

UGM Students Make Environmentally Friendly Processor for Hazardous and Toxic Waste

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UGM students made an innovation in portable technology that processes hazardous and toxic waste. The students are Vania Erizza (Dentistry), Gita Prasulistiyono Putra (Economics and Business), M. Bisyril Lathif (Economics and Business), Ahmad Widardi (Maths and Natural Sciences), and Pandu Dwijayanto (Engineering).

Gita said they produced the *Medigold* due to the dissatisfaction often raised by people in charge of small and medium health clinics following the difficulty to process medical waste. The available tools in the market are usually expensive, hence unaffordable for them.

"The medical waste processors are mostly expensive, sold at between IDR5-10 millions. They are also big and takes much space," he said to journalists at the Fortakgama UGM room on Tuesday (16/6).

The students then devised a portable tool sized 50x40x50 cm. It is also functional when not processing the waste as it takes the form of a sofa.



Medigold consists of two components, the main thing is sterilisation component and syringe breaker. The sterilisation uses presto pan to sterilise medical waste such as bandage, dressing, or cotton balls. It contains 6 litres capacity and is able to produce heat as high as 300° Celcius that produces pressures up to 1.5 atm. The syringe breaker is powered until 50 Volts and the current is as high as 300 amp. “It takes one hour for sterilisation, but only 1-2 seconds to break the syringes,” he said.

Medigold has manual and automatic modes. Users need only to throw the waste into this tool at the end of the day. The next morning the waste has been completely processed without human intervention.

“We use local components for this tool, so the production cost is much cheaper. We plan to sell this for IDR2.5 million,” Ahmad Widardi added.

Another good thing of the tool is that it is environmentally friendly as it does not emit smokes.

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