UGM Students Develop Non-Electric Lamp from Used Cans

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Four engineering students of Universitas Gadjah Mada (UGM) succeeded to develop an eco-friendly lamp. It is made by utilizing used cans and sunlight as the source of light. They are Aditya Ramdhona, Anggraini Puspitasari, Nesditira Sunu S. and Satrio Bayu Aji who had succeeded to develop non-electric lamp, namely Solacan (*Solar in a Can*).

This innovation was started from their concerns on the abundant used cans in Indonesia. This condition encouraged them to find a solution to utilize the used cans to become a valuable good.

On the other hand, they were concerned with the high consumption of electricity, particularly the use of lamps during the day. Meanwhile, the sunlight potential is unlimited in the country. Therefore, they were determined to develop Solacan that finally obtained funds from Indonesian Ministry of Research, Technology, and Higher Education through the Students Creativity Programme 2017.

“There are still many energy wastages by turning the light on during the day both in the offices or houses, while the sunlight potential is unlimited,” said Aditya Ramdhona, Solacan Team Leader, on Wednesday (12/7) at UGM.

Aditya said this condition often happened due to the limited amount of sunlight that come into the room, thus the room becomes dark if we do not turn the light on.

“Solacan is made to solve this problem,” he added.

How it works is simple. The can waste is used to transmit the sunlight from outside the room to get into the room. First, the light is collected in the light collector which is convex. The light is then transmitted to a tube and reflected so it moves to the end of Solacan and the light diffuser will diffuse the light across the room.

Sunu further said this non-electric lamp is not only able to save electricity but the natural light used by Solacan can also create a positive physiological effect on the health.

“Moreover, it can reduce environmental pollution,” said Sunu.

In addition, the utilization of used cans is able to increase the economic value of such waste. This product can be developed massively by the society, including scavengers, with hope it can increase their income. The students further hope the Solacan will be utilized massively by the Indonesian society.

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