

Simulated Annealing Optimization for Energy Management Strategy of HEV

Asrul Sani bin Ramli, Muhammad Ikram bin Mohd Rashid

1 Faculty of Electrical Engineering, Universiti Malaysia Pahang, Pekan, Pahang.
1asrul_sani21@yahoo.com , mikram@ump.edu.my

Abstract.

Aimed to optimize the consumption of fuel and electrical power in hybrid electric vehicle which is also called HEV by an algorithm called Simulated Annealing Optimization. The objective function is the power loss and the aim is to lower the output. Nowadays, the developments of hybrid electric cars are not something new. There are a lot of research are being done on how to increase the effectiveness of hybrid electric cars. One of the main aspects that are being aim is to reduce the fuel consumption while increasing the HEV performance. Artificial Intelligence such as Simulated Annealing for example are widely used to solve many engineering problem. The main contribution of this paper is on gain tuning. This is because the control parameter is gain in the Simulink Model which is being optimize using the algorithm chosen.

Keywords: HEV; Simulated Annealing; Optimization; Gain