

**REDUCING HARMONIC IN MINI CAPACITOR BANK WITH SHUNT
ACTIVE FILTER IN SINGLE PHASE SYSTEM**

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ABSTRACT

The presence of reactive power (VAR) must be made minimum to optimize the use of available power from TNB. Nowadays, people are more concern on power quality and utilization. Thus, Mini Capacitor Bank (MCB) is an outstanding tool that certain households in the community use as a power-saving devices in order to optimize the utilization of electricity power. However, the effectiveness by using this kind of method still faced the problem. One of the big issues is the harmonic impact due to MCB characteristics act as capacitive load when it deals with non-linear equipments. In this paper the shunt active filter (SAF) has been designed using MATLAB/Simulink R2012a. The simulation results show that SAF gives THD of 1.55%.

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