CALCULATION OF CRITICAL CLEARING TIME USING TIME DOMAIN SIMULATION

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ABSTRACT:
The world’s energy needs are growing longer, is no exception with electrical energy. The electrical energy obtained by converting the kinetic energy of the prime mover into electrical energy by a generator, with the increasing demand of electrical energy then the other generator must be made so that electrical energy shortage can be resolved. Generators are connected in parallel in the system. The existence of a parallel relationship to each generator must work in synchronous with each other. At this final project discusses how to calculate the Critical Clearing Time (CCT). CCT is a time to be allowed to break fault so that generator does not run out of synchronous. The method used is the method of Time Domain Simulation with the guidelines is the change of the generator rotor angle during a disturbance in the system, but it was observed also on the influence of damping in the stability of the system. Of simulation by using MATLAB program. The results of these simulations indicate that the presence of damping in the system lead to a more stable system, so that the CCT values between the systems side by side with a damping system that does not use the CCT has greater value on a system with damping.

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