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NOMENCLATURES

\bar{V}_s	Stator voltage vector, V
\bar{V}_j	voltage space vector number j
S_j	Sector number j
V_{sd}	Component on d axis of the stator voltage
V_{sq}	Component on q axis of the stator voltage
T	The sampling period, μ s
$V_{s\alpha}$	Stator voltage component on α axis, V
$V_{s\beta}$	Stator voltage component on β axis, V
I_{sd}	Component on d axis of the current, A
I_{sq}	Component on q axis of the current, A
P	Pair-pole number of the SRM machine
L_q	Quadratic inductance, mH
L_d	Direct inductance, mH
R_s	Stator resistance, Ω
T_e	Electromagnetic torque, Nm
J_s	Current density, A/m ²
A	Potential vector
G_{p1}	Speed transfer function

K_{gm}	The mechanical torque, Nm
G_m	Bode's ideal transfer function
C_j	Boolean switching controls
S	Bode's variable

Greek symbols

α	Nomination for axis
β	Nomination for axis
$\bar{\phi}$	Stator flux vector, wb
μ	Permeability,
Ω	Rotor speed, rad/s
θ	Angular position of the rotor, deg.
$\theta\phi$	Angular position of flux, deg.

Abbreviations

DTC	Direct Torque Control
SRM	Switched Reluctance Motor
d-q	Perpendicular (direct, quadratic) axis
FEM	Finite Element Method
FEA	Finite Element Analysis
PI ^a D ^b	Fractional-order controller
MDTC	Modified Direct Torque Controller
FOC	Flux Oriented Control
PI	Proportional Integral controller
PID	Proportional-Integral-Derivative controller
PR	Percentage Ripple