

## ABSTRACT

*With the development of the times, the need for energy will increase, therefore there will be a shortage of natural resources, especially coal, natural gas and oil. Therefore, a breakthrough is needed to use renewable energy sources that are environmentally friendly and have very abundant sources such as sun, wind and water.*

*In the author's final project entitled web and mobile design the rooftop solar electricity calculator application is intended to be able to promote renewable energy, especially rooftop solar panels, with a web-based solar electricity calculator application intended to make it easier for users to find out the optimal installation of solar panels and the radiation that will be received by the user. solar panels..*

*The results obtained are based on testing with the location of the city of Bandung (latitude = -6.91 and longitude = 107.60) with a fixed tilt angle for one year of 7° with the direction of the north solar panel, getting a total radiation of 1679 kWh/m<sup>2</sup>/year. Meanwhile, the panel tilt angle changes every month with January 30°, February 25, March 15, April 3, May 8°, June 15, July 16, August 11, September 1, October 11°, November 23°, December 29 the total radiation received by the panel is 1750 kWh/m<sup>2</sup>/year.*

**Keywords:** *Solar Panels, Kalisa, Web application, Solar panel tilt angle, Radiation on solar panels.*