

fusion. This way, we can avoid the time and expense associated with designing traditional models. Another effective strategy for demonstrating the FIAQI index's validity is selecting significant indoor air quality parameters. According to the experiment, all the FIAQI's quality parameters significantly contribute to generating the final index. Therefore, if the indoor air quality index is to accurately reflect the indoor environmental air quality in terms of human health, it must incorporate all the parameters listed above. This FIAQI index result considers the most hazardous indoor TVOC and CO₂ air pollutants, which are required for the index value to accurately reflect the IAQI in terms of the health of the room's occupants. However, the effect of each parameter on the final index must be evaluated in terms of its significance to long term of human health, as is the case with the FIAQI used in this research.

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