ABSTRACTION

MINI EXCAVATOR DESIGN, TO SUPPORT EVACUATION PROCESS
OF EARTH QUAKE DISASTER

Indonesia is a country that have a great possibility of natural disaster, such as earthquake. Even though the SAR’s equipment is so minimum. Among all emergency procedure, the most step that have not meet the minimum requirement is ‘Quick Respond’ step. It happened for 14days since the D day. On this step, evacuation team do their best to evacuate the victim of earthquake disaster. The best tools to help this evacuation is excavator, even the real function is not for evacuation, yet their existence could make the evacuation faster and easier.

Even though excavator’s capability is undoubtable in evacuating earthquake victim, there is still problem on their design. It is not originally designed for evacuating anyway. That’s why redesigning this tools with the main phurpose to evacuation, would be a great deal in evacuation process. Some of the excavators design problem that ussualy meet on evacuating process is weight. Sending excavator to the ‘ground zero’ is the part of quick ‘respond step’, that is why sending excavator immediately at the time it is happened is the main objective. And the ‘ultra’ weight of excavator prevent this to happened. So, to make excavator special for evacuation purpose. Weight must be “designed”. Other than that problem is arm movement mechanism, excavator’s current movment mechanism is too dangerous for the victim itself. Because the direction of the arm to the inside, which is could potentially harm the victim more.

The objective of this research is to designing excavator special for evacuation process. Such as easy to distribute, multi function, compact but powerfull and so on. Research method is by doing survey and analysis direct on the spot. Other than that is by doing interview with someone highly experienced in this matter.