

ELDEZ

Electrical Drives

The course deals with mechanical system solution methods, load types, torque types, operational situations analysis, electromechanical transient states, stability, losses, dimensioning and projection of electric drives, classification of converters for electric drives, electric drives with DC motors, electric drives with induction motors, electric drives with synchronous motors, drives with stepping motors, switch reluctance motors - always with emphasis on principles, mathematical models, speed control, braking, block diagrams of control, principles of induction motor vector and direct torque control, traction applications.

Motion equation, mechanical system solution methods, load types, load torque, motor torque, dynamic torque, operational situations analysis, steady states, electromechanical transient states, stability, losses in electric drives, dimensioning of drives for changing load, classification of converters for electric drives, their principles, characteristics, more-quadrants operation, electric drives with DC separately excited motors, reversible drives, electric drives with DC serious excited motors, traction applications, electric drives with induction motors, mathematical models, start, softstart, braking, speed control, block diagrams of speed control, principles of induction motor vector and direct torque control, electric shaft, electric drives with synchronous motors, excitation sources, start, speed control of synchronous motors, drives with cycloconvertors, drives with stepping motors, switch reluctance motors, projection of electric drives.

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Control of Electric Drives.
Electric Drives and Electromechanical syst me
Principles of Electric Machines and Power Electronics

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