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PM_{2.5} forecasting using SVR with PSOGSA algorithm based on CEEMD, GRNN and GCA considering meteorological factors

Suling Zhu, Xiuyuan Lian, Lin Wei, Jinxing Che, Xiping Shen, Ling Yang, Xuanlin Qiu, Xiaoning Liu, Wenlong Gao, Xiaowei Ren, Juansheng Li

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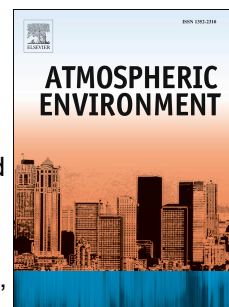
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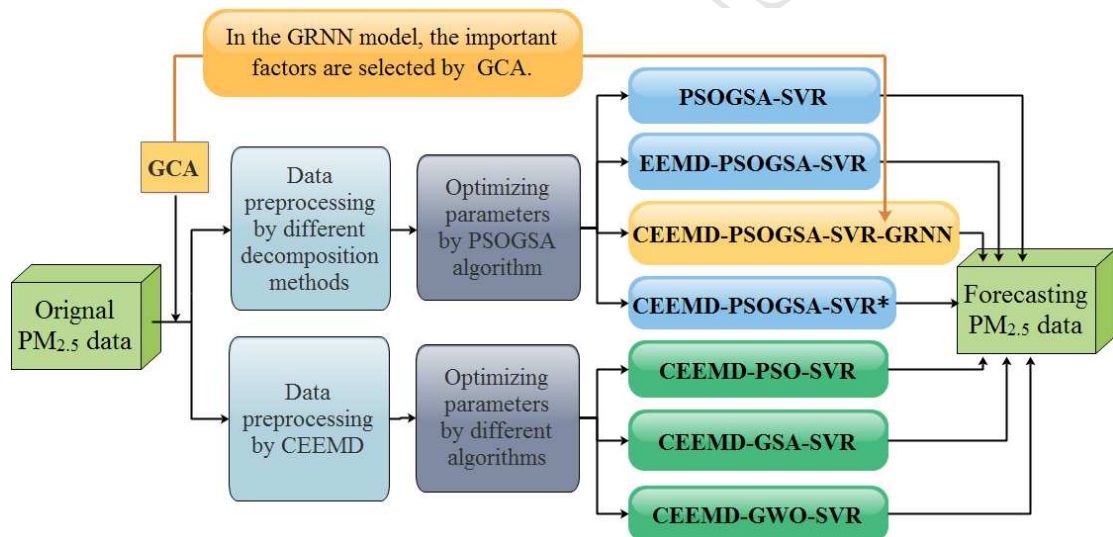
Suling Zhu¹, Xiuyuan Lian^{*,2}, Lin Wei¹, Jinxing Che³, Xiping Shen¹, Ling Yang²,
Xuanlin Qiu², Xiaoning Liu¹, Wenlong Gao¹, Xiaowei Ren¹, Juansheng Li¹

1. School of Public Health, Lanzhou University, Lanzhou 730000, Gansu, China.

2. School of Mathematics & Statistics, Lanzhou University, Tianshuinanlu 222, Lanzhou, China.

3. School of Science, Nanchang Institute of Technology, Nanchang 330099, JiangXi, China

Corresponding author: Xiuyuan Lian (819612640@qq.com).



Graphic abstract

ABSTRACT

The PM_{2.5} is the culprit of air pollution, and it leads to respiratory system disease when the fine particles are inhaled. Therefore, it is increasingly significant to develop an effective model for PM_{2.5} forecasting and warnings that informs people to foresee the air quality. People can reduce outdoor activities and take preventive measures if they know the air quality is bad ahead of time. In addition, reliable forecasting results can remind the relevant departments to control and reduce pollutants discharge. According to our knowledge, the current hybrid forecasting techniques of PM_{2.5} do not take the meteorological factors into consideration. Actually, meteorological

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