

## ABSTRACT

Waste is one of the biggest problems in Indonesia. Actually, until now the handling of garbage has not been maximized. This can be proven by the large number of garbage collection in the flow of sewers, rivers, traditional markets, and many more that have succeeded in causing floods. This “*SMART STEEL NET PROTOTYPE in DOWNSTREAM OF THE CITARUM RIVER, BANDUNG*” is designed to remove trash on the surface of the flowing air.

This is also designed to simplify the process of removing garbage in the river flow. This is able to lift trash with the amount of  $\pm 3$  kg, operation is regulated by a microcontroller (automatic), transporting waste in a designated place with intermediaries are conveyors (garbage lifters), garbage detectors and garbage lifters position positioners which will automatically require garbage transporters to be moved into a trash can before the janitor picks it up, even this tool can request information quickly if the trash can is already full by activating the buzzer (sound) as its marker.

This system consists of an HC SR-04 Ultrasonic Sensor which is placed on top of a dredger and in a trash can to retrieve High or Low data on the device. Then Arduino UNO as a microcontroller processes data.

At the end of this project an information system for the height of the garbage stack was made on the device. This is intended to facilitate cleaners. This temporary trash can is full and must be appointed.

**Key Words:** *Microcontroller, Ultrasonic Sensor, Smart Steel Net, Arduino UNO.*