# REAL – TIME CONTROL OF THE DC MOTORS

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The structure control of a robot needs to know the position of every die, needs to compute the position of the kinematic elements, thus of the programmed run. In the electric drive of the robots there are used shunt-wound DC-motors with, because of their stiff characteristic, namely, the number of turns is varying a little bit with the variation of the resistive torque. The speed control of robots imposes the real-time control of the DC-motors, which imposes the determination of the characteristics of the speed in real time of these drives.

The important motives in the choice of the motors for every kind of industrial automations and mechatronical type applications are: the easiness of their command and control, the typo-dimensional reliability and diversity. This typo-dimensional diversity makes easier the choice of a certain motor type which has to be the best match to the design request.

The DC-motors have a great importance in the speed- control drives, knowing in present a large development in manufacturing and using for different domains. The quality appreciation of a DC-motor is determined by the ensemble of the next characteristics: starting, operation (running), speed control and breaking.

The design of the drive, command and control systems with DC-motors impose the knowledge of the torque – speed characteristics, because for each motor exists a certain characteristic curve. In Fig. 1 is presented the torque-speed characteristic curve of a DC-motor [3].

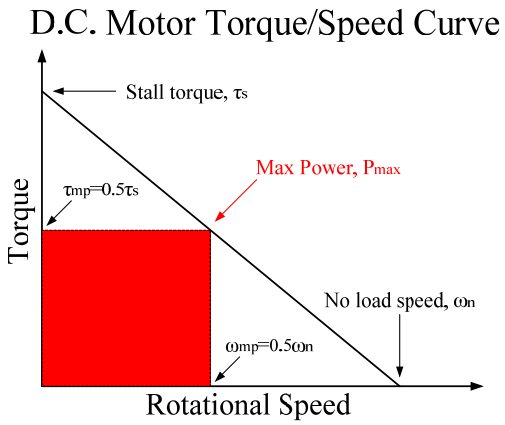


*Fig. 2*

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