ABSTRACT

REALIZATION OF DIGITAL VISCOMETER WITH PRINCIPLE SPEED OF PROPELLER ON COOKING OIL USING SENSOR OPTOCOUPLER BASED MICROCONTROLLER ATMEGA 8535

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The has been realized gauge quality of cooking oil with viscosity parameters and rotational speed DC motor with a computer display. The instrument consists of a sensor optocoupler, DC motors, microcontroller ATMega 8535, propeller, disc with two holes and a computer. The work process tool that is when the DC motor is turned on, the propeller are in direct contact with cooking oil and a dish that is outside the oil will also move, causing the sensor to work. At the time of the optocoupler sensor meets a hole on the disc then an electric current optocoupler sensor and the microcontroller will read the output from the sensor, and will be calculated by the program as the value of the motor speed and the viscosity value obtained is the result of lab tests using the falling balls.

Keywords: Viscosity, Cooking Oil, Mikrokontroller