

**RANCANG BANGUN *PROTOTYPE RC BOAT TRASH COLLECTOR***  
**BERBASIS *SOLAR CELL***  
*(DESIGN AND BUILD A PROTOTYPE RC BOAT TRASH COLLECTOR BASED*  
*ON SOLAR CELL).*

Pembimbing Risse Entikaria Rachmanita, S.Pd.,M.Si

**Yudha Adi Pratama**  
***Study Program of Renewable Energy Engineering***  
***Majoring of Engineering***  
Program Studi Teknik Energi Terbarukan  
Jurusan Teknik

***ABSTRACT***

*Currently, waste is a problem that is the main focus in Indonesia. Therefore, research on the Solar Cell-based RC Boat Trash Collector Prototype can reduce the waste on the surface of the river by remote control and using a conveyor mechanism. To facilitate the process of collecting rubbish from river surfaces that are difficult to reach. This research uses solar panel energy stored in batteries as energy to drive electricity in this prototype. The research method starts from planning, collecting tools and materials, and manufacturing. Then carry out the testing and analysis process on the prototype. This test includes testing the ship's hull, conveyor mechanism testing, battery charging, electrical system and waste carrying capacity in waste storage tanks. The results of this prototype test have a conveyor tilt angle of  $38^{\circ}$  and a waste storage tank carrying capacity of 647.8 grams with an average of 587.8 grams.*

***Keywords:*** *Trash, RC Boat Trash Collector, Conveyor, Solar Cell*