

***DESIGN AND CONSTRUCTION OF SEPARATION AND  
DRYER MACHINE AUTOMATIC RICE PLANT BASED ON  
ARDUINO UNO***

*Name* : *Ilham Fazli*  
*Register Name* : *3204201351*  
*Advisor* : *Stephan, S. S.T., M.T*

***ABSTRACT***

*The process of separating and drying rice plant carried out by household industries is still done traditionally, where the grains are placed in a tray and then moved with both hands in a repetitive up-and-down motion, resulting in a low capacity per worker. Drying is done by sun exposure, which depends on unpredictable weather conditions. This traditional method of separation and drying is considered inefficient. With the advancement of science and technology, the author has attempted to create an innovative tool, the "Arduino Uno-Based Automatic Rice Separator and Dryer Machine." The benefits of this tool include increased efficiency in time and ease of work for household industries. The machine has been tested and is capable of operating at 90% efficiency, improving the time required by twice as fast compared to the traditional method, increasing the output from 1 kg per hour to 2 kg per hour.*

***Keyword*** - *Arduino Uno, DHT11 Sensor, Heat Gun, Servo Motor*