World Academy of Science, Engineering and Technology
International Journal of Electrical and Computer Engineering
Vol:9, No:05, 2015

# Novel Stator Structure Switching Flux Permanent Magnet Motor

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**Abstract :** Switching flux permanent magnet (SFPM) motor has doubly salient structure which lead to high torque ripple, and also has cogging torque as a permanent magnet motor. Torque ripple and cogging torque have impact on the motor performance. A novel stator structure SFPM motor is presented in this paper. A triangular shape silicon steel sheet is put in the stator slot to reduce the torque ripple, which will not deteriorate the cogging torque. The simulation of proposed motor is analyzed using 2-D finite element method (FEM) based on Ansoft and Simplorer software, and the result show a good performance of the proposed SFPM motor.

**Keywords :** switching flux permanent magnet (SFPM) motor, torque ripple, Ansoft, FEM
**Conference Title :** ICEE 2015 : International Conference on Electrical Engineering
**Conference Location :** Montreal, Canada
**Conference Dates :** May 11-12, 2015