

# Foreword and Editorial

## International Journal of Computer-aided Mechanical Design and Implementation (IJCMDI)

We are very happy to publish this issue of an International Journal of Computer-aided Mechanical Design and Implementation by Global Vision Press.

This issue contains 2 articles. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

In the paper “A Study on the Improvement of the Accuracy of Low-Cost Light Scattering Method Particulate Matter Sensors”, This study is aimed to verify the validity of developed devices and sensing data by measuring particulate matter (PM10, PM2.5) using the low-cost light scattering type particulate matter (PM) sensor and comparing and analyzing the measured data with the domestic standard PM measurement data. We have developed a system that enables users to control the device through mobile service and check the state of PM and solved the accuracy problem, which is a shortcoming of light scattering methods, through data correction. PM10 and PM2.5 out of the measurement data were used, and when the correction values were applied, the results indicated that the performance was improved in similarity and accuracy.

In this research paper “Simulation Analysis of Escalator Structure and Working Process”, in order to realize the operation of escalator in virtual scene, through collecting a large number of documents, including the comparison of actual equipment and network pictures, taking 3DS Max as the production environment, Unity3D as the virtual simulation environment, C# script language as the development of interactive program, the display and hiding of escalator components, the modeling of components and the mapping of materials in virtual scene are completed. The simulation demonstration and multi-angle observation of the movement process of the assembly group and the automatic escalator in the virtual environment. The design provides a theoretical basis for the simulation design and practical application of the escalator.

June 2019

**Editors of the June Issue on  
International Journal of Computer-aided Mechanical Design and Implementation**