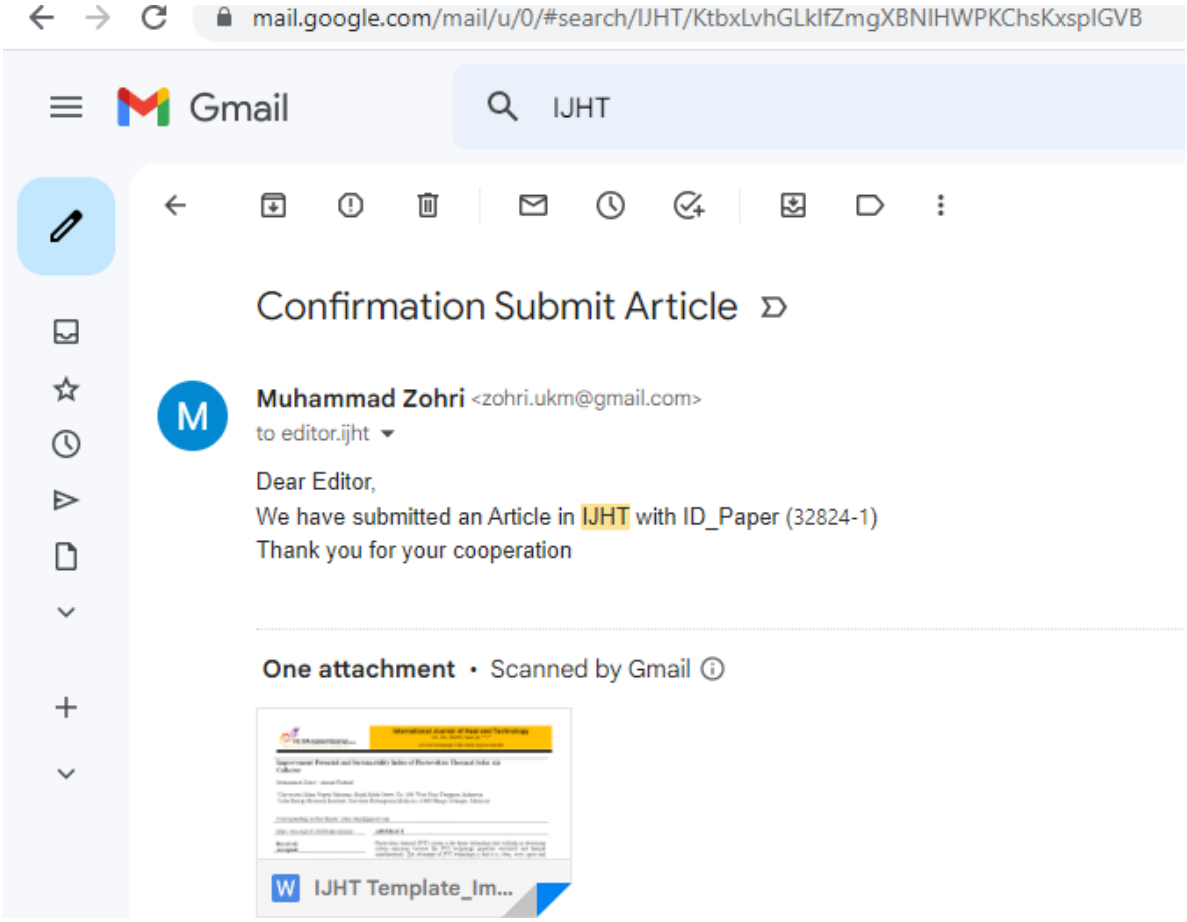
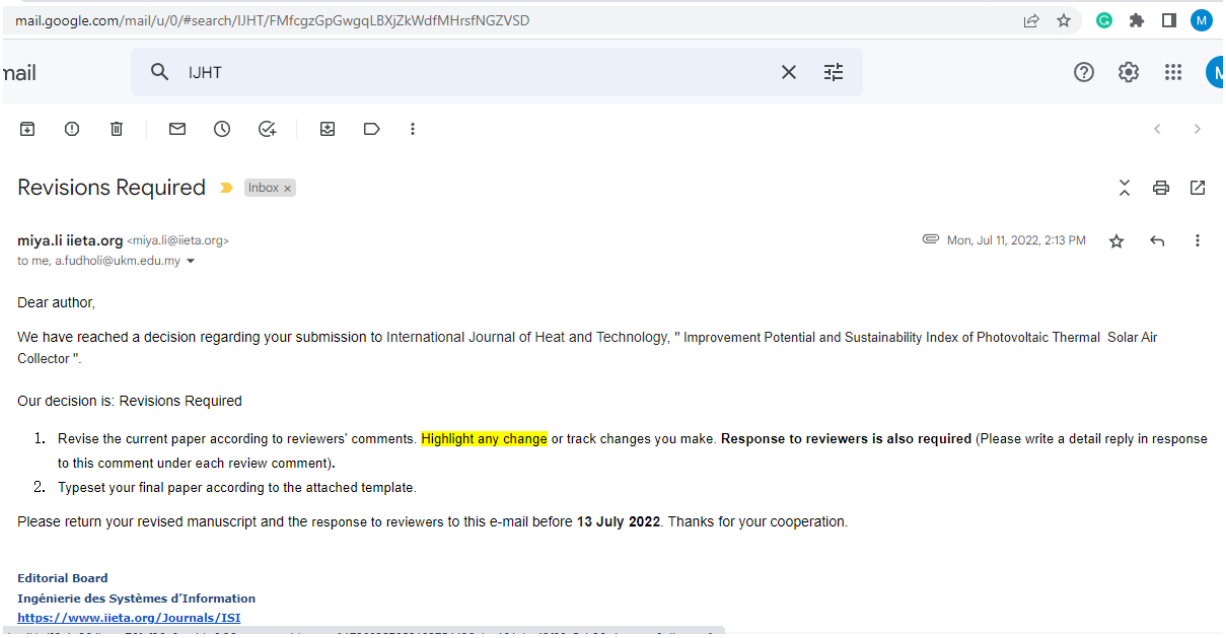
Bukti Korespondensi

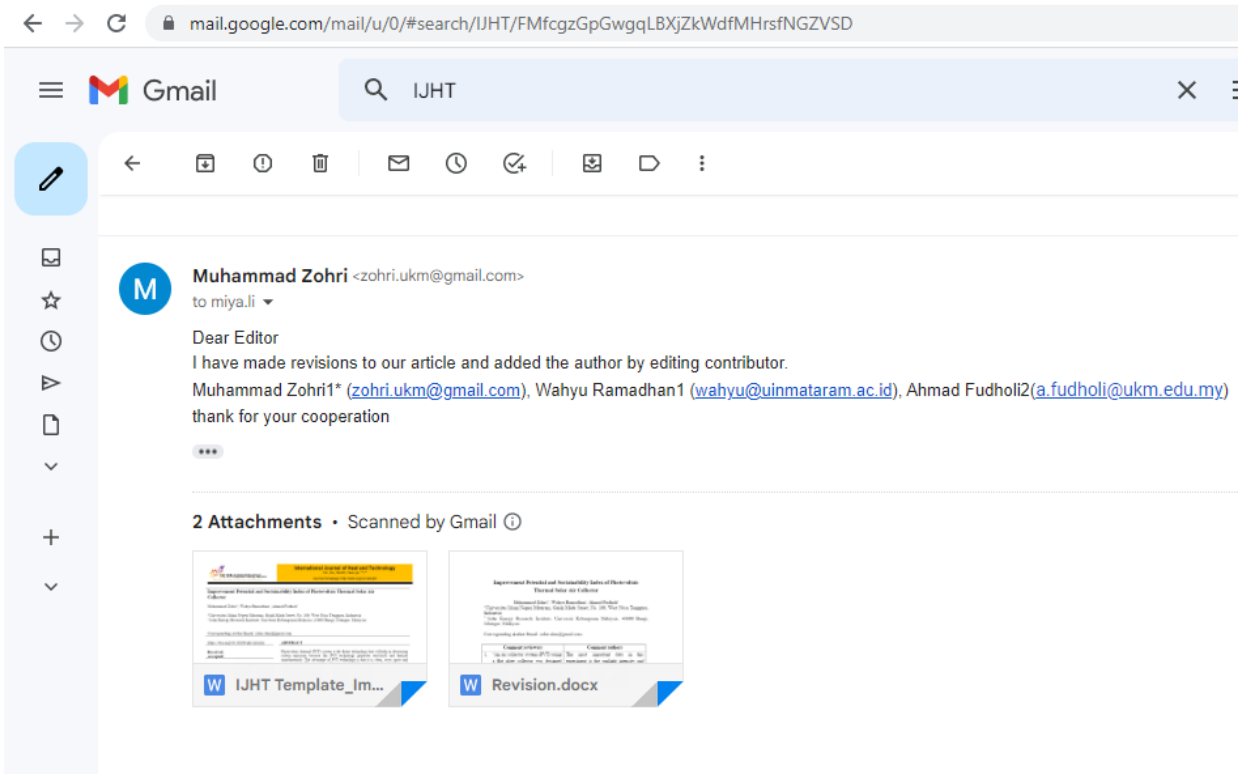
Oleh : Muhammad Zohri

1. Confirmation Submission

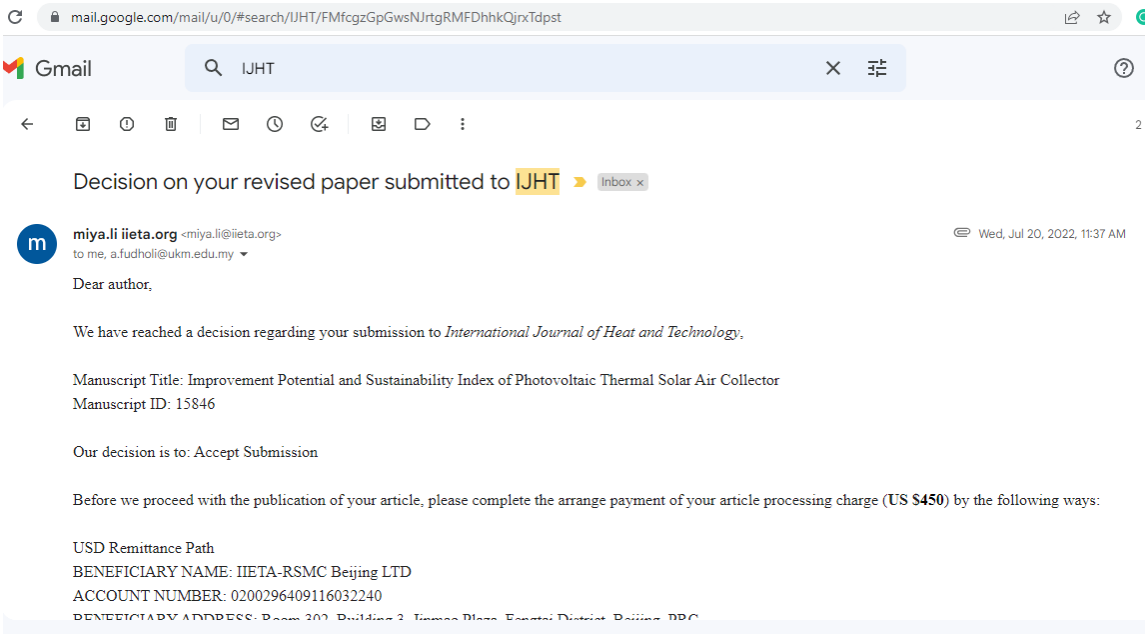


2. Revision Required





3. Accepted Submission



Improvement Potential and Sustainability Index of Photovoltaic Thermal Solar Air Collector

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Comment Reviewers	Comment Authors
1. "An air collector system (PVT) using a flat plate collector was designed and installed at the National University of Malaysia (UKM) ..." What are the relevant parameters of the air collector system?	The most important data in this experiment is the sunlight intensity and the inlet and outlet air temperature from the PVT system. We can calculate the PVT system's electricity and thermal collector efficiency by obtaining the above data. In line: 128-131
2. "The simple design of this PVT system is that the solar panel is positioned above, below the solar panel (PV) is an air duct with a 0.04 m size, ..." Please give the circuit connection diagram of the photovoltaic power generation system.	The indoor evaluation was created with the solar simulator of 45 halogen lamps. The circuit connection diagram with indoor evaluation is shown in figure 1. In line: 104-107
3. "The function of the air duct is to cool down the solar panels, as shown in Figure 1 below." In Figure 1, what is the size parameter of the flat plate? What about the shape? How is it fixed?	The data logger with thermocouple K-type sensors was used for measuring solar panel temperature and flat plate collector temperature as shown in figure 6. In line: 126-129
4. "The experiment was conducted within four weeks at the National University of Malaysia in Bangi." What are the climatic conditions in the region? Under what conditions were the experiments conducted?	The experiment was conducted within four weeks at the National University of Malaysia in Bangi. The outdoor evaluation as shown in figure 3. The climatic conditions at that time were selected as sunny. The sun intensity selected was 800 W/m^2. The mass flow rate or the wind speed is from 0.01 kg/s to 0.05 kg/s In line : 117-122
5. "Subsequently, the data logger with	Subsequently, the data logger with

	K-type sensors was used for measuring solar panel temperature and flat plate collector." What is the specific model of the K-type sensor selected? How accurate is the measurement?	thermocouple K-type sensors was used for measuring solar panel temperature and flat plate collector temperature as shown in figure 6. In line : 126-129
6.	"The most important data in this experiment is the sunlight intensity and the inlet and outlet air temperature from the PVT system." How to ensure the repeatability and accuracy of experiments under outdoor conditions?	The experiment was conducted within four weeks at the National University of Malaysia in Bangi. The outdoor evaluation as shown in figure 3. The climatic conditions at that time were selected as sunny. The sun intensity selected was 800 W/m^2. The mass flow rate or the wind speed is from 0.01 kg/s to 0.05 kg/s In line : 117-122
7.	"We can calculate the PVT system's electricity and thermal collector efficiency by obtaining the above data." What is the quantitative relationship between inlet and outlet air temperature and collector efficiency?	The most important data in this experiment is the sunlight intensity and the inlet and outlet air temperature from the PVT system. We can calculate the PVT system's electricity and thermal collector efficiency by obtaining the above data. Afterwards, we can calculate exergy efficiency input, output, and destruction. In this research, the subject is the PVT system's improvement potential and sustainability index value, as shown in the following Table 1. In line : 130-137
8.	"In this research, the subject is the PVT system's improvement potential and sustainability index value, as shown in the following Table 1." What are the specific meanings of the indicators shown in Table 1? How are the calculation formulas for each indicator determined?	The most important data in this experiment is the sunlight intensity and the inlet and outlet air temperature from the PVT system. We can calculate the PVT system's electricity and thermal collector efficiency by obtaining the above data. Afterwards, we can calculate exergy efficiency input, output, and destruction. In this research, the subject is the PVT system's improvement potential and sustainability index value, as shown in the following Table 1. In line : 130-137

9. "The smallest improvement potential is 351.92 Watt at a 0.05 kg/s mass flow rate with an indoor experimental investigation." How were the experimental conclusions and data obtained? Please give specific methods.	The result indicated the impact of mass flow rate on improvement potential and sustainability index. The higher the mass flow rate, the lower the improvement potential decreased; the higher the mass flow rate used, the higher the sustainability index increased. In abstract
10. Articles should not be less than 6 pages, please expand the content to make it not less than 6 pages.	Article is 6 pages