EEL 3216 Fundamentals of Power Systems

Homework # 12

You are encouraged to solve the two problems below in a group effort. Therefore, a maximum of 5 students may submit one assignment together. If you do so, clearly write the names of the 5 students who have worked out the solution on the assignment sheet!

It is expected that answers two problem 2 differ distinctively between groups.

Problem 1

IEEE and/or ANSI engineering standards govern many procedures applied in daily engineering practices. Standards change over time. Therefore, it is important to keep up to date with the latest publication of any specific standard. Within the FSU system you have access to these documents on line.

a) Approximately how many standards apply directly to the subject matter of transformers?

b) Which standard (standard number, title, and publication year) applies directly to testing dry-type power distribution transformers?

c) If you have to perform a three-phase short circuit test on a three-phase distribution transformer which page in this standard outlines the test circuit?

d) Describe how this exercise relates to the topic “The need for life long learning”?

Problem 2

List at least three different on-line resources which you find relevant to learn about the following three wind power systems related topics. For each one describe in at least one paragraph the specific information you learned.

a) Wind power potential in the US

b) Typical power ratings of (individual) wind turbine generators

c) Types of rotating machines used as wind turbine generators