

DEVELOPMENT FOR THE STAND OF SOLAR PHOTOVOLTAIC BASED ON THE DIRECTION AND ANGLE ANALYSIS AT NORTH PENINSULAR MALAYSIA

A. A. Malik, S. M. M. Maharum, M. Z. W. M. Tohid, Z. Muhammad, I. H. Hamzah, Z. A. Halim, M. K. Rahmat, N. F. Haris, Z. I. Rizman

Abstract

This paper describes the development of the stand solar panel based on angle and direction. A direction here means the solar photovoltaic is facing the sun. 5 different angles had been investigated. The method used in this paper was an output of 50W solar photovoltaic. The output of solar panel is used as a reference to identify the performance of solar PV. 3 places had been chosen at north Peninsular Malaysia. The results show the angle approximate to 90° is the best angle to design the stand for the solar photovoltaic. The design need to be inclined by considering other factors. Tilt angle of 87° is used to design the stand and facing to the North Peninsular Malaysia, which is the best position for solar photovoltaic development. The analysis is based on the voltage output from 50Wp of solar photovoltaic at different angle and position. The result was used to design stand for 4000Wp solar photovoltaic.

Keywords: solar photovoltaic; direction; angle; solar photovoltaic stand
