

**Special Section: Electrical Machines and Drives for the More Electric Aircraft**

<b>Editorial</b>	1
<b>Demonstrating the more electric engine: a step towards the power optimised aircraft</b> M. Hirst, A. McLoughlin, P.J. Norman and S.J. Galloway	3
<b>Direct drive permanent magnet generator fed AC–DC active rectification and control for more-electric aircraft engines</b> W.U.N. Fernando, M. Barnes and O. Marjanovic	14
<b>Direct current ripple compensation for multi-phase fault-tolerant machines</b> A.A. Abd Hafez, R. Todd, A.J. Forsyth and A.M. Cross	28
<b>Safety-critical design of electromechanical actuation systems in commercial aircraft</b> J.W. Bennett, B.C. Mecrow, D.J. Atkinson and G.J. Atkinson	37
<b>Power flow analysis in electro-mechanical actuators for civil aircraft</b> A. Trentin, P. Zanchetta, P. Wheeler and J. Clare	48
<b>Fault-tolerant permanent magnet machines: a review</b> A.M. El-Refaie	59
<b>Rotor losses in fault-tolerant permanent magnet synchronous machines</b> T. Raminosa, C. Gerada, N. Othman and L.D. Lillo	75
<b>Winding condition monitoring scheme for a permanent magnet machine using high-frequency injection</b> J. Arellano-Padilla, M. Sumner and C. Gerada	89
<b>High-specific output bidirectional moving magnet actuator for use in active vibration control of rotorcraft</b> F.L. Langley and P.H. Mellor	100
 <b>Regular Papers</b>	
<b>Robust wavelet-neural-network sliding-mode control system for permanent magnet synchronous motor drive</b> F.F.M. El-Sousy	113
<b>Dissolved gas analysis for common transformer faults in soy seed-based oil</b> N.A. Muhamad, B.T. Phung and T.R. Blackburn	133
<b>Fuzzy PI-type current controllers for permanent magnet synchronous motors</b> J.-W. Jung, Y.-S. Choi, V.Q. Leu and H.H. Choi	143
<b>Transient modelling of a linear induction launcher-type coil gun with two-dimensional cylindrical finite-difference time domain method</b> S. Aksoy, M. Faruk Yavuz and A. Balikci	153
<b>Stator eddy-current losses in printed circuit brushless motors</b> A. Ahfock and D. Gambetta	159
<b>Evolution of bubbles in oil–paper insulation influenced by material quality and ageing</b> M. Koch and S. Tenbohlen	168
<b>Partial discharge location based on time difference of energy accumulation curve of multiple signals</b> J. Tang and Y. Xie	175
<b>Field programmable gate array-based sensorless control of a brushless synchronous starter generator for aircraft application</b> A. Maalouf, L. Idkhajine, S. Le Ballois and E. Monmasson	181
<b>Dual-mode switching technique for reduction of commutation torque ripple of brushless dc motor</b> S.S. Bharatkar, R. Yanamshetti, D. Chatterjee and A.K. Ganguli	193