

# Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis



This book extends the conventional two-dimensional (2D) magnet arrangement into 3D pattern for permanent magnet linear machines for the first time, and proposes a novel dual Halbach array. It can not only effectively increase the radial component of magnetic flux density and output force of tubular linear machines, but also significantly reduce the axial flux density, radial force and thus system vibrations and noises. The book is also the first to address the fundamentals and provide a summary of conventional arrays, as well as novel concepts for PM pole design in electric linear machines. It covers theoretical study, numerical simulation, design optimization and experimental works systematically. The design concept and analytical approaches can be implemented to other linear and rotary machines with similar structures. The book will be of interest to academics, researchers, R&D engineers and graduate students in electronic engineering and mechanical engineering who wish to learn the core principles, methods, and applications of linear and rotary machines.

**Electromagnetic Linear Machines with Dual Halbach Array - Springer** analysis and design optimization of electromagnetic linear machines. 1. In this study, a tubular linear machine with dual Halbach array is proposed to further **This document is downloaded from DR-NTU, Nanyang - CiteSeerX** Find product information, ratings and reviews for Electromagnetic Linear Machines With Dual Halbach Array : Design and Analysis (Hardcover) (Liang Yan) **Design Optimization of a Linear Generator With Dual Halbach Array** Oct 2, 2016 Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis 3 Mathematical Modeling and Analysis of Force Output. 35. **Electromagnetic Linear Machines with Dual Halbach Array: Design** Sep 16, 2016 Electromagnetic Linear Machines with Dual Halbach Array. pp 17- can also help the design optimization of electromagnetic linear machines . **Electromagnetic linear machines with dual Halbach Array : design** Design and Analysis Liang Yan, Lu Zhang, Juanjuan Peng, Lei Zhang, Zongxia Jiao Magnetic field in 3D space of a tubular linear machine with dual Halbach **Electromagnetic Linear Machines with Dual Halbach Array - Springer** Jan 5, 2013 analysis and design optimization of electromagnetic linear machines. 1. In this study, a tubular linear machine with dual Halbach array. **Design and analysis framework for linear permanent magnet** Liang Yan, Lu Zhang, Juanjuan Peng, /Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis/ 2016 ISBN-10: 9811023077 125 **Electromagnetic Linear Machines with Dual Halbach Array: Design - Google Books Result** Electromagnetic Linear Machines with Dual Halbach Array. Design and Analysis Mathematical Modeling and Analysis of Force Output Liang Yan, Lu Zhang, **Electromagnetic Linear Machines with Dual Halbach Array Design** Mar 11, 2016 actuator

parametric analysis thermal-electromagnetic coupling tubular . Design of the Cylindrical Linear Actuator with Dual-Halbach Array However, in linear machines with unconventional topologies and complex heat. **Electromagnetic Linear Machines with Dual Halbach Array Design** In this study, a novel design of tubular linear machine with dual Halbach PM array is proposed to increase the magnetic flux density in the machines and **Design Methodology of a Dual-Halbach Array Linear** - MDPI Title, Electromagnetic linear machines with dual Halbach Array : design and analysis. show extra info. Liang Yan, Lu Zhang, Juanjuan Peng, Lei Zhang, Zongxia **Electromagnetic Linear Machines with Dual Halbach Array: Design** Back-iron effect of tubular linear motors with dual Halbach Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis .pdf download by Liang Yan. Download **Electromagnetic Linear Machines With Dual Halbach Array : Design** Sep 15, 2016 Electromagnetic Linear Machines with Dual Halbach Array : Design and Analysis. **Electromagnetic Linear Machines with Dual Halbach Array: Design** **Electromagnetic Linear Machines with Dual Halbach Array : Design** Their work has focused on the design of a novel Halbach array linear motor for use in a both of these challenges by using a dual Halbach array and magnetic springs. . Modeling and analysis of the EDS Maglev system with the Halbach magnet array The rotating portion, i.e., the rotor, is on the outside of the machine. **Electromagnetic Linear Machines with Dual Halbach Array: Design** Sep 23, 2016 Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis. by Liang Yan. 0.00 0 ratings. Your Rating (Clear). Want to **A tubular linear machine with dual Halbach array: Engineering** This analysis is developed in order to design novel linear motors for driving By analogy, there also exists an electromagnetic dual of the Halbach array. **Electromagnetic Linear Machines with Dual Halbach Array: Design** A linear generator for human motion energy harvesting is designed and optimized The use of dual Halbach magnet arrays in the proposed generator provides a proposed methods was verified by two-dimensional finite element analysis simulation results. .. which also reduced the magnetic field in the machine. **Electromagnetic linear machines with dual Halbach Array : design** Get this from a library! Electromagnetic linear machines with dual Halbach Array : design and analysis. [Liang Yan Lu Zhang Juanjuan Peng Lei Zhang **Images for Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis** All errors and omissions excepted. L. Yan, L. Zhang, J. Peng, L. Zhang, Z. Jiao. Electromagnetic Linear Machines with Dual Halbach Array. Design and Analysis. **Electromagnetic Linear Machines with Dual Halbach Array - Design** Buy Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis by Liang Yan, Lu Zhang, Juanjuan Peng (ISBN: 9789811023071) from **MAGNETIC FIELD OF TUBULAR LINEAR MACHINES WITH DUAL** Electromagnetic Linear Machines with Dual Halbach Array : Design and Analysis as well as novel concepts for PM pole design in electric linear machines. **Electromagnetic Linear Machines with Dual Halbach Array : Liang** Liang Yan, Lu - Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis jetzt kaufen. ISBN: 9789811023071, Fremdsprachige Bucher Buy Electromagnetic Linear Machines with Dual Halbach Array: Design and Analysis on ? FREE SHIPPING on qualified orders.