1. Motor Specs and Transmission Design

Part 1. A. **Speed vs Torque**

The relation between speed and torque is given by the following equation.

Here is the motor constant. Relation between the voltage and no-load speed ( can be written as ­ , and relation between stall torque and is

**Current vs Torque**

**Power vs Torque**

Here , is mechanical power output. Electrical power input can be computer as .

**Efficiency:**

**Plots:**