CHAPTER FIVE

Conclusions and recommendation

5.1 Conclusions:

The huge development of renewable energy is moving forward and all the development country try to get rid of fossil fuel and replace it with renewable energy. In this study, PV/WT hybrid power system is designed and modeled for smart grid applications. The developed algorithm comprises system components and an appropriate power flow controller. The model has been implemented using the MATLAB/SIMULINK software package. . The available power from the PV system is highly dependent on solar radiation. To overcome this deficiency of the PV system, the PV module was integrated with the wind turbine system. The dynamic behavior of the proposed model is examined under different operating conditions. Solar irradiance, temperature and wind speed data. The developed system and its control strategy exhibit good performance for the simulation of a complete day. The proposed model offers a proper tool for smart grid performance optimization.

5.2 Recommendation

According to the new innovation and benefits of renewable energy all conferences and research moving forward to develop the renewable energy in power system, we recommend these topics.

- Study of the total hybrid system with consideration of the economic evaluation to determine the effective cost and the best tariff needed to get benefited from the project and how to resize each system with economically.

- Study the maximum power point tracker of the solar cell using the different types of algorithm e.g. (perturbation and observation method, linear approximation method, incremental conductance method, hill climbing method, actual measurement method, fuzzy control method and so on)
- The interconnection of the hybrid system with the national grid.