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NOMENCLATURE

V_{FC}	FC cell output voltage, V
$E_{nernest}$	FC cell potential open-circuit voltage, V
U_{act}	Activation voltage drop, V
U_{ohm}	Ohmic voltage drop, V
U_{cond}	Concentration voltage drop, V
I_{FC}	Fuel cell current density, $A.cm^2$
A	Cell active area, cm^2
R_c	Equivalent resistance to proton conduction, Ω
T	Operation temperature, °C
ξ_i	parameters corresponding to U_{act},
B_{FC}	Empiric coefficient for the concentration losses
P_{H2}	Partial pressure of hydrogen, atm
P_{O2}	Partial pressure of oxygen, atm
V_{Cell}	UC cell voltage, V
r_s	UC series resistance, Ω
r_p	UC parallel resistance, Ω
C_{Cell}	UC cell capacitance, F
n_{uc}	UC cells number put in series
V_{UC}	UC voltage, V
Φ_{qs}	Quadrature flux axis, Wb
Ω	Mechanical speed of the rotor, rpm
ω	Electrical speed of the rotor, rd/s
J_m	Moment of the inertia, $kg \cdot m^2$
C_{em}	Electromagnetic torque of PMSM, N.m
C_r	Resistance torque, N.m
f	Viscous friction coefficient, N·m·s
P	Number of pole pairs
L_{ds}	Direct stator inductance, H
L_{qs}	Quadrature stator inductance, H
Φ_f	Flux induced by magnet, Wb
F_t	Traction force caused by the action of the two drive wheels, N
F_{roll}	Friction force to advancement, N
F_{aero}	Effort of aerodynamic resistance, N
F_{slope}	Resistance force of mounted side, N
M_v	The vehicle weight, kg
g	The gravitational acceleration, 9,81 m/s^2
f_r	The resistance coefficient of the tire rolling
ρ	The air density, N·m·s/rd
A_v	Front area of the vehicle, m^2
C_x	Aerodynamic drag coefficient
V_v	The vehicle speed, m/s
T_r	The electromagnetic torque, N·m
R_w	The wheel radius, m