DESCRIPTION

Classical synchronous motors are the most effective device to drive industrial production systems and robots with precision and rapidity. However, numerous applications require efficient controls in non-conventional situations.

Firstly, this is the case with synchronous motors supplied by thyristor line-commutated inverters, or with synchronous motors with faults on one or several phases.

Secondly, many drive systems use non-conventional motors such as polyphase (more than three phases) synchronous motors, synchronous motors with double excitation, permanent magnet linear synchronous motors, synchronous and switched reluctance motors, stepping motors and piezoelectric motors.

This book presents efficient controls to improve the use of these non-conventional motors.

Contents

5. Vectorial Modeling and Control of Multiphase Machines with Non-salient Poles Supplied by an Inverter, Xavier Kestelyn and Éric Semail.
10. Control of Piezoelectric Actuators, Frédéric Giraud and Betty Lemaire-Semail.

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