



## Fpga controlled three phase inverter based bldc motor drive

By Atanu Banerjee

LAP Lambert Academic Publishing Mrz 2015, 2015. Taschenbuch. Book Condition: Neu. 220x150x9 mm. This item is printed on demand - Print on Demand Neuware - This book presents a brief overview of the Brush less D.C Machine (BLDCM) covering its construction, classification, control, usage etc. Presented further are two possible modeling strategies of this machine and their drawbacks. An attractive method by solving loop equations for instantaneous current is also discussed. This is followed by the simulation of a BLDC motor in the abc/dq frame by using MATLAB/SIMULINK. Some simulation results are presented. Also included are the results of some tests conducted on the machine. Due to the unavailability of the stator neutral, the tests to determine d and q-axis inductances have failed. The analytical reasons are presented. A new method for controlling the drive by a efficient digital controller called Field Programmable gate Array(FPGA) has been discussed. Three phase 1200 voltage source inverter has been simulated successfully using FPGA. The control hardware comprising of FPGA, driver circuit of three phase inverter & inverter module has been run successfully. Results of that test have been presented. 152 pp. Englisch.



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