عنوان فارسی مقاله:
کنترلرهاي منطق فازي و شبکه عصبی جدید برای نظارت بر ماکزیموم توان

عنوان انگلیسی مقاله:
New neural network and fuzzy logic controllers to monitor maximum power for wind energy conversion system

توجه!
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل، با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک نمایید.
7. Conclusions

The main contribution of this work is the introduction of new control technique using neural networks and fuzzy logic controllers applied to grid connected DFIG based WECS. For this, the vector control is established via an electronic converter and a PWM (Pulse-Width Modulation) based switching. This electric combination allows the WECS control strategy for the maximum power point extraction application using a fuzzy control of the speed variation. Afterward, the extracted electrical power is injected to the grid via a three-phase voltage inverter, and the DC link voltage is regulated. The analysis of the obtained results shows clearly an acceptable degree of effective regulation by the proposed controllers. It can be seen that after a change in wind speed, the measured powers follow the change of the reference. These results demonstrated that the proposed structure based on optimized neural network and fuzzy logic controllers may consider as an interesting solution in the wind energy conversion systems using a DFIG wind turbine.