

INFLUENCE OF THE FUNCTIONAL CONTRIBUTIONS TO THE SIMULATION OF VEHICLE LONGITUDINAL DYNAMICS

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Abstract: *The paper presents some Matlab-Simulink models imagined and used by the authors to simulate the operation of drivetrain subassemblies. The behavior of a tractor-semitrailer was studied in different traveling conditions: standing start, gear shifting, engine braking, travel on uneven road, tire friction variations. In addition, sub-models conceived for actuation cylinder, solenoid or electronic control devices permitted to simulate the working of vehicle's servo or automated systems.*

Key words: *vehicle dynamics, drivetrain, actuation system, command logic, computer model.*