ABSTRACT

In the thesis General Principles of Drivelines Terminal Control are suggested. The terminal state control problem applied to Drivelines Control is defined. It is shown that on the base of Driveline acceleration measurement it is possible to define a variational problem, solution of which permits to synthesize general Control function of Drivelines control process. The last function covers various particular control problems. It is shown, that these problems can be naturally defined by choosing of corresponding boundary conditions. As an example of such particular cases a problem of Acceleration is solved. The singularity problem in control function is discussed and solved. Conception of control process transient component is defined. Conditions of its presence are defined.

On the bases of General Principles of Drivelines Terminal Control the optimal solution of Acceleration problem is solved. The singularity problem in control function is discussed and solved. Conception of control process transient component is defined. Conditions of its presence are defined.

On the purpose of exploration of Driveline's New Control method a corresponding simulation model was designed. To realize the model special MATLAB software (SIMULINK) was used. Mathcad was also used and last results were obtained from Mathcad. Results of simulation proved the adequacy and applicability of the elaborated control method.