAsia, 34 (3), pp. 341-345. Cited 8 times.