

## Electric Machines & Drives

**Homework #6 Answers:** Chapter 18 & Chapter 19

**Due:** 11/07/11

### Chapter 18 of text book - Answers

18-1: 1200 RPM

18-9: a. 14A, 14A, b.  $33.8^\circ$ , c. 26.8A, d. 70.7%

18-10: a. no, b. probably not

18-15: a. 157.5V

### Chapter 19 of text book - Answers.

19-4: 1152

19-6:  $30^\circ$

19-9: 240ms

19-10: 0.00175 in

19-11: a. 144W, b. 78.5W

19-14: 437.5 RPM,

19-16: a.  $7.2^\circ$ , b.  $3.6^\circ$ , c.  $1.8^\circ$

### **Note:**

**For Problem 19-10, one turn (360 degrees) = 1 linear thread movement**

**For Problem 19-11, 9-11 b. use Torque = 3 N\*m**